



Public social spending, human capital, and social justice in the Arab world: A case study of Jordan and Tunisia



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Public social spending, human capital, and social justice in the Arab world: A case study of Jordan and Tunisia



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The background paper has been discussed in the Social Expenditure Monitor Regional Expert Group Meeting (EGM), held in Amman, on 1-2 December 2021. The authors acknowledge the comments and suggestions from colleagues at UNESCWA, including Oussama Safa, Samia Hammouda and Niranjana Sarangi, UNDP Regional Hub in Amman including Devika Iyer and Walid Merouani, as well colleagues from UNICEF MENARO including Samman Thapa and Juan Bester and other experts of the EGM.

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I. Introduction

Since their independence as modern nation states, Arab countries have made significant advances in expanding access of basic education and health facilities to their populations. The region has also been able to avoid some of the worst extremes of poverty and inequality. Apart from a few countries, Arab states have traditionally been categorized as middle-income states. However, as recent events and emerging evidence show, none of these successes can be taken for granted. Sustained grievances of young and excluded populations, unrelenting dependence on oil, continuing conflict and displacement of populations have generated new development challenges and made prior achievements in human development difficult to sustain. Covid-19 has only exacerbated these prior vulnerabilities and sharpened their impact. In this context, the efficiency of public spending on social sectors needs to be evaluated through a broader prism that considers its possible impact on social justice. Does social spending improve equity and equality, and expand the rights and participation of people?

Within the ambit of this broader question, this paper takes a specific empirical stab at examining the relationship between public social spending, human capital, and income inequality in the Arab world. Our analysis traces the impact of specific health and education outcomes that predict changes in inequality over time. While situating our analysis in the broader political economy realities of the Arab world, we draw out the specific implications of our findings for two non-oil middle-income countries, Tunisia and Jordan. Both countries offer similar, yet contrasting social, political, and economic landscapes to analyze. Tunisia is going through an interesting political transformation after decades of autocratic rule, and Jordan is implementing a difficult phase of fiscal adjustments and facing an influx of refugees. Ultimately, both Jordan and Tunisia face challenges in terms of sustaining their human development achievements thus far, and addressing the new challenges arising from a growingly unsustainable social contract, rising youth unemployment, spatial disparities, and negative spillovers from regional economic and political conflicts.

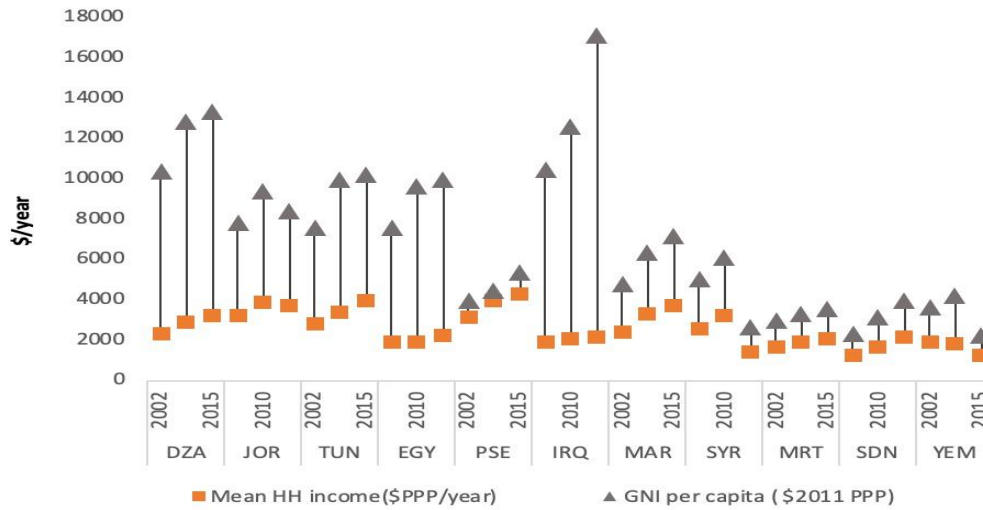
Analytically, our focus on income inequality is inspired by several considerations. Firstly, income inequality is a central dimension of social justice. Secondly, it is easier to operationalize empirically as reliable cross-country data on income inequality is readily

available. Thirdly, and perhaps more substantively, income inequality has resurged as a central development concern in Arab states. Recent evidence has overturned the long-held view that characterized the Arab world as having only modest levels of inequality. The Middle East and North Africa region (MENA)¹ turns up as the most unequal region when top income deciles are used to analyze income inequality within and between countries (Alvaredo, Assouad, and Piketty, 2018). Inequality appears as a particularly important concern in Arab countries once we go beyond averages and consider extreme disparities. Figure 1 displays the difference between mean household income in purchasing parity over time and Gross National Index (GNI) per capita in selected Arab states, and reveals that high and middle human development countries, such as Jordan and Tunisia, have wide gaps between GNI per capita and actual household incomes over time. Reassessing the evidence on inequality through multidimensional indices, ESCWA (2019) highlights that inequality of opportunity and outcomes remains a recurring concern across large parts of the Arab world. Taken together, this emerging evidence indicates that inequality in the Arab world is considerably understated. This motivates our focus on income inequality.

While probing the efficiency of social spending in the context of inequality, we complement prior work, including most recently from International Monetary Fund (IMF) Report on Social Spending for Inclusive Growth in the Middle East and Central Asia (2020), that mainly focuses on the impact of public expenditures on social development outcomes and shows that higher social spending is associated with broader improvements in Arab human development. Building on this evidence, we ask which human development outcomes are more strongly correlated with reductions in inequality over time. We particularly focus on relevant health and education outcomes as both dimensions remain the prime drivers of poverty in the Arab world, especially in our two focus countries (Tunisia and Jordan). Our empirical analysis utilizes latest data on income inequality from the World Inequality Database and the World Bank's World Development Indicators Database, focusing both on Gini coefficient and the share of income going to bottom ten percent of the population.

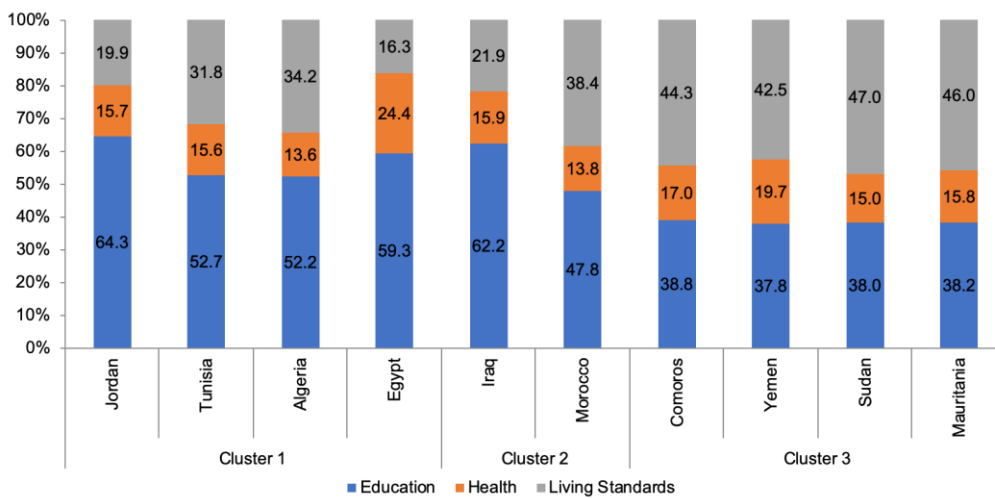
¹ In this paper we use Arab region, Arab states, and MENA interchangeably as we only consider Arab states within the MENA in our analysis and data, excluding Israel, Iran, and Djibouti (normally considered part of MENA by the World Bank).

Figure 1: Mean Household Income and GNI in the MENA



Source: ESCWA, 2019.

Figure 2: Main Drivers of Poverty in Arab countries

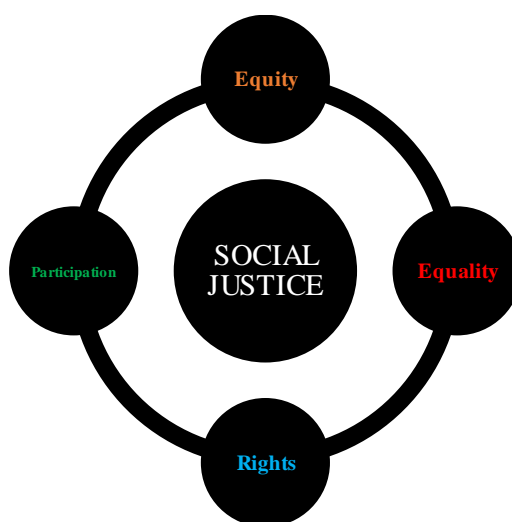


Source: ESCWA, 2019.

We recognize that social justice is construed more broadly to include not just income inequality but also the ability to ensure “equal rights and access to resources and opportunities for all, men and women, while paying particular attention to the removal of barriers that hinder the empowerment of disadvantaged groups to fulfill their potential to participate in decisions that govern their lives” (ESCWA *Tunis Resolutions*, 2014). According to ESCWA, the four

pillars of social justice include inequality, equity, participations, and rights (see Figure 3). Admittedly, these dimensions provide an additional lens to evaluate the efficiency of social spending. For example, in Arab societies “education is more than an intermediate input into income generation; it is often the most important measure of personal achievement and the path to social mobility” (Salehi-Isfahani, Hassine, Assaad, 2014). We thus analyze inequality of outcomes and opportunity for education and healthcare. With respect to broader civic rights and participation, we discuss recently compiled survey evidence on youth perceptions on social spending and social justice. As argued by Assaad and Roudi-Fahimi (2007), the Arab social contract is breaking at the seams for two main excluded segments: youth and females. Any earnest debate on achieving greater social justice in the Arab world needs to include the voices of these marginalized groups.

Figure 3: 4 Pillars of Social Justice



Source: Authors’ illustration adapted from ESCWA 2018 Report.

The remainder of this paper is divided into seven sections with each addressing the most important issues discussed above, as well as presenting our empirical findings. In section II we explain our quantitative framework and analyze our findings. Section III discusses our findings’ implications for the Middle East and Arab region, and is followed by section IV, which lays out the issue of inequality of access and educational quality in the Arab region and in Jordan and Tunisia. Section V focuses on youth perceptions on social spending and social outcomes, and section VI concludes by highlighting the paper’s main findings and key policy takeaways for Arab region overall, and for Jordan and Tunisia in particular.

II. Regression Evidence

As part of our broader aim to explore the link between social spending and social justice, we conduct original empirical analysis that builds on prior work by the IMF on the efficiency of social spending in terms of improving health, education, and broader human development outcomes. The IMF Report (2020) concluded that social spending in the Middle East and Central Asia is strongly linked with improvements in secondary education and Human Development Index (HDI). There is a plethora of evidence to suggest that countries in the MENA region made huge strides in expanding quantitative access to education and health. This was aided by the region's social spending policies. What remains to be shown, however, is how these social outcomes relate to economic inequality, especially the income share of the bottom ten percent of the population?

We take a stab at this by relating two key empirically relevant dimensions of human development, secondary school enrollment rates and beds per capita, with changes in income inequality over time. Recent development discourse tends to emphasize the analytical relevance of both these dimensions. The economic rates of return are strongly influenced by secondary school enrollment as they determine job prospects. With regard to beds per capita, it proxies for the availability of in-patient services and is a broader measure of health infrastructure. As witnessed in the Covid-19 crisis, availability of beds can make a significant difference in an individual's life or death.²

For our empirical analysis, we estimate dynamic panel data regressions using a large cross-country dataset for the period 1960-2020. Our data is organized in non-overlapping five-year windows (1960-64, 1965-69, ...). Our empirical specification takes the form of Arellano–Bond dynamic equations as follows:

$$Y_{i,t} = \rho Y_{i,t-1} + \beta_1 Edu_{i,t} + \beta_2 Health_{i,t} + \beta_3 X_{i,t} + \eta_i + \theta_t + u_{i,t}$$

² A great example of a country that proved the importance of having enough hospital beds during this pandemic is Germany. Germany's large amount of hospital beds turned out to be an asset as it emerged as one of the countries with the lowest death rates in the world. See European Data Portal. (2020). Pressure on Healthcare Systems: Coping with demand for ICU and hospital beds. <https://www.europeandataportal.eu/en/impact-studies/covid-19/pressure-healthcare-systems-coping-demand-icu-and-hospital-beds>

Where Y is our inequality measure, $Y_{i,t}$ is the inequality at year t and country i , Edu and $Health$ are our mainly explanatory variables, X is the vector of explanatory variables that includes the following set of controls: the log of GDP per capita and its square, and the ratio of trade to GDP. These controls capture broader differences between countries in terms of levels of income and trade that could determine changes in income inequality over time. η is country fixed effect, θ is year fixed effect, u is the error term, i represents a given country, and t denotes the time period.

We use two commonly used proxies for income inequality: the Gini coefficient of income inequality and the income share of bottom 10 percent. The Gini coefficient measures levels of income inequality in a country, where a value 0 represents perfect equality, and a coefficient of value 1 represents maximal inequality. It is a measure of absolute or relative injustice within a society. Our second inequality measure is the income share of the bottom 10 percent, which captures dynamics at the bottom end of the income distribution (IMF, 2020). The empirical specification set out above is estimated using an Arellano-Bond GMM estimator that controls for both serial correlation between the dependent variable and the term, and addresses the endogeneity problem by using lagged levels of variables as instruments (Arellano and Bond, 1991). The dynamic GMM estimation methods are commonly used to estimate economic response to a change in policy, while controlling for confounding variation. All specifications include country and time period fixed effects that control for unobserved heterogeneity that affects a country over time or all countries in a particular year. The empirical analysis is carried out for 49 countries and the sample period is 1960-2020.

Our empirical models will allow us to investigate whether the two preferred indicators of health and education outcomes are associated with income inequality over time while controlling for both lagged inequality and other major inequality correlates, such as the per capita income, its square, and the trade to GDP ratio. Besides establishing the impact of health and educational outcomes on income inequality, we explore whether this impact differs between MENA and non-MENA countries in general and between our two countries of interest (i.e., Tunisia and Jordan), and the rest of the world.³

Baseline results presented in Table 1, in column 1, we investigate the impact of two important indicators of health and education on Gini coefficient of income inequality:

³ By MENA we mean Arab states within the Middle East and North Africa region, excluding Iran, Israel, and Djibouti as per the World Bank definition of MENA.

secondary school enrollment rates and hospital beds per capita. In column 2, we replace the dependent variable with our second proxy for income inequality, the income share of bottom 10 percent. As the results show, both secondary enrolment and beds per capita enter as negative and statistically significant predictors of income inequality in our global sample. Improvements in these social outcomes are strongly linked with reductions inequality, whether measured through a Gini coefficient or income share of the bottom 10 percent. These findings are obtained after controlling both lagged inequality, per capita income, and trade to GDP ratio. The p-values for the test of second-order serial correlation provide supportive evidence on our model specification. Among the several indicators of health and education that we examined for this empirical exercise, secondary enrolment and beds per capita remain the two informative correlates of income inequality over time. This chimes in well with prior evidence.

Table 1—Do Improvements in education and health lead to lower income inequality?

	GINI	Income share held by bottom 10 %
Lagged Gini	0.51461 *** (0.15153)	
Income share held by lowest 10%		0.69891 *** (0.09219)
Hospital beds per 1000 people	-0.61609 ** (0.24517)	0.02191 ** (0.02775)
Gross secondary school enrolment	-0.08132 ** (0.04042)	0.002022 ** (0.00626)
Log of GDP per capita	Yes	Yes
Log of GDP per capita squared	Yes	Yes
Trade to GDP ratio	Yes	Yes
NxT	241	241
Countries	49	49
Year FEs	Yes	Yes
Lags of DV	1	1
AR(2)	0.94	0.41

Notes: standard error under coefficients.

Source: Authors' own calculations from World Bank Development Indicators.

** Significant at 5 %; *** Significant at 1 %.

Having established that secondary enrolment and beds per capita are strong predictors of inequality over time, we next examine whether their impact on inequality varies between MENA and non-MENA countries of interest. Specifically, we are interested in investigating whether the inequality-reducing impact of these two dimensions of social progress is stronger in MENA countries. To explore the differential impact in MENA, we define four dummy variables. The first two pick out the differential impact for our two countries of interest: Tunisia and Jordan. We also separately explore the impact of North Africa and MENA monarchies, the two regional classifications to which Tunisia and Jordan belong, respectively. Each of these dummy variables are then interacted with gross secondary enrolment rates and hospital beds per capita and entered in the main regression model.

Table 2 presents results for the heterogeneous impact of secondary enrolment on income inequality for the relevant MENA comparator groups. In columns 1 and 2, we investigate the differential impact of secondary enrolment in Jordan and Tunisia by including interactions between a dummy variable, respectively for the two countries, and secondary enrolment. The coefficient on these interaction term measures the difference in the impact of secondary enrolment on income inequality in these countries relative to the rest of the world. The results in columns 1-2 confirm our prior: gains in secondary school enrolment have a stronger impact on inequality in these countries relative to the rest of the world. Coefficients on both the Jordan and Tunisia interactions are negative and statistically significant.

The regression confirms our previous findings and further shows that secondary school enrolment in Jordan has an even greater impact on the Gini Index, lowering it by 16% as compared to the impact seen in table (1) on the whole world, which stood at a decrease of 8%. This suggests that investing in the educational sector in Jordan could potentially have a greater income inequality reducing effect than in Tunisia. The magnitude of these differential effects is substantial. A 1 % increase in secondary enrolment reduces income inequality by around 20 % in Jordan and Tunisia whereas the corresponding effect for the global sample is 6-8 % . Of the two countries, the effect of secondary enrolment on inequality is relatively stronger in Jordan, indicating a stronger inequality reducing impact of secondary education in the country.

Next, we replicate this exercise for political and geographic dimensions pertinent to the two countries. It is possible that the differential effects for Jordan and Tunisia are also a broader feature of MENA monarchies to which the former belongs and the wider North Africa region of which Tunisia is a part of. To investigate this, we similarly define separate dummy variables

identifying non-Gulf MENA monarchies (i.e. Jordan and Morocco) and North African countries. We exclude Gulf monarchies due to their abundance of hydrocarbons, which can shape patterns of public goods provision. We then include interactions of these dummy variables with secondary enrolment rates. Results in presented in columns 3-4. As expected, both the monarchy and North Africa interactions have negative and statistically significant coefficients. Interestingly, the size of relative effects closely corresponds with the coefficients on country interactions, with the monarchy effect broadly in line with the differential effect of Jordan and the North Africa effect falling in line with the coefficient on Tunisia interaction. These results show that the inequality-reducing effect of the expansion of secondary enrolments in Jordan and Tunisia is broadly consistent with the comparator MENA countries (other non-Gulf Monarchies in the case of Jordan and other North African countries in the case of Tunisia). To put it differently, the beneficial effects of secondary education that we have

Table 2—Impact of secondary enrolment on income inequality: Does MENA differ?

	<i>Dependent Variable:</i> GINI coefficient of income inequality			
Lagged GINI	0.40727*** (0.14139)	0.48957*** (0.15586)	0.43689*** (0.14321)	0.48957*** (0.15586)
Hospital beds per 1000 people	-0.50024** (0.22439)	-0.66127** (0.25254)	-0.52675** (0.22951)	-0.66127** (0.25254)
Gross secondary school enrolment	-0.06462** (0.03686)	-0.08963** (.04171)	-0.06362** (.03800)	-0.08963** (0.04171)
Jordan dummy x secondary enrolment	-0.16169** (0.05566)			
Tunisia dummy x secondary enrolment		-0.11279** (.07517)		
Monarchy dummy x secondary enrolment			-0.15183** (0.05479)	
North Africa dummy x secondary enrolment				-0.11279** (0.07517)
Log of GDP per capita	Yes	Yes	Yes	Yes
Log of GDP per capita squared	Yes	Yes	Yes	Yes
Trade to GDP ratio	Yes	Yes	Yes	Yes

NxT	241	241	241	241
Countries	49	49	49	49
Year FEs	Yes	Yes	Yes	Yes
Lags of DV	1	1	1	1
AR(2)	0.86	1.03	0.93	1.03

Notes: standard error under coefficients.

Source: Authors' own calculations from World Bank Development Indicators.

**Significant at 95%.

established for Tunisia and Jordan are representative of other similarly situated MENA countries.

In Table 3 we extend the same empirical approach to our preferred health indicator, hospital beds per capita. Our results are consistent with the core finding on education. Estimating the differential effect of hospital beds per capita for Tunisia (col 1) and Jordan (col 2), we find a broadly similar pattern whereby the inequality-reducing impact of beds per capita

Table 3—Impact of health on income inequality: Does MENA differ?

	<i>Dependent Variable:</i> GINI coefficient of income inequality			
Lagged GINI	0.40342*** (0.14041)	0.48463*** (0.15605)	0.39739*** (0.14073)	0.48463*** (0.15605)
Hospital beds per 1000 people	-0.49117** (0.22297)	-0.68285** (0.25532)	-0.51156** (0.22136)	-0.68285** (0.25532)
Gross secondary school enrolment	-0.06157** (0.03671)	-0.09042** (0.04178)	-0.06216** (0.03661)	-0.09042** (0.04178)
Jordan dummy x hospital beds per capita	-7.66207** (2.57761)			
Tunisia dummy x hospital beds per capita		-3.97349** (3.28146)		
Monarchy dummy x hospital beds per capita			-7.61729** (2.56783)	
North Africa dummy x hospital beds per dummy				-3.97349** (3.28146)
Log of GDP per capita	Yes	Yes	Yes	Yes

Log of GDP per capita squared	Yes	Yes	Yes	Yes
Trade to GDP ratio	Yes	Yes	Yes	Yes
NxT	241	241	241	241
Countries	49	49	49	49
Year FEs	Yes	Yes	Yes	Yes
Lags of DV	1	1	1	1
AR(2)	0.84	1.05	0.84	1.05

Notes: standard error under coefficients. **Significant at 95%.

Source: Authors' own calculations from World Bank Development Indicators.

is stronger in both Tunisia and Jordan relative to the rest of the sample. The coefficients on interactions between the two country dummy variables and hospital beds per capita are negative and statistically significant at 5 % level. Furthermore, these differential effects for Tunisia and Jordan are broadly representative of the relevant MENA categorizations (i.e. North Africa and non-Gulf monarchy effects). Overall, these results suggest that improvements in health services have an even stronger impact on inequality in MENA countries, including Tunisia and Jordan.

Section III: Discussion and Implications for the Arab Region

Our empirical analysis has established a strong link between education, health and income inequality. While the result emanates from a global sample of countries, it applied to MENA countries, in particular. What is the significance of this for thinking about social justice? What are the substantive implications of these results for the efficiency of social spending in Tunisia and Jordan? And, what deep political economy factors can explain these social outcomes and their strong inequality-reducing impact in our two countries of interest? In this section, we aim to provide some tentative leads to answering these questions.

The broader empirical connection between education, health, and income inequality is consistent with both our prior theoretical and empirical understanding. It is widely recognized that human capital improvements are strongly correlated with lower income inequality. Better health and education outcomes and lower inequality, in turn, are also important constitutive dimensions of social justice. They are also crucial for human empowerment, agency, and civic agency. Given the strong relationship between education, health, and economic development,

the Sustainable Development Goals focus on “leaving no one behind” and create equal opportunities through inclusive growth.

Anchoring these results in the context of the Arab region, especially that of Tunisia and Jordan, social welfare provision in the region has strong inequality-reducing impact over the last sixty years (i.e. our sample period). Both countries have made impressive strides in expanding education and health facilities to their citizens. This is consistent with the received wisdom on the political economy of welfare provision in the Arab region. Most countries in the region have implemented generous social contracts that provided welfare entitlements to populations in exchange for their political acquiescence for authoritarian rule (Malik and Awadallah 2013; Malik 2016). Starting from relatively weaker social indicators on the eve of independence, most Arab states have leapfrogged in terms of access to education and health facilities. Tunisia, for one, falls among the top twenty global best performers who have achieved the largest gains in core human development indicators since independence.

A number of political economy factors explain this relatively strong social welfare provision that Arab states have generally provided to their citizenry. Social welfare was part of state building efforts and early nationalist discourse that sought to cater to highly mobilized citizenry (at least in the case of North Africa). Education and health departments are also prime vehicles for job creation in Arab countries. Greater social sector spending was thus both a means to expand access to health and education facilities but also to create public employment. In this institutional milieu, it is thus unsurprising that expansion of basic health and education facilities in the Arab states, including the two countries of interest, has been associated with reductions in income inequality over the long-term. Among other factors, two political economy dimensions are central to understanding this inequality-reducing impact of health and education. *First*, broad access to health and education has brought ordinary citizens from the margins to the mainstream and helped to support the development of a strong middle class. In particular, education credentials have traditionally served as the passport to public sector employment. The state’s ability to simultaneously expand education and offer public employment has been the key to sustaining the social contract and to ensuring high returns to secondary education. The tight link between secondary education and public employment that Arab social contracts have facilitated until the late 1980s had implications for both household incomes and overall patterns of inequality. *Second*, Arab states have generally shielded their populations through fuel and food subsidies and related welfare entitlements, which together

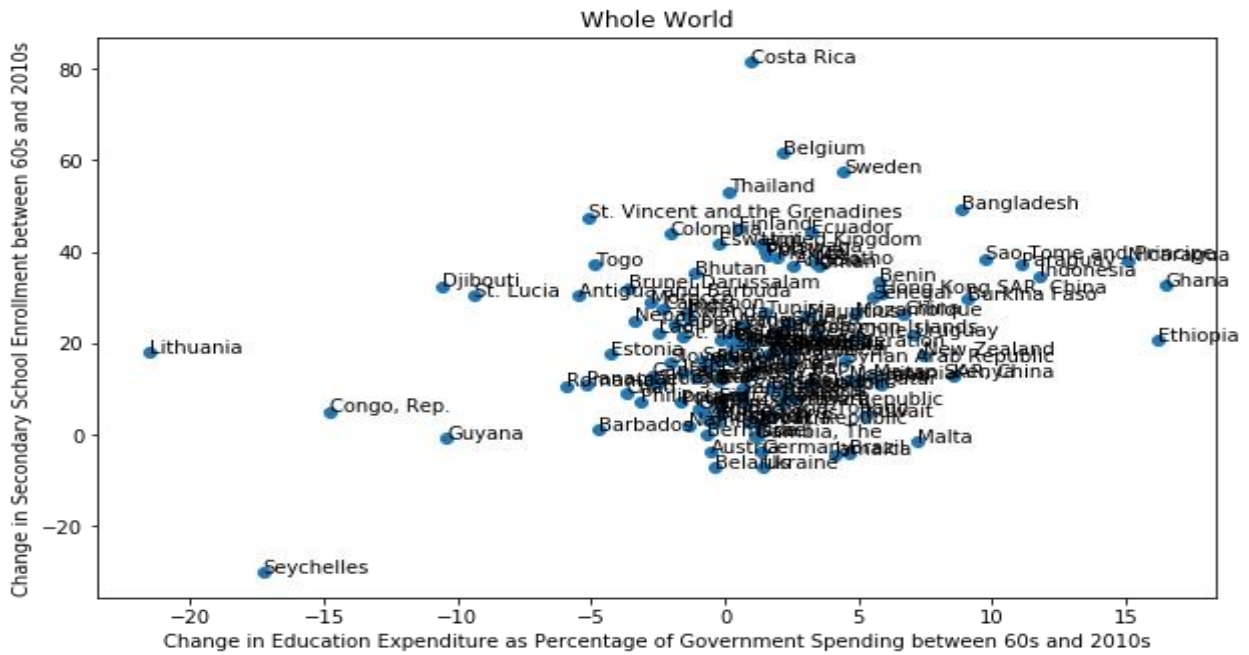
with the general increase in social development outcomes has kept extreme poverty and inequality at bay.

What does this mean for the efficiency of public social spending? In a basic and minimalistic sense, social spending in Arab states, especially in Tunisia and Jordan, has generally been efficient in increasing quantitative access of health and education. This falls in line with a broader cross-country pattern where the increase in educational expenditure as a share of total spending is strongly positively correlated with improvements in secondary school enrolments over the period, 1960-2010 (see Figure 4). As our empirical results---and a stream of recent studies----have demonstrated, public social spending has been generally efficient in terms of increasing human development outcomes in the Middle East and Central Asia countries (IMF 2020; Sarangi and Von Bonin 2017). The positive effect of social spending on HDI outcomes is obtained after controlling for a variety of HDI determinants, such as income, urbanization, macroeconomic stability, trade openness, external conflict, and financial sector development (IMF, 2020).

In terms of specific components of social spending, Sarangi and Von Bonin (2017) established that public spending on education and health have a stronger impact on promoting growth. And, when the efficiency of the two spending components is separately analyzed with respect to their ability to increase social outcomes, educational spending is a stronger predictor of educational outcomes. Increasing education expenditures by one percent of GDP could help Arab countries catch up with the global average of mean years of schooling in six years (Sarangi and Von Bonin, 2017).

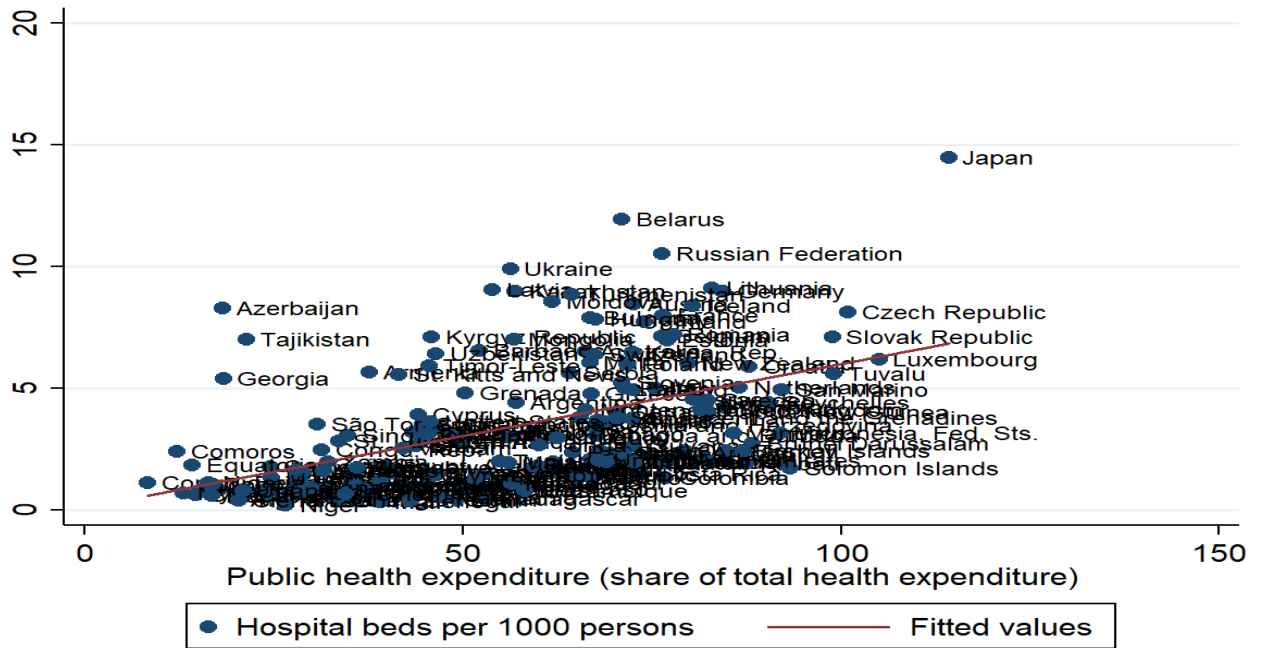
In analyzing health outcomes, prior literature has tended to focus on broader indicators, such as life expectancy and infant mortality. None of these dimensions appeared to be a significant predictor of income inequality in our empirical analysis. Given that we found a stronger role of hospital beds per capita in driving patterns of inequality, it is pertinent to probe the connection between public spending and beds per capita, which a relatively crude proxy for the “extent of physical, financial, and other barriers to health care.” Figure 5 plots hospital beds per capita against public health spending as a share of total health spending, averaged over the period 1990-2015. The chart reveals a very strong correlation between public health spending and hospital beds per capita

Figure 4: Change in Education Spending and Secondary Enrolment, 1960-2010



To investigate this more systematically, we run a fixed effects regression of hospital beds per capita on the public health spending as a share of total health spending. We include country and year fixed effects in all regression models. Results are documented in Table 4 (below). Results in columns (1-4) correspond to estimations carried out for a global sample of 176 countries while column (5) presents results for the sample of MENA countries (a total of 18 countries).

Figure 5: Hospital beds per capita and public health expenditure, 1990-2015



Source Figures 4 and 5: Authors’ own calculations using data from World Bank Development Indicators.

As the results in Table 4 show, public health spending share is a consistently strong positive predictor of changes in hospital beds per capita. In column (1) where we adjust control of country and year fixed effects, the coefficient on public health spending is positive and significant at 1 % level. In columns (2-4) we successively add three relevant controls: per capita income in PPP, life expectancy (to proxy for average health outcomes), and proportion of population classified as urban. While all three controls are significant correlates of beds per capita, our coefficient of interest on the spending term remains positive and highly significant despite their inclusion. When we re-estimate this model on the substantially reduced sample of MENA countries in column (5), our basic finding remains the same even if the spending coefficient is only weakly significant due to drop a in sample size. While we are careful not to give a causal interpretation to these results, they underscore a strong positive association between changes in public health spending and hospital beds per capita over time.

Table 4—Relationship between public health spending and hospital beds per capita

<i>Dependent variable:</i>	(1)	(2)	(3)	(4)	(5)
	Hospital beds per 1000 persons				
	<i>Global Sample</i>				<i>MENA</i>
Public health expenditure (% of total health exp.)	0.0142*** (0.00286)	0.0143*** (0.00288)	0.0152*** (0.00288)	0.0125*** (0.00287)	0.00616* (0.00328)
<i>Controls</i>					
Log of GDP per capita	No	Yes	Yes	Yes	Yes
Life expectancy	No	No	Yes	Yes	Yes
Urbanization	No	No	No	Yes	Yes
<i>Fixed Effects</i>					
Country	Yes	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes	Yes
Observations	1,520	1,520	1,520	1,520	223
R-squared	0.156	0.156	0.163	0.188	0.296
Number of Countries	176	176	176	176	18
Adjusted R-squared	0.0341	0.0336	0.0417	0.0691	0.165

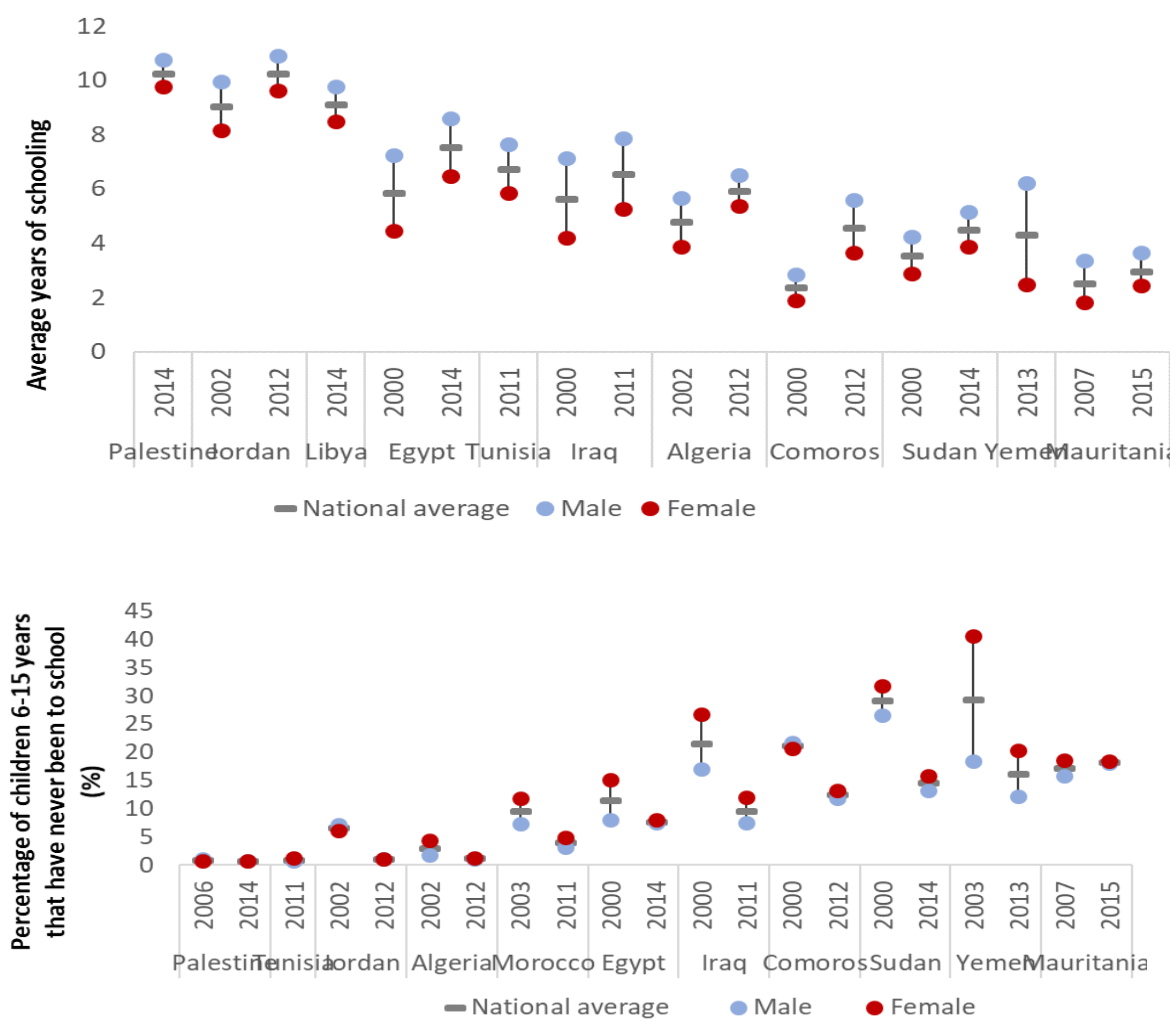
The dependent variable is hospital beds per 1000 persons (source: World Development Indicators). It includes inpatient beds available in public, private, general, and specialized hospitals and rehabilitation centres. In most cases beds for both acute and chronic care are included. Data for life expectancy at birth (total years) and urban population as a % of total population are also obtained from World Bank's World Development Indicators. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

It is important to emphasize, however, that there is no discernable link between health spending as a ratio of GDP or total social spending (see Appendix graphs). Given that the beds per capita measure proxies for the overall capacity of the health system and includes both public and private hospitals, it is the composition of total health spending that holds greater explanatory power. Thus, higher share of public spending in total health expenditures is associated with increase in the beds per capita over time.

Apart from the broader gains in human development documented earlier, MENA countries have also closed gender gaps in health and education. This is evident in Figures 6-7 (below). As the figures show, both Tunisia and Jordan have made noted improvements in increasing average years of schooling and reducing the proportion of students in the 6-15 years bracket who have never attended school. Both countries have also closed gender gaps in these educational outcomes. MENA countries have also been successful in closing the gaps between

the rich and poor in core health and education indicators. Figure 8 (below) plots the ratio of rich to poor for several outcome for the two survey rounds, 2000 and 2018. As the figure shows, MENA countries have reduced gaps in basic health and education outcomes between the rich and poor. The progress is particularly remarkable for youth secondary completion rates for which the gap between rich has drastically shrunk since 2000.

Figures 6-7: Closing the schooling gap in MENA

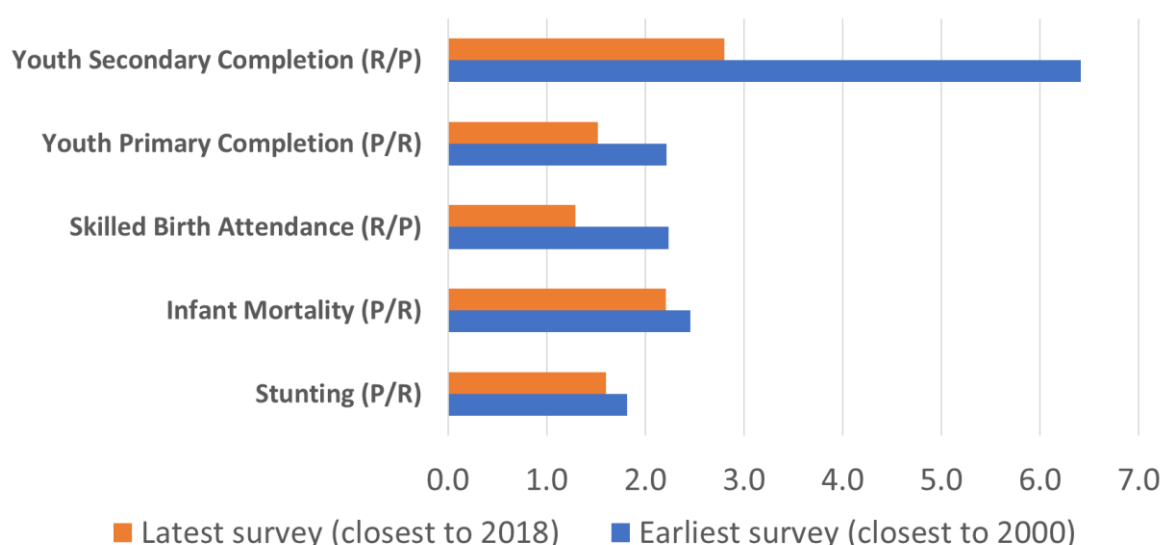


Source: ESCWA, 2019.

The selected evidence offered above provides the broader context for our empirical results. Specifically, the finding that improvements in relevant health and education dimensions has resulted in lower income inequality over the long-run is consistent with broader evidence that MENA countries have not only made impressive gains in core dimensions of

human development, they have also closed gender and income gaps in outcomes. Thus, to the extent that public social spending has facilitated gains in socio-economic outcomes, which are in turn linked with stronger reductions in inequality over the long-term, it can be considered as generally efficient. However, this is only one lens for evaluating efficiency of social spending. While social spending has afforded better outcomes and lower income inequality in MENA, public spending has left several broader dimensions of social justice unattended. Four such inter-related dimensions are worth mentioning.

Figure 8: Closing the Gap between Rich and Poor in Health and Education



Source: ESCWA, 2019.

First, social spending policies in MENA countries have emanated from a social contract that is growingly unsustainable in the face of changing demography, rigid economic structures, decline in external rents, and regional conflict. The Arab development pursued during the formative decades of these countries national history has run its course. While generating ostensible improvements in human development, this development model has entailed a “difficult trade-off between welfare entitlements and citizen empowerment” that supports a “precarious balance of human development that enhances access but undermines agency, expands consumption possibilities but impairs human capabilities” (Malik, 2014). While the average Arab state was able to expand both education and public employment in the earlier

stages of its development, growing proportions of educated youth are now outsiders to the system in a milieu where the public sector can no longer absorb these new entrants to the job market and the private sector is too weak to pick up the employment slack. The younger Arab generation is therefore trapped in an aspirational crisis that is also feeding into a wider middle-class grievance. These contradictions in human development pose important challenges for social spending—both in terms of sustainability and resilience to political, geo-political and economic shocks. Importantly, it brings to the fore the issue of *dynamic* efficiency of public social spending. Emerging concerns ranging from the growing conflict, instability, and pandemic can make even prior achievements in human development difficult to sustain. Can the region's social spending policies adapt to both long-standing and new development challenges that the Arab world is confronted with?

Second, while Arab countries have narrowed some of the most extreme gaps in outcomes between rich and poor and between males and females, there are persistent spatial disparities in human development outcomes. Furthermore, even if the inequality of outcomes has somewhat reduced, inequality of opportunity continues to be an area of concern in several MENA states. We will furnish more specific evidence on this in the next section.

Third, despite the quantitative gains in expanding access to education, quality of educational provision continues to be an overriding concern. Together with the mismatch between the skills developed by educational institutions and skills demanded by the labor market, low educational quality can feed into pre-existing labor market distortions. The nature of linkage between educational provision and labor markets highlights that the issue of public spending efficiency cannot be divorced from the economy-wide constraints determining productivity, structural change, and job creation.

Fourth, given that social justice is not just about equity and equality but also about rights and participation, efficiency considerations of social spending ought to consider the extent to which such spending enhances rights and opportunities. In this regard, one emergent concern in MENA countries is the participation and inclusion of youth in the region's social contracts. What are the aspirations and engagements of youth and do existing social policies help respond to those? While each of the above four dimensions deserve a detailed investigation, we provide some indicative evidence on two core dimensions: inequality of access and educational quality. In doing so, we rely on secondary published sources (ESCWA, 2019).

Section IV: Inequality of Access and Quality of Social Service Provision

Two parameters on which social spending efficiency needs to be evaluated are inequality, both of outcomes and opportunity, and quality of provision. In this section, we draw on recently compiled evidence on these dimensions and offer some concrete discussion on these dimensions.

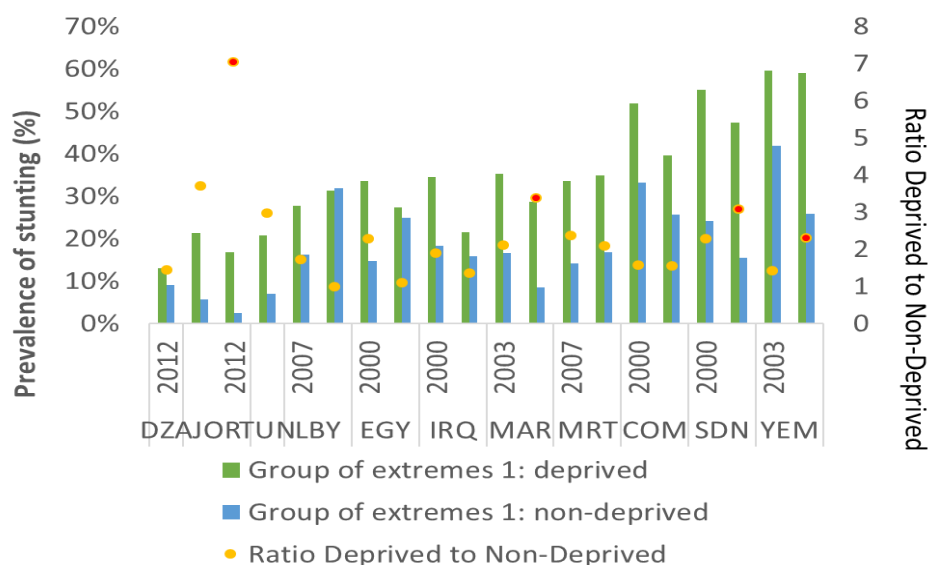
Unequal Outcomes and Opportunity

While basic education and health outcomes have improved in general and disparities in their provision have narrowed, many MENA countries, including middle-income countries like Jordan and Tunisia, face persistent gaps based on spatiality, income, and prior educational status, pertinently evidenced in *Rethinking Inequality in Arab Countries* (ESCWA, 2019). A central dimension of spatial inequality is differential access to education and health facilities between rural and urban areas. In Tunisia, an important additional axis of spatiality is the difference between coastal and interior regions of the country. In both Tunisia and Jordan, spatial disparities in basic educational provision—and in access to water and sanitation—have dramatically reduced. However, beyond primary education, there are persistent rural-urban gaps in secondary education indicators across middle-income Arab countries, including Tunisia and Jordan. Probability of health deprivation is higher in rural regions, and noticeable spatial disparities exist on such health indicators as stunting and infant mortality. Among the two focal countries, Jordan has made sizeable gains in reducing spatial disparities while such disparities remain a concern for Tunisia where both rural-urban and coastal-interior differences persist (Kacem, Abid, Ghorbel-Zouari, 2020).

Spatial inequality also sits atop other forms of inequality, especially inequality that arises from deprivation based on socio-economic differences between households, especially the wealth and education of the household head. One approach to consider such inequality is to measure the disparity between extreme scales of deprivation that are defined using socio-economic characteristics drawn from household datasets. Dividing these into deprived to non-deprived groups, ESCWA (2019) calculates the ratio of the two to analyze the disparity in core health and education outcomes. The evidence is instructive. While extreme inequalities of health have reduced, both Jordan and Tunisia have considerable disparity on stunting between the deprived and non-deprived groups. Both countries have a high proportion of deprived to non-deprived on stunting, and this holds true whether deprivation is defined on the basis of a

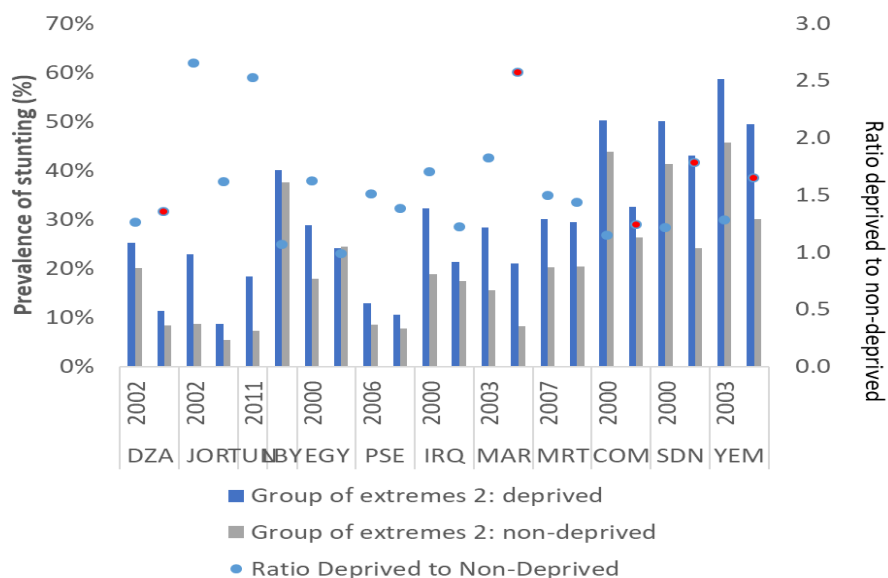
household head's wealth and education (Figure 9) or the area (Figure 10). In both Tunisia and Jordan, wealth inequalities are a key contributory factor to prevalence of stunting while the education of household head is the main contributor to inequality in infant mortality (ESCWA 2019).

Figure 9: Health inequality based on wealth and education of household head



Source: ESCWA, 2019.

Figure 10: Health inequality based on spatiality and household size

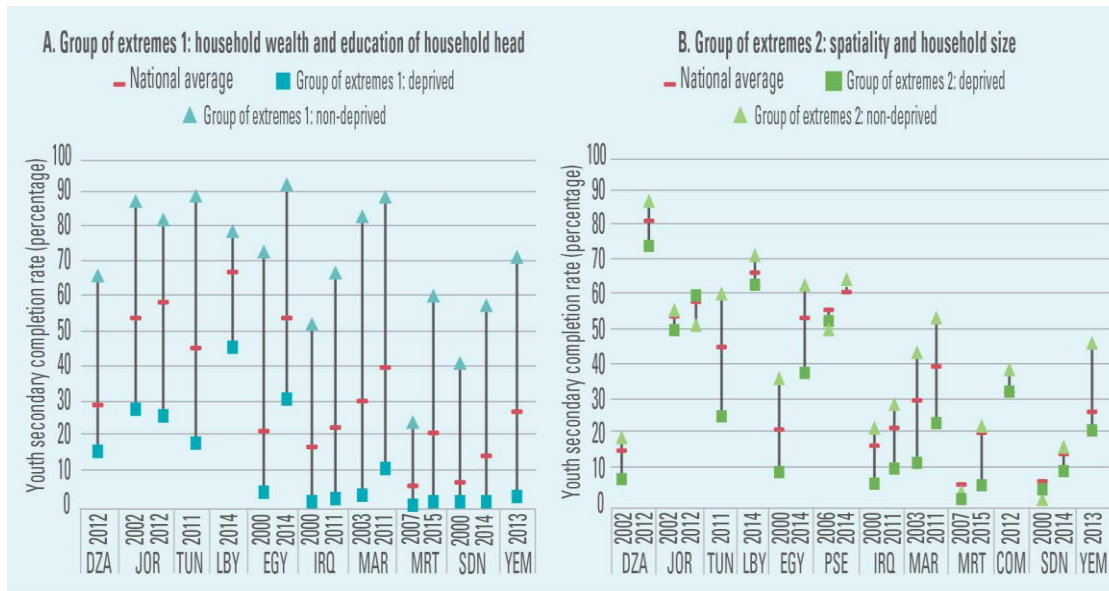


Source: ESCWA, 2019.

Turning to education, there is consistently lower inequality of outcomes in primary education but differences in secondary education indicators that are based on wealth and education of household head are more pronounced. Figure 11 displays the percentage age of youth who have completed secondary education for both the deprived and non-deprived groups as well as the ratio of deprived to non-deprived. As Figure 11 shows, there are glaring differences in completion rates for the two groups based on wealth and education of household head (left panel). This shows that circumstances of birth---whether the young are born in an educated and wealthy household---are associated with higher secondary completion rate. Similar disparities exist for net secondary *attendance* rates. Tunisia displays large disparities between the two extreme groups in terms of secondary *completion* rate and net *attendance* rate (both based on household wealth, education of household head and spatiality).

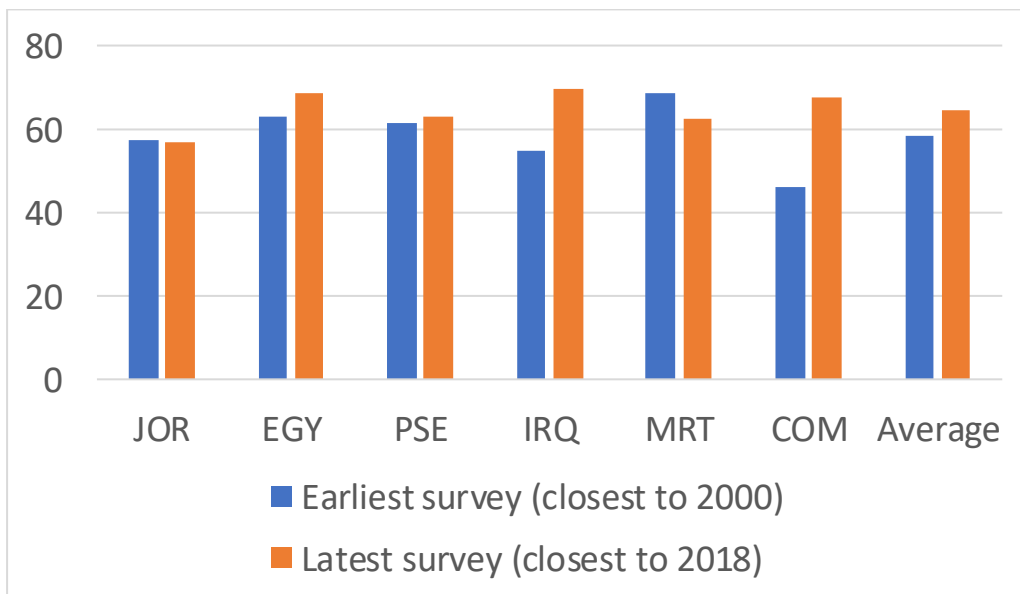
With regards to secondary education in MENA, the Inequality of Opportunity (IOP) that takes into consideration the “extent of intergenerational and social mobility” is a more important concern than the inequality of outcome. IOP is measured using a dissimilarity index (DI) arising out of the circumstances of birth (wealth, education, area of household head) and ranges from 0-100, with higher values corresponding to higher levels of inequality. While inequality of opportunity (IOP) is lower for primary completion rates, it is considerably higher for secondary education (see Figure 12). In Tunisia (not included in Figure 12), a country characterized as the “most opportunity equal Arab country”, the inequality of opportunity for secondary completion rate (60 %) is double that of primary completion rate (slightly less than 30 %). Wealth appears to be the main determinant of educational IOP, especially at secondary and higher levels of education.

Figure 11: Disparity between youth secondary completion rates, deprived vs non-deprived



Source: ESCWA, 2019.

Figure 12: Inequality of opportunity for secondary education (Dissimilarity Index)



Source: ESCWA, 2019.

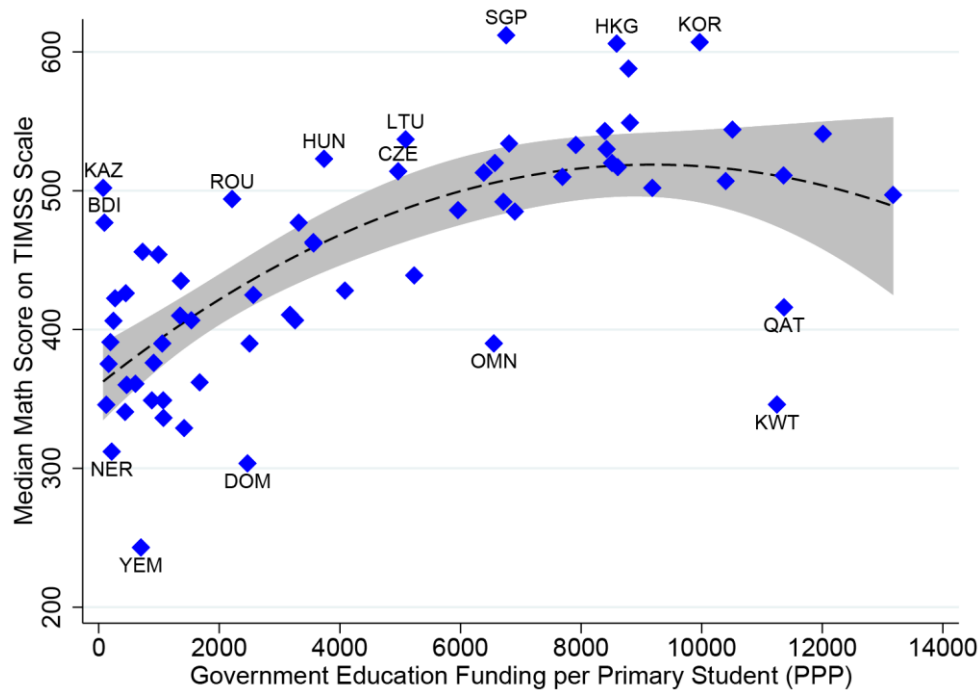
Quality of Educational Provision

While the MENA region has generally made important advances in expanding quantitative access to primary and secondary education, there are attendant issues of educational quality as evidenced in low scores in internationally competitive exams, such as

TIMMS and PISA. Global evidence suggests that higher quantity of education does not automatically lead to better quality. As Patel and Sandefur (2020) show, after controlling for income per capita, the correlation between average years of schooling and conventional measures of educational quality remains weak (0.32). Importantly, the correlation between public education spending and educational quality is stronger at lower levels of funding and in developing countries. This is evident in Figure 13 that plots median mathematics score on TIMMS against public spending on primary education per capita across a large sample of countries. As Figure 13 shows, many rich Gulf countries, such as Qatar, Kuwait, and Oman, stand out for their comparatively poorer performance given their high per capita incomes.

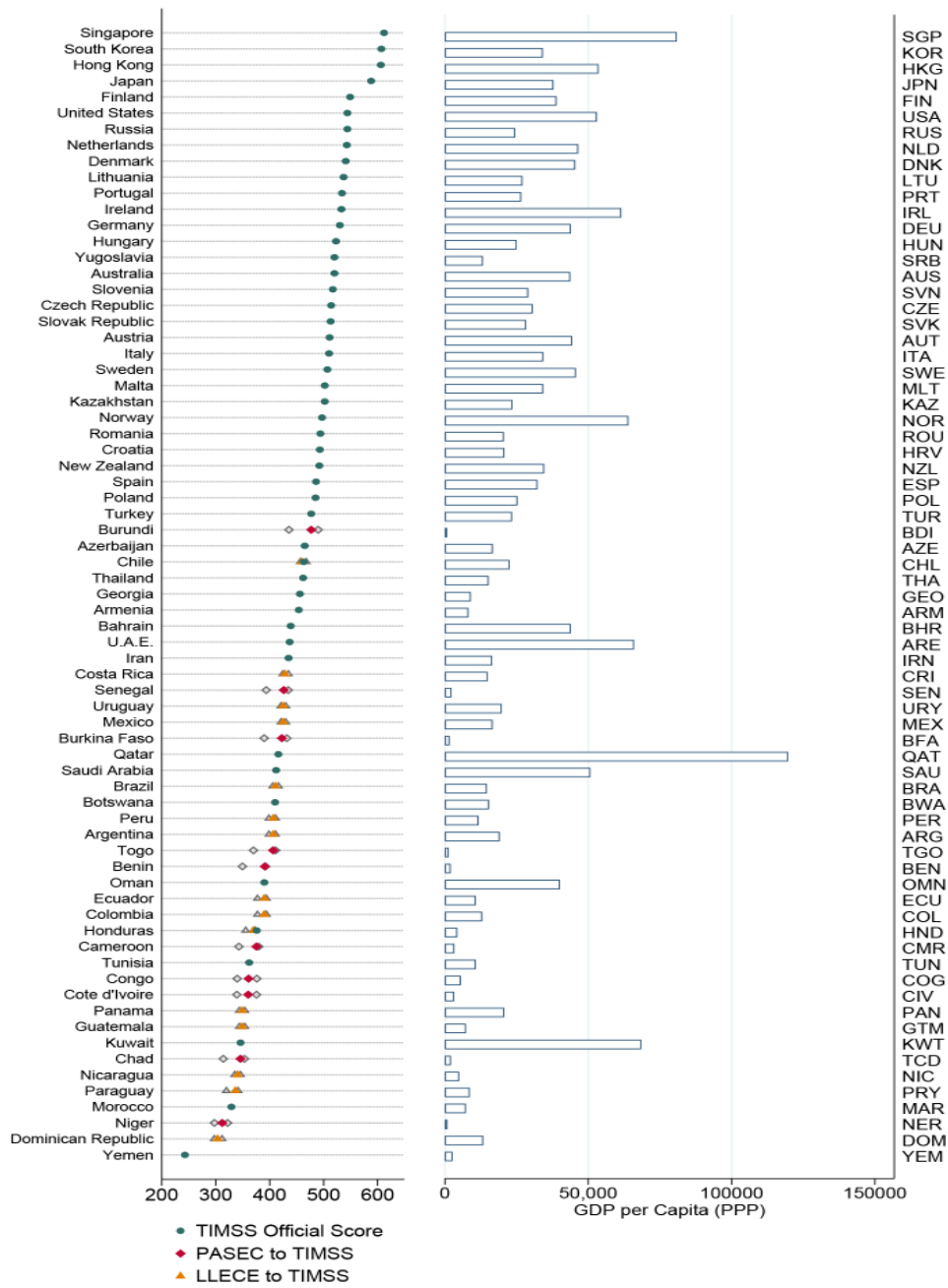
This is further evidenced in Figure 14 that places performance of different countries along with their income levels on a comparative pedestal. Two key facts stand out. First, almost all MENA countries for which international test scores are available fall on the lower end of the global distribution. Yemen occupies the lowest rank and Morocco falls in the fourth lowest slot globally. Second, despite its relatively high educational standing in MENA, Tunisia falls on the lowest end of the global distribution of test scores. Sandwiched between two African countries, Cameroon and Congo, Tunisia's low standing on these measures of education quality highlights an important area of deficiency. Tunisia's performance is similarly poor on the application and reasoning of mathematical concepts. Using comparative data on these disaggregated dimensions of TIMMS scores, Figures 15-16 show that Tunisia lies at the very bottom of the global distribution. In fact, Tunisia's aggregate scores are lower than that of Saudi Arabia and Qatar, the two oil-rich Gulf states in the list. While comparative scores on Jordan are unavailable, most MENA states lie below the blue line demarcating the bottom of the global distribution.

Figure 13: Educational quality and public spending on education



Source: Patel and Sandefur, 2020.

Figure 14: Cross-country ranking of TIMMS scores



Source: Patel and Sandefur, 2020.

In a recent examination of the global test scores, Patel and Sandefur (2020) offer another insight that is hugely relevant for this paper: parental income is a stronger driver of test performance in countries with higher income inequality. In other words, children's test scores are more strongly correlated with parental incomes in countries with higher Gini coefficient of inequality. This shows that education is not always a passport for higher inter-generational mobility in developing countries. As MENA states are increasingly unable to provide public sector jobs, students who possess educational credentials without the skills demanded by the market have little hope of being absorbed by the formal private sector. Our brief analysis on educational quality above highlights a worrying aspect of social spending efficiency: while public spending has afforded greater educational access and increased the average years of schooling it has not been associated with higher educational quality at least in one of our focus countries (Tunisia) for which comparable data is available.

Next, we turn to MENA youth perceptions on inequality, both of outcomes and opportunity, and quality of provision of education and healthcare. We also analyze youth perceptions on civic participation and social exclusion to further the goal of social justice and address inequalities in their societies.

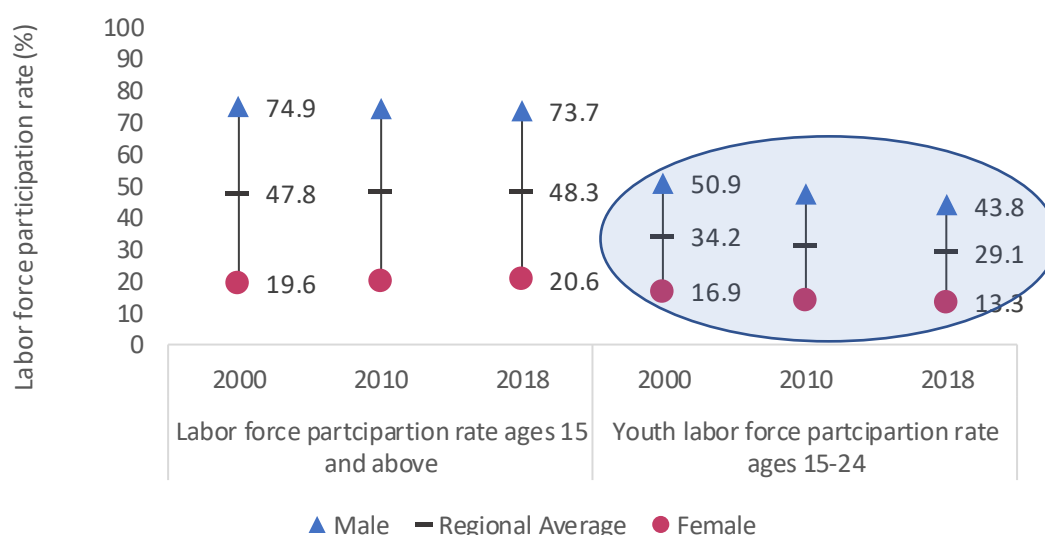
Section V: Perceptions of the Arab Youth

For a broader understanding of social justice and its perception by local populations, it is relevant to look at civic participation and social exclusion. When talking about local Arab populations, a particularly significant, yet frequently excluded, segment from the region's social contract is the youth. Therefore, it is incumbent upon anyone looking into social justice to address youth perceptions about social justice as these can be extremely revealing on how a country is faring in terms of social spending policies. Indeed, while the MENA region as a whole has achieved significant improvements in health and education and has been able to shield its populations from some of the worst deprivations, it needs new growth frameworks that include greater employment opportunities and better conflict mitigation strategies to prevent slippage on the social front; especially from the youth.

According to UNICEF (2019), children and young people (0-24) in the MENA region currently account for nearly half of the region's population and have the potential to become agents of change. For instance, in Tunisia, during the 2011 Jasmine Revolution, most protesters were young adults demanding social justice and civic participation and remain dissatisfied with

the results almost a decade after the revolution. Similarly, in Jordan, where 70% of the population is under 30 years of age, the country is yet to work out an effective national youth strategy to develop policies specifically focused on young people’s health, education, employment, and civic engagement.⁴ Verily, on the question of employment, Arab labor markets are far from being accessible to the youth as shown in figure 17 below.

Figure 17: Labor Force Participation Rate in the Arab World



Source: ESCWA, 2019.

It is important to look at youth perceptions about the current state of social justice, especially in the cases of Jordan and Tunisia for the purposes of this report, to evaluate the improvements achieved, shortcomings faced, and future social spending needed for inclusive social justice. In light of this, we present evidence from the Arab Barometer and Arab Youth surveys to evaluate the perceptions of the youth on current social spending patterns aimed at achieving social justice in Jordan and Tunisia.⁵

⁴ The 2005-2009 National Youth Strategy resulted in no comprehensive youth policy or strategy due to institutional instability, shifting priorities, financial constraints and lacking political ownership. However, for more details on current youth initiatives in Jordan see UNESCWA Social Policy Brief. (2019). Bridging the Inequality Gap among Young People in the Arab Region. <https://www.unescwa.org/sites/www.unescwa.org/files/publications/files/bridging-inequality-gap-youth-arab-region-english.pdf>

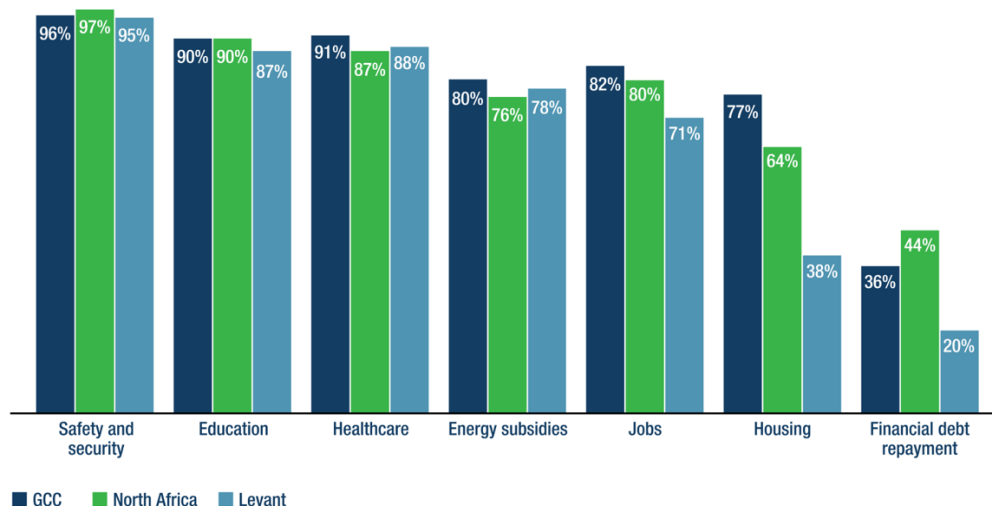
⁵ The Arab Barometer is a nonpartisan research network that provides insights into the social, political, and economic attitudes and values of ordinary citizens across the Arab world. It is also the largest repository of

Thus, through data analysis made available by these surveys, we aim to analyze youth perceptions on a myriad of topics relating to social spending in Jordan and Tunisia to achieve social justice. This is because one way of thinking about social spending efficiency is improving the satisfaction of people in terms of the provision of social services, such as health and education. Since youth is increasingly taking center stage in policy government debates as a driver of social change in both Jordan and Tunisia, and since it represents a major segment of the total population, listening to, and targeting, young people can help address challenges in employment, quality of education, youth-friendly health services, and active citizenship.

Figure 18: Arab Youth thinking that:

IT SHOULD BE THE GOVERNMENT'S RESPONSIBILITY TO PROVIDE _____ TO ALL ITS CITIZENS?

(Ranked by 'all')



Source: Arab Youth Survey, 2020.

On youth perceptions, figure 18 above shows the % (percentage?) age of youth across the Arab world that expect their governments to provide public services such as education and healthcare. The fact that this is an expectation sheds light on the nature of the social contract in the Arab region that, on the one hand, promises to deliver the services mentioned above, but on the other, fails to meet the aspirations of the growing youth. Indeed, it is standard practice

publicly available data on the views of men, women, and youth in the Arab region. The Arab Youth Survey is compiled annually, and presents evidence-based insights into the hopes, aspirations, and attitudes of Arab youth for public and private sector organizations to make informed decisions and policies.

for Arab region governments to provide free education and health, guaranteed public sector jobs, and subsidized goods such as food, fuel, and in some case utilities; however, in return for these services, the authoritarian governments in the region expected acquiescence from their populations. Even in the case of Tunisia, which has a more democratic system compared to most of its neighbors in the region, the implicit social contract under Ben Ali enforced stability and autocracy with the expectation that local citizens will stay away from political participation. At the turn of the century, however, several aspects of these MENA social contracts began to fray due to fiscal deficits and a saturated public sector. This economic downturn hit the youngest hardest, as these had diligently attended school thinking they would get a public-sector job or at least thrive within a protective social contract. This expectation resulted in disillusionment and the Arab region found itself with the highest unemployment rate in the world for young people. In addition to deep frustrations with this new reality, the youth is deeply concerned with the quality of what is left of public education and healthcare.

Figure 19 depicts this concern with the quality of education as we see a large majority of the youth in the Levant and North Africa deeply concerned with the quality of education. This concern stems from outdated pedagogical techniques and rote learning, which fail to equip students with the skills required to integrate the competitive job market. This creates a vicious cycle as it further perpetuates the already rampant inequality of opportunity among young MENA citizens; especially those that can only afford to integrate the public schooling system. This opinion from the youth is consistent with Figure 20, which shows total population perceptions in each MENA country individually on the health and education sectors. Tunisian satisfaction in health and education stands at 36% and 30%, respectively, whereas Jordanian satisfaction stands at 63% and 65%, respectively. This variation can be explained by the fact that, although over the past 60 years MENA states have made considerable improvements in social spending to reduce inequality, the steps taken to achieve this have not been dynamically efficient.

This dynamic inefficiency in social spending, especially in education, has contributed to the creation of youth aspirations in terms of expected salaries and employment opportunities that neither the private nor the public sectors have been able to meet. As a result, the youth has been systematically marginalized and has become an exclusionary voice in the region. In terms of the disparity in satisfaction between Jordan and Tunisia, this can be explained by several structural and institutional realities unique to Tunisia as compared to Jordan. Tunisia boasts a

political system with a more open polity and historically invested heavily to develop its educational sector. As a result of this, it has an emerging constituency of young citizens empowered by education, with increased expectations and awareness, demanding their rights. This increased awareness results in low youth perceptions about the current quality of education in the country. This awareness is also what ignited the flames of the Arab Spring in Tunisia, which was by no means a coincidence as the country has a growing middle-class grievance fueling protests and demanding change. Tunisia also has greater spatial disparities that can explain the low satisfaction rates. Finally, the year during which this survey was carried out, 2019, matters as Tunisia is currently passing through a transition phase with what many young citizens perceive to be an unclear trajectory.

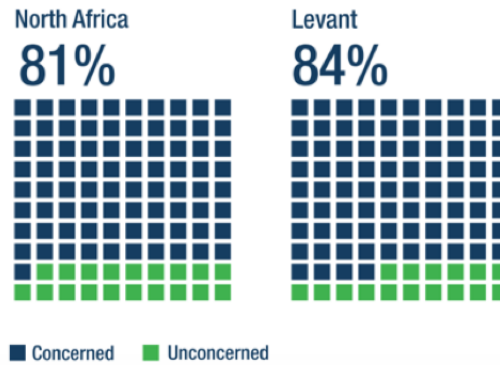
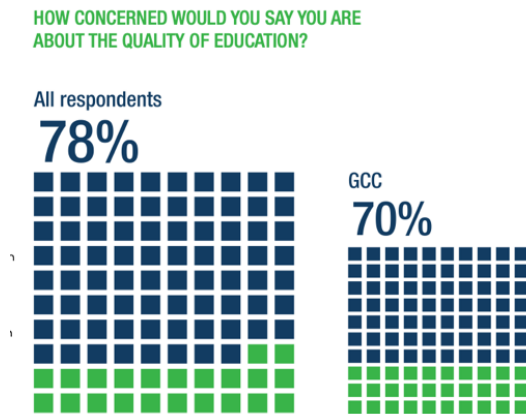
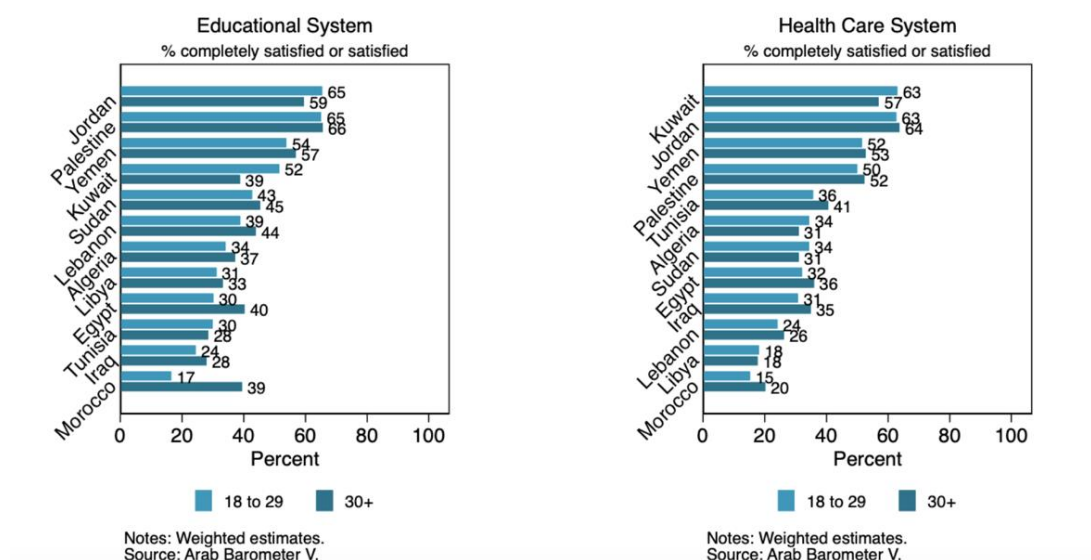


Figure 19 : Arab Youth perception about quality of education:



Source: Arab Youth Survey, 2019.

Figure 20: Citizen Perceptions on the Education and Healthcare Systems



Source: Arab Barometer, 2020.

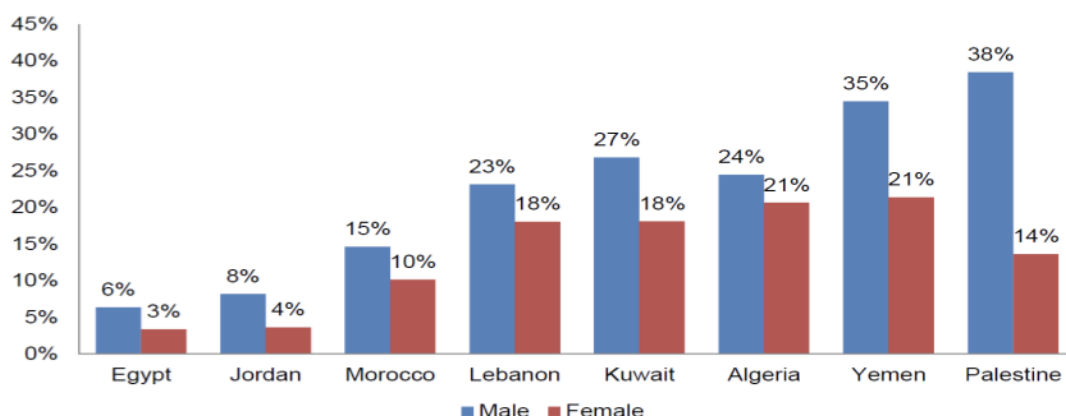
Unfortunately, the Arab World’s younger generations remain trapped in an aspirational crisis that is driven by their disappointment with the persistence of the *status quo*. This *status quo* can be challenged if the youth seeks greater representation and voice in the realm of politics for civil engagement. Indeed, there has been a rise in self-expression in the region, and this translates into more social tolerance, equality, and political involvement (ESCWA, 2018). This is a positive development as social justice can only be achieved by combatting inequality at all levels; including within youth civic representation and right to political participation.

The MENA Region’s Poor Civic Engagement

According to ESCWA, social justice is a normative concept that is based on fairness and the principles of equality, equity, rights, and participation. Therefore, the principle of participation is a fundamental element of social justice given its centrality to a number of tools that are conducive to the implementation of a social justice agenda. One such tool is undoubtedly civic engagement. However, civic engagement amongst young people in the Arab region is the lowest in the world, with a median of only 9 % of youth across Arab countries volunteering with a civic organization in a given month (MENA Youth Hub, 2017). This is in part because young people are disillusioned with their political systems and with the lack of

action of these to address their key concerns through national legislations and policies enabling the youth to voice their concerns and opinions(See Figure 21 below).

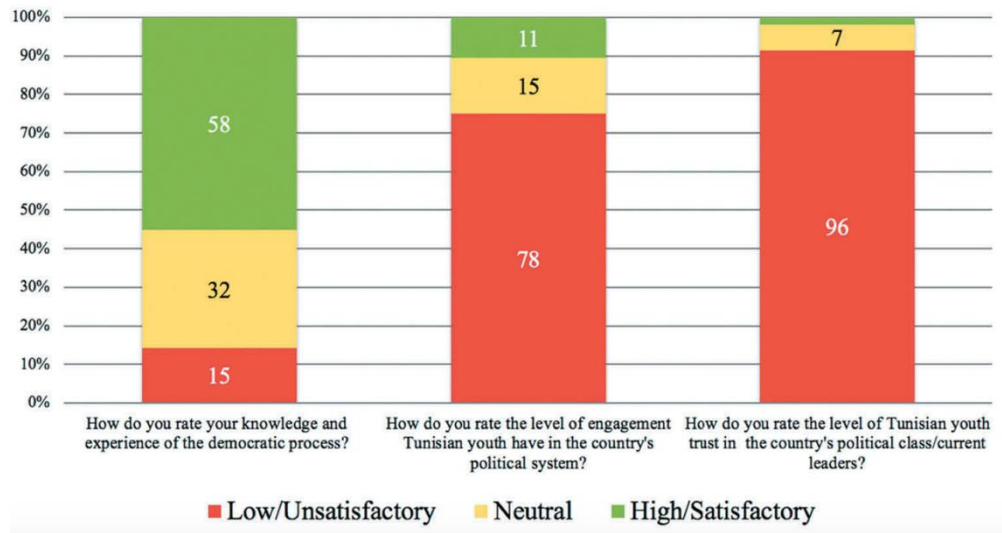
Figure 21: % age of Youth Who are Members of Civic Groups (2017)



Source: MENA Youth Hub, 2017.

Figure 21 points to the reality of MENA youth participation in civic groups, which is worryingly low, particularly in Jordan and Egypt. Although Tunisia is missing, it has been documented that post the 2011 revolution, youth has been disengaging from political activities as their trust in politicians and political institutions subsided (Mansouri, 2020). This was clearly noticed during the 2014 Legislative and Presidential Elections, which saw a drastically low voter turnout amongst the youth (Ibid.). Thus, the current % age of civic participation by the youth in Tunisia may well be closer to Jordan than expected. This grim outlook for Tunisian democracy by the youth is clearly represented in Figure 22 below.

Figure 22: Tunisian youth rating of civic engagement and level of trust in political institutions



Source: Mansouri, 2020.

Clearly, a majority of Tunisian youth, despite being highly aware of the democratic process of their country, still see an overwhelmingly low level of civic engagement by their counterparts, and almost completely lack trust in the country’s political institutions. Furthermore, low levels of civic engagement are confounded by spatial disparities as in under-developed and rural areas only 3% of the youth actually participate in civil society organizations (Ibid.). All this points to the overarching reality in the MENA region that political apathy from the youth is a clear sign of their disapproval of the political systems within which they exist, and the social spending outcomes they are faced with. Through education and healthcare perceptions, we were able to witness the disengagement of youth from politics, and their diminishing trust in the systems that govern them as these are exclusionary and unable to reconcile youth aspirations with the socio-economic reality on the ground.

Following this section, the paper offers concluding remarks and policy recommendations to guide policymakers and government alike when making decisions about social spending dispersion, and where it should be focused to put their countries on the path towards achieving inclusive social justice.

Section VI: Policy Implications and Conclusions

Unlike studies that have looked at the impact of spending on growth and human development, this paper primarily focuses on income inequality as a key determinant of social justice. Considering the inequality-reducing impact of education and healthcare, we found that

secondary school enrollment and hospital beds per 1000 appear as the most important correlates of changes in income inequality over time. We also found that the inequality-reducing effect of the dimensions discussed is stronger in Jordan and Tunisia, relative to the rest of the world indicating the potential of secondary education and hospital beds per capita to reduce inequality over time. Furthermore, we found that other commonly studied dimensions, such as infant mortality rates and life expectancy hold no explanatory power with respect to income inequality. Lastly, in our analysis, these two dimensions stood out because, when looking at efficiency of spending and broader economic and political dynamics of a state which have a bearing on how and where money is spent, we noticed that it is not simply enough to increase spending in education and healthcare to create greater equality or achieve social justice.

There are some key areas of success in Jordan and Tunisia in the realm of public spending efficiency in education and healthcare that merit mention. These successes include the expansion of basic healthcare and education infrastructures; a considerable improvement in the provision of primary education, and the improvement of equity outcomes across different spectrums: rural-urban, male-female, wealth status, etc. There has also been a sizable improvement in secondary education outcomes, including youth secondary schooling completion rates and the narrowing of gaps between individuals from wealthy and poor backgrounds. Finally, in the case of Jordan in particular, a notable reduction in spatial disparities has also been a noticeable success. However, despite such general advances in human development, significant gaps in public social provision remain.

While there is consistently lower inequality of outcomes in primary education, in secondary education circumstances of birth---whether the young are born in an educated and wealthy household---are associated with a higher secondary completion rate. Despite its successes in expanding primary education, Tunisia displays the largest disparities in education outcomes due to such circumstances. With regards to secondary education in the Arab world, while the inequality of opportunity is lower for primary completion rates, it is considerably higher for secondary education, and for Tunisia, the inequality of opportunity for secondary school completion rate is double that of primary completion rate. Thus, in terms of enhancing the efficiency of public spending, policymakers ought to reduce the inequality of opportunity in secondary education that stems from privilege and place of the household. In the case of Jordan, there is considerable disparity on stunting between the deprived and non-deprived

groups, and wealth inequality is the main factor for the prevalence of stunting. In terms of inequality of opportunity for secondary school completion rate, Jordan fares slightly better as it has less disparities between extreme groups in terms of the rural-urban divide, but large disparities in terms of wealth inequalities. Thus, in terms of enhancing the efficiency of public spending, policymakers ought to reduce wealth inequalities that stem from privilege and are the main determinant of educational IOP, especially at secondary and higher levels of education.

Another important area of focus for reform efforts is the quality of education, which is a particularly important concern for Tunisia and other Arab states at large. Despite its stellar performance in human development, Tunisia is one of the worst global performers on internationally recognized tests to gauge educational quality. This has, in turn, knock on effects on the ability of young graduates to seek productive jobs in the private sector. Educational quality also figures up as a major concern in our analysis of youth perceptions. Youth concerns in this regard stem from outdated pedagogical techniques and rote learning, which fail to equip them with the skills required to integrate the competitive job market. Hence, to address this issue educational curricula should be revisited to reflect the job market demands. In general, improving the quality of educational provision should be a priority area for improving social spending efficiency.

With regards to healthcare, we show that Arab countries that spend more money on providing public healthcare have greater spending efficiency. Given that the beds per capita in our analysis are a proxy measure for the overall capacity of the health system and includes both public and private hospitals, it is the composition of total health spending that holds greater explanatory power. Countries where public spending is the dominant component of the overall health spending tend to have better hospital facilities, which in turn has a particularly strong inequality reducing impact. Relatedly, out of pocket expenditures (OOPs) are a major concern for the poor and middle-income households in the region, including in Jordan and Tunisia (ESCWA, 2014). Indeed, OOPs have an impoverishing effect that warrants the urgent reallocation of public social spending in healthcare.

Related to this is the considerable disparity in stunting between the deprived and non-deprived groups in both Jordan and Tunisia. Both countries have a high proportion of deprived to non-deprived on stunting, and this holds true whether deprivation is defined on the basis of a household head's wealth and education. This means that both Jordan and Tunisia need to

address this impending social issue by increasing social spending in the healthcare sector to make it affordable for all to get equal access to, and equal treatment in, healthcare. Such inequities in healthcare provision should be a top priority for public spending policies.

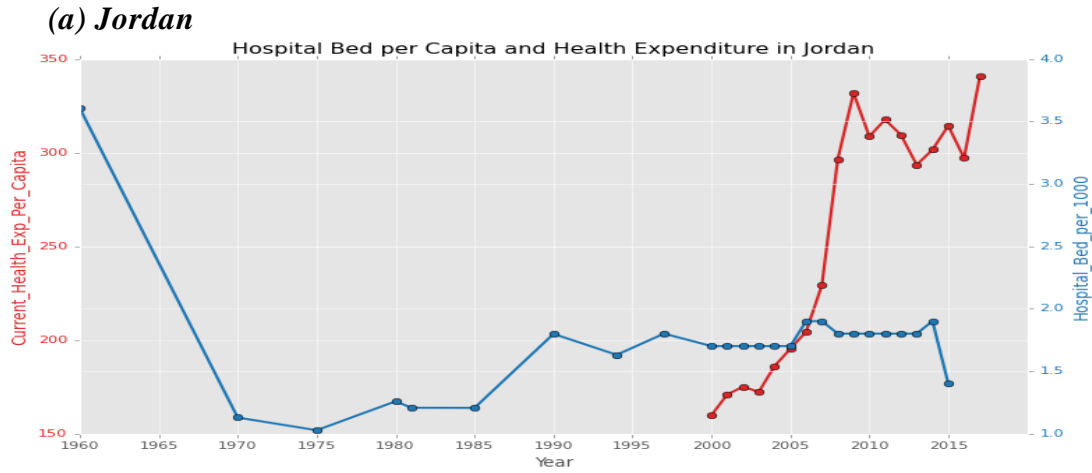
Overall, we find that there are three dimensions of efficiency that are important to reform to achieve greater equality and thus greater social justice. The first imperative is to increase the equality of opportunity amongst the populations, especially with respect to secondary education and general health facilities. The second is improving the quality of education and healthcare, and the third centers around allowing greater youth civic engagement and considering youth perceptions in decision-making processes. We would, however, emphasize the need to consider the issue of public spending efficiency through a broader lens. A key aspect in this regard is the issue of dynamic inefficiency of spending, which emanates from the region's development model. The region's development model has afforded both greater access to education and more public sector jobs that could absorb the newly educated populations. However, sustaining this balance is proving ever more difficult. It is in this context that public spending is becoming dynamically inefficient in delivering both good education and productive jobs. Viewed from this perspective, social spending efficiency also depends on the larger efficiency of public spending and thereby the spending and macroeconomic framework that determines possibilities for private sector development and thereby the returns to education. Within the current global context of a pandemic, both Tunisia and Jordan face an even stronger imperative of increasing efficiency of social spending, as both countries would need to protect initial achievements in human development as well as address the above-mentioned gaps in social service provision.

To conclude, our analysis complements prior understandings of the limitations of the development model adopted by Arab states. The development model adopted by Arab states thus far has delivered well in so far as improving human development, educational attainments, health standards, participation, and civic rights, amongst other things. However, sustaining this development model is becoming more difficult over time, as it was showcased by the deep frustrations harbored by the Arab populations during the 2011 Uprisings, to this day. Indeed, the current model sustained by Arab states is dynamically inefficient and unsustainable as it created a model of development that has afforded higher levels of human development but, in the process, trapped the region's middle-classes in high-aspirations and limited opportunities. This model has generated a considerable middle-class grievance that fed into the Arab

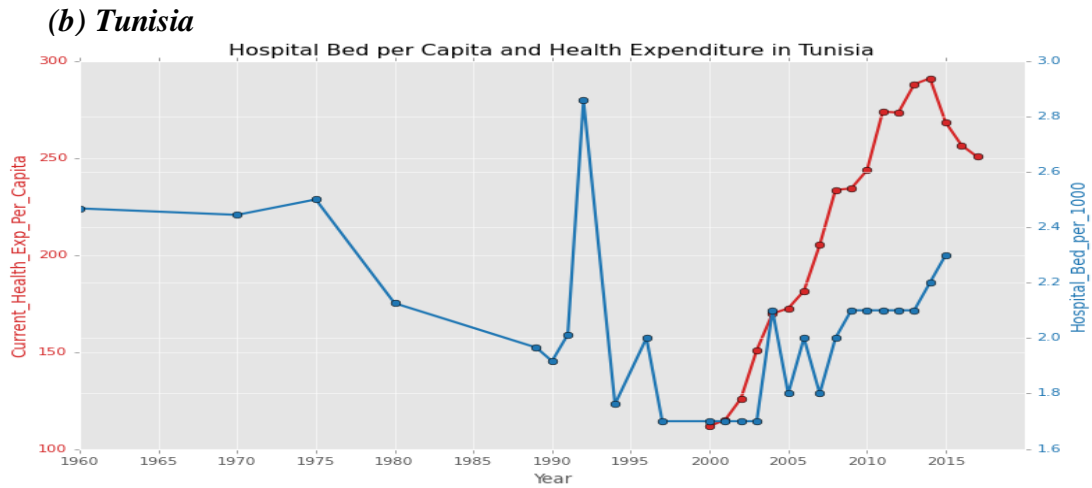
Uprisings of 2011, and the more recent wave of protests in 2019. Alongside consistent conflict and fragmentation in the region, this model has shown that the human development gains achieved thus far cannot be taken for granted. In reality, many countries in the region have witnessed major slippages in their social and development outcomes. Thus, efforts to improve public social spending efficiency by policymakers and government have assumed greater urgency.

Appendix

Graph 1: Evolution of Hospital Beds and Health Expenditures over the Years

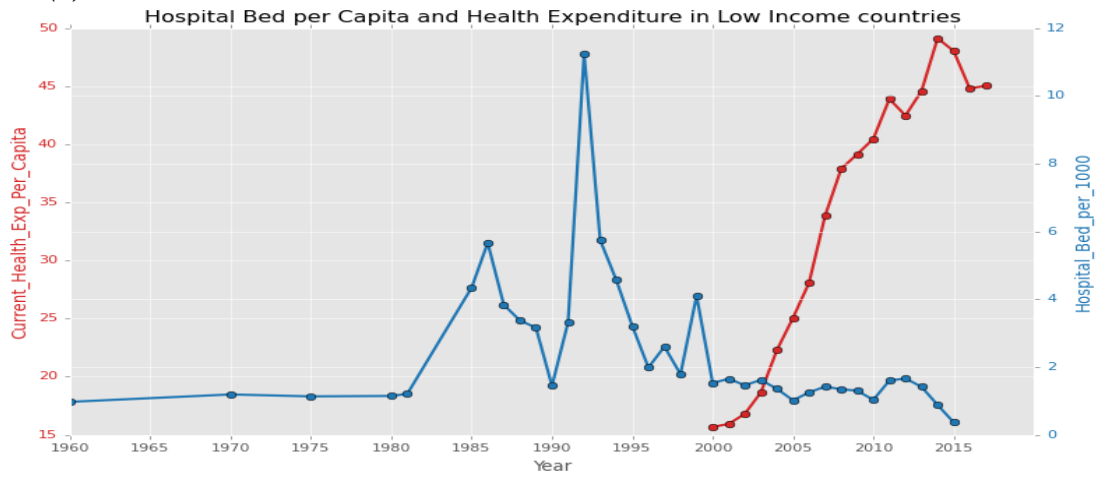


Source: Authors' own calculations from World Bank Development Indicators.



Source: Authors' own calculations from World Bank Development Indicators.

(c) Low Income Countries



Source: Authors' own calculations from World Bank Development Indicators.

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