

# Measuring youth empowerment: An application to Tunisia

Micheline Goedhuys<sup>1,2</sup>  | Michael Grimm<sup>3,4,5</sup> |  
Aline Meysonnat<sup>6</sup> | Eleonora Nillesen<sup>1,2</sup> | Ann-Kristin Reitmann<sup>3,7</sup> 

<sup>1</sup>Maastricht Economic and Social Research Institute on Innovation and Technology (UNU-MERIT), United Nations University, Maastricht, The Netherlands

<sup>2</sup>Maastricht University, Maastricht, The Netherlands

<sup>3</sup>School of Business, Economics and Information Systems, University of Passau, Passau, Germany

<sup>4</sup>Institute of Labor Economics (IZA), Bonn, Germany

<sup>5</sup>RWI Research Network, Essen, Germany

<sup>6</sup>Daniel J. Evans School of Public Policy and Governance, University of Washington, Seattle, Washington, USA

<sup>7</sup>Institute of Health Economics, Leibniz University Hannover, Hannover, Germany

## Correspondence

Micheline Goedhuys, Maastricht Economic and Social Research Institute on Innovation and Technology (UNU-MERIT), United Nations University, Boschstraat 24, 6211 AX Maastricht, The Netherlands.

Email: [goedhuys@merit.unu.edu](mailto:goedhuys@merit.unu.edu); [goedhuys@maastrichtuniversity.nl](mailto:goedhuys@maastrichtuniversity.nl)

## Funding information

This research was supported by funds from the International Labour Organization (ILO) in Geneva, Switzerland (TAQEEM Initiative). The ILO had no involvement in any stage of this study.

## Abstract

Youth empowerment has become a growing concern for achieving sustainable development worldwide. Yet, there is limited evidence on which domains of empowerment are important for youth and how they can be operationalized with indicators for measurement. We propose four domains of youth empowerment with corresponding indicators and use a well-established methodology for constructing a composite index. Using data from a household survey in Tunisia, we assess youth empowerment in the proposed domains and explore their relation to youth well-being. The proposed approach can help monitor youth empowerment in various contexts and evaluate the effectiveness of youth interventions.

## KEYWORDS

measurement, Middle East and North Africa region, multidimensional index, well-being, youth empowerment

This is an open access article under the terms of the [Creative Commons Attribution-NonCommercial](https://creativecommons.org/licenses/by-nc/4.0/) License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited and is not used for commercial purposes. © 2024 The Authors. *Journal of International Development* published by John Wiley & Sons Ltd.

## 1 | INTRODUCTION

Youth empowerment, that is, the ability of young people to take control over key aspects of their lives, has become an increasing concern across the Global South (United Nations Development Programme [UNDP], 2019) and has been widely recognized as an instrument to foster youth participation in decision-making to reach greater well-being among young adults (see, e.g., Morton & Montgomery, 2013). This is not only beneficial at the societal level but can also prevent the youth from feeling excluded from political and economic decision-making (Zimmerman, 1990), which may ultimately lead to a reduced chance of engaging in criminal activities or political and religious extremism.

The need to focus on youth has become particularly salient in the last decade, resulting in a strategy devoted to incorporating youth policies into the 2030 Agenda for Sustainable Development. This led to an increased effort to launch interventions aimed at strengthening educational opportunities and employment prospects for young people in general and also for young women in particular (Chinen et al., 2017; United Nations [UN], 2018). The interventions thus aim at jointly achieving youth and women's empowerment.

Yet, in contrast to women's empowerment, for which various measures with some agreement on important domains have been developed,<sup>1</sup> there has been less conceptual work in the area of youth empowerment. There is not yet a consensus on which domains of empowerment are salient for the youth and how these can be reasonably operationalized with indicators that can be derived from conventional household surveys. While interventions have typically focused on empowering youth through economic opportunities (Card et al., 2018; Kluge et al., 2019), evidence suggests that dimensions beyond the economic sphere might also be relevant for youth empowerment. This includes the ability to have control over the future, have personal freedom and assume leadership (Úcar Martínez et al., 2017). This paper addresses this gap by proposing a set of youth empowerment domains with concrete related indicators. By taking a multidimensional approach, we consider various aspects of life that are relevant to youth empowerment: control over the future, resources (including assets), personal freedom and leadership. We believe that this allows academics, practitioners and policymakers working with youth to compare empowerment levels across groups and measure progress in empowerment levels over time. Identifying the domains in which young people are (dis)empowered allows them to target youth challenges more effectively and measure the impact of policy interventions more accurately.

The proposed domains are not meant to be exhaustive; they can easily be expanded or reduced, depending on the context and the data at hand. We provide an illustration of how such indicators can be aggregated into one single index using the methodology of the Women's Empowerment in Agriculture Index (WEAI), developed by Alkire et al. (2013).

We apply the Youth Empowerment Index (YEI) to the context of Tunisia using a sample of young adults drawn from a nationally representative household survey that we conducted in 2017. We collected data on 722 youth within the age range of 18–30 years old. These were partly young people still residing in the household of their parents and partly young people who headed their own household. The survey was primarily designed to collect information on variables feeding into both the construction of women's and youth empowerment indices.

The results show that young men and women in Tunisia are particularly disempowered in dimensions covering economic aspects. These findings plausibly relate to the high unemployment rate for young people in Tunisia, which leads to low-income levels, low asset ownership and limited access to credit. We do not necessarily find large average differences between young men and women. Yet, gender differences are more pronounced among young independent couples, displaying an increased gender gap in numerous indicators as compared to young people still residing with their parents. This may point to more conservative gender norms for married women or selective migration out of the parental household. Finally, to assess the relevance of the proposed domains, we descriptively examine their link to youth well-being. The results of this relationship confirm that our domains of empowerment are relevant for youth's lives and are associated with their sense of self-efficacy, self-esteem and satisfaction in life.

The paper is structured as follows: Section 2 discusses the relevant literature on youth empowerment and existing measurement methodologies. Section 3 introduces four domains of youth empowerment and their

corresponding indicators. Section 4 discusses the data used. Section 5 describes the main results and presents one possibility to aggregate youth empowerment into one single index. Section 6 assesses the link between youth empowerment and well-being. The paper concludes in Section 7 by discussing the limitations of our analysis and possible extensions for future work.

## 2 | RELEVANT LITERATURE

In 2019, the world was home to 1.2 billion young people aged 15–24 years, accounting for 16% of the global population. By 2030, the youth population is projected to grow by another 7%, with the largest increases expected in less developed countries (UN, 2019). With 2030 also being the target date for achieving the Sustainable Development Goals, the active engagement of empowered youth in sustainable development has been acknowledged to be central to achieving sustainable, inclusive and stable societies (UN, 2018).

### 2.1 | Defining (youth) empowerment

Following Kabeer's (1999, p. 435) definition, where empowerment is a 'process by which those who have been denied the ability to make strategic life choices acquire such an ability', young people worldwide still face many obstacles to becoming empowered. The ability to exercise choice incorporates three dimensions: (i) resources: gaining access—or future claims—to material, human and social resources; (ii) agency: the capacity to define and influence decision-making on strategic life choices and act upon them; and (iii) achievements: meaningful improvements in well-being and other life outcomes (Kabeer, 1999). A primary obstacle related to youth empowerment identified by policymakers and practitioners is the lack of access to resources in the economic sphere, as a high number of young people are still experiencing poor education and employment outcomes (UN, 2018). This is particularly true in the Middle East and North Africa (MENA) region, where unemployment rates remain the highest in the world and, on average, one in four youth is unemployed. In Tunisia, 35.8% of youth are unemployed, making their economic situation particularly dire (World Bank, n.d.). Moreover, there are significant gender and regional disparities in Tunisia, with half of all young women not in education, employment or training (World Bank, 2014).

### 2.2 | Interventions targeting youth empowerment

All three dimensions of empowerment proposed by Kabeer (1999) are interrelated, and thus, the lack of access or future claims to (economic) resources may manifest in less agency and ultimately low achievements for youth. It follows that many interventions have focused on empowering youth economically by providing decent working opportunities through vocational, financial and business training and by generating life skills. Most studies evaluating these types of interventions look at their impact on economic empowerment, which is often measured using labour market outcomes such as a changed employment status, the type of employment and earnings. While some reviews reveal rather sobering effects of active labour market policies for youth in developed countries (e.g., Card et al., 2018), a recent review by Kluge et al. (2019) finds that youth employment interventions are particularly successful in low- and middle-income countries. Attanasio et al. (2011), for instance, evaluate the impact of a training programme offered to disadvantaged youth in Colombia and find that the programme raises earnings and employment for young women.

Yet, beyond pure economic empowerment, those youth projects may also affect non-economic spheres. So far, only a few studies have additionally evaluated the impact on non-economic outcomes. For instance, Blattman et al. (2012) study the impact of a cash transfer programme for young people in Uganda. Although the cash transfers were supposed to pay for vocational training, tools and business start-up costs, the programme's objective was not only to

enrich young adults but, moreover, to generally empower them. Besides labour market outcomes, the authors assess the impact on mental health and subjective well-being, as well as community participation and engagement.

## 2.3 | The various dimensions of youth empowerment

In other strands of the literature, the concept of youth empowerment has been assessed from a pure psychological sphere. Psychological empowerment is considered a key mechanism by which individuals become stronger and more confident to gain greater control over their lives, which is typically associated with greater participation in democratic decision-making processes and an increased awareness of their social and political environments (Christens et al., 2011; Perkins & Zimmerman, 1995). Zimmerman and Zahniser (1991) propose the Sociopolitical Control Scale to measure psychological empowerment; the scale comprises 17 items that include questions on the political efficacy, self-efficacy, desirability of control, perceived competence and civic duty scales. This scale has been modified for use among youth (see, e.g., Powell et al., 2021).

The outlined evidence suggests that, despite being ubiquitous, the concept of youth empowerment is not clear-cut and that there are large heterogeneities in the relevant dimensions depending on the context or research discipline. Úcar Martínez et al. (2017) explore the concept of youth empowerment from various angles in a systematic literature review and identify the following main dimensions that have been associated with youth empowerment so far: the personal growth and well-being dimension, the relational dimension, the educational dimension, the political dimension, the transformative dimension and the emancipative dimension. Yet, low consensus exists on a specific choice of indicators that may be used to measure empowerment achieved in each dimension and how all dimensions can be combined into a holistic index for measuring youth empowerment.

Progress in that area has only been made on the level of cross-country comparisons. This includes, for instance, the Youth Development Index, which emphasizes the importance of youth empowerment. It covers the following five domains: education, health and well-being, employment and opportunity, political participation, and civic participation. The composite index is based on 18 indicators that collectively measure the progress of youth development on a country level (The Commonwealth, 2016). The Youth Wellbeing Index covers similar domains (education, health, economic opportunity, citizen participation, information and community technology, safety and security) but consists of 40 indicators measuring the well-being of young people on a national level (Goldin et al., 2014). Finally, the Youth Progress Index explicitly aims to assess youth empowerment independent of economic indicators. Each country gets a score on how well it meets basic human needs and the foundations of well-being and opportunity (European Youth Forum, n.d.). While these indices give an overview of the aggregate level of youth empowerment within a country, they are less suited to measure it at the individual level.

To assess youth empowerment among various dimensions on the individual level, we believe a measure that moves beyond existing indicators (e.g., labour market outcomes solely) and indices that focus only on one dimension (e.g., psychological empowerment) is necessary. We develop a composite measure that uses indicators that can be derived from typical household surveys and that incorporates various aspects of life relevant to youth. This includes economic dimensions and access to resources, as well as leadership and indicators linked directly to quality of life. The goal is to equip actors in policy and research to identify critical areas of youth empowerment and measure and compare youth empowerment levels over time.

## 3 | MEASURING YOUTH EMPOWERMENT

The YEI we propose was developed as part of the 'Women's and Youth Empowerment in Rural Tunisia' study commissioned by the International Labour Organization (ILO) (Ghali et al., 2018) and is an adaptation of the WEAI developed by Alkire et al. (2013).

### 3.1 | Using the WEAI as a starting point

In the WEAI, women's empowerment is measured along five domains of empowerment (5DE): production, resources, income, leadership and time use. Each of these domains receives an equal weight of 1/5. The domains are measured by several sub-indicators, which are given equal weight within the domain. In contrast to the WEAI, which measures both absolute empowerment of women and relative empowerment of women in relation to the primary male in the household, we limit ourselves to an absolute YEI. The primary reason is that there is no obvious benchmark against which to compare the empowerment of a young person. It is questionable whether the comparison to older or younger people is meaningful, as certain decisions, such as educational choice (regarding older people) or family planning (regarding younger people), are not as relevant in the respective age group. Thus, we limit the measurement of youth empowerment to absolute empowerment and assess to what extent a young person has the ability to decide on issues that are key to taking control over his or her life. This includes the educational or professional career, the ability to access credit or the ability to participate in social life. The index can be used to make comparisons across different groups (e.g., rural vs. urban) or to track the progress of youth empowerment in a particular group over time.

### 3.2 | The four domains of the YEI

Table 1 shows the domains chosen to measure youth empowerment, the indicators used within each domain and their respective weights. Each of the four domains receives a weight of 1/4, which is equally distributed among the indicators within each domain. For example, since the resource domain has three sub-indicators, each sub-indicator receives a weight of 1/12.

There are two main differences to the WEAI methodology. First, as mentioned above, we do not measure relative empowerment, and second, we restrict ourselves to four domains of empowerment. In addition, we adapt the domains of empowerment to a youth context and go beyond measuring empowerment among women in agricultural and rural areas. The YEI is assumed to be applicable to both rural and urban youth. The proposed index is multidimensional and covers the following four domains that affect youth's ability to take control over key aspects of their lives.<sup>2</sup>

#### 3.2.1 | Control over the future

The domain 'control over the future' measures to what extent young people feel they have the ability to determine key aspects that relate to their future opportunities—largely in the economic sphere. Three indicators measure this

**TABLE 1** Domains, indicators and weights for the YEI.

Four domains of empowerment (4DE)	Indicators	Weight
Control over the future	1. Activity status	1/12
	2. Decisions about employment	1/12
	3. Decisions about education	1/12
Resources	4. Household assets	1/8
	5. Access to and decisions on credit	1/8
Leadership	6. Group membership	1/12
	7. Use of social media	1/12
	8. Speaking in public	1/12
Personal freedom	9. Choice of partner/children	1/12
	10. Interaction with friends	1/12
	11. Hobbies	1/12

domain: activity status, decisions about employment and decisions about education. The first indicator—activity status—captures whether a person was employed either as a wage worker or self-employed in the last 12 months or was enrolled in an educational institution or in vocational training at the time of the interview. We deem this indicator important to empowerment for two reasons. First, education opens important pathways to future opportunities in other dimensions such as employment, health or citizen participation. Second, employment is an important means to achieve financial stability and an adequate standard of living (e.g., Goldin et al., 2014). If the interviewed youth fulfil the above-mentioned criteria, we consider this person to be empowered regarding the (current) activity status. Young people working without a salary, for example, working unpaid as an apprentice or for a family business, are not considered empowered. One could argue that young people may have little control over their education or employment status, but also the respective type and area. For this reason, we add the second and third indicators to this domain to account for the level of agency in that matter. For the second indicator, respondents were asked whether they could (generally) freely decide over aspects related to their employment. Respondents who reported that they could (somewhat or completely) freely decide their employment were considered empowered. A similar cut-off was chosen for the last indicator in this domain: decisions about education. If a respondent reported being (generally) able to freely choose which education to pursue, s/he is considered empowered.

### 3.2.2 | Resources

The second domain determines ownership or access to economic resources, such as household assets. This domain finds direct standing in Kabeer's (1999) empowerment framework, though beyond material resources, it extends to human and social resources, which we cover in other domains. For our purposes, both access to and future claims on these assets count. Even though young people living with their parents may currently not own these assets themselves, they might either directly benefit from their use or indirectly benefit from growing up in a wealthier household. Specifically, we elicit whether (at the time of the interview) a household has assets such as land for construction or agriculture, a house, a non-agricultural economic activity or a business, cattle or a motorized vehicle. These assets may allow youth to increase their productivity and incomes to ultimately generate value for society (Arslan et al., 2021). If a young person lives in a household with one or several of these assets, s/he is considered empowered. Access to and decisions on credit constitute the second indicator in this domain. For this indicator, we elicit whether a person has taken a credit in the previous 12 months or generally has the possibility to take a credit if s/he wishes to. A person is empowered if s/he did have the possibility to take a credit, and if so, whether s/he was able to decide over its use and is responsible for repayment.

### 3.2.3 | Leadership

The 'leadership' domain is divided into three indicators: group membership, use of social media and speaking in public. Civic and social groups provide important networks and social capital for young people, yet access to them, particularly in rural areas, is often lacking. For this indicator, we consider civic groups, cultural associations, sports clubs, political parties and religious associations. A young person is considered empowered if s/he feels (generally) free to join at least one of the listed groups. In the MENA region, and in particular in Tunisia, social media plays a crucial role in how young people communicate. The platform Facebook is especially popular among youth; in 2017, 6.4 million Tunisians (54.9% of the population) used Facebook, of which only 17% are more than 35 years old (Miniwatts Marketing Group, n.d.). A young person is considered empowered if (at the time of the interview) s/he actively participates in online discussion forums or uses at least one of the most common social media platforms (i.e., Twitter, Facebook, Instagram or LinkedIn). The last indicator determines whether a person is free to speak in public. A lack of possibilities for civic engagement may curb youths' frustration, which could lead to social instability and, in extreme

cases, extremist behaviour (The Commonwealth, 2016). This indicator is particularly relevant for the Tunisian youth, as even though they played a leading role in bringing change to the regime during the Arab Spring, young people have hardly been heard in political decision-making on issues that directly affect them (World Bank, 2014). For the YEI, a young person is considered empowered if s/he feels free to speak in public or can be a candidate for a position in politics or in a social institution.

### 3.2.4 | Personal freedom

The fourth dimension of the YEI measures 'personal freedom', which is determined by three indicators: the choice of partner and children, interaction with friends and the choice of hobbies. In the MENA region, spouses are often chosen or need to be approved by the family. An important aspect of empowerment is the ability to choose one's own spouse or partner and, if the person is already married, to engage in family planning and decide on how many children to have. The first indicator considers the ability to choose a spouse and engage in family planning. If a person is (generally) free or free to some extent to decide on their own family composition, we consider the person empowered. The second indicator measures the freedom of a young person to interact with friends. This indicator might be especially problematic for young women who might not be able to go out with friends of the opposite sex or a mixed group of friends. A person is considered empowered if s/he is (generally) free or free to some extent to go out with a group of friends of the same sex or a mixed group. The final indicator in this domain looks at whether a person is (generally) free to choose his or her own hobbies. If a person is free or free to some extent to decide on his or her hobbies, the respondent is considered empowered.

## 3.3 | Calculation of the YEI

The absolute empowerment index is calculated using the Alkire–Foster method. It aggregates the information from the 11 indicators described in Table 1 and mirrors youth's achievements in each indicator and domain. In its disaggregated form, it can identify specific areas that need improvement. Alkire et al. (2013) construct a 5DE index for the WEAI, which is determined by the percentage of empowered women, the percentage of disempowered women and the percentage of domains in which disempowered women have adequate achievements. For the YEI, we construct a 'four domains of empowerment (4DE)' index as a measure of youth empowerment.<sup>3</sup> Empowered means that a young person has adequate achievements in at least three of the four domains or is empowered in a combination of the weighted indicators that make up at least three quarters of the total.

The stepwise approach to calculating the 4DE index is to identify the disempowered and then calculate the disempowerment index across the four domains ( $M_{0y}$ ). First, all indicators are coded such that a respondent receives a value of 1 if s/he has inadequate achievements in this indicator and 0 otherwise. Next, an inadequacy score is computed by summing the weighted inadequacies of each person using the weights in Table 1. The inadequacy score of each individual will thus lie between 0 and 1. If a respondent displays inadequacies across all indicators, s/he will have a maximum score of 1. If the respondent has no inadequacy in any indicator and is therefore empowered over the entire set of indicators, the score will be zero. A second cut-off is introduced to define who is disempowered. It is determined by the share of weighted inadequacies a young person must have to be considered disempowered. If a young person's inadequacy score exceeds the disempowerment cut-off of 0.25, s/he is considered disempowered, and the score is replaced by 0. With an inadequacy score below or equal to 0.25, meaning s/he has adequate achievements in at least three quarters of the weighted indicators, the person is considered empowered. A higher disempowerment cut-off point would result in a lower number of disempowered individuals, whereas a lower cut-off point would imply a higher number of disempowered individuals. The difficulty lies in finding an adequate cut-off point. Following Alkire et al. (2013), we emphasize that the YEI should be used to track changes in youth's (dis)

empowerment over time or to compare the level of empowerment across different groups of young people. Thus, we choose an adequacy cut-off that results in empowerment baseline indices that allow for reasonable improvement over time.<sup>4</sup> After having identified the disempowered, one can calculate the 4DE index according to

$$4DE = H_{ey} + (H_{ny} \times A_{ay}), \quad (1)$$

where

$$H_{ey} + H_{ny} = 100\% \text{ and } 0 < A_{ay} < 100\%.$$

$H_{ey}$  is the percentage of empowered youth,  $H_{ny}$  is the percentage of disempowered youth and  $A_{ay}$  is the percentage of domains in which disempowered youth have adequate achievements. The 4DE yields a value between 0 and 1, where higher values indicate greater empowerment. According to Equation (1), increasing the number of empowered youth or increasing the number of domains in which disempowered youth are empowered increases the 4DE index. By noting that  $H_{ny} = 1 - H_{ey}$  and  $A_{ay} = 1 - A_{ny}$  and inserting both into Equation (1), it could also be rewritten as

$$4DE = 1 - M_{oy} = 1 - (H_{ny} \times A_{ny}), \quad (2)$$

where  $M_{oy}$  is the disempowerment index, which is the product of the percentage of disempowered youth ( $H_{ny}$ ) and the percentage of domains in which disempowered youth have inadequate achievements ( $A_{ny}$ ).

## 4 | DATA

We use a representative cross-sectional dataset that was designed to measure women's and youth empowerment in Tunisia.<sup>5</sup> It included survey questions related to the domains of the WEAI and our new youth empowerment measure described in Section 3.

The data collection was implemented by a local survey firm and took place between September and November 2017. We collected data among 1150 households, which were selected based on a stratified random sampling strategy. The stratification took place at the level of governorates, delegations and sectors. Sectors are the smallest administrative units in Tunisia. In total, all 24 governorates were covered, and 115 sectors were randomly selected, of which 48 were rural and 67 were semi-urban or urban. In each sector, 10 households were selected randomly and surveyed. In each household, the household head, his spouse and up to two young adults aged 18–30 years living in the household were interviewed. If there were more than two young adults, two adults were randomly selected. We have full information on a sample of 2511 individuals, of which 722 are youth between 18 and 30 years of age. Of these 722 young adults 363 are female. The survey is representative at the level of households (or household heads), but not for the population in general, as the sampling strategy did not draw a representative sample of household members in each household. Some key descriptive statistics for our youth sample are shown in Table 2.

Statistical analyses were conducted in STATA 15.1 (StataCorp LP).

## 5 | RESULTS

### 5.1 | The absolute YEI

Table 3 displays the results for the absolute YEI in Tunisia, which is 0.75 for young women and 0.80 for young men. Sixty-one per cent of young women and 49% of young men are disempowered and do not reach the critical



**TABLE 2** Descriptive statistics of the youth sample.

	Men		Women		Total	
	Mean	SD	Mean	SD	Mean	SD
<i>Demographics</i>						
Rural area	0.30	0.46	0.37	0.48	0.33	0.47
Coastal	0.60	0.49	0.58	0.49	0.59	0.49
Age	23.97	3.58	24.20	3.55	24.08	3.57
Married	0.05	0.22	0.28	0.45	0.16	0.37
Living in independent (own) household	0.09	0.29	0.25	0.44	0.17	0.38
Living in parents' households	0.91	0.29	0.75	0.44	0.83	0.38
Household size	4.57	1.43	4.51	1.43	4.54	1.43
<i>Level of education</i>						
No education	0.02	0.13	0.03	0.17	0.02	0.15
Primary education	0.31	0.46	0.18	0.39	0.25	0.43
Secondary education	0.45	0.50	0.42	0.49	0.44	0.50
Tertiary or higher education	0.22	0.41	0.37	0.48	0.29	0.45
<i>Employment status (last 12 months)</i>						
Wage worker	0.35	0.48	0.19	0.39	0.27	0.44
Entrepreneur/independent worker/farming	0.15	0.36	0.02	0.14	0.09	0.28
Unemployed	0.37	0.48	0.34	0.48	0.36	0.48
Inactive	0.29	0.46	0.53	0.50	0.41	0.49
Observations	359	363		722		

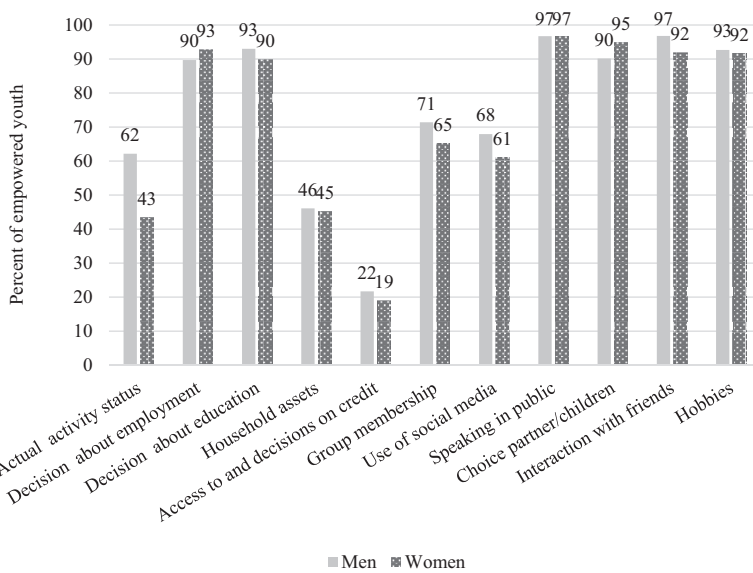
**TABLE 3** Absolute YEI.

Indices	Youth Tunisia	
	Women	Men
Disempowered headcount ( $H_{ny}$ ), %	61.32	49.45
Average inadequacy score ( $A_{ny}$ ), %	40.83	40.47
Disempowerment index ( $M_{0y}$ )	0.25	0.20
4DE index ( $1-M_{0y}$ )	0.75	0.80
Observations	359	363

threshold of empowerment. On average, disempowered men and women have inadequate achievements in 40% of the domains.

## 5.2 | Disaggregation by indicators

Figure 1 disaggregates the results into the different indicators. We find that young people are primarily disempowered in the domain that is related to economic opportunities. The lowest level of empowerment is in the area of access to and decisions on credit. More than three quarters of young men and women do not reach the critical



**FIGURE 1** Percentage of empowered young men and women in Tunisia, by indicator.

threshold of empowerment in this dimension. More than half of all young people live in households with relatively few assets, with little difference in empowerment between men and women. On the actual activity status indicator, a different picture emerges. Only 43% of young women are empowered by this indicator, compared to 62% of men. This result emerged already from the descriptive statistics presented in Table 2, showing that women and men seem equally likely to be unemployed, but women are more likely to be economically inactive compared to men. Surprisingly, young people are also disempowered by the ‘group membership’ indicator. A plausible reason could be that there are not many groups offered in Tunisia, which is especially the case in rural areas. These findings are largely in line with findings by the World Bank (2014), which identify access to economic opportunities—particularly for young women—and youth-friendly services at the local level as key youth policy targets to facilitate youth inclusion.

Young Tunisian men and women are fairly empowered in indicators that relate to the choice of education or jobs. A similar result holds for the domain of ‘personal freedom’, which measures whether young people are free to choose their hobbies, their partners, engage in family planning and interact with friends. In these indicators, more than 90% of youth are empowered. The exception is the use of social media and access to the internet, as less than 70% of young people are empowered by this indicator. Given the popularity of social media in Tunisia and the high penetration of Facebook among youth, one could expect youth to be more empowered in this indicator. With a third of Tunisia’s youth reporting to be disempowered, it might be that access to the internet is most prevalent in urban areas, restricting the access of the rural youth.

### 5.3 | Youth empowerment across different groups

Our method allows us to compare empowerment levels across different groups within Tunisia. Table 4 disaggregates the results further into regional differences, education and position in the household. Urban and rural youth are equally empowered in most indicators. Some disparity in empowerment is salient in the economic activity indicator, where rural young men are 17 percentage points less empowered than urban young men. This result is related to the scarcity of economic opportunities in rural areas and the inequality that persists between rural and urban areas and between coastal and non-coastal areas in Tunisia (Ramadan et al., 2018). Regional differences can also be observed

for the indicators of group membership and use of social media, where young women in rural areas seem to be less empowered. By contrast, young men are more empowered in rural areas than in urban areas in terms of assets, mainly because agricultural assets and the cattle of the household are present. Educated youth are more likely to be empowered across all indicators, but particularly in the use of social media. This might be because young people at universities are more likely to have internet access and are more exposure to social media.

An interesting comparison can be made between youth who still live at home and youth who live in their own household, probably after marriage or when starting to study. The gender gap increases for those young adults who moved out of their parents' home for various indicators. Sixty-one per cent of young men and 52% of young women living in their parents' house are empowered in their actual activity status, implying a gender gap of 9 percentage points. For youth who are married and heading their own household, this gender gap increases considerably; the empowerment level for young men goes to 78% but decreases for young women to 19%. Moving out of their parent's home seems to exacerbate traditional gender roles, where once a woman sets up her own household, she is expected to raise children and do household chores, reducing women's labour market participation (Ayed et al., 2017; Dildar, 2015).

Table 4 shows that women living independently are less empowered compared to women still living in their parent's households on many indicators, but especially in their actual activity status, decisions about employment, use of social media and interaction with friends. This result may relate to the fact that once governing their own household, women have less time for social activities as they are pre-occupied with managing household chores. In contrast, men become more empowered by indicators related to economic opportunities, such as actual activity status, access to and decisions on credit. Comparing dependent and independent youth shows that the gender gap increases significantly on various indicators once young people move into their own households. Empowerment in the household asset domain goes down for independent youth because a newly set-up household will probably have fewer assets available than the household of their parents.

To test whether traditional gender roles intensify once young people set up their own household, we measured gender attitudes in a sub-sample of households using seven statements related to gender inequality (see Table 5).

Respondents answered these statements using a 5-point Likert scale (1 = *strongly agree* to 5 = *strongly disagree*). Next, we calculated the share of respondents 'agreeing' with a specific statement, where 'agreeing' means that respondents either answered they strongly agree, agree or were indifferent. Higher shares of agreement then represent more conservative gender attitudes. Table 5 shows that young men and women who live in their parents' homes are on average less conservative than those who set up their own households. Independently of household status, young men are more likely to adhere to traditional gender roles than young women. Almost three quarters of young men and more than 60% of women believe that men should have final decision-making power and that young women should obey their brothers, while agreement with the statement that men should take decisions with respect to women's education is less prevalent. These findings are in line with the argument that gender roles intensify once young people move out of their parents' home.

## 5.4 | Individual correlates of youth empowerment

To analyse the correlates of youth empowerment further, we conduct a multivariate ordinary least squares (OLS) regression on the share of indicators an individual is empowered in by adding variables such as gender, household status, age and education (see Table 6). Young women are empowered in fewer indicators than young men, but this effect is mainly driven by the lower empowerment levels of married young women. Youth living in coastal areas and with higher education are empowered in more indicators, while living in a large household decreases the share of empowerment. Separating our youth sample by gender shows that young women in their independent households are less empowered than young women living in their parents' households. This is not observed for young men. For young women, both secondary education and tertiary education are positively associated with a higher share of

TABLE 4 Percentage of empowered young men and women, by region, education and household status.

Region	Actual activity status %	Decision about employment %	Decision about education %	Household assets %	Access to and decisions on credit %	Group membership %	Use of social media %	Speaking in public %	Choice of partner/ children %	Interaction with friends %	Hobbies %	Obs.
Urban												
Men	67.26	89.69	92.83	42.60	21.52	71.75	71.75	96.86	89.69	97.31	92.38	223
Women	47.45	94.90	91.84	43.37	18.88	70.41	68.88	96.94	94.90	94.39	92.86	196
Rural												
Men	50.00	89.71	93.38	54.41	22.06	70.59	58.82	96.32	91.18	95.59	93.38	136
Women	36.53	89.22	86.23	48.50	19.16	56.29	47.90	96.41	94.61	87.43	89.22	167
Education												
Primary												
Men	58.12	88.03	93.16	49.57	23.08	72.65	54.70	98.29	89.74	97.44	92.31	117
Women	29.58	92.96	83.10	47.89	14.08	56.34	26.76	97.18	97.18	85.92	91.55	71
Secondary												
Men	60.87	87.58	91.30	45.34	21.12	70.81	65.22	95.65	90.06	94.41	91.93	161
Women	45.70	92.05	91.39	41.06	21.85	56.29	60.93	98.01	93.38	90.73	91.39	151
Tertiary												
Men	68.00	96.00	96.00	48.00	22.67	73.33	89.33	97.33	90.67	100.00	94.67	75
Women	48.06	93.80	92.25	51.94	19.38	78.29	79.84	96.12	94.57	95.35	92.25	129
Household status												
Independent HH												
Men	77.87	90.67	88.29	38.39	37.31	51.19	65.08	94.14	100.00	91.76	90.67	31
Women	19.09	84.62	88.01	42.59	21.29	59.15	39.83	93.22	100.00	82.02	87.15	93
Parental HH												
Men	60.59	89.59	93.46	46.86	20.12	73.43	68.22	96.96	89.14	97.31	92.87	328
Women	51.74	95.60	90.36	46.18	18.19	67.26	68.42	97.95	93.01	95.17	93.01	270

**TABLE 5** Gender inequality statements, by household status.

	Share 'agreeing'				
	IHM	IHW	PHM	PHW	Total
(1) A man should have the final word about important decision in the home	0.80	0.63	0.72	0.65	0.68
(2) Men should decide whether a woman can work outside the house	0.72	0.56	0.59	0.46	0.54
(3) Jobs should rather be given to men than to women	0.80	0.62	0.68	0.51	0.61
(4) Men should take the decision with respect to a woman's education	0.65	0.35	0.49	0.32	0.42
(5) Men should decide where a woman can go to and when	0.80	0.43	0.63	0.37	0.51
(6) Doing the cooking, cleaning and washing is a woman's responsibility	0.65	0.63	0.62	0.55	0.59
(7) A young woman should obey her brother(s)	0.72	0.57	0.76	0.63	0.68
Observations	14	46	141	121	322

Note: 'Agreeing' includes the response categories 'strongly agree', 'somewhat agree' or 'indifferent'.

Abbreviations: IHM, 'living in independent household, men'; IHW, 'living in independent household, women'; PHM, 'living in parents' households, men'; PHW, 'living in parents' households, women'.

empowerment, while for men, only tertiary education is positively related to the share of empowerment. Running the multivariate analysis on the indicators of empowerment separately shows the most striking result for the actual activity status, where young married women are significantly less empowered (see Table S2).

## 6 | YOUTH EMPOWERMENT AND WELL-BEING

In addition to questions related to empowerment, we asked youth about their overall well-being, following the framework of Kabeer (1999), who states that the 'ability to achieve meaningful improvements in well-being and other life outcomes' is a key dimension of choice. We measure well-being at the individual level, using three psychological scales related to self-efficacy, self-esteem and life satisfaction, and link these to our youth empowerment domains.

### 6.1 | Measures of well-being

The New General Self-Efficacy (NGSE) scale is an eight-item measure capturing people's beliefs that they can achieve their goals despite encountering difficulties (Chen et al., 2001). Respondents have to state how much they agree with eight statements using a 5-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*).<sup>6</sup> Scores are summed and averaged over all items and kept on a continuous scale. Higher scores indicate higher general self-efficacy.

The second scale is based on Rosenberg's (1965) Self-Esteem (SE) scale and measures the confidence one has in one's own worth and abilities. The scale consists of five statements, which respondents have to answer using a 4-point Likert scale (1 = *strongly agree* to 4 = *strongly disagree*).<sup>7</sup> Scores are summed and averaged over all items and kept on a continuous scale. Higher scores indicate higher levels of self-esteem.

Finally, we asked the youth about their life satisfaction at present, before the 2011 revolution and 5 years from now, using the following statements: Overall, to what extent are you currently satisfied with (1) your life in general, (2) your life before the revolution and (3) what will be the life satisfaction you expect in 5 years from now? Items are scored using a 5-point Likert scale (1 = *very dissatisfied* to 5 = *very satisfied*). Higher scores indicate higher life satisfaction. We consider each statement separately.

Figure 2 shows that young women and men in Tunisia believe that they can reasonably achieve their goals, with the average NGSE score higher than 3.5. Young men and women also have relatively high self-esteem but are, on

**TABLE 6** Share of indicators a young person is empowered in.

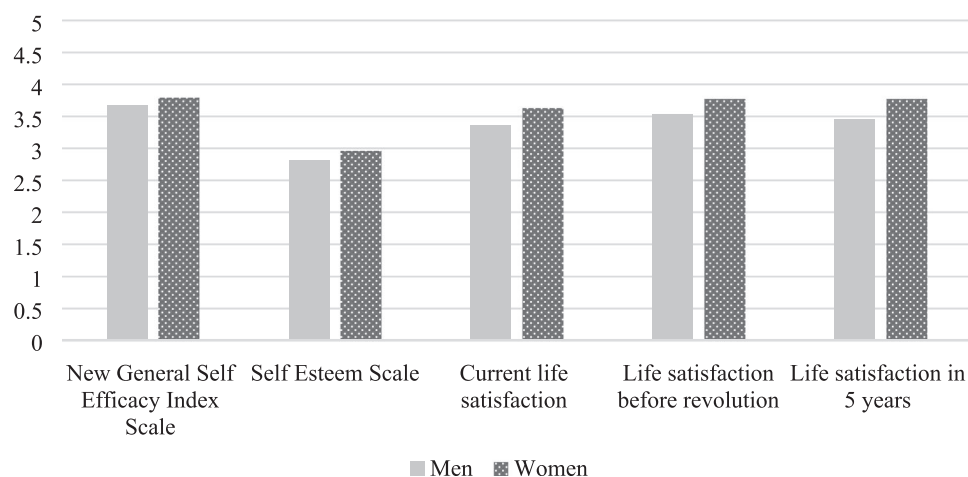
	(1)	(2)	(3)	(4)	(5)
	EMP SHARE	EMP SHARE	EMP SHARE	EMP SHARE FEMALE	EMP SHARE MALE
Female	-0.03*** (-2.92)	-0.01 (-0.87)	-0.02 (-1.54)		
Independent HH		-0.00 (-0.09)	-0.03 (-0.98)	-0.08*** (-3.68)	-0.04 (-1.32)
Female ×		-0.09*** (-2.67)	-0.07** (-2.19)		
× Independent HH					
Rural			-0.02 (-1.41)	-0.03* (-1.72)	-0.01 (-0.36)
Coastal			0.03*** (2.70)	0.02 (1.32)	0.04** (2.44)
Household size			-0.01** (-2.24)	-0.01 (-1.65)	-0.01 (-1.61)
Age (years)			0.00 (0.71)	-0.00 (-1.01)	0.00* (1.77)
Primary education			0.10** (2.31)	0.09 (1.49)	0.08 (1.20)
Secondary education			0.11** (2.57)	0.12** (2.14)	0.08 (1.20)
Tertiary or higher education			0.16*** (3.71)	0.17*** (3.08)	0.13* (1.90)
Constant	0.75*** (87.61)	0.75*** (84.95)	0.63*** (9.23)	0.71*** (7.50)	0.58*** (5.97)
Observations	722	722	722	363	359
R <sup>2</sup>	0.01	0.05	0.13	0.18	0.08

Note: Robust *t*-statistics in parentheses, clustered at the household level. EMP SHARE denotes the share of indicators a young person is empowered in. For education, 'no education' is the reference category.

\*\*\* $p < 0.01$ . \*\* $p < 0.05$ . \* $p < 0.1$ .

average, neither satisfied nor dissatisfied with their lives. Life satisfaction is reported to have been slightly higher before the revolution and is also projected to be slightly higher in 5 years, both compared to life satisfaction at present. However, these differences are very small and are statistically not significant at conventional levels. Table S3 shows that the urban youth score slightly higher on all well-being indicators than the rural youth. More educated youth exhibit self-efficacy and self-esteem.

Young women believe that they are more capable of achieving their goals, have higher self-esteem and are generally more satisfied in life than young men (see Figure 2). This contrasts with their earlier observed lower empowerment levels in key economic dimensions such as their activity status, access to household assets, and access to and decisions on credit.



**FIGURE 2** Well-being indicators for young men and women in Tunisia.

**TABLE 7** Youth well-being and empowerment.

	(1) NGSE	(2) SE	(3) LS	(4) NGSE	(5) SE	(6) LS
Female	0.12* (1.70)	0.13*** (2.91)	0.19* (1.79)	0.06 (0.99)	0.12*** (2.60)	0.14 (1.33)
Independent HH	-0.00 (-0.01)	0.08 (0.73)	0.19 (0.79)	-0.07 (-0.45)	0.09 (0.81)	0.13 (0.53)
Female ×	-0.03 (-0.18)	-0.01 (-0.11)	0.23 (0.89)	0.09 (0.55)	0.01 (0.06)	0.21 (0.79)
× Independent HH						
Rural	0.04 (0.55)	-0.02 (-0.47)	-0.03 (-0.26)	0.05 (0.73)	-0.02 (-0.51)	-0.05 (-0.50)
Coastal	0.26*** (3.85)	0.04 (0.99)	0.03 (0.26)	0.23*** (3.57)	0.02 (0.55)	0.07 (0.64)
Household size	0.01 (0.54)	-0.01 (-0.59)	0.06* (1.66)	0.01 (0.36)	-0.01 (-0.62)	0.04 (1.04)
Age (years)	-0.01 (-0.81)	-0.02** (-2.47)	-0.04** (-2.38)	-0.02* (-1.87)	-0.02*** (-2.73)	-0.04** (-2.32)
Primary education	0.39* (1.87)	0.26* (1.87)	0.41 (1.54)	0.32 (1.62)	0.22 (1.50)	0.45* (1.72)
Secondary education	0.47** (2.36)	0.33** (2.38)	0.43 (1.58)	0.38* (1.92)	0.28** (1.98)	0.52** (2.01)
Tertiary or higher education	0.71*** (3.46)	0.45*** (3.15)	0.52* (1.93)	0.60*** (3.04)	0.37** (2.53)	0.68** (2.56)
Wage worker, last 12 months	0.01 (0.09)	0.10* (1.95)	-0.07 (-0.65)	0.04 (0.50)	0.10** (2.01)	-0.01 (-0.12)

(Continues)

TABLE 7 (Continued)

	(1) NGSE	(2) SE	(3) LS	(4) NGSE	(5) SE	(6) LS
Entrepreneur/independent worker, last 12 months	0.28** (2.57)	0.08 (1.06)	0.30* (1.74)	0.26*** (2.63)	0.05 (0.64)	0.36** (2.04)
Unemployed, last 12 months	-0.05 (-0.74)	-0.04 (-0.96)	-0.21** (-2.00)	-0.05 (-0.81)	-0.03 (-0.69)	-0.19* (-1.78)
Decision about employment				0.45*** (3.41)	0.12 (1.50)	0.09 (0.45)
Decision about education				0.21* (1.78)	0.10 (1.42)	-0.25 (-1.64)
Household assets				0.01 (0.14)	0.12*** (2.73)	0.04 (0.42)
Access to and decisions on credit				0.21*** (2.95)	-0.00 (-0.03)	-0.33** (-2.58)
Group membership				-0.16** (-2.35)	0.01 (0.12)	-0.17 (-1.65)
Use of social media				0.17** (2.25)	0.06 (1.41)	-0.20* (-1.82)
Speaking in public				0.36** (2.51)	0.19 (1.33)	0.66** (2.29)
Choice of partner/children				0.31** (2.54)	0.16* (1.75)	0.25 (1.15)
Interaction with friends				-0.31* (-1.94)	-0.01 (-0.13)	-0.19 (-0.87)
Hobbies				0.05 (0.41)	-0.01 (-0.08)	-0.24 (-1.36)
Constant	3.12*** (9.39)	2.84*** (13.34)	3.57*** (7.31)	2.46*** (6.36)	2.34*** (9.05)	3.52*** (6.09)
Observations	714	709	707	714	709	707
R <sup>2</sup>	0.07	0.06	0.05	0.17	0.16	0.09

Note: Robust t-statistics in parentheses, clustered at the household level. NGSE denotes the 'New General Self-Efficacy' scale index [1, 5]. SE denotes the 'Self-Esteem' scale [1, 4]. LS denotes life satisfaction at the time of the interview [1, 5]. For education, 'no education' is the reference category.

\*\*\* $p < 0.01$ . \*\* $p < 0.05$ . \* $p < 0.1$ .

## 6.2 | The relation between youth empowerment and well-being

To look at the relationship between empowerment and well-being in greater detail, we relate the psychological well-being scores to the empowerment indicators of the YEI. We perform a multivariate OLS regression, adding gender, household status, education and household size as additional variables. Columns (1)–(3) in Table 7 show that young women feel consistently more capable of achieving their goals, have higher self-esteem and are generally more satisfied with life than young men. Youth in coastal areas have higher levels of self-efficacy. Well-being indicators seem higher for the younger respondents and for the more educated. In particular, young people with a tertiary degree feel



that they are more capable of accomplishing their goals, have higher self-esteem and are more satisfied in life. Not surprisingly, young entrepreneurs feel that they can achieve their goals, presumably a prerequisite to starting their own company, and are more satisfied in life. Unemployment decreases life satisfaction significantly.

Next, we estimate the relationship between youth well-being and empowerment, adding the empowerment indicators as additional variables. We omit the actual activity status indicator as it largely overlaps with the education and employment covariates used in columns (1)–(3). Column (4) shows the relationship between empowerment indicators and the NGSE score. Being empowered in decisions about employment, education, credit, use of social media, speaking in public and choice of partner and children is positively correlated with the feeling of being capable of achieving one's goals. Empowerment in group membership and interaction with friends is negatively associated with the NGSE score. It could be that feelings of despair that arise when economic opportunities are missing are also shared in peer groups and nurture feelings of inability to achieve a goal. Self-esteem increases when being empowered with regard to the choice of partner and children, and if a young adult lives in an asset-rich household. Life satisfaction is negatively associated with access to credit and use of social media and positively with speaking in public.

## 7 | CONCLUSION AND DISCUSSION

Given the many economic and political challenges young adults face in the MENA region in general and Tunisia in particular, interventions targeted at youth have been an increased focus of policymakers at both a national level and an international level. However, comprehensive youth empowerment measures that could be used in programme evaluations remain scarce. While most policy interventions focus on empowering youth along the economic dimension through youth employment programmes, it must be acknowledged that youth empowerment is a complex, multidimensional concept that encompasses not only whether young people have decision-making power over their economic resources but are also able to decide on key aspects of their lives such as education, occupational choice, marriage, leadership and personal freedom.

In this paper, we have adapted a prominent measure of women's empowerment, the multidimensional WEAI as developed by Alkire et al. (2013), to the context of youth empowerment. We defined four empowerment domains that we deemed all important for young people to be able to make decisions: control over the future, resources, leadership and personal freedom. In contrast to the WEAI, we only define absolute empowerment levels across these domains. Yet in the same way, the YEI can be used to compare empowerment levels across different groups of young people within Tunisia or to track the progress of empowerment over time. In addition, this index is not strictly refined to agriculture but aims at measuring empowerment levels in both an urban context and a rural context. A particular advantage of the index is that it allows policymakers to identify the dimensions and indicators along which youth are disempowered. Focusing attention and financial resources on those dimensions can thereby increase the efficiency of policy interventions. Additionally, to further enhance efficient targeting, the index can be disaggregated by gender and reveal areas in which gender gaps might be particularly salient.

Applying the YEI to a sample of 722 young adults in urban and rural areas in Tunisia, we find that youth are highly disempowered in the indicators related to economic opportunities, such as labour market participation, access to credit and household assets, while they are fairly empowered in the dimensions related to choices about their future, leadership and personal freedom. On average, young women in Tunisia are less empowered than men. This is mainly driven by differences in the empowerment indicator 'activity status', as young women are more likely to be economically inactive relative to men. Indeed, it is the only indicator in which there is a significant gender gap. Disaggregating the results further for young men and women still living in their parents' homes versus youth who are living in their own households reveals that among youth, strong traditional gender roles are exacerbated once they leave their parents' home. Young women in independent households are more likely to be inactive to take on domestic tasks, while young men are expected to earn for the family. As a result, the gender gap in empowerment between

young men and women increases for youth living independently from their parents. However, this does not correlate with lower levels of well-being for young women living independently from their parents.

We believe the YEI is a flexible and powerful tool to measure youth empowerment in a comprehensive way. It can easily be applied to other contexts than Tunisia or the MENA region at large. Expanding surveys with the questions underlying the construction of the YEI can be done at a very low cost and offers plenty of opportunities to monitor youth empowerment, including gender differences, and to assess the impact of policy interventions on the youth along several important dimensions of their lives. Unemployment, crime, marginalization and radicalization are all phenomena that very often affect the youth and hence require not just well-targeted policy responses but also thoughtful monitoring tools.

## ACKNOWLEDGEMENTS

The authors would like to thank Samy Kallel, Director General of BJK Consulting, and his team for the professional implementation of the survey.

## CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

## DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

## ORCID

Micheline Goedhuys  <https://orcid.org/0000-0003-4222-2106>

Ann-Kristin Reitmann  <https://orcid.org/0000-0002-9688-8918>

## ENDNOTES

- <sup>1</sup> See, for example, Alkire et al. (2013) for the 'Women's Empowerment in Agriculture Index', which considers the following domains important: production, resources, income, leadership and time. Many approaches rely on Kabeer's (1999) framework for measuring (female) empowerment, which involves three interrelated dimensions: resources, agency and achievements (see, e.g., Glennerster et al., 2019).
- <sup>2</sup> For a list of survey questions to assess and construct all indicators, see the [supporting information](#).
- <sup>3</sup> See Ghali et al. (2018) for more details on the methodology and findings.
- <sup>4</sup> As a robustness check, we also calculate the YEI for a disempowerment cut-off of 0.20, meaning that if a respondent had adequate achievements in at least 80% of the weighted indicators, the person is considered empowered. Results are shown in Table S1.
- <sup>5</sup> The results of the project are described in Ghali et al. (2018).
- <sup>6</sup> For the full set of items of the NGSE scale, see the [supporting information](#).
- <sup>7</sup> For the full set of items of the SE scale, see the [supporting information](#).

## REFERENCES

- Alkire, S., Meinzen-Dick, R., Peterman, A., Quisumbing, A., Seymour, G., & Vaz, A. (2013). The Women's Empowerment in Agriculture Index. *World Development*, 52, 71–91. <https://doi.org/10.1016/j.worlddev.2013.06.007>
- Arslan, A., Tschirley, D. L., Di Nucci, C., & Winters, P. (2021). Youth inclusion in rural transformation. *Journal of Development Studies*, 57(4), 537–543. <https://doi.org/10.1080/00220388.2020.1808199>
- Attanasio, O., Kugler, A., & Meghir, C. (2011). Subsidizing vocational training for disadvantaged youth in Colombia: Evidence from a randomized trial. *American Economic Journal: Applied Economics*, 3, 188–220. <https://doi.org/10.1257/app.3.3.188>
- Ayed, M., Ben, R., & Goaid, M. (2017). Women in the Tunisian labor market. In R. Assaad & M. Boughzala (Eds.), *The Tunisian labor market in an era of transition*. Oxford University Press.

- Blattman, C., Fiala, N., & Martinez, S. (2012). Employment generation in rural Africa: Mid-term results from an experimental evaluation of rural Africa the youth opportunities program in Northern Uganda. In *DIW Discussion Papers*, No. 1201. DIW. <https://doi.org/10.2139/ssrn.2030866>
- Card, D., Kluge, J., & Weber, A. (2018). What works? A meta analysis of recent active labor market program evaluations. *Journal of the European Economic Association*, 16(3), 894–931. <https://doi.org/10.1093/jeaa/jvx028>
- Chen, G., Gully, S. M., & Eden, D. (2001). Validation of a New General Self-Efficacy Scale. *Organizational Research Methods*, 4(1), 62–83. <https://doi.org/10.1177/109442810141004>
- Chinen, M., Hoop, T., Alcázar, L., Balarin, M., & Sennett, J. (2017). Vocational and business training to improve women's labour market outcomes in low- and middle-income countries: A systematic review. *Campbell Systematic Reviews*, 16, 1–195. <https://doi.org/10.4073/csr.2017.16>
- Christens, B. D., Peterson, N. A., & Speer, P. W. (2011). Community participation and psychological empowerment: Testing reciprocal causality using a cross-lagged panel design and latent constructs. *Health Education & Behavior*, 38(4), 339–347. <https://doi.org/10.1177/1090198110372880>
- Dildar, Y. (2015). Patriarchal norms, religion, and female labor supply: Evidence from Turkey. *World Development*, 76, 40–61. <https://doi.org/10.1016/j.worlddev.2015.06.010>
- European Youth Forum. (n.d.). Youth Progress Index. <https://youthprogressindex.org/>
- Ghali, S., Goedhuys, M., Grimm, M., Meysonnat, A., Nillesen, E., Reitmann, A. K., & Zouari, S. (2018). Women's and youth empowerment in rural Tunisia - an assessment using the Women's Empowerment in Agriculture Index (WEAI). In *Taqeem impact report series* (Issue 11). International Labour Office.
- Glennester, R., Walsh, C., & Diaz-Martin, L. (2019). *A practical guide to measuring women's and girls' empowerment in impact evaluations*. J-PAL.
- Goldin, N., Patel, P., & Perry, K. (2014). *The Global Youth Wellbeing Index. A report of the CSIS Youth, Prosperity, and Security Initiative and the International Youth Foundation*. Center for Strategic & International Studies.
- Kabeer, N. (1999). Resources, agency, achievements: Reflections on the measurement of women's empowerment. *Development and Change*, 30, 435–464. <https://doi.org/10.1111/1467-7660.00125>
- Kluge, J., Puerto, S., Robalino, D., Romero, J. M., Rother, F., Stöterau, J., Weidenkaff, F., & Witte, M. (2019). Do youth employment programs improve labor market outcomes? A quantitative review. *World Development*, 114, 237–253. <https://doi.org/10.1016/j.worlddev.2018.10.004>
- Miniwatts Marketing Group. (n.d.). Internet World Stats—Usage and population statistics. <https://www.internetworldstats.com/africa.htm#tn>
- Morton, M. H., & Montgomery, M. (2013). Youth empowerment programs for improving adolescents' self-efficacy and self-esteem: A systematic review. *Research on Social Work Practice*, 23(1), 22–33. <https://doi.org/10.1177/1049731512459967>
- Perkins, D. D., & Zimmerman, M. A. (1995). Empowerment theory, research, and application. *American Journal of Community Psychology*, 23(5), 569–579. <https://doi.org/10.1007/BF02506982>
- Powell, K. G., Peterson, N. A., Treitler, P. C., Lardier, D. T., Rashid, M., & Reid, R. J. (2021). Measuring youth empowerment: An item response theory analysis of the Sociopolitical Control Scale for youth. Forthcoming in *American Journal of Community Psychology*, 68, 471–485. <https://doi.org/10.1002/ajcp.12540>
- Ramadan, R., Hlasny, V., & Intini, V. (2018). Inter-group expenditure gaps in the Arab region and their determinants: Application to Egypt, Jordan, Palestine and Tunisia. *Review of Income and Wealth*, 64(S1), S145–S188. <https://doi.org/10.1111/roiw.12396>
- Rosenberg, M. (1965). *Society and adolescent self-image*. Princeton University Press. <https://doi.org/10.1515/9781400876136>
- The Commonwealth. (2016). *Global youth development index and report*. Commonwealth Secretariat.
- Úcar Martínez, X., Jiménez-Morales, M., Soler Masó, P., & Trilla, B. J. (2017). Exploring the conceptualization and research of empowerment in the field of youth. *International Journal of Adolescence and Youth*, 22(4), 405–418. <https://doi.org/10.1080/02673843.2016.1209120>
- UN. (2018). *World Youth Report—Youth and the 2030 Agenda for Sustainable Development*. United Nations.
- UN. (2019). *World Population Prospects 2019—Highlights*. Population Division of the United Nations Department of Economic and Social Affairs.
- UNDP. (2019). *Beyond income, beyond averages, beyond today: Inequalities in human development in the 21st century*. Human Development Report 2019. United Nations Development Programme.
- World Bank. (2014). *Tunisia—Breaking the barriers to youth inclusion*. World Bank.
- World Bank. (n.d.). Unemployment, youth total (% of total labor force ages 15–24) (modeled ILO estimate)—Middle East & North Africa. <https://data.worldbank.org/indicator/SL.UEM.1524.ZS?locations=ZQ>
- Zimmerman, M. A. (1990). Toward a theory of learned hopefulness: A structural model analysis of participation and empowerment. *Journal of Research in Personality*, 24, 71–86. [https://doi.org/10.1016/0092-6566\(90\)90007-S](https://doi.org/10.1016/0092-6566(90)90007-S)

Zimmerman, M. A., & Zahniser, J. H. (1991). Refinements of sphere-specific measures of perceived control: Development of a sociopolitical control scale. *Journal of Community Psychology*, 19, 189–204. [https://doi.org/10.1002/1520-6629\(199104\)19:2<189::AID-JCOP2290190210>3.0.CO;2-6](https://doi.org/10.1002/1520-6629(199104)19:2<189::AID-JCOP2290190210>3.0.CO;2-6)

## SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

**How to cite this article:** Goedhuys, M., Grimm, M., Meysonnat, A., Nillesen, E., & Reitmann, A.-K. (2024). Measuring youth empowerment: An application to Tunisia. *Journal of International Development*, 1–20. <https://doi.org/10.1002/jid.3886>