



Article

Youth's Poverty and Inequality of Opportunities: Empirical Evidence from Morocco

Abderrahman Yassine * and Fatima Bakass

GEAS3D Laboratory, National Institute of Statistics and Applied Economics, Rabat 6217, Morocco

* Correspondence: ayassine@insea.ac.ma

Abstract: Youth is an important and critical transition stage towards adulthood, during which time individuals are supposed to prepare in the best possible conditions for adulthood. Moroccan youth are facing unequal opportunities to develop because of the circumstances of their household background and childhood deprivation. This paper measures the level of poverty and the equality of opportunities among Moroccan youth aged 18–29 years utilizing the Human Opportunity Index (HOI). It analyzes poverty from a multidimensional perspective. The findings demonstrate that younger youth are at substantially higher risk of poverty than older young. Poor youth have low educational attainments. The unemployment rate for the non-poor youth is lower than for the poor. Unemployment rates continue to be high for secondary and university graduates, particularly for the poor. Furthermore, the analysis reveals that education deprivation followed by healthcare deprivation is the most prevalent severe deprivation among youth. The results from both the logit regression and the descriptive analyses show that youths of illiterate parents are more likely to have poorer health, drop out of school themselves, and work rather than attend school. Youth in rural areas are least likely to have the opportunity to complete secondary and university education as well as to attend school/university than those in urban areas. Moreover, the decomposition of the total difference of HOI between urban and rural areas into access and equality of opportunities indicates that the differences are mainly due to the coverage effect.

Keywords: youth; multidimensional poverty; inequalities; Human Opportunity Index (HOI); Morocco



Citation: Yassine, Abderrahman, and Fatima Bakass. 2023. Youth's Poverty and Inequality of Opportunities: Empirical Evidence from Morocco.

Social Sciences 12: 28. <https://doi.org/10.3390/socsci12010028>

Academic Editor: Nigel Parton

Received: 19 October 2022

Revised: 13 December 2022

Accepted: 19 December 2022

Published: 30 December 2022



Copyright: © 2022 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

Youth poverty differs from adult poverty in that it can have different causes and effects. Two main causes can be identified. The first one concerns life-course events: the end of studies, professional integration, residential independence, and living as a couple or building a family (Dewilde and Raeymaeckers 2008). These events play a significant role in shaping vulnerability to poverty. The second one is about the intergenerational transmission of poverty status. In fact, the poverty experienced by youth is mainly linked to their household background and childhood deprivation (Boudarbat and Ajbilou 2007; Iakōvou and Berthoud 2001; Yassine and Bakass 2022). Moreover, the impact of youth poverty on long-term human capital accumulation is well recognized, thus, youth poverty represents missed opportunities to acquire skills in school or on the job, or good health habits that can be extremely difficult to remedy (Bremer 2018). Dewilde and Raeymaeckers (2008) argue that all individual and collective factors such as education level, economic activity, age, family structure, and household size have a substantial, unidirectional, and significant effect on the risks of being poor. In addition, the role of institutional indicators and economic context as major determinants of poverty among young people is widely recognized (Braziene and Merkys 2012; Bremer 2018; Iakōvou and Berthoud 2001).

In Morocco, overall poverty has decreased considerably. Today, based on the national poverty line, less than 2% (1.7%) of the Moroccan population qualifies as poor, compared with 4.8% in 2014, 8.9% in 2007, and 15.3% in 2001 (HCP 2021). Despite this progress,

inequality in human and economic development remains a major issue in Morocco, especially among young people. This persistent problem of inequality specifically concerns the increase in income inequality and inequalities in access to basic services (Furceri et al. 2013; Lechheb et al. 2019). Therefore, educational outcomes and access to employment remained poor for many segments of the population, particularly among youth.

Inequality among youth presents the main challenge in Morocco, with youth facing unequal development opportunities due to a variety of circumstances, such as educational attainment, household characteristics, and the area of residence (Ezzrari et al. 2018; Yassine and Bakass 2022). Despite the scale of this problem, to the best of our knowledge, analyses for Morocco have only focused on youth's access to basic services without focusing on their situation regarding poverty and inequalities.

This article is a contribution with new insights on this gap issue. Indeed, we focus here on the case of Morocco, a North African, Arab-Muslim country, which is characterized, like most developing countries, by high rates of poverty, exclusion, and unemployment among youth. Thus, the results of this study can be useful to orientate studies on the well-being of young people and more specifically those regarding youth poverty and inequality.

This paper tries to address this gap in the literature by examining the level of poverty and inequality of opportunities among youth 18–29 years in Morocco. It aims to explore the main drivers of youth poverty, by calculating the multidimensional poverty among youth, investigating the main correlates of such multidimensional poverty, and assessing the inequality of opportunities among youth utilizing the HOI.

This paper proceeds as follows. Section 2 presents a review of the relevant literature on youth poverty and inequality measures. Section 3 discusses the data and describes the methods we use to assess youth HOI in Morocco. Section 4 presents our findings in terms of HOI, risk factors, inequality, and the drivers of inequality. Section 5 concludes with a discussion on how to promote youth well-being and equal opportunities for young people in Morocco in light of our findings.

2. Literature Review

2.1. Why Measuring Inequalities

Empirical studies on the issue of social and economic inequalities in Morocco generally focus on inter-individual disparities in outcomes (income, living conditions, access to social services, etc.) (HCP 2021). Most of these works have relegated the important role of the individual's social environment in determining and structuring inequalities. Moreover, few ideas have been formulated and tested on the natural or constructed character of inequalities.

Thus, it is interesting to question the nature of the inequalities observed and to see to what extent they are due to the inequalities generated by the process emanating from the social order. This line of research would make it possible to test the extent to which inequalities, whether economic or social, are inherent to inequalities of opportunity translated by disparities in terms of access to functions and positions open to the whole population within the framework of social equity (Rawls 2005).

(Arneson 1989; Nussbaum and Sen 1993; Rawls 2005; Roemer 2002) have defended social and economic inequalities under conditions of equal opportunity. Redistributive policies should reduce inequalities due to differences in the environment in which individuals have been placed since childhood. For Roemer (2002), differences in family and social environment and circumstances have an exogeneity character and are therefore not ethically acceptable as sources of inequality.

Although it remains a protean notion subject to the social value system of its context, social equity, as it emerges from the paradigms of moral and political philosophy, implies equality of opportunity to abolish unfounded gaps and to fight against the structural factors of reproduction of social and economic inequalities and their intergenerational transmission. Such objectives constitute the paradigmatic basis of the theory of social justice (Rawls 2005).

Given the plural reality of inequalities in Morocco and the functional and personal determinants underlying the distribution of wealth, social equity in Morocco is a crucial challenge (Soudi 2010). It involves reducing inequalities of opportunity and strengthening mechanisms of solidarity between individuals, social strata, territories, and generations. The aim is to break the vicious circle of the reproduction of structural factors of inequalities in their different forms.

The work of the HCP (2021) has shown the structural character and multidimensional nature of inequalities in Morocco. In addition to traditional inequalities in terms of income/spending, there are now inequalities in the distribution of benefits between capital and wages, territorial inequalities, inequalities in terms of human development factors (education, health, employment, housing, culture, and leisure, etc.), gendered inequalities, and subjective poverty associated with social and financial insecurity and the perceived prevalence of inequalities. These different forms of inequality generate each other and form a cumulative process of economic, social, and cultural disadvantages that can be reproduced and transmitted to future generations and mortgage their social destiny.

2.2. Opportunity Measures

The issue of inequality of opportunity is currently the subject of extensive literature. According to this literature, inequalities in income, expenditure, or wealth result from differences associated with life circumstances and/or the efforts made by individuals. At the same time, it raises the question of how personal circumstances can influence children's access to the basic services needed to build a productive adult life. In some Latin American countries, several studies have shown that income inequality in adulthood is associated with birth and childhood circumstances. Roemer (2002) and Bourguignon et al. (2003, 2007) have shown that some income or expenditure inequalities are directly explained by unequal opportunities.

In the recent literature, at least three different approaches have been used to measure inequality of opportunity. Bourguignon et al. (2007) estimates a linear model (parametric approach) of advantage (earnings) as a function of circumstances and effort and use it to simulate counterfactual distributions in which the effect of circumstances is removed. By comparing the distribution of actual earnings with different counterfactuals, they decompose the overall earnings inequality in Brazil into a component due to five observed circumstance variables and a residual. The circumstance component (or inequality of opportunity) is then decomposed into a direct and an indirect effect. A second approach to decomposing overall inequality into an opportunity component and an 'ethically acceptable' component is to rely on standard group inequality decompositions of inequality. Non-parametric approaches show that if groups are defined by circumstantial characteristics, the between-group component can be interpreted as an "ex-ante" measure of inequality of opportunity (Checchi and Peragine 2010). Conversely, if groups are defined by their relative position in the distribution of effort across types, the inequality within groups corresponds to an "ex-post" measure of inequality of opportunity. The sample size significantly determines the estimate of the counterfactual distribution in the distribution when adopting a non-parametric approach. The third approach is based on stochastic comparisons of the distribution of conditional types to assess whether inequality of opportunity is present in society (Lefranc et al. 2008).

The parametric estimation has been proposed as a good alternative to non-parametric estimation when the sample does not irreversibly establish the types of results. If the circumstances are correlated, the problem may persist even when sufficient sample size is available. The parametric approach is more parsimonious because it requires an estimate of the average effect of a certain circumstance on the outcome. In addition, it makes it possible to include a larger number of circumstances that cannot be simultaneously retained using the nonparametric approach.

To measure these inequalities of opportunity in several countries and at different levels, several indices have been developed, including the Human Opportunity Index (HOI) proposed by Paes de Barros et al. (2009). Despite the limitations mentioned by

[Brunori et al. \(2013\)](#), this index has been widely used to measure inequalities in chances of accessing basic services ([Hussain and Awad 2022](#); [Makarenko et al. 2022](#); [Prieto et al. 2018](#)).

Despite the recognition by international institutions and development practitioners of the challenge of youth well-being, academic studies addressing this issue are still few in Morocco. To our knowledge, the only existing studies concerning Morocco are those of [Ezzrari et al. \(2018\)](#) and [Yassine and Bakass \(2022\)](#). In particular, [Yassine and Bakass \(2022\)](#) examine the determinants of youth poverty focusing on the role of education and employment. The authors argue that being more educated constitutes a rampart against poverty for young people. By contrast, access to employment is not enough to guarantee a decent level of well-being. Moreover, there are no gender differences, but poverty seems higher among rural young and those between 15 and 19 years old compared to those who reside in the urban areas and who are between 20 and 29 years old, respectively. Youth poverty is also significantly associated with family/household characteristics such as education and employment of the other members and household size.

Several studies examine the inequality of opportunities among children. According to this literature, these inequalities concerning children are essentially explained by the socio-economic characteristics of households. This type of inequality was identified from the first six months of life in Egypt ([Kirksey et al. 1994](#)). Other inequalities, associated with the poverty status of households and the different dimensions of child development, have been highlighted by [Prieto et al. \(2018\)](#). In addition, regarding education, it is recognized that any delay in cognitive and language development can generate an accumulation of difficulties that are difficult to overcome later.

These inequalities of opportunity contribute to perpetuating and reinforcing the intergenerational transmission of poverty. Children from poor households accumulate little or no human capital compared to children from the richest households. They are in fact more likely to be poor in adulthood. On the other hand, certain studies ([Hussain and Awad 2022](#); [Nores and Barnett 2010](#); [Prieto et al. 2018](#); [Sala-I-Martin et al. 2004](#)) showed that investing in early childhood would have a significant impact on economic growth by promoting the accumulation of human capital. Such an investment would have a return exceeding the costs that would have otherwise accrued.

One of the practical difficulties of the inequality measure approach lies in the identification and dissociation of the variables of circumstances to be taken into consideration from those which represent the efforts of individuals. Indeed, each individual can be characterized by three types of variables or attributes—those relating to income, circumstances, and efforts. [Bourguignon et al. \(2003, 2007\)](#) have thus developed an approach that makes it possible to assess the contribution of inequalities of opportunity to inequality of expenditure. This approach identifies the exogenous determinants of income outside the individual's control (circumstances) and other explanatory variables associated with the individual's efforts. This then makes it possible to estimate by simulation how much inequality would decrease if the circumstances were the same between individuals.

2.3. Youth, a Fuzzy Concept

There is no international consensus about defining the concept of 'youth' and, in fact, it depends on several cultural, economic, and political factors, which explain the obvious disparities in this regard between different regions and within the same country. International studies show that each country, according to its cultural traditions and institutional arrangements, adopts very specific ways of organizing the passage from adolescence to adulthood ([Galland 2001](#)).

Sociology often refers to work on the life cycle to determine the period of youth, highlighting four essential phases of the end of the transition process, namely as follows: the end of studies, professional integration, residential independence, and living as a couple or building a family. According to [Galland \(2001\)](#), youth is a category with uncertain outlines but can be defined as a phase of preparation for the exercise of adult roles. The author suggests that it ends with the entry into adulthood by going through the social

stages of entry into professional life and the formation of a couple (Galland 2001) or what Mauger (1995, pp. 24–25) considers as “the double passage from school to professional life and from the family of origin to the family of procreation, the sequence of biographical trajectory defined by integration into the labor market and the matrimonial market”. In the same way, Aassve et al. (2006) considers that the period of youth is distinguished by the fact that it forms a sort of boundary between adolescence and adulthood. This induces a double analytical categorization of young people; we are talking about the young adolescent on the one hand and the young adult on the other. Despite this universal recognition, the temporal delineation of this period in practice causes a great controversy.

At the international level, the 15–24 age group is used as the standard definition of youth. Indeed, for statistical purposes, United Nations defines youth, as “those persons between the ages of 15 and 24 years, without prejudice to other definitions by the Member States” (UNDESA n.d., p. 1). The proposal adopted by many other countries in the world is an operational definition of youth extended to the 15–29 age group and sometimes to the 15–34 age group like in the African Youth Charter (UNDESA n.d., p. 1).

Mauger (1995) argues that the difficulties linked to a sociological definition of youth encourage the statistician to classify young people based on the more unambiguous criterion of age. However, Galland (2001) believes that defining youth based on objective criteria makes it possible to replace the fuzzy notion of common sense with a well-defined object. Indeed, the division based on age as a stratification criterion to define youth results in a young population that is both biologically homogeneous and socially heterogeneous. Therefore, Bourdieu (1984) said: “youth is just a word”, because the youth is not a monolithic block, but has very diverse components. Thus, on the one hand, the sociological definition of youth seems too complicated to be operational and, on the other hand, the definition from the age criterion appears too arbitrary. The operationalization of the first is not obvious because it comes up against a duration of the youth that varies according to the times and the societies. Making use of the second leads to accepting working with a socially non-homogeneous population. It is therefore up to the researcher to choose according to the objective of the research and according to the particularity of the data used (Bourguignon et al. 2003).

In Morocco, the HCP uses the UN definition of youth (15–24), while the Ministry of Youth and Sports adopts the 15–29 group. However, HCP (2012) shows that in Morocco the transition to adulthood is not completed at all at the age of 24. This means that a definition of youth that ends at the mid-twenties fails to include large numbers of people who have not completed many (or, indeed, any) of the transitions to adulthood (Aassve et al. 2006). Because of this, studies that conceptualize youth as a process of transition often use the extended definition. One of the very few existing studies devoted specifically to youth poverty also adopts a higher upper age limit: in this case, 29 years (Cantó-Sánchez and Mercader-Prats 1999). Moreover, this extended definition of youth has already been used by the Ministry of Youth and Sport (MYS) from the first Consultation National Youth in 2001 and adopted by the report “Promoting Opportunities and Youth Participation” carried out in 2012.

The lack of a general definition of youth in Morocco at the national level as in many other countries is nevertheless problematic. A general definition establishes a group as a concrete and recognized reality. It facilitates the establishment of public policies specifically designed and implemented for them, such as the granting of specific rights and the benefit of protection measures.

A definition that adopts only one criterion may be too restrictive to really address the issue. Thus, basing youth policy solely on age and excluding other criteria such as social background, physical or mental health status, or special needs related to the family situation, would be likely to partially miss its objective. Therefore, it may be necessary to combine different criteria, such as age, gender, educational level, and social integration, to meet the needs of youth in all their diversity. By adopting this approach, public authorities tend to establish a fluid youth policy that adapts to the diversity of youth issues and difficulties.

2.4. Empirical Background: Being Young in the Moroccan Context

2.4.1. Moroccan Population Remains Very Young

Today's youth enjoy unprecedented access to information, education, and technology. However, the impact of the global economic and financial crisis and global transformations such as population aging, digitization, and growing inequality have created uncertainties about the foundations of their well-being and that of future generations (OECD 2020).

In 2014, the Moroccan population approached 34 million people, about three times that estimated in 1960 (HCP n.d.). Today, it is characterized by a high proportion of young people. The evolution in the shape of the pyramid from the end of the 1990s indicates that their weight is continuously decreasing, going from 28.5% in 1994 to 26.3% in 2014, and it is expected to continue decreasing to reach 23.8% in 2024 and 19% in 2050 (Figure 1), according to the latest demographic projections. However, their headcount continues to increase, from 2.6 million in 1960 to nearly 9 million in 2014.

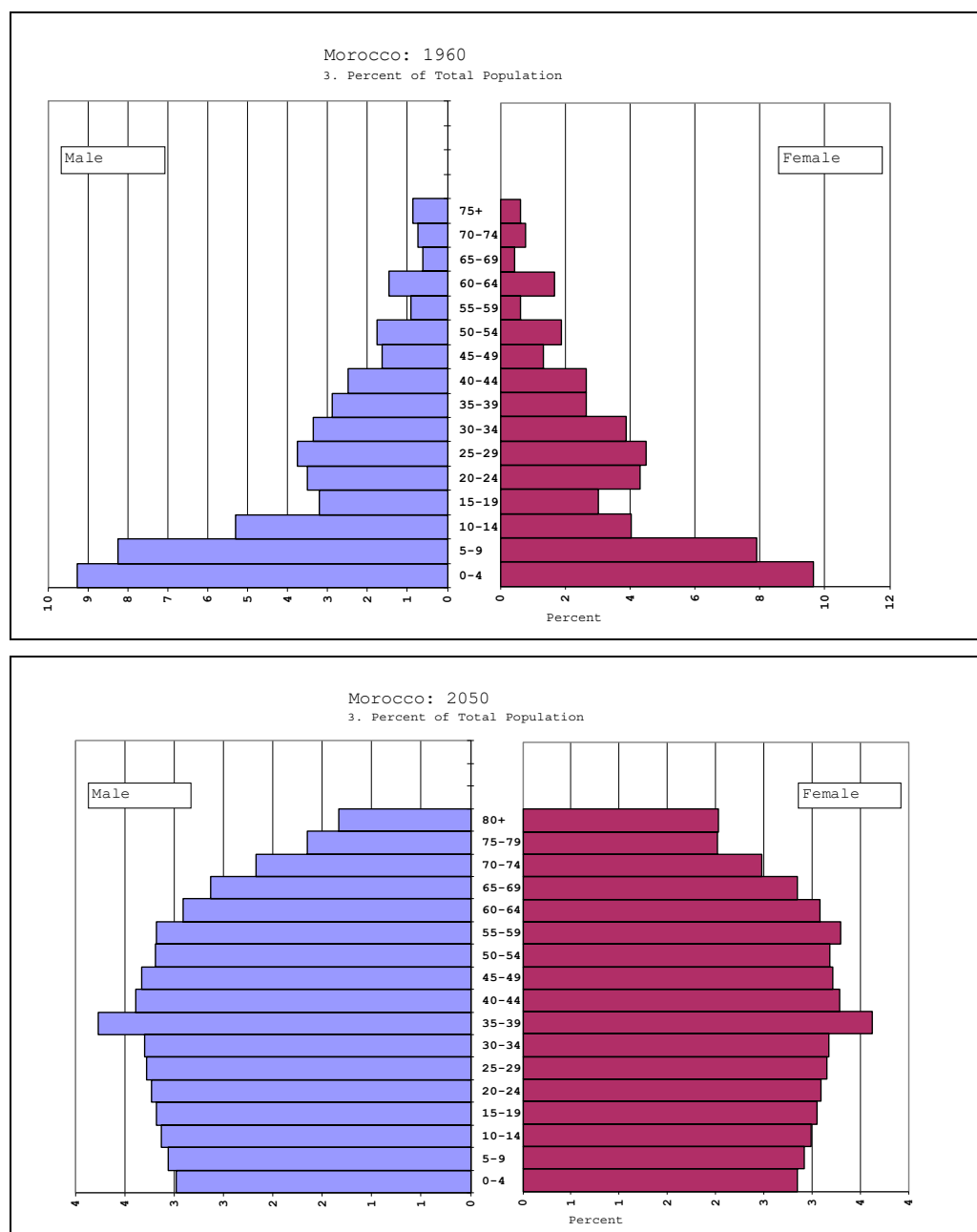


Figure 1. Evolution of demographic structure (%), Morocco, 2014–2050.

The demographic importance of youth in Morocco is a source of both opportunities and challenges, particularly with respect to education and integration into economic and social life. It is a considerable asset because youth can provide the economy with a major labor force at the height of its productive capacity. Moreover, the fertility rate of Moroccan women has stabilized at around 2.5 children per woman over the last 20 years ([HCP 2014](#)) (compared to 5.7 in 1980). Both phenomena contribute to reducing Morocco's economic dependency ratio, which has fallen from 91% in 1960 to 52% in 2018 ([World Bank n.d.](#)), and thus to the country's development.

2.4.2. The Economic, Educational, Social, and Political Situation of Youth in Morocco

Morocco has made structural changes in access to education. Young women and men are now more educated than their elders. According to the "Moroccan Household and Youth Survey" conducted between 2009 and 2010 for a World Bank study, young people aged 15 to 21 appear to have attended school longer than those in the 22 to 29 age group. This recent improvement would affect both men and women and urban and rural areas. At the time of the survey, the share of rural women aged 22–29 who were in school was only 40% while the share of 15–21 years was 73% ([World Bank 2012a](#)).

While access to quality education and training increases youth empowerment ([Yassine and Bakass 2022](#)), there are several other challenges facing youth that hinder their empowerment, starting with long-term unemployment. Indeed, Moroccan youth have been largely excluded from economic growth over the past decade. While the overall unemployment rate of the country's labor force has not exceeded 11% since 2006 (9.9% in 2014) ([HCP 2015](#)), the unemployment rate of youth aged 15–24 has increased over the same period. After a drastic decline in the unemployment rate for this group from 37% to 15% between 1995 and 2006, it again exceeded 20% in 2015. If in Morocco there are intermediation programs for employment, the young Moroccans do not benefit from any unemployment allowance granting them to meet their needs. In light of this situation, family solidarity is considered as the main resource for young people in poverty ([Yassine and Bakass 2022](#)).

While young people in Morocco are more educated today than in the past, the high unemployment rate among young Moroccan men and women of working age thus reflects a mismatch between the skills acquired by the available workforce during their education and the expectations of the labor market ([Ezzrari et al. 2018](#)).

Youth are also particularly affected by the informal nature of the Moroccan economy. According to the study conducted by the HCP and the World Bank in 2017 ([HCP and World Bank 2017](#)), 94% of youth between the ages of 15 and 24 work in the informal sector, which in 2016 contributed 11.5% of the national GDP ([HCP 2016](#)). Moreover, while informal employment decreases with increasing levels of education, one-third of young people with a higher education degree were employed in it in 2011 ([World Bank 2012a](#)).

These economic and social difficulties and the lack of structures to support their participation in society hinder the empowerment of young people and lead them to a certain marginalization. Today, the number of young people who are not in employment, education, or training (NEET) is very high in Morocco. According to the national employment survey by the Moroccan Ministry of Employment and Social Affairs, 28% of youth aged 15–24 were in this situation in 2015, with a particularly high rate among women (45.11% of young women aged 15–24 are NEET, compared to only 11.4% of men of the same age) ([MYS 2017](#)).

Moreover, the difficulties encountered by young people in their search for employment also have an impact on their willingness to stay in their country: according to the Arab Youth Survey 2020, 46% of Moroccan youth would like to emigrate or plan to do so, the majority because of a lack of opportunities and prospects in their country ([ASDAA BCW 2020](#)).

2.4.3. Youth Participation and Representation in Moroccan Politics

In Morocco, as in OECD countries, youth often remain excluded from the political sphere because of their age and lack of resources, networks, and experience needed to enter politics. Stereotypes continue to shape the perception of many young candidates and even

public office holders as too young to run for office and govern (OECD 2020). In addition to underrepresentation in political institutions, Moroccan youth have less trust in politics than their parents, which severely limits their willingness to engage in public policymaking in their country. In Morocco, only 17% of 18–29 years trust the government. This percentage seems low compared to the confidence expressed by the population as a whole: despite a largely declining rate in recent years, 29% of Moroccan trust their government. The gap widens further with age: 53% of people over 60 say they trust the government. Similarly, only 13% of 18–29 trust the parliament, and 18% trust political parties (Arab Barometer 2019). The crisis of confidence in political institutions, which particularly affects young people, has different explanations. Corruption remains a major concern among citizens and especially the younger ones. Thus, 81% youth consider that corruption is still present in the state apparatus to a large extent; 71% of the general population and 49% of those over 60 have the same opinion (Arab Barometer 2019). Also cited as reasons for the lack of trust in political institutions are economic instability and high youth unemployment. More generally, Moroccan youth today seem to have little interest in politics.

The low political participation of youth in the traditional framework has various origins. These include the lack of media coverage that encourages youth engagement, the lack of youth-specific programs, the aging of political actors, and the negative view that youth have of Moroccan elected officials. These barriers persist despite the progress made following the adoption of the 2011 Constitution, which institutionalizes the need to develop and implement public policies specifically targeting youth and creating an environment conducive to their full participation in society.

2.4.4. Challenges Preventing Youth in Morocco from Fully Participating in Economic and Social Life: Poverty and Marginalization

The transition to adulthood remains difficult for much of Morocco's youth. Youth interviewed in focus groups organized by the World Bank (OECD 2018) highlighted the lack of information and general guidance on educational and professional choices as one of the main barriers identified to their integration into the world of work. Many educated and unemployed youth participants reported holding a degree that was not relevant to the market reality. The same observation was made by workers in the informal sector, many of whom chose their first degree based on advice from friends. This lack of information, combined with a set of social determinants influencing young people's career choices (socioeconomic origin and situation, income prospects, parents' diplomas, family opinion, etc.) largely contribute to orienting—and often limiting—young people's career choices.

In these same discussions, most participants felt that social and personal connections were essential conditions for getting a job. In their view, these connections or referrals were not the results of education but of networks of acquaintances, usually established by the family and dependent on the socio-economic background. The dominant view among participants was that social class and the strength of the family network remained much more important than educational qualifications in accessing employment (OECD 2018). Limited access to employment, exclusion from influential knowledge networks, and political isolation are key determinants of a certain marginalization of youth, which can lead in some cases to violent behavior to achieve political, social, and in some cases even ideological change.

Youth living in rural areas are disproportionately at risk of growing up in poverty and facing social exclusion. Studies show that current youth policies in the region do not pay sufficient attention to the specific needs of rural youth (Kabbani 2019; Yassine and Bakass 2022). When states lack the institutional capacity to provide services to youth outside of the capital, rural youth, already facing limited economic opportunities, are additionally unable to access the support they need. This lack of institutional capacity can have a negative impact on youth opportunities in rural areas. In addition, rural communities face difficult labor market conditions. This is due to low land ownership, lack of access to credit, and low levels of education, among others. The quality of jobs and workers' rights are also

limited, with young people often forced to accept low-productivity jobs due to a lack of opportunities (World Bank 2008). Finally, there is a gender dimension to the exclusion of rural youth, as young men in MENA countries are more likely to migrate to urban areas than young women, which accentuates the divide between the two groups in terms of education and employment.

For Moroccan young women, significant progress has been made in recent decades toward greater gender equality and women's empowerment. The 2011 Constitution guarantees women important civil liberties and allows them to participate in public life. The reform of the Family Code ("Moudawana") in 2004 made significant advances in women's personal freedoms and civil rights, such as the lifting of guardianship over women, equality between women and men in filing for divorce, co-responsibility in the family, and the division of property acquired during the marriage. However, the representation of women in Moroccan politics in general, particularly young women, remains relatively low. Moroccan women are often limited in their ability to exercise their rights as voters and candidates due to social, economic, and political barriers. Lack of access to information and resources also has a direct impact on their ability to do so, as do social norms and family pressures.

In addition, the illiteracy rate remains high among women (about 38% of Moroccan women were illiterate in 2015), especially in rural areas. It should be noted, however, that this rate is much lower among women aged 15–24 and was 6.5% in 2015 (HCP 2021). Access to the world of work remains complex for women. At the end of 2014, the rate of unemployed women was 10.5% (HCP 2015). Similarly, 19.1% of women aged 15 to 24 were unemployed in 2014, while young Moroccan women represent 47% of higher education.

3. Data and Methods

In discussing the data, we first describe the surveys used to measure the HOI and how we measure poverty, HOI, opportunities, and circumstances.

3.1. Data

The paper relies on two different surveys conducted in 2014 by the High Commission on Planning (HCP) in Morocco. General Population and Housing Census (RGPH) of 2014, which provides data about circumstances and access to opportunities, and used in calculating the HOI. The Household Consumption and Expenditure National Survey (HCENS) is the last available one in Morocco, which provides data about monetary poverty as it includes consumption data and provides data about the dimensions of deprivations used to asset the Multidimensional Poverty Index. This survey is a nationally representative survey of 15,970 households. A two-stage stratified random sampling technique was followed in drawing samples of HCENS 2014 under the master sample developed based on the Population and Housing Census 2004. In total, 75,691 members were investigated, including 19,695 young men and women (26%) in the 15–29 years age group.

3.2. Methods

3.2.1. Youth Poverty Measurement

While it is widely recognized that living standards are determined by a multitude of factors, monetary measures like relative and absolute poverty remain popular. Relative poverty, which reflects a more income-distribution-oriented design, is the common approach used in Western Europe and at the (non-US) OECD and the most developed countries (Ravallion 2012). The poverty line is set at a constant proportion (typically around half) of a given distribution of income (the current mean, median, or some quintiles) and anyone whose income is below this threshold is considered poor (Förster and D'Ercole 2012). Unlike developed countries which are using income to measure poverty according to a monetary approach, consumption—or expenditure data—directly collected from households as a proxy of income are mostly used in developing countries, as expenditure is easier to track than income (Ravallion 2010; Sahn and Stifel 2003).

Recently, there has been a revival of interest in multidimensional and subjective well-being, although relative and absolute monetary approaches can still dominate poverty measurement (Ravallion 2012). Particularly, the multidimensional approach is now broadly recognized as important and complement to monetary poverty. To this end, the Multidimensional Poverty Index (MPI) developed at Oxford University with the UNDP's Human Development Report Office uses 10 indicators to measure three critical dimensions of poverty at the individual level: education, health, and material living standards. The methodology underlying the MPI is based on Alkire and Foster (2011) and offers a high degree of flexibility in the choice of indicators.

In developing countries, as the case in Morocco, most surveys do not collect data on the income of households because this can be time- and money-consuming (Vyas and Kumaranayake 2006). Moreover, sampling bias, under-reporting of income or expenditure, and difficulties in converting household products into money terms are also raised. In addition, it is impossible to calculate poverty without considering regular (stable) incomes that come from unformal jobs (one reviewer). For these reasons, an alternative tool for classifying the households in their socio-economic status was proposed for low- and middle-income countries. This method is an asset-based approach which allows to construct a household-level composite index called Wealth Index. The indicator is calculated using easy-to-collect data on ownership of durable assets, housing characteristics, and access to services (Filmer and Pritchett 2001). Data on these items are already collected in large-scale surveys and Population Census.

According to our available data, the poverty measurements in this paper include both economic measures of poverty based on monetary measures, and non-monetary measures reflecting multidimensional privation status in the health, the education, and the personal development of youth. These two approaches of defining poverty are conceived as complementary approaches rather than different approaches (Alkire 2007).

Youth living in poverty are subject to multiple deprivations in many of their rights: to survive, to learn, to work, to participate, and to be protected. The UNICEF child poverty approach (UNICEF 2011) is used to operationalize this rights-based approach to youth poverty. This paper uses a series of indicators to measure youth's access to seven rights (education, health, safe drinking water, sanitation facilities, crowdedness, information, and floor). Table 1 shows the dimensions and indicators employed in this paper. While severe deprivation refers to youth who do not have access to one or more of this rights, absolute poverty refers to youth who do not have access to two or more of these rights.

Table 1. The dimensions and indicators employed to measure youth poverty.

Deprivation	Description
Water	Youth using water from an unimproved source
Sanitation	Youth who live in households with unimproved toilet or drainage system
Floor	Youth who live in dwellings with no flooring material
Crowdedness	Youth who live in dwellings with five or more people per room
Information	Youth with no access to radio, television, telephone, and computer at home
Education	Youth who had never been to school or who dropped out before completing their primary education
Health	Youth who had at least one of six disabilities (vision, hearing, mobility, communication, memory and concentration, personal maintenance), without being registered or benefiting from a medical coverage system

Multidimensional poverty includes the multiple factors that constitute poor youth's experience of deprivations, namely, safe drinking water, sanitation facilities, crowdedness, improper flooring, education, health, and source of knowledge. The Bristol approach developed by Gordon (2006) and adopted by the Global Study (UNICEF 2007) makes a significant effort to provide a methodology for measuring multidimensional child poverty. The Bristol approach defines two different cross-dimensional cutoff points to identify

multidimensional poverty, namely, youth in severe deprivation and youth in absolute poverty as defined previously. Accordingly, the prevalence of the multidimensional poverty among youth is calculated (the Headcount Ratio), where youth who experienced at least one dimension of deprivation are considered multidimensional poor.

Regarding monetary poverty in Morocco, the poverty line is constructed using the methodology of the cost of basic needs (Ravallion and Bidani 1994). A food bundle is constructed such that it is consistent with the consumption of poor households and reaches calorie requirements. The cost of these food bundles is then established. This is known as the Food Poverty Line (FPL). Households whose expenditure is below the FPL are considered extremely poor. A second poverty line is constructed by adjusting the FPL with an allowance for expenditure on essential non-food goods. This results in what is called the Total Poverty Line (TPL). Households spending less than the TPL are considered poor. In 2013–2014, on average, a person who spent less than (388 MAD in urban area, 359 MAD in rural area) per month was poor. Youth living in households whose consumption is below TPL are considered as poor.

3.2.2. The Human Opportunity Index

The Human Opportunity Index developed by Paes de Barros et al. (2009) and Molinas (2012) measures the extent to which a society progresses toward universal access of basic opportunities. The index synthesizes in a single indicator how close a society is to universal coverage of a given opportunity and how equitably coverage of that opportunity is distributed.

The HOI is a measure of access to, or coverage of, essential services for youth development, discounted or penalized by the inequality of access across the potential beneficiaries. Therefore, the HOI improves either by increasing access to services and/or by making access more equitable (World Bank 2012b). The HOI is used to measure the access of youths to essential services, penalized by the inequality of access across the place of residence.

$$HOI = C - P,$$

where C is the rate of global coverage, which is the percentage of individuals that have access to the opportunity, and P is associated with inequality of opportunities,

$$P = (C \times D),$$

D is the dissimilarity index, which measures the difference between the rates of coverage of an opportunity across different groups of circumstances. The D index is commonly used to assess inequality in a binary outcome (Paes de Barros et al. 2009). The dissimilarity index is derived by comparing group means for different combinations of circumstances to the population mean to quantify how outcomes differ by circumstances. It can be interpreted as the share of the total number of opportunities (that is, places available in a service) that needs to be reallocated between circumstance groups to ensure equality of opportunities (i.e., that is redistributed from the young in wealthier groups to the young in the worst groups, which means the missing level of opportunities to have equal chance of an outcome across groups). Thus, the D index range from 0 to 100, with 0 indicating a situation of equal chances and 100 referring to total chance inequality across circumstances.

Thus, the HOI range is from 1 to 100, and it increases with the global rate of coverage and decreases with the differences in coverage between the different groups of circumstances,

$$HOI = C - P = C \times (1 - D) = C \times (1 - P/C),$$

where $(1 - D)$ represents the percentage of opportunities available that are assigned correctly.

Computing the penalization for inequality of opportunities, P, requires the identification of all groups of circumstances with rates of coverage below the average. We refer to these as the groups vulnerable to human opportunity. For each group vulnerable to

opportunity, $i\bar{O}_i$ is the number of people who have access to a necessary good or service, so that their rate of coverage is the same as the average, while O is the number of people in group i with access. $O_i - \bar{O}_i$ is thus the difference in opportunities within the vulnerable group i . The penalization is the sum of the differences in opportunities of all the vulnerable groups divided by the total population N :

$$P = \frac{1}{N} \sum_{i=1}^n (O_i - \bar{O}_i),$$

Intuitively, P can be interpreted as the percentage of people whose access would have to be reassigned to people in groups with lower rates of coverage to reach equality of opportunities. If all the groups have the same rate of coverage, then the penalization is zero, and no reassignment would be necessary. As long as the coverage approaches universality for all groups, the reassignment required will be close to zero (Paes de Barros et al. 2009).

The global coverage, C , is calculated using the Logistic Regression Technique utilizing all the related circumstances (for example, gender of the youth, education, gender of the head of the household, and the like) to assess the impact of these circumstances on each opportunity (for example, access to clean water) and to calculate the average (C) using the predicted probabilities. Let P denote the probability that youth have access to a certain service:

$$P\left(Y = \frac{1}{X}\right) = \frac{1}{1 + e^{-z}}$$

where

$$Z = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_p X_p$$

The dependent variable Y is the access to a certain service, the vector of explanatory variable X is the related circumstances, and β_j s are the corresponding parameters. Accordingly, C is the average of these estimated probabilities along all populations.

The HOI has important properties. Its value decreases as the inequality of a given number of opportunities increases. If no one loses access and at least someone gains access, the index will always increase, whether or not that person belongs to a vulnerable group. Finally, when the coverage rate of all circumstance groups increases proportionally, the HOI will increase proportionally.

When analyzing cross-sectional household survey data, the procedure consists of running a logistic regression model to estimate at an individual level the relationship between the access to a particular opportunity (binary dependent variable) and the circumstances of an individual (independent variables), on the full sample for which the HOI measure will be constructed. The estimated coefficients of the regression are used to obtain for each individual his/her predicted probability of access to the opportunity, which is then used to estimate the D-index, the coverage rate, and the HOI.

3.2.3. Opportunities

Equality of opportunity requires that a person's chances to succeed in life should be unrelated to predetermined circumstances at birth such as gender and socioeconomic and demographic origin. Accordingly, this paper examines the inequality of opportunities among youth, where five opportunities are examined and grouped in two sectors: three related to education and two to basic housing services. This analysis is important as it identifies which services require most urgent attention for Moroccan youth 18–29 years in the most adverse circumstances. The definition of these opportunities could be summarized in Table 2.

Table 2. Definitions of dimensions of opportunities among Moroccan youth aged 18–29 years.

Sector	Dimension	Definition of the Opportunity
Education Sector	Completion of Secondary Education on time ¹	Youth aged 18–25 years and completed Secondary education
	Completion of University Education on time	Youth aged 24–25 years and completed University education
	School/University attendance among youth aged 19–23	Attended school ages 19 through 23 years of age
Housing Condition Sector	Water	Youth 18–29 years live in houses connected to the public water network
	Sanitation	Youth 18–29 years live in houses connected to public sanitation network

¹ The Moroccan educational system is organized as follows: Pre-school education which begins in kindergarten at the age of 4. This education is accessible to all children under 6 years old. This level generally welcomes children aged from 4 to 6 years old before enrolling in primary school. Primary education: lasts for six years and for children aged from 6 to 12 years old. Students must complete a Certificate of Primary Education in order to be admitted in the secondary cycle. Middle education (“le collège”): It takes 3 more years and leads to the obtaining of the certificate of middle school. Secondary education: It takes 3 years. At the end of the first year, students choose to prepare a baccalaureate in general, technical, or traditional education. In all three cases, students are required to take the baccalaureate exam which is the gate to higher education. Higher education: It takes 3 years to complete the license level, 5 years for the master’s degree.

3.2.4. Circumstances

The specific factors we examine in this analysis are the household size, the household head’s education, the gender of the head of the household, the area of residence (urban or rural), and the household wealth. All these factors can be calculated for the survey that we have used.

Household size is the number of persons living as an economic unit. A household head’s education is defined as the highest level of education attained by the household’s head. The gender of the head of the household distinguishes between male and female. Area of residence distinguishes between urban and rural residents. Lastly, we considered household wealth, which is defined based on factor analysis using indicator variables to determine whether the household owns certain assets and goods such as the internet, a television, or a car. Then, wealth quintiles as measured by [Yassine and Bakass \(2022\)](#) are used for the classification of households from the poorest to the richest.

3.2.5. Regression Analyses

The HOI is a composite index of two factors: the level or coverage and equity of opportunity. The policymakers’ objective will be to maximize HOI, which can be achieved either by enhancing total opportunity (coverage) or by increasing equity of opportunity (more equitably distributing opportunity) or increasing both coverage and equity. The index allows the measurement of the total contribution of all circumstance variables to the inequality of opportunity. Although it is useful to determine the total impact of all circumstance variables on the inequality of opportunity, determining the impact of individual circumstance variables would be more useful to policymakers (one reviewer). These individual contributions will identify the circumstance variables having the most impact on inequality of opportunity.

To calculate the relative contributions of individual circumstance variables to the inequality of opportunity, we use regression analyses to estimate how a particular circumstance is related to an outcome while considering other characteristics such as household wealth. Since all the outcomes are binary (0 (no) or 1 (yes)), we use a logit model to estimate the effects of circumstances on the youth outcomes. The logit model given by

$$\text{Logit}(p) = \ln \frac{p}{1-p} = \alpha_0 + \alpha_1 X_1 + \alpha_2 X_2 + \cdots + \alpha_{10} X_{10}$$

where p denote the probability that the youth is not deprived; and X_1, \dots, X_{10} are the predictor variables. In applying the logit model in this paper, a value of 1 was assigned to youth having access to the opportunities, and a value of 0 on the contrary.

In addition, we use a logit model to identify the determinants of youth income poverty. A value of 1 was assigned to poor youth, and a value of 0 on the contrary.

4. Findings

4.1. Monetary Poverty

Figure 2 shows the national monetary poverty rates by age. At the national level, 5% of youth at 15–29 years were in poverty in 2014. Poverty rates peak dramatically for children, rising to almost 6.4% compared to 5.7% for young adults between 15 and 17 years. The older youth between 24 and 26 years have the lowest incidence of poverty (4.2%). Starting from age 21 years and above, the poverty rate was always below the national average. This is partly driven by changes in occupational status among young people (who are less likely to be studying or unemployed at later ages), but also by a reduced risk of poverty within groups. Those with a job are less likely to be poor in their late twenties than in their teens or early twenties. However, this is offset by the fact that at older ages, most of them have had children.

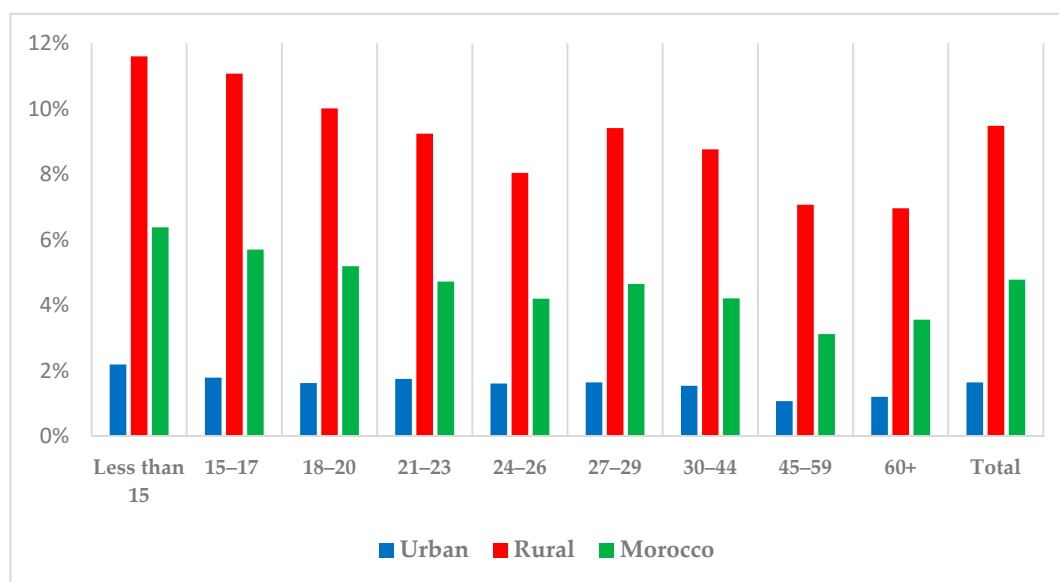


Figure 2. Monetary poverty rate by age, 2014. Note: Authors, data from HCP open data (www.hcp.ma) (accessed on 1 April 2022).

In transmitting poverty across generations, low education is considered a key factor. According to Ezzrari et al. (2018) and Yassine and Bakass (2022), education is the strongest correlate of poverty because it determines the command of individuals over income-earning opportunities through access to employment. For the group of youth aged 16 to 29 years, illiterate poor persons in Morocco ranged from two to three times the illiterate non-poor persons. The illiteracy rate increases as the age increase for both the poor and non-poor youth, reflecting improvements in access to basic education. Overall, the rate for 15-year-old persons is only 14% of the 29 years rate. Regarding the education status, Table 3 shows that 29.7% of the poor are illiterate compared to only 12.8% of the non-poor, and only 13.3% of the poor have secondary education and higher compared to 35.5% for the non-poor. A chi-square test of independence was performed to examine the relation between poverty status and the education level of the youth. The relation between these variables was significant, $\chi^2(4, n = 19,695) = 363.675, p = 0.000$. Non-poor youth were more likely than the poor to have access to all education levels.

The high illiteracy rate among youth of aged 15 years raises questions about the current accessibility of children to basic education, especially the poor, and about the quality of education they receive. Thus, the low educational attainment of poor youth and low enrollment rate are often key constraints to Moroccan youth's present and future opportunities.

Table 3. Distribution of youth 18–29 years by education and poverty status, 2014.

	Illiterate	Can Read and Write	Basic Education	Secondary Education	University Education
Poor	29.7%	0.1%	56.9%	10.9%	2.4%
Non-poor	12.8%	0.7%	51.0%	24.4%	11.1%
Total	13.6%	0.7%	51.3%	23.7%	10.7%
	Value	df	Asymptotic Significance (2-sided)		
Pearson Chi-Square	363.675	4	0.000		
n of Valid Cases	19,695				

Note: Authors, data from HCP open data (www.hcp.ma) (accessed on 1 April 2022).

As labor is the main asset of the poor, making it more productive remains the best way to reduce poverty. The overall employment rate (rate of labor force participation) of youth aged 15–29 years stood at 40.2 %, while it is 48 % for youth in the age group 18–29 years. The employment rate increases as age increases; it starts at 13.7 % for age 15 years, jumps to 28.1% at secondary school graduation age (18 years), increases to 39.7% and to 42.8% at university graduation age of 21 and 22 years, respectively, and is always above 47% afterward. Youth employment rates decrease as per capita income increases because youth devote more time to schooling. The employment rate is always higher for the poor compared to the non-poor for all ages until the age of 22. Youth make up 26.3% of Moroccans, but 38% of the unemployed. The youth unemployment rate is three times higher than the national unemployment rate, indicating that unemployment is mainly a youth problem (HCP and World Bank 2017). The rate of unemployment may be low, although youth are in poverty. As indicated by Figure 3, unemployment rate increases with age, peaks at age of 20 and 24, and declines afterwards. This is true for both poor and non-poor youth, yet the unemployment rate for the poor is always lower than the non-poor in the ages between 21–23 and 25–27.

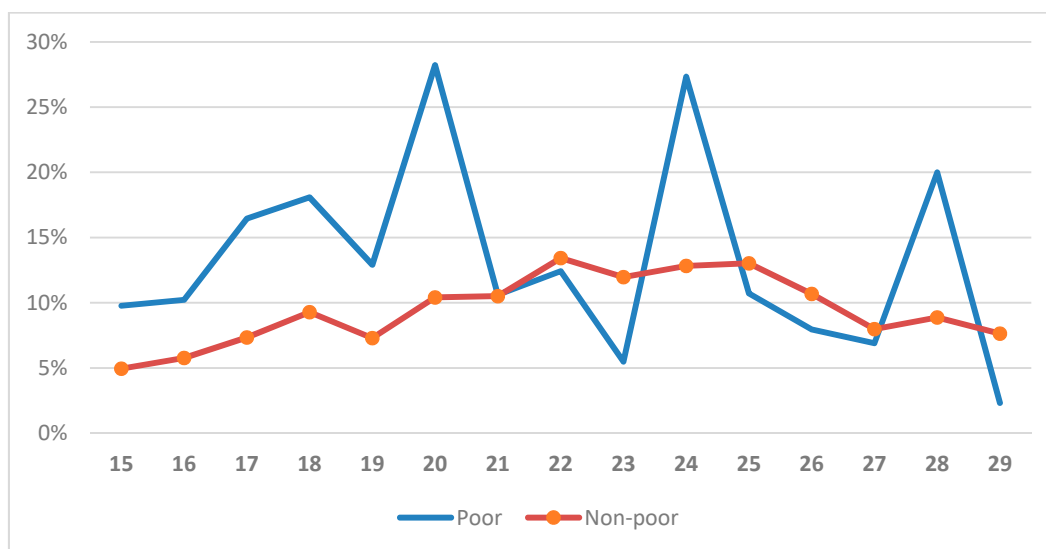


Figure 3. Unemployment rate by age and poverty status, 2013–2014. Note: Authors, data from HCP open data (www.hcp.ma) (accessed on 1 April 2022).

As indicated by Table 4, unemployment was more pronounced among the poor where 28% of poor educated persons of age 18–29 were unemployed and about one educated non-poor out of four (23.7%) was unemployed. A chi-square test of independence was performed to examine the relation between poverty status and the education level by the employment status of the youth. The relation between these variables was significant, $\chi^2 (2, n = 12,756) = 247.024, p = 0.000$ for non-employed youth and $\chi^2 (2, n = 6939) = 117.542, p = 0.000$ for employed youth. Even if a poor person can break the vicious circle of education and poverty, the youth still cannot compete in the job market as a result of low-quality education, labor market mismatch, or because of a lack of connections in identifying job opportunities. Youth employment is characterized as informal if the job is unpaid or if the job includes no benefits.

Table 4. Youth unemployment rate by education level and poverty status, 2013–14.

	College	Secondary	University and Higher Education
Poor	15.1%	27.8%	27.8%
Non-poor	13.2%	20.1%	23.7%
Total	13.8%	21.2%	24.04%
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square (Employment status: No)	247.024	2	0.000
<i>n</i> of Valid Cases	12,756		
Pearson Chi-Square (Employment status: Yes)	117.542	2	0.000
<i>n</i> of Valid Cases	6939		

Note: Authors, data from HCP open data (www.hcp.ma) (accessed on 1 April 2022).

4.2. Multidimensional Poverty

Figure 4 presents the percentage of Moroccan youth of age 18–29 years who suffer from different severe deprivations and shows youth experiencing one or more deprivations (severe deprivation) as well as the percentage suffering absolute poverty (two or more deprivations). The education deprivation is the most prevalent severe deprivation among youth aged 18–29 years in Morocco. It shows that 26.1% of youth suffer from severe education deprivation.

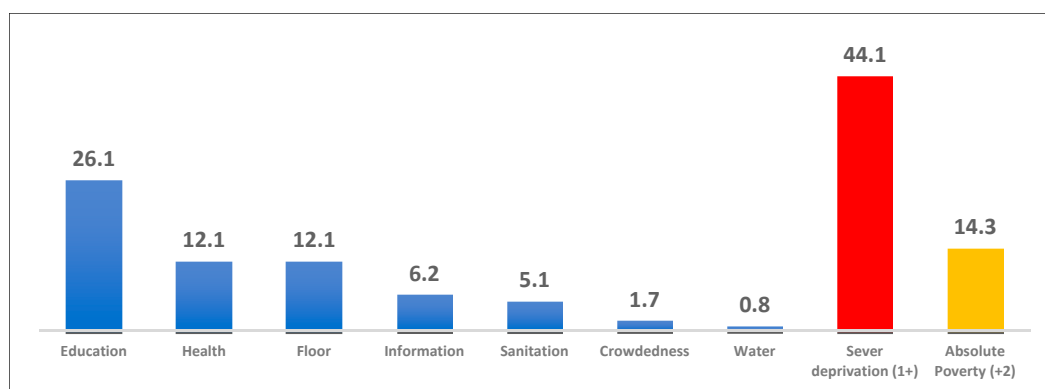


Figure 4. Prevalence of deprivations (%) among youth 18–29 years, 2014. Note: Authors, data from HCP open data (www.hcp.ma) (accessed on 1 April 2022).

Education deprivation is followed by healthcare deprivation, where 12.1% of youth suffer from at least one of six disabilities (vision, hearing, mobility, communication, memory and concentration, personal maintenance), without being registered or benefiting from a

medical coverage system. The percentage of water and sanitation deprivations were small, indicating that almost all youth have access to a non-deprived source of drinking water and sanitation facilities, however it is always noted that the quality of these services is poor. It should be noted that education and healthcare deprivations (the most prevalent form of deprivations) are highly correlated to income poverty, reflecting that youth poverty in Morocco is of income nature. The results indicates that almost 41.1% of youth aged 18–29 years in Morocco, experienced one or more deprivations (severe deprivation). Almost one-third (29.7%) suffers from only one severe deprivation. On the other hand, 14.3% of youth are suffering absolute poverty.

4.3. Correlates of Different Dimensions of Deprivation

Table 5 shows the prevalence of all deprivation dimensions among Moroccan youth. The results indicate that there is a difference between youth males and females who suffer from education deprivation. The percentage of girls who are deprived from education is almost three points of percentage less (27.4% vs. 24.8%, respectively) than the percentage for boys.

Table 5. Prevalence of all deprivation dimensions among youth 18–29 years by characteristics, 2014.

	Crowdedness	Floor	Sanitation	Water	Information	Education	Health	Income Poverty
Total	1.7%	12.1%	5.1%	0.8%	6.2%	26.1%	12.1%	4.7%
Individual dimension								
Male	1.7%	12.5%	5.1%	0.7%	6.4%	24.8%	12.5%	4.4%
18–22 Years	2.0%	13.2%	5.3%	0.7%	5.7%	24.5%	13.2%	4.8%
23–24 Years	1.5%	13.1%	5.0%	0.6%	5.3%	22.9%	13.1%	3.8%
25–29 Years	1.4%	11.5%	4.9%	0.8%	7.5%	25.9%	11.5%	4.1%
Female	1.7%	11.6%	5.0%	0.9%	6.1%	27.4%	11.6%	5.0%
18–22 Years	1.9%	11.9%	4.9%	1.1%	6.0%	25.8%	11.9%	4.9%
23–24 Years	1.5%	11.1%	4.9%	0.8%	6.9%	27.4%	11.1%	5.4%
25–29 Years	1.7%	11.6%	5.2%	0.7%	5.9%	29.2%	11.6%	5.0%
Household size								
Less than 4	-	7.6%	3.0%	2.3%	10.2%	17.5%	7.6%	0.3%
4 members	-	10.2%	4.6%	1.0%	6.1%	27.3%	10.2%	0.8%
5 members	4.5%	9.0%	5.2%	0.5%	4.2%	37.0%	9.0%	2.2%
6+	1.7%	14.8%	6.0%	0.5%	6.0%	45.5%	14.8%	7.8%
Head's education								
None	1.5%	17.0%	7.1%	0.5%	7.9%	37.9%	17.0%	6.6%
Primary	2.7%	8.1%	3.3%	1.4%	4.7%	32.7%	8.1%	2.7%
Upper Secondary	1.2%	3.7%	1.9%	1.3%	4.5%	14.5%	3.7%	1.5%
Secondary	0.9%	2.3%	1.0%	0.6%	2.7%	9.7%	2.3%	1.3%
University or higher	1.8%	1.2%	0.2%	0.8%	1.6%	4.6%	1.2%	1.5%
Gender of the head of the household								
Male	1.7%	12.8%	5.2%	0.9%	6.3%	27.9%	12.8%	4.7%
Female	2.0%	7.7%	4.4%	0.4%	5.6%	15.3%	7.7%	4.7%
Residence								
Urban	2.3%	1.3%	0.6%	0.2%	4.5%	11.0%	1.3%	1.7%
Rural	0.8%	28.0%	11.7%	1.2%	8.8%	36.3%	28.0%	9.2%

Table 5. Cont.

	Crowdedness	Floor	Sanitation	Water	Information	Education	Health	Income Poverty
Wealth status								
Quintile 1 (poorest)	3.7%	27.3%	13.5%	0.7%	10.3%	57.8%	24.7%	6.6%
Quintile 2	2.0%	17.2%	6.1%	0.8%	6.2%	32.5%	21.5%	7.1%
Quintile 3	2.1%	0.7%	0.2%	0.6%	5.7%	16.8%	7.7%	4.5%
Quintile 4	0.7%	0.6%	0.0%	0.3%	1.3%	12.9%	4.0%	1.6%
Quintile 5 (richest)	0.1%	0.0%	0.0%	0.0%	3.7%	9.3%	1.3%	0.5%

Note: Authors, data from HCP open data (www.hcp.ma) (accessed on 1 April 2022).

Among youth whose household head has no education, almost 37.9% are severely deprived of education—this is almost 2.6 times the prevalence rate as when the household head has received primary education. For heads who have higher education, the likelihood of youth being educationally deprived drops to only 4.6%. Concerning the place of residence, the data show that only 11% of all urban youth aged between 18 and 29 experience severe educational deprivation, compared to 36.3% of all rural youth. The wealth status of households represented by the assets approach (Wealth Index) has a substantial effect on youth deprivation. Youth with the least wealth are most likely to experience education deprivation, where 57.8% of youths in the lowest quintile suffer from education deprivation, compared to only 9.3% among youth in the richest quintile. It is estimated that 12.1% of youth aged 18–29 in Morocco are severely health deprived. Youth living in larger household sizes have a higher risk of health deprivation. The educational level of the household head is not a differentiating factor for health deprivation, except for those with no educational level. Additionally, the data show that there are significant differences between areas of residence. The rate of severe health deprivation among youth aged 18–29 years is 1.3% in the urban area, while the rate in rural Morocco is 28%. Youth living in the wealthiest households are less likely to be health-deprived than those living in poor households.

The results show that almost 12.1% of youth aged 18–29 years live in dwellings with natural floors suffer from floor deprivation. The risk of experiencing floor deprivation varies enormously between residences, where 28% of youth in rural areas live in severely floor deprived, compared to only 1.3% among youth in urban areas. Floor deprivation is more prevalent among youth living in larger household sizes, where 14.8% of youth living in households of six or more members suffer from floor deprivation compared to only 7.6% among households with less than four members. Just over a quarter of youth who live in the lowest quintile suffer from flooring material deprivation. Although those living in the second lowest quintile are still poor, the likelihood that they suffer from flooring deprivation drops by almost 36% in comparison with the poorest quintile.

Youth are affected by poor sanitation, which is directly linked to their health. The study found that 5.1% of youth (accounted 356,371 youth aged 18–29 years) in Morocco are severely deprived of sanitation; lacking any form of sanitation facility, adequate or otherwise. Considerable differences are observed between urban and rural areas regarding sanitation deprivation, where only 0.6% of youth in urban areas suffer from severe sanitation deprivation compared to 11.7% among youth in rural areas.

Similar to other forms of deprivation, youth living in large households are more likely to suffer from severe sanitation deprivation. Education of the head of household greatly affects sanitation deprivation, where 7.1% of youth with uneducated heads suffer from severe sanitation deprivation, while this percentage decreases to only 0.2% among youth with heads having higher education. The wealth status of households has a significant effect on suffering from severe sanitation deprivation.

This study has estimated that 0.8% of youth are severely water deprived. There are considerable differences in youth's severe water deprivation between rural and urban areas.

Youth in rural areas are almost six times more likely to experience severe water deprivation than urban youth (1.2% vs. 0.2%, respectively). Head's education and wealth status do not show a significant effect on water deprivation.

Severe source of knowledge deprivation is an important constraint on the development of both youth and societies. Children and youth, especially those in vulnerable situations, should have access to lifelong learning opportunities that help them to acquire the knowledge and skills needed to exploit opportunities and to participate fully in society (United Nations 2015). In Morocco, 6.2% of youth aged 18–29 years are severely information deprived. Like other types of deprivations, the prevalence of information deprivation among rural youth is more than two times the rate in urban areas (8.8% and 4.5%, respectively). There is a direct correlation between the level of education of household heads and the level of information deprivation. In households with heads that have no education, the rate of information deprivation reached 7.9% as compared to only 1.6% among youth in households with heads that have higher education.

Overcrowded dwellings facilitate the transmission of diseases (for example, respiratory infections, measles, and parasites). Almost 2% of Moroccan youth experience severe crowdedness deprivation. The results shows that youth living in houses with five or more members per room reached 0.8% in rural areas and 2.3% in urban areas. Additionally, the risk of experiencing crowdedness varies between the quintiles of the wealth index.

4.4. Inequality of Opportunities

As shown in Figure 5, youth in rural areas are least likely to have the opportunity to complete secondary and university education as well as to attend school/university than those in urban areas. The results of the RGPH 2014 census show that the HOI for completion of secondary education on time reached almost 37 points among youth 18–25 years in urban areas, while decreased to only 17 points among youth in rural areas. A similar result was observed for the completion of university education among youth 24–25 years, where the opportunity to completion of university education on time among youth is four times higher in urban areas compared to rural areas (9.8 points vs. 2.1 points). These results show that the gap in the education status between youth in urban and rural areas in Morocco increases in higher education, which requires the attention of the government to the education sector, whether the secondary or university education, and particularly for university education. Opportunity for school/university attendance for youth aged 19–23 years decreased from 18 points among youth in urban areas to only 6 points in rural areas.

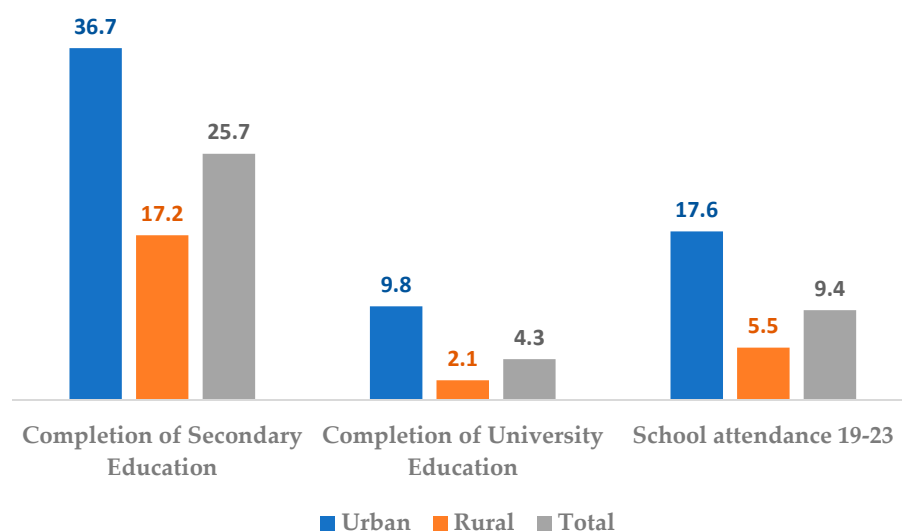


Figure 5. HOI for education sector among youth 18–25 years by Residence. Note: Authors, data from HCP open data (www.hcp.ma) (accessed on 1 April 2022).

Figure 6 shows the results of the HOI for access to safe drinking water shows that the HOI among youth 18–29 years increased from 88 points in rural areas to 97 points in urban areas, which means that most youth in urban areas and most of the youth in rural areas have the opportunity to use safe drinking water. A similar result is observed for the opportunity of sanitation services among Moroccan youth. However, the gap is much bigger between youth in urban and rural areas regarding sanitation services. These results require the attention of both the government and the private sector for the development of sanitation services particularly in rural areas, through extending the sanitation networks to the houses and not only to the villages.

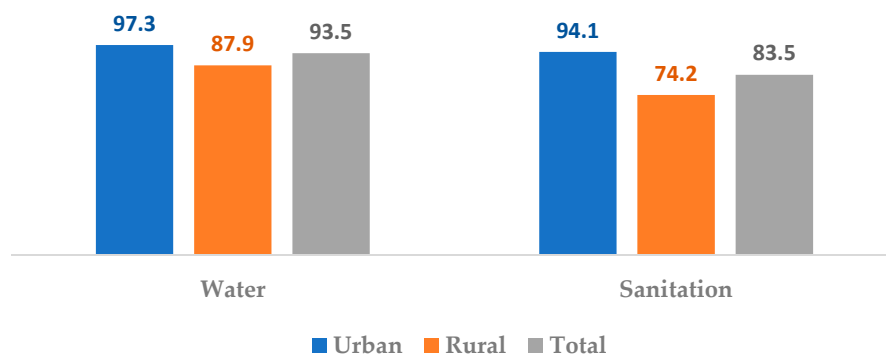


Figure 6. HOI for housing condition sector among youth 18–29 years by Residence. Note: Authors, data from HCP open data (www.hcp.ma) (accessed on 1 April 2022).

As shown in Figure 7, the results indicate that overall, youth in urban areas are more likely to have the opportunities for completion the education and to have access to the housing services than those in rural areas. The overall HOI—the aggregate of all five human opportunities—for youth in urban areas reached 51.1 points compared to only 37.4 points for youth in rural areas. The gap of the human opportunities for youth was uneven across sectors. The average HOI for basic housing services experienced the large gap (14.7 points), while the gap in the education sector decreased to 13.1 points.

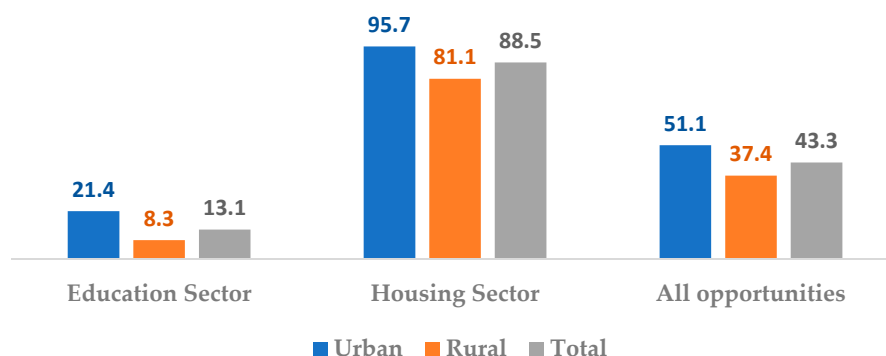


Figure 7. HOI for aggregate opportunities among youth 18–29 years by Residence. Note: Authors, data from HCP open data (www.hcp.ma) (accessed on 1 April 2022).

4.5. Decomposition of the Gap in HOI between Urban and Rural Areas into Distribution and Coverage Effects

The HOI is determined by the rates of coverage specific to each group and its corresponding participation in the population. Consequently, the HOI can change only when at least one of these characteristics' changes. Thus, any change in the index can be associated with the distribution effect: either changes in the distribution of circumstances or the coverage effect: changes in at least one of the rates of coverage in a specific group. Table 6 shows the decomposition of the HOI for Moroccan youth aged 18–29 years.

Table 6. Decomposition Human Opportunity Index for Moroccan youth aged 18–29 years.

Opportunity	HOI in Urban	HOI in Rural	Difference	Decomposition %	
				Coverage Effect	Distribution Effect
Completion of Secondary Education	36.7	17.2	19.5	94.3	5.7
Completion of University Education	9.8	2.1	7.7	87.9	12.1
School attendance (19–23 years)	17.6	5.5	12.1	96.2	3.8
Water	97.3	87.9	9.4	98.5	1.5
Sanitation services	94.1	74.2	19.9	93.4	6.6

Note: Authors, data from HCP open data (www.hcp.ma) (accessed on 1 April 2022).

The difference between opportunities in urban and rural areas, as measured by HOI, is in general driven by a difference in access (coverage effect) rather than in the degree of equality of opportunity (distribution effect). The decomposition of the total difference of HOI between urban and rural areas into access and equality of opportunities indicates that the differences in HOIs are mainly due to the coverage effect (increasing the coverage in urban areas than in rural areas while maintaining the degree of equality of opportunities unchanged). At least 88% of the difference in all HOI indices is explained by the coverage effect.

The coverage effect is particularly pronounced for the two education indices, namely, completion of secondary education and school attendance among youth 19–23 years, in addition to the water opportunity index. The coverage effect explains 96.2% of the difference between urban and rural school attendance among youth 19–23 years. This fact could be interpreted by the availability of most universities in urban areas that facilitate the accessibility of students to such universities more than those in rural areas. A similar result could be observed for secondary schools.

The coverage effects were least pronounced for the completion of university education, where it reached only 87.9%, while the effect of different opportunities represents 12.1%. This result indicates that the completion of university education on exact age depends to a great extent on the properties of the youth themselves.

Accordingly, the previous results show that access to secondary schools/universities is markedly clear in urban areas compared to rural areas.

4.6. Impact of Different Circumstances on Youth Opportunities

To determine the main indicators that have an impact on different human opportunity indices for young people 18–29 years, we used logistic regression. Accordingly, five logit models have been estimated for the five human opportunities. As show in Table 7, the logit models are statistically significant (Chi square; $p < 0.00$).

The results of the logistic regression indicate that the education of household head, place of residence, household size, gender of household head, and gender of youth have significant effect on the opportunity of youth aged 18–25 years to complete secondary and university education on time. Accordingly, a significant part of the value of the opportunity of youth to complete secondary/university education is due to the presence of variations in the properties of those young people, not only the access or the availability of the secondary education services.

Considering the location region, compared to youth living in rural area, those living in urban areas are respectively 2.7 and 3.2 times more likely to have the opportunity to complete secondary and university education. Additionally, the education level of the household head has the greatest effect on increasing the probability of education completion. Likewise, the results show that the probability of university education completion increases as the size of the household decreases. Living in a household with less than four members decreases by 27% the odds to complete the university education compared to households with six or more members. Finally, gender is statistically significant ($p < 0.005$); young girls and young men do not face education deprivation at a similar risk.

Table 7. The results of the estimation of the logit regression models.

Explanatory Variables	Secondary Education			University Education			School/University Attendance			Housing Condition: Water			Housing Condition: Sanitation			Income Poverty		
	Estimate of Parameter	p-Value	Odds Ratio	Estimate of Parameter	p-Value	Odds Ratio	Estimate of Parameter	p-Value	Odds Ratio	Estimate of Parameter	p-Value	Odds Ratio	Estimate of Parameter	p-Value	Odds Ratio	Estimate of Parameter	p-Value	Odds Ratio
Individual characteristics																		
Location region (base category: Rural)	0.989	0.000	2.689	1.156	0.000	3.177	0.890	0.000	2.436	1.179	0.000	3.250	1.606	0.000	4.981	−0.291	0.002	0.748
Gender (base category: Female)	0.045	0.192	1.046	−0.152	0.003	0.859	1.046	0.000	2.847	0.011	0.771	1.011	−0.035	0.559	0.966	−0.226	0.002	0.797
Characteristics of the household																		
Household size (base category: 6 or more)		0.000			0.001			0.000			0.000			0.000			0.000	
Less than 4	−0.032	0.583	0.969	0.246	0.002	1.279	−0.428	0.000	0.652	−0.207	0.001	0.813	0.720	0.000	2.054	−3.592	0.000	0.028
4	0.111	0.030	1.117	0.147	0.042	1.159	−0.338	0.000	0.713	−0.042	0.473	0.959	0.195	0.034	1.216	−2.147	0.000	0.117
5	0.275	0.000	1.316	0.216	0.001	1.241	0.120	0.064	1.128	0.176	0.001	1.193	0.331	0.000	1.392	−1.164	0.000	0.312
Wealth index (base category: Q5 Upper class)		0.000			0.000			0.000			0.000			0.000			0.000	
Q1 Extreme poor	−1.807	0.000	0.164	−1.659	0.000	0.190	−1.886	0.000	0.152	−4.025	0.000	0.018	−6.169	0.000	0.002	4.895	0.000	133.565
Q2 Moderate poor	−1.517	0.000	0.219	−1.547	0.000	0.213	−1.514	0.000	0.220	−3.476	0.000	0.031	−3.760	0.000	0.023	3.866	0.000	47.731
Q3 Lower middle class	−1.229	0.000	0.293	−1.183	0.000	0.306	−1.089	0.000	0.337	−2.228	0.000	0.108	−1.296	0.037	0.274	3.463	0.000	31.922
Q4 Upper middle class	−0.776	0.000	0.460	−0.684	0.000	0.505	−0.850	0.000	0.427	−0.957	0.000	0.384	−0.628	0.355	0.534	2.550	0.000	12.804
Gender of the head (base category: Female)	−0.265	0.000	0.768	−0.126	0.083	0.882	−0.313	0.000	0.731	−0.273	0.000	0.761	−0.027	0.795	0.973	−0.754	0.000	0.470
Education level of the head (base category: higher)		0.000			0.000			0.000			0.000			0.003			0.011	
None	−1.731	0.000	0.177	−1.537	0.000	0.215	−1.592	0.000	0.203	0.250	0.031	1.284	−0.757	0.059	0.469	0.348	0.364	0.706
Primary	−1.532	0.000	0.216	−1.441	0.000	0.237	−0.840	0.002	0.432	0.035	0.764	1.036	−0.585	0.147	0.557	0.657	0.093	0.518
Lower secondary	−1.441	0.000	0.237	−1.271	0.000	0.281	−0.744	0.007	0.475	0.077	0.546	1.080	−0.437	0.303	0.646	0.708	0.102	0.493
Upper secondary	−0.739	0.000	0.477	−1.261	0.000	0.283	−0.725	0.011	0.484	0.136	0.305	1.146	−0.212	0.636	0.809	0.650	0.150	0.522
Fit measures																		
χ^2	5124.020 (0.000) ***			2313.023 (0.000) ***			2848.882 (0.000) ***			10,217.394 (0.000) ***			7329.254 (0.000) ***			1616.737 (0.000) ***		
Nagelkerke R Square	0.316			0.226			0.241			0.541			0.595			0.249		
Log-likelihood	20,306.027			10,962.257			13,271.263			16,991.825			7201.841			5871.090		

Note: Authors, data from HCENS 2014 (www.hcp.ma) (accessed on 1 April 2022). Robust standard errors are reported in parentheses. <0.01 significant at 10%; <0.005 significant at 5%; <0.001 significant at 1%; *** significant at 1%.

The results of the logistic regression model for the opportunity of availability of safe drinking water show that the most significant variables are the wealth index and the location region, while the variables affecting the opportunity for the availability of sanitation does not include the properties of household head. Youth living in urban area are almost five times more likely to have access to sanitation services compared to those living in rural areas. These results show that the availability of sanitation services is only associated by the characteristics of the area itself.

4.7. Determinants of Monetary Poverty

A logit model was estimated to identify the variables that influence the probability of youth being poor. As shown in Table 7, the logit model is statistically significant (Chi square = 1616; $p < 0.00$). It must be pointed out that, except for the education level of the head, all the other variables are statistically significant at a 5% level. This suggests that the selected variables in this model are important determinants of youth poverty in Morocco. Given that the dependent variable of the logit model denotes whether a young person is poor or not, the positive coefficient increases the probability that the young person is poor, and the negative coefficient decreases it.

Considering the location region, the probability of being poor in urban areas decreases significantly compared to the rural region. Likewise, the results show that the probability of poverty increases as the size of the household increase. Living in a household with less than 4 members decreases by 98% the odds of being poor compared to households with 6 or more members. Finally, the risk of monetary poverty decreases by 20% for young men compared to young girls.

5. Conclusions and Recommendations

This paper examines the level of poverty and inequality of opportunities among Moroccan youth. The data used in this study are taken from the Household Consumption and Expenditure National Survey (HCENS) 2014, and the General Census of Population (RGPH) of 2014 conducted by HCP. The cross-sectional analysis reveals that younger young youth are at substantially higher risk of poverty than older young. Poor youth have low educational attainments, and the employment rate for the poor youth is lower than the non-poor. Youth in rural areas are least likely to have the opportunity to complete secondary and university education as well as to attend school/university than those in urban areas. Additionally, there is a positive association between living in a rural area and being at risk of poverty. However, this evidence could be distorted for the situation of informal housing in big cities that, normally, are poorest than rural areas (one reviewer).

Several factors lie behind the risk of youth poverty (Aassve et al. 2006); family factors such as household size and composition, gender, and education of the head of household, and education factors like low enrollment rate, high dropout, and illiteracy rate. The lack of permanent jobs is highly correlated to poverty (Renahy et al. 2018). Thus, not getting a job does not form a route out of poverty, rather, it is getting and keeping gainful employment that is effective at raising young people out of poverty (Yassine and Bakass 2022).

The impact of youth poverty on long-term human capital accumulation is well recognized. Thus, youth poverty represents missed opportunities to acquire skills in school or on the job, or good health habits that can be extremely difficult to remedy (Chirwa 2018). A youth lens points to improving the quality of basic services for children as well as for young adults so they can build human capital that open future opportunities to young people and mitigate the intergenerational transmission of poverty.

Several circumstances beyond the control of youth development (household wealth quintile, education of the parents and particularly of the mother, and region of residence, etc.) largely explain these inequalities. Based on the results, large gaps are recorded between the most advantaged and the least advantaged youth on almost all dimensions of youth well-being, precisely given these circumstances. Additionally, the paper shows that the education of the household head is the key factor for young people to complete university

education and increase the chance of young people to complete university education. Interest should be given to the education of the household head (parents) through literacy classes and capacity-building programs. Moreover, awareness of the equality between males and females in completion of higher education should be raised, particularly in rural areas (Desrues and Nieto 2009).

Another core message of this paper is the importance of family/household backgrounds for reducing the risk of poverty. In addition to the household's educational attainment levels, youth poverty is significantly associated with family/household characteristics such as household size, location region, and the wealth of the household. The results show that there is a positive association between living in a rural area and being at risk of poverty. There is a need to review the family planning programs to keep the family size small.

In recent years, the Moroccan government has put in place several measures to address the main challenges faced by youth. Efforts have been made to improve the inclusion of rural youth through the rehabilitation of youth centers throughout the country. In addition to building infrastructure in rural areas, mobile devices such as mobile libraries are being developed to bring public services closer to citizens in the most isolated areas. In addition, public spending on early childhood has been increased to facilitate access to the labor market for young women. However, based on the above-mentioned results of the descriptive and multivariate analysis of youth poverty and human opportunity indices, the following recommendations can be introduced. For example, the establishment of programs, interventions, and activities aimed at youth development, particularly the interventions that increase the welfare level for those young people. This could be achieved by restructuring the economic system in Morocco to increase the likelihood of young people's access to permanent jobs in the formal sector. The improvement of the quality and relevance of services that enhance basic skills is the key factor to alleviate youth poverty. In addition, attention of the government to the education sector should be promoted, whether secondary or university education and particularly for university education. Literacy education programs, as well as vocational training centers, should be promoted to illiterate youth and household heads. Awareness of the importance of higher education and the extent of its contribution to sustainable development and reducing poverty should be broadened. There is a clear need to increase access to health services, as well as improve the quality of services provided in such health units, in addition to increasing the health insurance coverage. Since poverty is multifaceted, addressing youth poverty in Morocco requires integrated policy and programming solutions that provide equal opportunities to recent generations, regardless of their gender, social origins, and geographic location. Additionally, besides relying on family solidarity, there needs to be a basis for youth to receive support from society. Finally, community-level participation in the development of social policies is an additional way to ensure that policies are tailored to the individual community's needs.

Author Contributions: Conceptualization, A.Y. and F.B.; methodology, A.Y. and F.B.; software, A.Y. and F.B.; validation, A.Y. and F.B.; formal analysis, A.Y. and F.B.; writing—original draft preparation, A.Y. and F.B.; writing—review and editing, A.Y. and F.B.; visualization, A.Y.; supervision, F.B. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: Data used in this paper is available in the URL: https://www.hcp.ma/Micro-donnees-Open-data_r632.html (accessed on 14 April 2022).

Conflicts of Interest: The authors declare no conflict of interest.

References

- Aassve, Arnstein, Maria Iacovou, and Letizia Mencarini. 2006. Youth poverty and transition to adulthood in Europe. *Demographic Research* 15: 21–50. [CrossRef]
- Alkire, Sabina. 2007. The Missing Dimensions of Poverty Data: Introduction to the Special Issue. *Oxford Development Studies* 35: 347–59. [CrossRef]
- Alkire, Sabina, and James Foster. 2011. Counting and Multidimensional Poverty Measurement. *Journal of Public Economics* 95: 476–87. [CrossRef]
- Arab Barometer. 2019. Arab Barometer V—Morocco Country Report 2019. Available online: <http://www.arabbarometer.org> (accessed on 14 November 2022).
- Arneson, Richard J. 1989. Equality and equal opportunity for welfare. *Philosophical Studies* 56: 77–93. [CrossRef]
- ASDAA BCW. 2020. *Arab Youth Survey*. Dubai: ASDAA BCW.
- Boudarbat, Brahim, and Aziz Ajbilou. 2007. *Youth Exclusion in Morocco: Context, Consequences, and Policies*. SSRN Scholarly Paper. Rochester: SSRN. [CrossRef]
- Bourguignon, François, Francisco H. G. Ferreira, and Marta Menéndez. 2007. Inequality of opportunity in Brazil. *Review of Income and Wealth* 53: 585–618. [CrossRef]
- Bourguignon, François, Jairo Nuñez, and Fabio Sanchez. 2003. A Structural Model of Crime and Inequality in Colombia. *Journal of the European Economic Association* 1: 440–49. [CrossRef]
- Bourdieu, Pierre. 1984. *La jeunesse n'est qu'un mot, entretien avec A.-M. Métaillé, « Les jeunes et l'emploi », Association des âges, 1978, p. 520–530, rééd.* Paris: Dans Questions de sociologie, pp. 143–54.
- Braziene, Ruta, and Gediminas Merkys. 2012. Determinants of Youth and Young Adults Work Satisfaction in Lithuania. *Social Sciences* 78: 47–53. [CrossRef]
- Bremer, Jennifer. 2018. Youth Unemployment and Poverty in Egypt: Egypt. *Poverty & Public Policy* 10: 295–316. [CrossRef]
- Brunori, Paolo, Francisco H. G. Ferreira, and Vito Peragine. 2013. *Inequality of Opportunity, Income Inequality and Economic Mobility: Some International Comparisons*. Working Paper No. 7155. IZA Discussion Papers. Bonn: IZA—Institute of Labor Economics, Schaumburg-Lippe-Straße 5–9 53113. Available online: <https://www.econstor.eu/handle/10419/69406> (accessed on 14 October 2022).
- Cantó-Sánchez, Olga, and Magda Mercader-Prats. 1999. Poverty among Children and Youth in Spain: The Role of Parents and Youth Employment Status. *Studies on the Spanish Economy, Studies on the Spanish Economy*. Available online: <https://ideas.repec.org/p/fda/fdaeee/46.html> (accessed on 4 November 2022).
- Checchi, Daniele, and Vito Peragine. 2010. Inequality of opportunity in Italy. *The Journal of Economic Inequality* 8: 429–50. [CrossRef]
- Chirwa, Mussa. 2018. Access and Use of Internet in Teaching and Learning at Two Selected Teachers' Colleges in Tanzania. *International Journal of Education and Development Using Information and Communication Technology* 14: 4–16.
- Desrues, Thierry, and Juana Moreno Nieto. 2009. The development of gender equality for Moroccan women—Illusion or reality? *Journal of Gender Studies* 18: 25–34. [CrossRef]
- Dewilde, Caroline, and Peter Raeymaeckers. 2008. The Trade-off between Home-Ownership and Pensions: Individual and Institutional Determinants of Old-Age Poverty. *Ageing & Society* 28: 805–30. [CrossRef]
- Ezzrari, Abdeljaouad, Ayache Khellaf, and Abdelaziz Nihou. 2018. *Chapitre 4 la dynamique de l'emploi des jeunes au maroc*. Rabat: OCP Policy Center. Available online: https://www.researchgate.net/publication/325120378_Chapitre_4_LA_DYNAMIQUE_DE_LEMPOI_DES_JEUNES_AU_MAROC (accessed on 25 April 2022).
- Filmer, Deon, and Lant H. Pritchett. 2001. Estimating Wealth Effects without Expenditure Data-or Tears: An Application to Educational Enrollments in States of India. *Demography* 38: 115–32. [CrossRef] [PubMed]
- Förster, Michael F., and Marco Mira D'Ercole. 2012. The OECD Approach to Measuring Income Distribution and Poverty. In *Counting the Poor*. Oxford: Oxford University Press, pp. 27–58. [CrossRef]
- Furceri, Davide, Samah Mazraani, and Bruno Versailles. 2013. *Morocco: Selected Issues*. Washington, DC: International Monetary Fund. Available online: <https://www.imf.org/external/pubs/ft/scr/2013/cr13110.pdf> (accessed on 14 October 2022).
- Galland, Olivier. 2001. Adolescence, post-adolescence, jeunesse: Retour sur quelques interprétations. *Revue Française de Sociologie* 42: 611–40. [CrossRef]
- Gordon, David. 2006. The Concept and Measurement of Poverty. In *Poverty and Social Exclusion in Britain: The Millennium Survey*. Edited by Christina Pantazis, David Gordon and Ruth Levitas. London: Policy Press, pp. 29–63.
- HCP, and World Bank. 2017. *Le marché du travail au Maroc: Défis et opportunités*. Available online: <https://www.banquemondiale.org/fr/country/morocco/publication/labor-market-in-morocco-challenges-and-opportunities> (accessed on 14 October 2022).
- HCP. n.d. Quelle démographie? Available online: https://www.hcp.ma/Quelle-demographie_a847.html (accessed on 4 November 2022).
- HCP. 2012. Les jeunes en chiffres. Available online: https://www.hcp.ma/Enquete-Nationale-sur-les-jeunes-2011_a3266.html (accessed on 4 November 2022).
- HCP. 2014. Evolution de l'indice synthétique de fécondité par milieu de résidence. Available online: https://www.hcp.ma/Evolution-de-l-indice-synthe-tique-de-fecondite-par-milieu-de-residence-nombre-d-enfants-par-femme-1962-2014_a3282.html (accessed on 4 November 2022).
- HCP. 2015. *Activité, emploi et chômage, résultats détaillés*. 2014. Available online: https://www.hcp.ma/downloads/Activite-emploi-et-chomage-resultats-detailles_t22436.html (accessed on 4 November 2022).

- HCP. 2016. Enquête Nationale sur le Secteur Informel. Available online: http://www.hcp.ma/rencontre-de-presentation-des-resultats-de-l-Enquete-Nationale-sur-le-Secteur-Informel-au-Maroc-12-10-2016-Rabat_r253.html (accessed on 4 November 2022).
- HCP. 2021. Pauvreté et prospérité partagée au Maroc du troisième millénaire, 2001–2014. Available online: <https://www.hcp.ma> (accessed on 14 October 2022).
- Hussain, M. Azhar, and Atif Awad. 2022. Inactive Youth in Sub-Saharan Africa: Does Inequality of Opportunity Matter? *Economies* 10: 27. [CrossRef]
- Iakōvou, Maria, and Richard Berthoud. 2001. *Young People's Lives: A Map of Europe*. Colchester: University of Essex, Institute for Social and Economic Research.
- Kabbani, Nader. 2019. Investing in Rural Youth in the Near East, North Africa, Europe and Central Asia. IFAD Research Series 60. Available online: <https://www.ifad.org/en/web/knowledge/-/publication/research-series-issue-60-investing-in-rural-youth-in-the-near-east-north-africa-europe-and-central-asia> (accessed on 4 November 2022).
- Kirksey, Avanelle, Theodore D. Wachs, F. Yunis, U. Srinath, Atossa Rahmanifar, George P. McCabe, Osman M. Galal, Gail G. Harrison, and Norge W. Jerome. 1994. Relation of maternal zinc nutriture to pregnancy outcome and infant development in an Egyptian village. *The American Journal of Clinical Nutrition* 60: 782–92. [CrossRef]
- Lechheb, Houda, Hicham Ouakil, and Youness Jouilil. 2019. Economic Growth, Poverty, and Income Inequality: Implications for Lower- and Middle-Income Countries in the Era of Globalization. *The Journal of Private Equity* 23: 137–45. [CrossRef]
- Lefranc, Arnaud, Nicolas Pistolesi, and Alain Trannoy. 2008. Inequality of opportunities vs. inequality of outcomes: Are western societies all alike? *Review of Income and Wealth* 54: 513–46. [CrossRef]
- Makarenko, Elena, Lyudmila Nivorozhkina, Alexandra Tregubova, Tatiana Toropova, and Elmira Nazarova. 2022. Risk of Increasing Income Inequality and Poverty: Analysis by Income Source. *Sustainability* 14: 1610. [CrossRef]
- Mauger, Gérard. 1995. Jeunesse: L'âge des classements [Essai de définition sociologique d'un âge de la vie]. *Revue des Politiques Sociales et Familiales* 40: 19–36. [CrossRef]
- Molinas, Nuriaand. 2012. *Child Development Index 2012: Progress, Challenges and Inequality*. London: Save the Children. Available online: <https://resourcecentre.savethechildren.net/document/child-development-index-2012-progress-challenges-and-inequality/> (accessed on 14 October 2022).
- MYS. 2017. Stratégie Nationale Intégrée de La Jeunesse 2015–2030—Pour Une Jeunesse Citoyenne, Entrepreneuse, Heureuse et Épanouie. Diversity of Cultural Expressions. 2017. Available online: <https://en.unesco.org/creativity/policy-monitoring-platform/strategie-nationale-integree-de> (accessed on 14 October 2022).
- Nores, Milagros, and W. Steven Barnett. 2010. Benefits of early childhood interventions across the world: (Under) Investing in the very young. *Economics of Education Review* 29: 271–82. [CrossRef]
- Nussbaum, Martha, and Amartya Sen. 1993. *The Quality of Life*. Oxford: Oxford University Press. [CrossRef]
- OECD. 2018. *Youth Engagement and Empowerment in Jordan, Morocco and Tunisia*. Paris: OECD. Available online: <https://www.oecd.org/mena/governance/youth-engagement-and-empowerment-report.pdf> (accessed on 4 November 2022).
- OECD. 2020. *Governance for Youth, Trust and Intergenerational Justice: Fit for All Generations?* OECD Public Governance Reviews. Paris: OECD Publishing. [CrossRef]
- Paes de Barros, Ricardo, Francisco H. G. Ferreira, Jose R. Molinas Vega, and Jaime Saavedra Chanduvi. 2009. *Measuring Inequality of Opportunities in Latin America and the Caribbean*. Washington, DC: World Bank. Available online: <https://openknowledge.worldbank.org/handle/10986/2580> (accessed on 14 April 2022).
- Prieto, Lydia, Johannes Flacke, Jonathan Aguero-Valverde, and Martin Van Maarseveen. 2018. Measuring Inequality of Opportunity in Access to Quality Basic Education: A Case Study in Florida, US. *ISPRS International Journal of Geo-Information* 7: 465. [CrossRef]
- Ravallion, Martin. 2010. *Poverty Lines Across the World*. World Bank Policy Research Working Paper No. 5284. Available online: <https://ssrn.com/abstract=1597057> (accessed on 4 November 2022).
- Ravallion, Martin. 2012. *Poor, or Just Feeling Poor? On Using Subjective Data in Measuring Poverty*. Washington, DC: World Bank. [CrossRef]
- Ravallion, Martin, and Benu Bidani. 1994. How Robust Is a Poverty Profile? *The World Bank Economic Review* 8: 75–102. [CrossRef]
- Rawls, John. 2005. *A Theory of Justice: Original Edition*. Cambridge: Harvard University Press. [CrossRef]
- Renahy, Emilie, Christiane Mitchell, Agnes Molnar, Carles Muntaner, Edwin Ng, Fariyah Ali, and Patricia O'Campo. 2018. Connections between unemployment insurance, poverty and health: A systematic review. *European Journal of Public Health* 28: 269–75. [CrossRef] [PubMed]
- Roemer, John E. 2002. Equality of opportunity: A progress report. *Social Choice and Welfare* 19: 455–71. [CrossRef]
- Sahn, David E., and David Stifel. 2003. Exploring Alternative Measures of Welfare in the Absence of Expenditure Data. *Review of Income and Wealth* 49: 463–89. [CrossRef]
- Sala-I-Martin, Xavier, Gernot Doppelhofer, and Ronald I. Miller. 2004. Determinants of Long-Term Growth: A Bayesian Averaging of Classical Estimates (BACE) Approach. *American Economic Review* 94: 813–35. [CrossRef]
- Soudi, Khalid. 2010. L'entraide familiale au Maroc et ses impacts sur la pauvreté et l'inégalité. Available online: <http://www.abhatoo.net.ma/maalama-textuelle/developpement-economique-et-social/developpement-social/societe/familles/l-entraide-familiale-au-maroc-et-ses-impacts-sur-la-pauvrete-et-l-inegalite> (accessed on 14 October 2022).
- UNDESA. n.d. "Definition of Youth". Available online: <https://www.un.org/esa/socdev/documents/youth/fact-sheets/youth-definition.pdf> (accessed on 4 November 2022).

- UNICEF. 2007. *Child Poverty in Perspective: An Overview of Child Well-Being in Rich Countries*. New York: UNICEF Innocenti Research Centre. Available online: https://www.unicef-irc.org/publications/pdf/rc7_eng.pdf (accessed on 14 October 2022).
- UNICEF. 2011. *The State of the World's Children 2011 Adolescence: An Age of Opportunity*. [Working Paper]. eSocialSciences. Available online: https://econpapers.repec.org/paper/esswpaper/id_3a3751.htm (accessed on 14 October 2022).
- United Nations. 2015. *Transforming Our World: The 2030 Agenda for Sustainable Development*; A/RES/70/1. p. 35. Available online: https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_RES_70_1_E.pdf (accessed on 14 October 2022).
- Vyas, Seema, and Lilani Kumaranayake. 2006. Constructing Socio-Economic Status Indices: How to Use Principal Components Analysis. *Health Policy and Planning* 21: 459–68. [CrossRef]
- World Bank. 2008. «*Social Development in MENA*». Washington, DC: Banque Mondiale.
- World Bank. 2012a. Enquête-Ménages et Jeunesse marocaine effectuée pour les besoins de l'étude de la Banque Mondiale. Available online: <https://openknowledge.worldbank.org/handle/10986/11909?locale-attribute=fr> (accessed on 22 February 2021).
- World Bank. 2012b. *Kingdom of Morocco: Promoting Youth Opportunities and Participation*. Washington, DC: World Bank. Available online: <https://openknowledge.worldbank.org/handle/10986/11909> (accessed on 4 November 2022).
- World Bank. n.d. Ratio de la population inactive à la population active (% de la population en âge de travailler)—Morocco. Available online: <https://donnees.banquemondiale.org/indicateur/SP.POP.DPND?locations=MA> (accessed on 4 November 2022).
- Yassine, Abderrahman, and Fatima Bakass. 2022. Do Education and Employment Play a Role in Youth's Poverty Alleviation? Evidence from Morocco. *Sustainability* 14: 11750. [CrossRef]

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.