TUNISIAN YOUTH VULNERABILITY
Determinants, measurement and explanations by TLPMS

هشاشة وضعف الشباب التونسي
المحددات والقياس والشروحات بواسطة TLPMS

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Abstract

In this paper, we give analysis of Tunisian youth's vulnerability by introducing economic, social and matrimonial aspects. We specially examined schooling and dropout, work and unemployment, urban and rural zones, wealth and poverty of parents and family size. Empirical analysis is based on data selected from the Tunisian Labor Market Panel Survey (TLMPS) conducted in 2014 by Economic Research Forum (ERF) with a sample sized of more than 4000 youth and 6000 households. By developing an "Index of Youth Vulnerability" (IYV) we measure six dimensions of the youth vulnerability: educational attainment, participation in the labor market, wealth and health, gender, region and urban or rural area.. The main findings emerging from this paper indicate that household size, marital status and rural location affects vulnerability of youth. However, when analyzing regional impact on vulnerability, we found that the west regions are more vulnerable then east regions.

Keywords: vulnerability, young peoples, welfare, education, dropout, households, rural & urban areas.

الملخص

من خلال هذا المقال، حاولنا تحليل هشاشة وضعف الشباب التونسي بالاعتماد على المفهوم الاقتصادي والاجتماعي والجانب المتعلق بالزواج. حيث درسنا على وجه التحديد الالتحاق بالمدارس والتخلي عنها والتسرب منها، العمل والبطالة، المناطق الحضرية والريفية، ثراء وفقر الأولياء وحجم الأسرة. يستند التحليل التجريبي إلى بيانات تم اختيارها عن طريق عملية مسح البانل لسوق العمل التونسي (TLMPS) الذي أجراه منتدى البحوث الاقتصادية (ERF) في عام 2014 من خلال عينة متكونة من أكثر من 4000 شاب و6000 أسرة. من خلال تطوير "مؤشر هشاشة وضعف الشباب (AIV) "، قمنا بقياس ستة أبعاد لهشاشة وضعف الشباب: مستوى التحصيل العلمي، المشاركة في سوق العمل، الثروة والصحة، نوع الجنس، الناحية والمناطق الحضرية أو الريفية. تشير النتائج الرئيسية أن حجم الأسرة والحالة الزوجية والوضع الريفي يؤثر على هشاشة وضعف الشباب. ومع ذلك ، من خلال تحليل التأثير الإقليمي على هشاشة وضعف الشباب، وجدنا أن المناطق الغربية أكثر عرضة للخطر لهذه الظاهرة من المناطق الشرقية.

الكلمات المفتاحية: الهشاشة والضعف، الشباب، المساعدة الاجتماعية، التعليم، التسرب المدرسي، الأسر، المناطق الريفية والحضرية.

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1. Introduction

Over the next decade, more than one billion young people[1] will integrate the labour market. Only 40% of them are expected to have jobs in currently activities. Across all regions, youth's unemployment rate is at least the twice of the adults one. According to BIT (2017) the global youth unemployment rate in 2017 is 13.1% - this rate in the Arab countries is the highest with 30.0%. Furthermore, informal sector and less productive activities are mostly hiring young workers. The latest statistics show that 76.7% of young workers are employed in the informal economy, compared to 57.9% of adults.

Investments globally and especially in private sector are insufficient to balance labour supply which mostly comes from young people's. When looking to particular and families characteristics we find that, poverty, illness of parents, lack in social support and inequalities in education conditions are making dropout of school for thousands of pupils per year. The conditions of dangerous jobs or employment with weak performances at an early age appear to have been met. In these conditions talking about vulnerability with regard to young people refers to the groups of people who are more exposed to risks. Our paper examined the profile of vulnerable young people and the factors influencing their vulnerability in the case of Tunisia.

Focusing on youth vulnerabilities can be argued by many reasons. First, the international community, against major threats related to extreme poverty, illegal immigration and the rise of violence is invited to develop more effective policies oriented towards the young (ILO 2013, United Nations 2013, UNESCO 2012a, World Bank 2006).

Second, many programs were deployed throw activating employment policy oriented to youth and this mobilized a substantial costs. However all programs had poor decent work performance, especially for youth. Actually, young people continue to confront serious challenges. The transition from adolescence[2] into youth is a period when individuals shift from a position of powerlessness and dependency to the responsibilities and autonomy expected in adulthood. These transitions can be very difficult when frustration, unemployment and deprivation during youth can have debilitating psychologic, social and economic consequences on individuals, families and communities.

Third, the world has undergone significant changes in the life course of young people. While some changes are opening up new opportunities much uncertainty

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[1] Youth, by S4YE's definition (ages 15–29 years) and by World Health Organization (WHO)'s definition (ages 15-24 years), make up roughly a quarter of the world's population, and in many countries, especially in Africa and South Asia, young people make up nearly a third of the population.

[2] World Health Organization (WHO) and United Nations Children's Fund (UNICEF) defines "adolescents" as individuals in the 10-19 years age group.

rises such as untold privation and suffering (United Nations 2013). Young people everywhere are facing economic transition, climate change, depletion of natural resources, rapid advances in information technologies, and new forms of tailing and control. Certainly all age groups and generations are concerned, but young people are subjected to the most profound hardships.

Finally, Tunisia after 2011 presents some peculiarities, which visibly indicate a worsening of vulnerability sources like: aggravation unemployment rates especially for the young graduated and a lengthening unemployment's duration. In 2017 the Tunisian youth unemployment rate stands at 31.2% which is higher than the Arab world standard, 29.3%. Only one fifth of young job-seekers find a job during the first two years of research. Vulnerability concerns all young but specially females in the rural areas. 37% of young men and 38% of young women have been without work for more than two years. Only 18.5% of active women in rural areas are employed against 40% in those of urban area. Two fifth of youth in rural area are inactive against only one third in urban area. Over than 80% of inactive in rural area have not completed secondary school compared to 57% of urban.

Below the first section is devoted to defining the youth vulnerability. We mention that vulnerability is multidimensional and it's not necessarily confused with poverty. A second section will focus on the construction of the youth vulnerability index for the Tunisia. Calculations based on TLMPS data not only allow the calculation of indicators by gender, urban area, geographical area, parental conditions, education and work, but also explains the key determinants of this vulnerability.

2. Youth vulnerability: definition, determinants and implications

Youth respond to vulnerabilities in a number of ways. They are linked to material aspects, social aspects, emotional aspects, individual, family, school, peers and society (Arora.S et al, 2015). It's very difficult to measure and to quantify all of these aspects. But some of them appear extreme and are relatively easily presented in an exceptionally positive or negative light. This section unpacks some of the causes and consequences of youth responses to severe risks and inequalities, recognizing that challenges differ across regions. First, we discuss some of the conceptual and methodological issues around mapping the patterns of vulnerability; second, we review major explanatory factors influencing the situations of youth. Finally, we examine the implications of factors influencing life course perspective on youth vulnerabilities.

The data base (TLMPS, 2014) gives the integration of other sources of vulnerability such as material deprivation, growing up in care and income. This allowed as focusing on the particular outcomes creating disadvantage in school-to work transitions across different welfare regimes.

2.1. Definition of youth vulnerabilities: social and economic aspects

Concepts of "vulnerability" and "vulnerable groups" are commonly used, but not with same meanings between disciplines. Sociologists may discuss social vulnerability as opposed to economic vulnerability. Webb and Harinarayam (1999)

indicate that assessing vulnerability is like trying to measure something that is not there. Vulnerability refers to the situation characterized by lack of security, basic needs, social protection, political power and coping options. Loughead and Mittai (2000) have adopted vulnerability concept as an alternative means of characterizing the dimensions of poverty not ordinarily captured by money-metric measures. They identify vulnerable groups such as children at-risk, females, disabled, migrants, or the elderly.

Christiaensen and Boisvert (2000) defined vulnerability as facing uninsurable risks. And they distinguish vulnerability from poverty in the way that the latter is enough concerned and treated recently, whereas vulnerability is suffering of shortfall in studies and analysis. Similarly, Hoogeven et al (2005) argue that vulnerability is not identical to poverty. Vulnerability is "the exposure to uninsured risk leading to a socially unacceptable level of well-being". For proof in the absence of vulnerability poverty could persist but in the absence of poverty, vulnerability as exposure to risk will not ask any more problems.

Dercon et al (2005) presented another definition for vulnerability by considering vulnerable groups weak and liable to serious hardship. These groups without substantial support may be in severe poverty, unable to take advantage of opportunities if they emerge and include ethnic minorities, disabled people, and those people leaving care, women, the elderly, or migrants.

Morrone et al (2011) argue that vulnerability refers to the situation of individuals, households or communities who are exposed to potential harm from one or more risks. It also refers to the inability to anticipate, withstand, and recover from the damage resulting from an adverse shock.

In our analysis, we will explore the key factors influencing the risk related vulnerability taking a micro level perspective. According to this definition, a person or a household is vulnerable to future loss of well-being below some socially accepted norms if she or he lacks, or is strongly disadvantaged, in the distribution of assets crucial for resilience to risks.

2.2. Determinants of youth vulnerability

The transition from school to work is structured in different ways across countries and world regions. In addition to the demographic and economic dynamics of each country, the characteristics of youth employment are strongly influenced by the institutional framework as defined by regulatory policies and the conditions of the education system. Therefore, when they enter the labor market, we see that young people go through a transition phase of different duration and intensity and are subject to risks of various intensities (for example, longer or shorter periods of unemployment, temporary and precarious, low wages).

2.2.1. Gender disparity

We take into account two broad categories of vulnerabilities witch are gender-specific and gender-intensified.

The gender-specific vulnerabilities are related to the differences between women and men when integrating labour markets and in sharing household livelihood activities.

The gender-intensified vulnerabilities reflect inequalities in opportunities and resources which cause class social class disturbances, poverty aggravations, ethnicity exclusions, health service degradations.

As stated by Bettio et al (2012), despite significant progress in recent decades, labour market remains clearly divided along gender lines. Females' participation to labor force has remained lower witch of males.

O'Reilly et al (2015) indicate that the gender pay gap is another important factor in explaining the position of women among the poor and vulnerable. Pay inequalities open up early in life and their impacts extend across the whole life course into retirement.

Women's vulnerability arises from their unequal social status and from unequal power relations, which accord women less access to and control over assets and resources than men and less right to participate in decision making' (Keller et al, 2002). The processes by which people become poor and the types of vulnerabilities they face are usually gender-differentiated.

2.2.2. Demographic and regional disparities

Regarding the relationships between demographic dynamics and youth vulnerability, empirical research has shown that cohort size and economic demand matter in determining youth employment (Korenman and Neumark, 2000; Blanchflower and Freeman 2000; Garcia and Fares, 2008c). While cohort size gives an indication of labor supply, labor demand is mainly influenced by the structure of the economy and economic dynamism. Population growth can be driving force for economic growth, but if large cohorts of young people try to enter the labor market under difficult economic conditions or sluggish demand so that job creation is limited longer queues will emerge. The capacity of the labor market to absorb these young people is insufficient.

Rural-urban migration and natural population growth rates in cities are the major causes of the increasing rate of urban growth and vulnerability

Demography is not destiny, but demographic trends do matter and rapid population growth, along with rapid urbanization, can strongly affect a country's welfare and destiny. Nations with rapidly growing populations can still make gains in eliminating hunger, alleviating severe poverty, coping with water scarcity, minimizing environmental damage and restoring or maintaining political stability.

There is no precise measurement of demographic vulnerability, but we know which countries in the world are suffering the most today from hunger, severe poverty, water scarcity, high mortality, environmental degradation and political instability, and the vast majority of them are experiencing some form of population related stress.

In turn, demographic processes impact the makeup and persistence of poverty. Population growth and distribution result from the interaction between three

variables: fertility, mortality, and migration. Levels and patterns of these three variables together define a region's vulnerability, including the size and spatial location of population in given social and economic contexts. Even though the path of natural phenomena such as tropical storms is difficult to anticipate, the

Both growth and demographic features cannot alone explain intertemporal variation of youths' integration into employment. There are interactions with labor market institutions in determining youth unemployment or employment and the easiness of a transition from school to working.

Institutional framework conditions play a role in structuring the transition of young people into employment, in particular minimum wages and employment protection (Gomez-Salvador and Leiner-Killinger, 2008), but also education and training as well as active labor market policy schemes.

2.2.3 Parent - youth relationships: household resources and material deprivation

We focus on vulnerabilities that include material deprivation and the impact of the household as well as quality outcomes on the labour market such as occupational status and income. The school-to-work transition could potentially be affected by two important vulnerability factors; the possibility to live with parents and to be materially deprived.

A young individual may have more choice whether or not to enter in the labour market or remain longer in unemployment if he receives parental support to help with job search (Gökşen and. al., 2015). However, it's also likely that an individual who faces difficulties in the labour market may choose to go back to parental home if the resources and support are present (Kaplan, 2012; Ermisch, 1999).

We consider that young people might be more vulnerable to the employment because they are materially deprived or living in household that are materially deprived because they do not supply labour (or cannot supply labour).

Specific dimensions of vulnerability can be associated to matrimonial terms such as : fear, loss, grief, anger, exhaustion, depression, diminished sense of self-efficacy, financial difficulty, marital disruption, and loss of opportunity (career, travel, sporting…).

3. Youth vulnerability in Tunisia's context

As seen in section 2, there are a large number of discrete and overlapping sources of vulnerability and categories of vulnerable groups. Most of these groups have had specific studies and/or strategies and policies devoted to them. This section takes a two tiered approach to understanding vulnerability of youth in Tunisia. In each approach we look first at a selected vulnerable group and then focus on more general issues of vulnerability in relation to that group. The vulnerable groups reviewed here are: the NEETs group, unemployed, school drop out. In our analysis we focus on gender differences by regions. At the beginning of this section an overview of factors influencing vulnerability in Tunisian's context will be provided. These factors can be studies based to TLMPS.

3.1 Factors influencing vulnerability

Many factors contributed to vulnerability and they are present at multiple levels, including age; proximal social settings, such as family, peer networks, school, and community; and more distal levels that include societal, political, and historical influences (Fischhoff, et al, 2001).

Wealth: growing up in poverty is associated with negative outcomes across multiple areas of vulnerability. Wealth is an indicator of the ability to achieve and maintain adequate standards of living. With greater wealth comes increased access to schooling, with higher levels of income leading to greater investments in girls' schooling (Glick and Sahn, 2000). Higher income also yields access to goods and services that promote overall well-being and health, including better nutrition, access to safe water, and access to higher quality health services (Bloom and Canning, 2000).

Urban and rural areas: youth in rural areas are worse off than those in urban areas. Although the majority of urban are at a distinct relative wealth advantage, member ship within the highest wealth quintile does not guarantee low risks for other indicators of vulnerability. Costs of living are often higher in urban compared to rural areas. The poor in urban areas also have lower access to resources and worse outcomes. Research suggests that the urban poor experience similar disadvantages to the rural poor in terms of health (Montgomery, 2009). Other studies show that in urban slums children have low schooling enrollment levels similar to those in rural areas (Mugisha, 2006). With urban populations in developing nations projected to grow significantly, investments in urban areas are as vital as those in rural areas.

Living without parents in the household: adolescents living outside the protective structures of families may be at risk of deprivations for multiple reasons. Changes in household and family structures during adolescence have important consequences for familial and economic responsibilities. Adolescents living without parents, or living with a spouse, or with children may bear the burden of supporting themselves and additional family members. Adolescents in this situation may be forced to leave school early. Youth living without parents in a household may also face greater risks than those living with parents.

Education: Schooling is the major route through which adolescents gain skills and knowledge to be used throughout their lives. Literacy and numeracy are basic skills needed for gainful employment. Central to human capacity are health and well-being. The health behaviors learned in this stage of development have lasting implications for future health and productivity. Together these skills prepare adolescents for decent livelihoods and offer them a full range of life chances. Education is a key to eliminating gender inequality, reducing poverty, and improving outcomes among girls. Schooling enhances human capital by increasing skills and knowledge used for gainful employment.

Age: age is often a key determinant in identifying level of risk. There is wide variation even within the 15 to 19 year age group. Youth aged 20 to 24, 25 to 30

are physically, psychologically, and socially different from adolescents aged 15 to 19 years

Gender: Boys and girls differ in their age pattern of physiological development. Girls experience physical maturation and puberty earlier than boys. Across income groups, girls are often more socially isolated than boys with smaller networks and fewer opportunities to meet friends (Bruce 2007b). Girls can increase their social networks and supports through school participation. Girls' attendance in formal schooling is also associated with delayed sexual initiation, marriage and childbearing; and engaging in fewer hours of domestic work. Improvements in schooling lead to improved health of women and their families.

3.2 Measurement methodology of Index of Youth Vulnerability (IYV)

To measure the IYT, we are based on the Vulnerability Score elaborated by Kalibala et al. (2012) which has been used to identify children vulnerability according to several indicators. The IYV is an index that conceptualizes vulnerability beyond multidimensional measures to include multiple levels of risk. The IYV measures vulnerability at three different levels—the individual, household, and community level.

The IYV is a simple summary measurement, typically used by other indexes pertaining to various dimensions of youth development. For this index, we have intentionally selected educational attainment, employment, unemployment, out labor force and health seeking behaviour of youth. This index was intended to provide a basis for the geographic targeting of vulnerable youth. This index is the most similar to AGI, DHS and MICS data were combined from the individual and household level using five domains such us material deprivation, health, nutrition, education, and protection (Pullum et al, 2011).

Data are aggregated by geographical unit to identify areas with a high score for youth vulnerability. The indicators relate to common themes of poverty, household and family structures, region and communities, housing conditions, education, employment. In creating a measure of youth vulnerability, the IYV identifies areas with high percentages of extreme vulnerability and encourages actions that address these multiple levels of risk.

Our Index of youth vulnerability (IYV) witch measured in the case of in Tunisia uses 6 components as mentioned in the preceding paragraph (Wealth, Urban and rural areas, Living without parents in the household, Education, Age and Gender). Each one takes a score of 0-1, 0-4 and 0-5 points. When points are totaled, youth with a score over 8 are identified as vulnerable. The most vulnerable youth are those who experience risk factors at multiple levels of influence. Risk factors are present at the level of the individual, her household, the community in which he lives, and even broader political, societal, and historical influences.

Table A (in annexes) presents the construct variables for Index of Youth Vulnerability by value and its percentage distribution for the six maintained criteria.

The highest score is equal to the some of the maxima score which is 16 and represents the most at-risk populations. By summing up the values derived from these six indicators, we calculated IYV for each group. Groups with IYV in the range of 1 to 4 score are considered as least vulnerable. Whereas if the score belongs to the 5 to 8 interval, he is called moderately vulnerable and finally a group with a ranged score between 9 and 16 (score mentioned in red color) will be considered vulnerable**.**

TABLE N° 1: IYV SCORE BY VULNERABLE GROUPS, SEX AND RURAL/URBAN

Global : urban and rural areas				
IYV Overall	Score	Total (%)	Male	Female
1-4		11.52	15.70	08.0
5-8		66.33	69.70	63.3
9-16		**22.15**	**14.60**	**28.70**
Total (%)		100	100	100
Urban				
IYV Overall	Score	Total (%)	Male	Female
1-4		08.85	10.30	07.40
5-8		70.00	73.75	66.30
9-16		**21.15**	**15.95**	**26.30**
Total (%)		100	100	100
Rural				
IYV Overall	Score	Total (%)	Male	Female
1-4		13.35	20.00	08.40
5-8		63.85	66.50	61.50
9-16		**22.80**	**13.50**	**30.10**
Total (%)		100	100	100

Source: author's calculations

From results given by table N°1, we can note that globally youth vulnerability in the rural areas is higher than witch in urban areas. However when analyzing by gender we find that males living in the urban areas have an average IYV of 10% higher than those living in rural areas. However females in rural areas have an average of 14.4% higher than female, living in the urban areas. Young females are more vulnerable in rural area and young males are more vulnerable in urban area. .

The difference between the average IYV value of urban male and urban female is little less than 6.5%.

TABLE N° 2: IYV SCORE BY VULNERABLE GROUPS, REGION

IYV Score Overall	Greater Tunis	North West	North East	Center West	Center East	South West	South East
1-4	5.86	10.53	8.37	18.77	14.76	12.20	14.29
5-8	74.07	69.66	72.04	59.93	52.37	64.75	74.11
9-16	20.06	19.81	19.59	21.30	32.05	23.05	11.60
Total (%)	100	100	100	100	100	100	100

Source: author's calculations

3.3. Vulnerabilities distribution

As shown above, vulnerability can be accrued by different causes. So we composed our IYV with six essential assets which are gender, residence area, specific region, parent conditions, extend of family and labour participation. For such criteria we identify critical aspects. In this way, the IYV can be seen as an important tool for policies because it shows specific urgent areas for targeted interventions and supports.

A total of 2180 households (table N°3) were contacted in all the seven regions of Tunisia distributed in rural and urban localities. Data collection has covered a wide range of topics covering education, work, marriage, and living conditions of youth as well as characteristics concerning their households.

TABLE N° 3: DESCRIPTIVE STATISTICS OF RESPONDENTS

	Mean	Std. Dev	Min	Max	N
Age of Respondents	23.95	4.17	15	30	2180
Age of out labor force	23.62	4.39	15	30	872
Age of employment	24.55	4.05	15	30	860
Age of unemployment	23.42	3.79	15	30	448
Years of schooling	8.27	4.53	0	22	2180
IYV score	6.87	2.11	1	13	2180

Source: author's calculations

The average age of respondents interviewed is 23.95 years. It's important to mention that young persons who have ever enrolled in school have in mean 8.3 years educational attainment of 18 maximum years of schooling.

The average age at the time of first work, unemployment and out of labor force was found to be respectively 24.55, 23.42 and 23.6 years. The average IVY score is 6.87, which compared to the maximum IVY score in Tunisian (16) represents 42.8%

FIGURE N° 1: VULNERABILITIES INDEX BY REGIONS: POPULATION AGED 15–30 YEARS
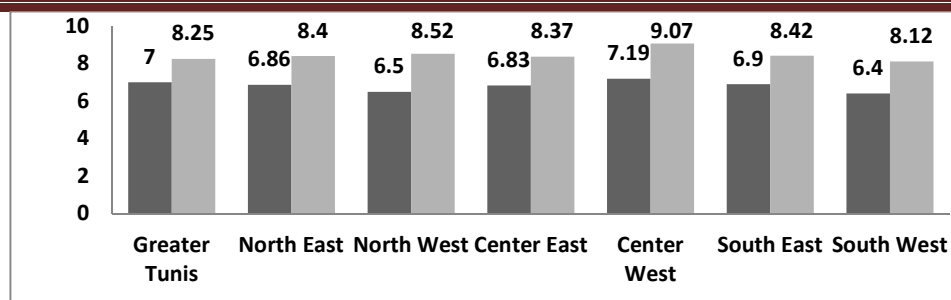
Source: author's calculations

Figure N°1 shows the level of IYV in Tunisian by 7 regions. Essentially all regions of East (except south west) Tunisia have a below-average index level. While Center West and North West have the highest index levels.

Greater Tunis, South East Center West have a level of IYV that is almost higher than the average.

In Tunisia, the largely rural Center West region, followed by the South East region, has the highest unemployment rates. Within these regions, unemployment rates for women are more than double the rates for men. Men have their lowest unemployment rates in the South West while women's rate was lowest in the North region, which includes Greater Tunis (Assaad, R., and Kraft .C, 2016)

Regional inequality is a driving factor behind Tunisia's economic/political crisis. So long as the west Tunisia remains ignored compared to its more-developed east, discontent and unrest will plague its political and economic recovery. Statistics show that during the past two decades, poverty rates have declined and the overall economic situation has improved.

However, large parts of the country have been neglected and as a result, regional disparities have been exacerbated. For example, the gap in poverty rates between the capital and the rest of the country shows that the regional variation in terms of living standards increased between 2010 and 2015. Up to now, the adopted economic and social development did not lead to good regional governance. Hence, the disappointment expressed by of many Tunisians as they had better expectations after the revolution. Many Tunisians has expressed feelings of distrust towards public policies that devoted little regard for regional inequalities.

When analyzing the composition of vulnerabilities in three regions with similar IYV. These regions are, Grater Tunis (IYV = 6.82); East region (IYV= 6.88) and West region (IYV = 6.82) as shown in figure N°2 we find that in these regions the main sources of vulnerability are the low

educational level, the larger family size and the subjective liquid asset poverty.

FIGURE N° 2: COMPOSITION OF VULNERABILITIES IN THREE REGIONS WITH A SIMILAR IYV
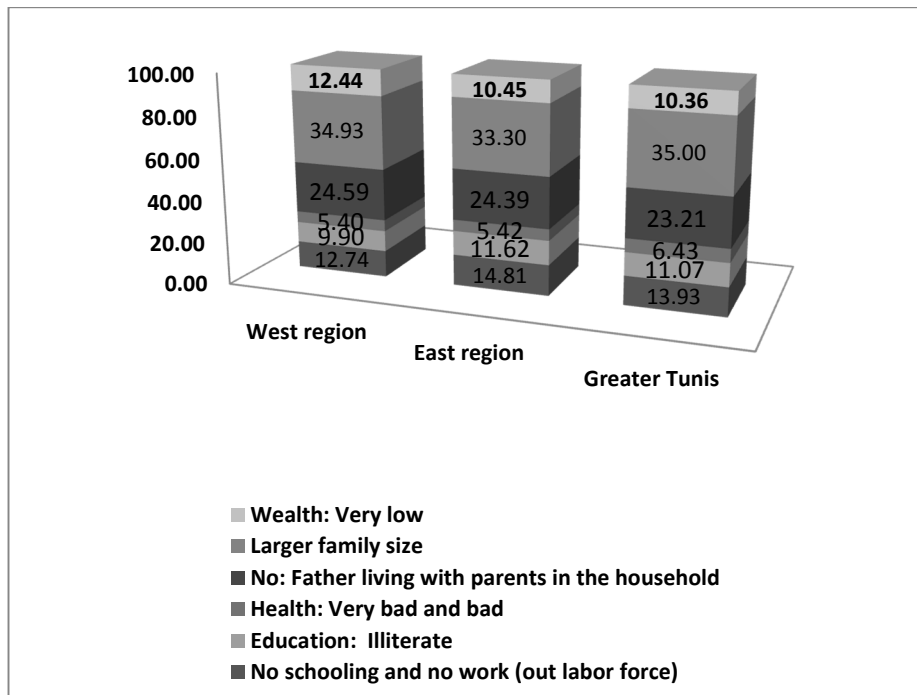
Source: author's calculations

Figures N°3 and N°4 present IVY score by sex and region respectively. It appears from Figure 3 that the rural areas have scored less than the urban areas in respect of YDI value. But if we move from the scale of 0 to 16 on figure 1, the urban region has a rising trend towards lower values and the rural areas have shown a declining trend.

A similar pattern can also be observed in Figure N°3 representing comparison of male and female with male having a rising trend towards higher IVY values.

These findings clearly illustrate that the youth living in urban areas is far more vulnerable than those who are living in rural areas and female are more vulnerable than their female counterparts. Moreover, the urban males are more vulnerable than male living in rural areas and the urban females are almost equally vulnerable as female living in the rural areas.

FIGURE N° 3: POSITION OF YOUTH BY   **FIGURE N° 4: POSITION OF YOUTH BY**

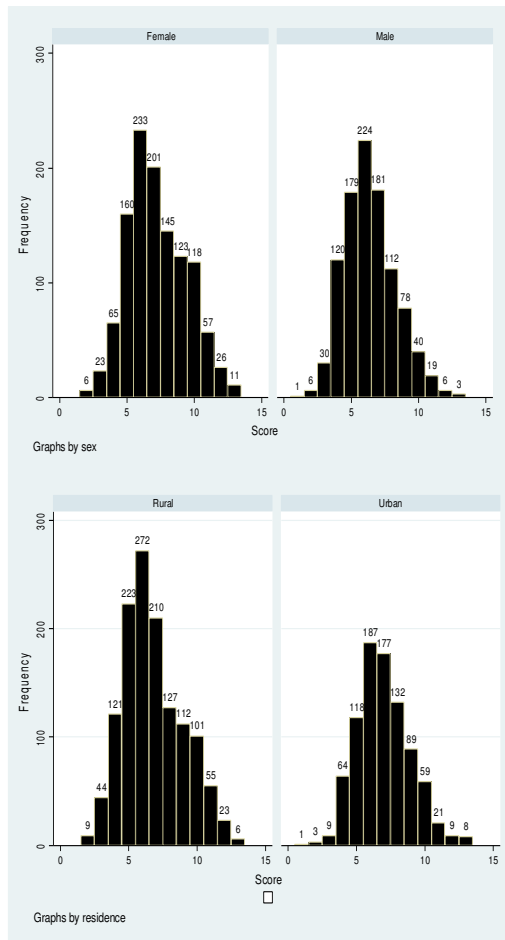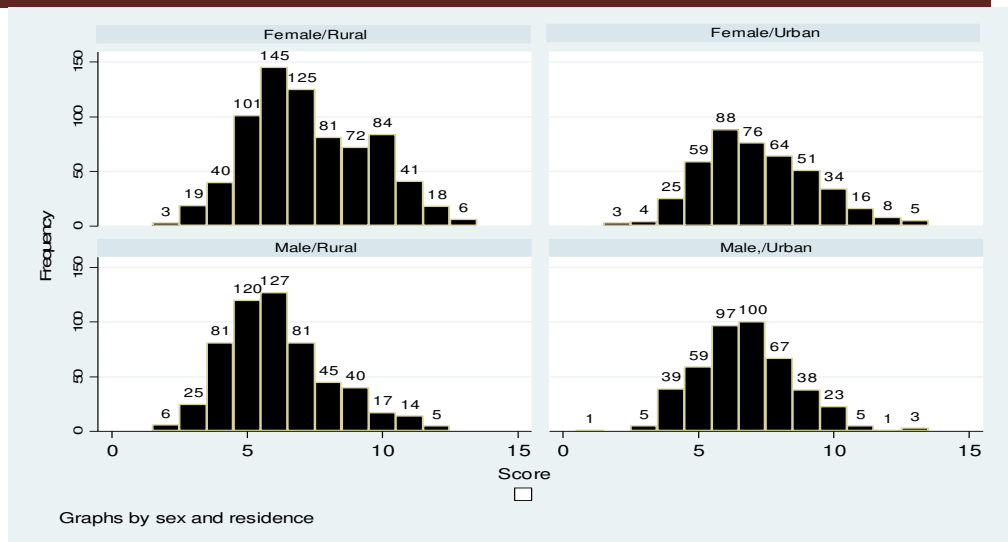**IYV SCORE AND SEX**   **IYV SCORE AND AREA OF RESIDENCE**

FIGURE N° 5: POSITION OF YOUTH BY IYV SCORE, AREA OF RESIDENCE AND SEX

Source: author's calculations
Factors influencing the probability of being vulnerable

We had worked out an IYV by using the data from TLMPS. Fortunately data enable us to explore the factors that influence the probability of becoming vulnerable. For this purpose a logit model is used to predict the probability of being vulnerable and to determine the most critical factors in the case of young person's life and achievements.

The selected explanatory variables include demographic and socio-economic characteristics of youth such as residence, age, sex, socio-economic class, parental education, etc

For each variable this model evaluates the probability of each item in comparison with a reference modality equal to one. Odds ratios refer to the probability of being vulnerable (IYV>6).

We note that for each variable of the model, the odds ratios represent the ratio between the odds of each item and the odds of a reference modality equal to one - taking into account at the same time the effects of all other variables. As seen in figures 6 and 7, the black bars represent the reference items of each variable.

Figure 6 shows clearly that employment status is the strongest determinants of the likelihood of being vulnerable: individuals aged 15-30 years who are out of labor force are four times more likely to being vulnerable than the unemployed youth, further more individuals who are unemployed are 1.5 times likely to being vulnerable than employed youth.

Age, marital status and family size play a role. The likelihood of being vulnerable increases with age – most likely because health problems

increase with age while personal relationships tend to decrease – and it is higher among single people and it is higher among youth living with large families.

FIGURE N° 6: PROBABILITY OF BEING VULNERABLE BY SELECTED CHARACTERISTICS: PEOPLE AGED 15–30 YEARS (ODDS RATIOS)
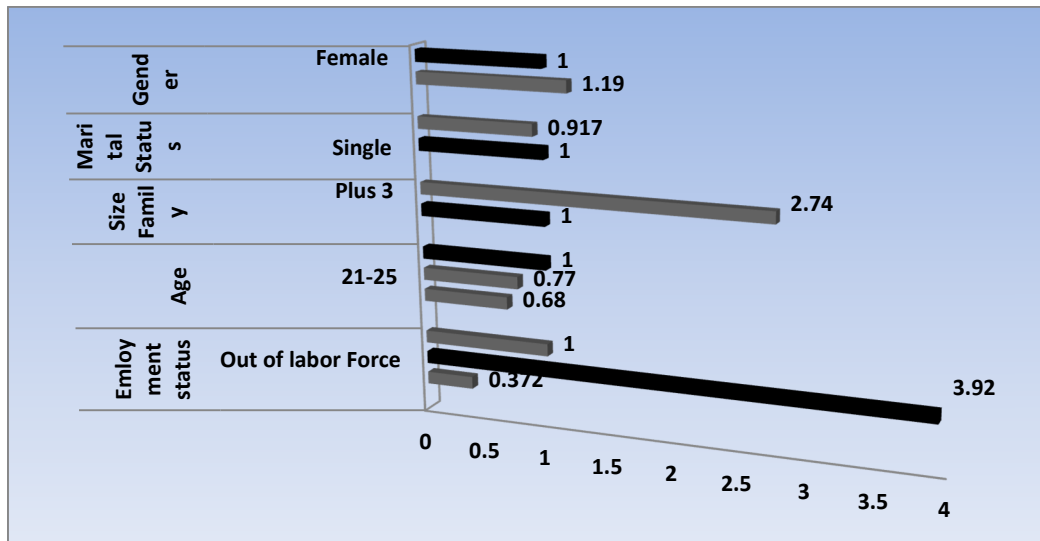
Source: author's calculations

In the cases of a large number of children per family with three or four children costs of living are grater (increase in studies and health costs). Furthermore one mother with more children stays out of the labour market for a prolonged time. In some cases she might be obliged to stay-at-home. Hence, having been outside the labour market for a longer period will reduce the chance to win back a paid work. At long run she will have a low pension at retirement.

In our calculations we proofed that female are 1.13 times more vulnerable than male (see table A in annexes). Regarding the figure N°7, the model confirms that education of parents and work-family are an important factors influencing vulnerability of youth. Importantly, the relation between paid work and family life appeared crucial for vulnerability of youth as it conveys economic, social as well as emotional dimensions.

Parents should also be educated about the importance of schooling for their children's future. Parent's employment was perceived as beneficial to a family's financial situation.

Having a father who worked in a self-employment was also associated with an increase in index of vulnerability.

People living in rural area have a 0.2 higher probability of being vulnerable. Although differences were small, those living in rural areas are more likely to suffer from particular health and well-being conditions than youth in urban areas.

Others explications: while young people in rural areas are more likely to secure direct entry back into the labour market with relatively few ending their unemployment via education or training routes. Those in urban areas frequently end a period of unemployment through returning to education or taking up an offer of training. In an urban fringe area, employment is affected by the proximity to more densely populated areas.

People in rural areas face three types of deprivation related to households, opportunities and mobility. Household deprivation relates to constraints caused by low income and poor housing which frequently co-exist in rural areas. Opportunity deprivation is linked to lack of jobs and services. In turn, people's inability to find acceptable jobs or to obtain services leads to mobility deprivation.

In particular, researchers have drawn attention to the implications of poor public transport, a restricted range of employment and training opportunities and the high cost of housing

FIGURE N° 7: PROBABILITY OF BEING VULNERABLE BY SELECTED CHARACTERISTICS: PEOPLE AGED 15–30 YEARS (ODDS RATIOS)
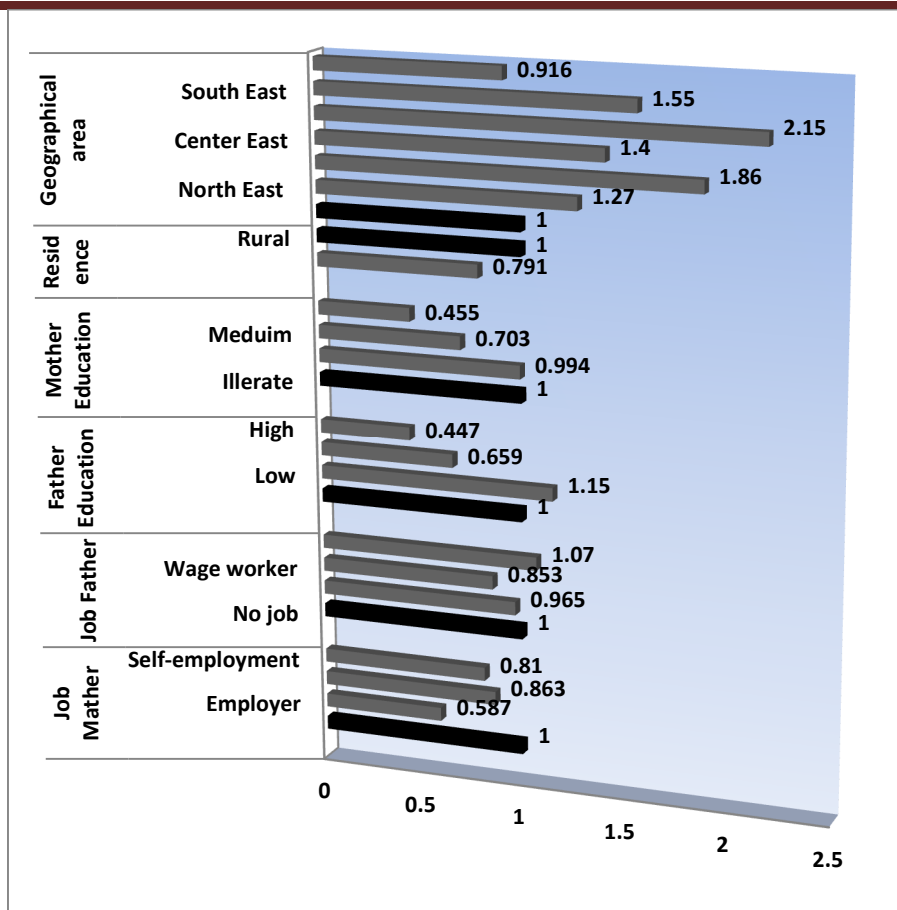
Source: Author's calculations

Finally, the figure 7 shows that vulnerability is related to geographic area. Center West followed by North West, South east and Center east. These areas are typified by unemployment, poverty, educational decay. Regarding the geographical area of residence there is a wide gap between the North West and the Center west and the other areas of the country. The historical weaknesses of the west region of Tunisia (in terms of access to services and their quality, the labour market, poverty, and even social capital) have an important impact on the likelihood of being vulnerable, which is 1.5 times higher than in the Center East North of the country – even when taking into account all the other socio-demographic characteristics. The results indicate that, in contrast to other region, the vulnerability of youth in the South West is low; the chances that youth would get pregnant

They are worried about the lack of survives available to counteract negative influences in the community.

Conclusion

The concept of vulnerability generally refers to the groups of people who are more exposed to risks than their peers. Vulnerability is a relative state with its degree and type varying overtime and between countries, and is highly contextual. Young people separated from their parents are clearly vulnerable groups. Besides that, extreme poverty, lack of social support and education also make young people vulnerable. With regard this concept vulnerability is defined in relation to economic hardship and social exclusion. In particular, people are considered vulnerable if their material, social and emotional needs are not fulfilled.

In sum, vulnerability of youth (15-30 years) is correlated with many factors such as unemployment rate, illiteracy, access to health services and especially education.

In this paper we indicated that vulnerability isn't the same for boys and girls and youth –vulnerability is grater in regions with higher concentrations in rural areas, in Center-West and South-East. Labor market exclusion has important implications for young people's vulnerability. Youth become vulnerable if parents are unable to work and to provide for their family. It is important that young people experiencing additional problems and those considered highly vulnerable are identified as early as possible. Protective family characteristics include a caring parent and smaller family size. Engaging vulnerable young people in education, training and employment (or re-engaging them when they have dropped out) is therefore a key focus area for the Vulnerable Youth Framework**.**

A glowing reading of the results gives a priori a relatively positive image insofar as half of the young people have an index lower than 6 score in the IYV (ranging from 1 to 16). However, there are stark differences among young people of Tunisian across the regions, sex and urban rural areas. Males living in the urban areas have an average IYV value of 10% higher than males living in rural areas and 18.7% lower than female, living in the rural areas.

Females are more likely to get a higher score than boys as their chances of getting education and taking part in the labor force are much lower than that of boys, especially in the rural areas. Hence, the scores for girls especially those residing in rural areas, belonging to lower socio-economic class and more restrictive home environment are much higher. In this paper, we refer to "vulnerability" as an interactive process between the social contexts in

which a young person lives and a set of underlying factors that, when present, place the young person "at risk" for negative outcomes (e.g., school failure).

Vulnerabilities may result from being reared in disadvantaged environments such as in substance-abusing families, abusive/violent environments, or families with mental illness, and it can result from individual characteristics such as aggressive temperament.

For the Tunisian case we have shown that the vulnerability of young people depends on the region, the area of residence, the quality of education, the discrimination against women, the financial situation of parents and their levels of education.

TLMPS helped us to build a youth vulnerability index, to our knowledge this represents the originality of our paper. Comparing to Assaad, R., and Kraft .C, (2016) results witch demonstrate that in Egypt the poverty among women and men by region is the main source of vulnerability; our results do not allow identifying a single dominant factor explaining vulnerability. In Tunisia all factors contribute via similar degrees of importance.

REFERENCES

Arora, S. K., Shah, D., Chaturvedi, S., & Gupta, P. (2015), "Defining and Measuring Vulnerability in Young People". Indian journal of community medicine: official publication of Indian Association of Preventive & Social Medicine, 40(3), 193-7.

Assaad, R., and Kraft .C, (2016), "Labor market dynamics and youth unemployment in the middle east and north Africa: evidence from Egypt, Jordan and Tunisia". Working paper 993

Bettio, F.; Corsi, M.; D'Ippoliti, C.; Lyberaki, A.; Samek, M. and Verashchagina, A. (2012): The Impact of the Economic Crisis on the Situation of Women and Men and on Gender Equality Policies, European Commission, Directorate General for Justice, Brussels.

BIT (2017), Tendances mondiales de l'emploi des jeunes: les voies possibles vers un meilleur avenir du travail.

Blanchflower, David G and Richard B. Freeman (2000), "Youth Employment and Joblessness in Advanced Countries". University of Chicago Press Volume ISBN: 0-226-05658-9

Bloom, D. E., and Canning, D. (2000). "The health and wealth of nations." *Science* 287(5456): 1207–1209.

Bruce, J., Haberland, E., Chong, E., Grant, M., and Joyce, A. (2006), "The girls left behind: The failed reach of current schooling, child health, youthserving, and livelihoods programs for girls living in the path of HIV." Policy Paper. New York: Population Council.

Bruce, J. (2007b). "Girls Left Behind: Redirecting HIV Interventions toward the Most Vulnerable." Promoting Healthy, Safe, and Productive Transitions to Adulthood No. 23. New York: Population Council.

Christiaensen, L.J., Boisvert, R.N. (2000), "Measuring Household Food Vulnerability: Case Evidence from Northern Mali". Working Paper, 2000-05, Department of Agriculture, Resources and Managerial Economics, Cornell University.

Dercon, S., J. Hoddinott and T. Woldehanna, (2005), "Vulnerability and shocks in 15 Ethiopian Villages, 1999-2004", University of Oxford, mimeo

Ermisch, John, (1999), "Prices, Parents, and Young People's Household Formation", Journal of Urban Economics, vol. 45, pp. 47-71.

Fischbacher-Smith, D. (2012), "Spaces of Destruction – Examining the Vulnerabilitiy of Socio-Technical Systems". Royal Geographical Society-Institute of British Geographers Annual International Conference, 3–5 July, Edinburgh.

Fischhoff, B., Nightingale, E. O., and Iannotta, J. G. (2001),. "Adolescent Risk and Vulnerability: Concepts and Measurement". Washington, DC: The National Academies Press.

Garcia, M. and J. Fares, (2008c), 'Transitions to working life for Africa's youth', in, M. H. Garcia and J. Fares (Eds.), Youth in Africa's Labor Market, Washington D.C: The World Bank.

Glick P, Sahn DE (2000). "Schooling of girls and boys in a West African country: the effects of parental education, income, and household structure". Economics of Education Review. 2000 Feb;19(1):63-87.

Gökşen, Y., Doğan, O., & Özkarabacak, B. (2015), "A data envelopment analysis application for measuring efficiency of university departments". Procedia Economics & Finance, 19, 226-237

Gomez-Salvador, R. and N. Leiner-Killinger (2008), "An Analysis of Youth Unemployment in the Euro-Area", *European Central Bank*, N° 89, June.

Hoogeveen, J., E. Tesliuc, R. Vakis with S. Dercon (2005), "Guide to the Analysis of Risk, Vulnerability and Vulnerable Groups." Mimeo. Social Protection Unit, The World Bank, Washington D.C. https://doi.org/10.1093/acprof:oso/9780199656066.003.0012

Kalibala, S., Schenk, K. D., Weiss, D. C., and Elson, L. (2012), "Examining dimensions of vulnerability among children in Uganda." *Psychology, Health & Medicine*: 7(13): 295–310.

Kaplan, A.M. (2012), "If you love something, let it go mobile: mobile marketing and mobile social media 4x4", Business Horizons, Vol. 55 No. 2.

Keller, H., Yovsi, R. D., & Voelker, S. (2002), "The role of motor stimulation in parental ethnotheories. The case of Cameroonian Nso and German women". Journal of CrossCultural Psychology, 33, 398 – 414

Loughhead, S. and O. Mittai (2000), "Urban Poverty and Vulnerability in India: A Social Perspective." Paper presented at the Urban Forum: Urban Poverty Reduction in the 21st Century, Sponsored by the World Bank, April 3-5, 2000. Chantilly, Virginia.

Montgomery, M. R. (2009), "Urban poverty and health in developing countries." Population Bulletin 64(2). Washington, DC: Population Reference Bureau.

Morrone, A., Scrivens, K., Smith, C., and Balestra, C. (2011), "Measuring vulnerability and resilience in OECD countries". IARIW-OECD Conference on Economic Insecurity, OECD Conference Centre in Paris, France, November 22–23, 2011.

Mugisha, F. (2006), "School enrollment among urban non slum, and rural children in Kenya: Is the urban advantage eroding?". International Journal of Educational Development 26(5): 471-482.

O'Reilly, J., Smith, M., Deakin, S., & Burchell, B. (2015), "Equal pay as a moving target: International perspective on forty years of addressing the gender pay gap". Cambridge Journal of Economics, 39, 299–317.

Patrick Webb and Anuradha Harinarayan. (1999)" A measure of uncertainty: the nature of vulnerability and its relationship to malnutrition" Published in Disasters 1999.

Pullum, T., Johnson, K., Land, K., and Nyberg, B. (2011), "Using survey data to target programs for highly vulnerable children in Ethiopia". Paper presented at the Third International Conference of the International Society for Child Indicators, York, U.K.

Sanders Korenman, David Neumark (2000), "Cohort Crowding and Youth Labor Markets" (A Cross-National Analysis) (p. 57 - 106), Volume ISBN: 0-226-05658-9, University of Chicago Press, http://www.nber.org/chapters/c6802, UNIFEM, 2005

United Nations (2013), Human Development Report 2013—The Rise of the South: Human Progress in a Diverse World. New York: UNDP. < http://hdr.undp.org/en/media/ HDR_2013_EN_complete.pdf>.

World Bank (2000), "Dynamic Risk Management and the Poor", Developing a Social Protection Strategy for Africa, Human Development Group, The World Bank, Washington D. C.

World Bank (2000), World Development Report 2000/1: Attacking Poverty. Washington, D.C.

World Bank, (2008), "Africa Development Indicators 2008/2009: Youth and Employment in Africa: The Potential, the Problem", The Promise Washington D.C: The World Bank.