

# **COVID-19 EXACERBATED OCCUPATIONAL VULNERABILITIES IN MOROCCO AND TUNISIA**

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# COVID-19 Exacerbated Occupational Vulnerabilities in Morocco and Tunisia

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## Background

Labour market outcomes of youths in North Africa have gradually become more precarious over the past two decades, reflecting a rising inequality of opportunity. For decades local labour markets failed to create enough decent jobs to absorb new labour market entrants, and the public sector has been shrinking due to economic reforms introduced since the 1990s (see for example Assaad & Krafft, 2015; Assaad, AlSharawy & Salemi, 2019; El-Haddad, 2020; Shahan et al., 2020, among others). The formal private sector has failed to fill the gap for marginal workers such as women and fresh graduates (Assaad et al., 2020) due to competition from the large informal sector. Those starting out in vulnerable jobs have been finding it difficult to transition to better opportunities later in their careers, and the situation has been deteriorating across successive cohorts (AlAzzawi & Hlasny, 2022).

Inequality of opportunities has led to inequality in economic outcomes, and the concentration of economic fortune among the few most privileged nationals. In Morocco, inequality in household consumption and wealth per capita, as measured by their Gini indices, has been high and rising since the 1990s. In Tunisia, the Gini index of personal consumption has exceeded regional average even though it has been falling; by contrast, the Gini of wealth jumped in the aftermath of the Jasmine Revolution and has stagnated since. Figure 1 illustrates this.

The COVID-19 pandemic has exacerbated the trends in vulnerabilities and inequality. The Moroccan and Tunisian authorities have implemented a sweeping range of measures to prevent the

spread of the virus. Morocco adopted strict closures in the second quarter of 2020, and maintained them for a long period of time (see Figure 2). It has endured a major negative effect on growth, and labour market indicators started gradually recovering only in the early months of 2021. Following a resurgence of cases, the stringent regime was brought back in the second quarter of 2021 and was only slowly scaled back near the end of the year.

In Tunisia, volatile policy responses failed to contain the virus throughout the year 2020. In the first half of 2020, strong policy restrictions were imposed, but were then loosened in the second half, before being tightened again for the duration of the year 2021, as shown in Figure 2. As of October 2020, labour force participation stagnated at 41% of the working age population, and the unemployment rate rose from 13% to 22% (ILO & ERF, 2021). The negative impact then lingered well into 2021.

Across the region, workers without solid attachments to the labour market have faced particularly harsh prospects in terms of job retention and attainment of decent working conditions (Hlasny & AlAzzawi, 2022a, 2022b). Lockdowns and social-distancing rules exerted a heavy toll on the service sector, which is where most recent secondary and tertiary school graduates, and women, are employed (ILO, 2020c). The International Labor Organization (ILO) estimates that over 10 million full time equivalent (FTE) jobs were lost in the Middle East and North Africa (MENA) region during 2020 (based on a 48 hour week), and 5.9 million FTE jobs were lost during 2021. Job losses varied significantly over time and by gender. During the second and third quarters of 2020, when the most severe lockdowns were in

place, over 23 million and over 9 million FTE jobs were lost in the region at large, respectively, while in the following quarters and during 2021, job losses ranged between 4.5 and 6.8 million FTE.<sup>1</sup> Women also lost between 20% and 30% more working hours than men throughout 2020 and 2021 on account of their involvement in family care. Figure 3 illustrates this.

The beginning of economic recovery encountered worldwide and in North Africa (see Figure 3) in Q3-Q4 of 2021 may not have fully offset the harm inflicted on youth and female workers during the preceding 18 months as their skill sets deteriorated and employers reoriented toward more experienced formally-employed workers. The world also continued to suffer from supply chain bottlenecks raising inflationary pressures worldwide. Central banks' belated responses to these continued challenges ended up slowing down growth, even before the Ukraine-Russian Federation war further compounded the harms of the pandemic.

This study tracks the employment status of workers across the different phases of the pandemic to identify: 1) whether marginalised worker groups were hurt more; 2) how their fate evolved following the onslaught of the pandemic and in the course of recovery from it; and 3) what the longer-term effects are likely to be in the months ahead. In light of the notoriously precarious prospects of North African youths and women, this study focuses on these groups and evaluates their prospect of retaining employment or being laid off, and the timing of their termination or re-hiring. The study relies on four waves of the ERF COVID-19 MENA Household Monitor survey carried out over

the period from October 2020 to July 2021, with retrospective questions on pre-COVID-19 status in February 2020. Our study focuses on workers' experience of losing hours or being laid off, and their employment status, distinguishing between those who were in formal "good jobs" at the onset of the pandemic and those who had less desirable statuses such as informal employment, or being unemployed because these outcomes are crucial for workers' career progress.<sup>2</sup>

The rest of this study is organised as follows. Section II lays out our analytical approach, and introduces the available data and the definition of relevant variables. Section III reports the main results, and section IV concludes with implications for labour market policy.

## Static and dynamic analysis of COVID-19 impacts

Using panel microdata from the ERF COVID-19 MENA Household Monitors, we can document the impacts of the pandemic on youth and female workers statically as well as dynamically. Since labour market conditions have varied over the course of the pandemic, we estimate the impact of stringency of the COVID-19 regime on youths' and women's employment outcomes and their experiencing of being laid off temporarily or permanently, having to work reduced hours, or no longer being wage workers. The analysis accounts for workers' demographics and pre-existing employment status as formally employed in the public sector, formally employed in the private sector, and informally employed in or out of establishments.

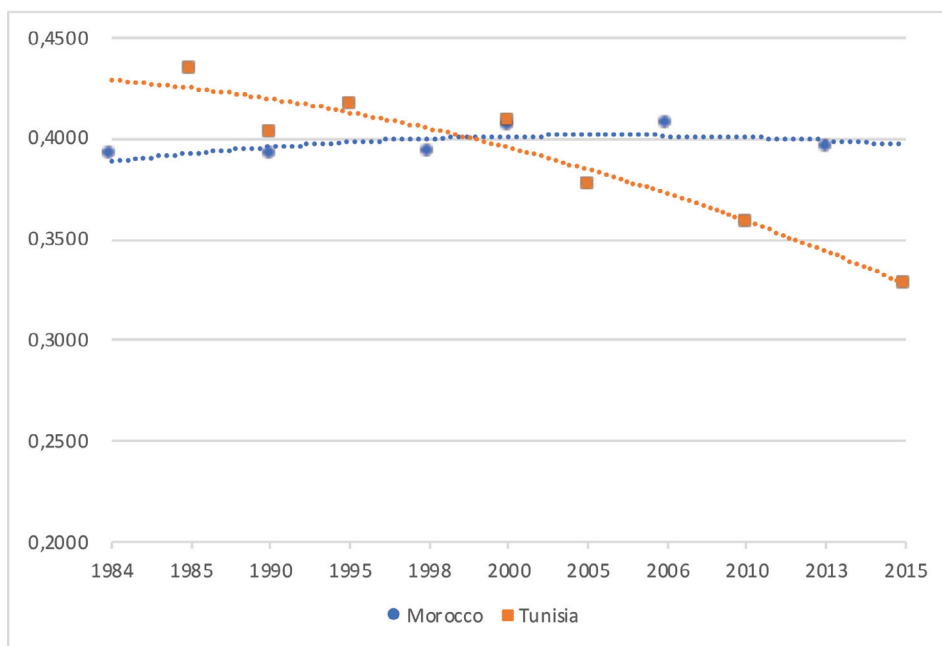
<sup>1</sup> Authors' calculations based on ILOSTAT (May 2022 update).

<sup>2</sup> See, for example, AlAzzawi & Hlasny (2022) on the persistence of initial informal labour market outcomes even after 20 years of labour market experience in the MENA region.

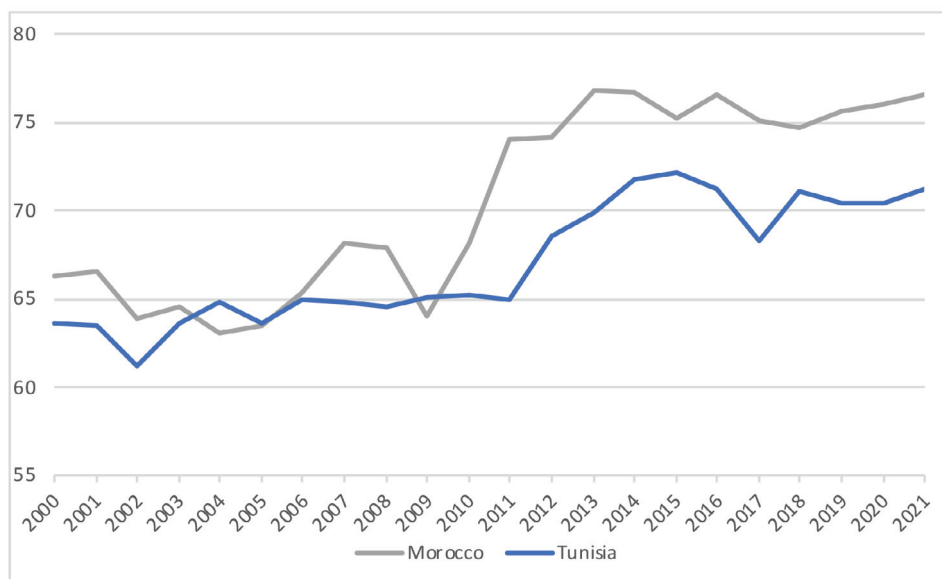


**Figure 1.** Inequality in personal consumption expenditures and wealth

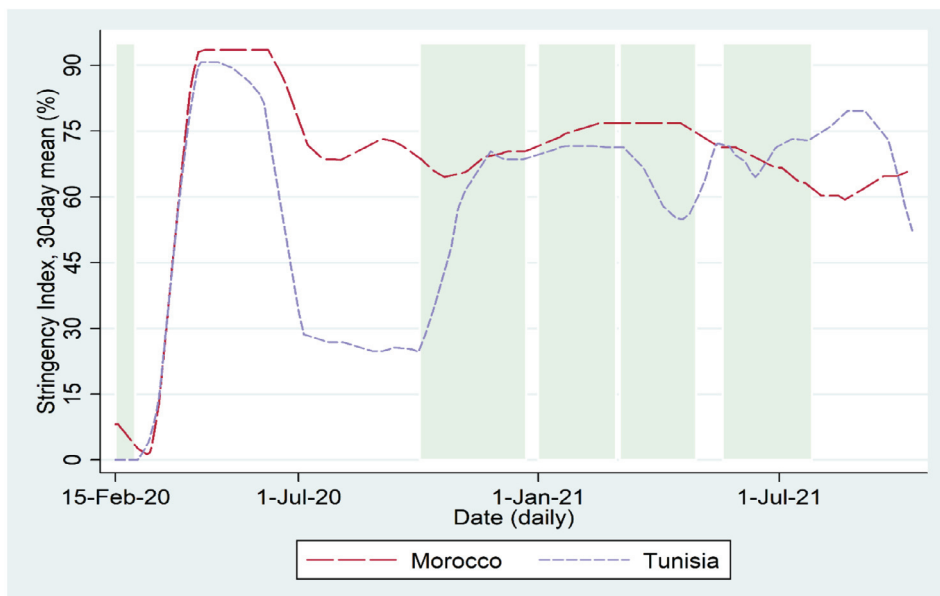
i. Gini index of consumption expenditure per capita



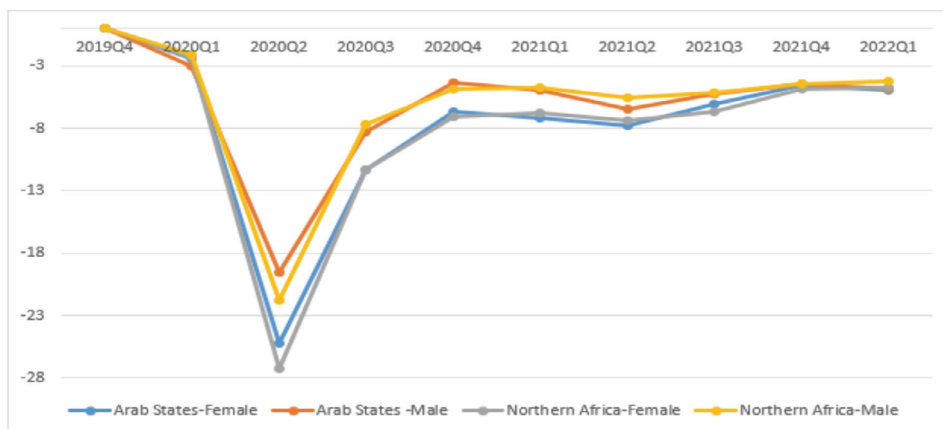
ii. Gini index of wealth per adult



Notes: Authors' calculations based on data from the Moroccan and Tunisian household budget surveys (1984–2015), and from the 2022 Credit Suisse Global Wealth Databook.

**Figure 2.** COVID-19 government response stringency index

Note: Authors' calculations based on the Oxford Coronavirus Government Response Tracker (OxCGRT). Shaded areas show survey periods. Wave 0 occurred during end-Feb 2020; Wave 1 in Morocco and Tunisia occurred during October-November 2020; Wave 2 during January-February 2021; Wave 3 during March-April 2021; Wave 4 during May-July 2021.

**Figure 3.** Working hours lost due to the COVID-19 Crisis (% , quarterly)

Notes: Authors' calculations based on ILO modelled estimates (ILOSTAT, May 2022 update). The ILO COVID-19 Monitor based on ILO's Nowcasting model publishes quarterly values (reflecting up-to-date stringency policies) only at the regional level.

We also examine the transitions in workers' employment statuses from their February 2020 status (as their pre-pandemic baseline) over the course of the pandemic – as of October/November

2020, January/February 2021, March/April 2021, or June/July 2021. The results of this transition analysis are presented visually in Figures 4 and 5. We use a six-prong classification of employment

status: *public sector* workers are all those who, over the past seven days, were employed in formal, regular positions with social insurance, in the public sector; *formal private* are all those who, over the past seven days, were employed in formal, regular positions with social insurance, in the private sector; *informal (private)* workers are those who were employed without social insurance or a contract, either within or outside of establishments; *unemployed* are those who are not presently employed but are actively seeking work; and *out of the labour force* (OLF) are the housewives, retirees and others not employed or searching for work.

Workers 18-29 years of age are classified as youth, while those 30-59 years old as non-youth.<sup>3</sup> Older respondents are omitted as not of the prime working age, or as candidates for early or regular retirement. Full-time students, non-resident household members, and non-nationals are also omitted, as they are deemed not to be competing in the same labour markets as other workers.

To investigate the factors behind workers' outcomes, and sources of the youth/non-youth and female/male gaps, we also estimate multinomial probabilistic models of workers' employment status or their experiencing of lost hours or being laid off, and of their current employment status. These models estimate the probability that workers attain a particular status or experience an event relative to the probability of the baseline option – remaining OLF, or not experiencing adverse events (Buddel-

meyer & Wooden, 2008; Assaad & Krafft, 2014; AlAzzawi & Hlasny, 2022; Aygun et al., 2022). In these models, workers' propensity to transition across employment statuses is made a function of the stringency index of the lockdown-style policies, workers' membership in marginalised groups (age cohort and gender), and demographics. Given the different labour market experiences of men and women in the region even before the pandemic, key covariates are interacted with a gender indicator to allow distinct effects. The COVID-19 stringency index is thus interacted with workers' youth status, and with their gender, proxying for the time-varying labour market conditions in regard to youth and female workers. Youth and female indicators were also used on their own to gauge youths' and women's pre-COVID-19 conditions. The models account for workers' predispositions by controlling their pre-COVID-19 status or their estimated time-constant probabilities of the alternative employment statuses.

## Data

Our analysis of workers' employment vulnerability is based on longitudinal data from four waves of high-frequency telephone surveys – the ERF COVID-19 MENA Monitors for Morocco and Tunisia. These were administered during October-November 2020, January-February 2021, March-April 2021, and June-July 2021 (OAMDI, 2021). Fieldwork for the various waves spanned across major phases of the COVID-19 pandemic. February 2020 (the retrospective 'wave 0') stands for the

<sup>3</sup> ERF data has information on respondents who were 18 to 64 years old at the time of the survey. Since we are primarily concerned with the differential labour market outcomes between youth and non-youth, we extended the age of youth to incorporate those who were under 30 years old rather than the traditional definition of under 25 used by international organisations such as the ILO (ILOSTAT), where youth are typically defined as those 15-24 years old. Many youths will remain students in postsecondary and university education until their early twenties, and hence limiting the youth age to 24 ignores much of the labour market status that these youth will face.

zero-stringency pre-COVID-19 era. October 2020 (wave 1) covers the apex of the pandemic when most economic sectors faced shutdowns and social lockdowns. January-April 2021 (waves 2 and 3) shows the state of affairs in the spring of 2021, when mass vaccinations got underway, and the initial onslaught of COVID-19 eased down. June-July 2021 show a period when the easing down continued, before being interrupted by the explosion of the virulent Delta variant in the fall, and Omicron variant in winter.

ERF COVID-19 MENA Monitors contain individual-level expansion weights facilitating representativeness within a certain sample-frame of contactable respondents. They allow us to track the same workers and their employment outcomes over the span of up to 17 months, from February 2020 to July 2021. The surveys include information on workers' employment type, hours worked, income, and the status of self-employed workers' enterprise. For explanatory variables, the surveys cover workers' education, dependents by age category, residence and other demographics.

Survey microdata is supplemented with national data on the tightness of the COVID-19 lockdown-type policies – namely the 30-day moving average of the stringency index in the country (Hale et al., 2021), which varies by survey respondent according to their actual survey date.

## Findings

### Labour market experiences of vulnerable groups

Figure 4 presents the COVID-19-era labour market experiences of those who

were wage workers in February 2020, separately by age and gender. The survey asked these workers whether they had experienced temporary or permanent layoffs, decreased hours or were no longer wage workers over the last 60 days. In both countries public sector workers were least likely to be affected regardless of age and gender. If they faced any changes, the most typical experience was in the form of reduced hours. Women, regardless of age, were more likely to experience being “no longer a wage worker.” Youths were also often more likely to face decreased hours and temporary layoffs, especially in Tunisia. In both countries, informal workers were more likely to experience these negative events than formal private workers, and particularly those employed informally outside of establishments who were highly likely to face temporary layoffs. Within this group, high shares of youth males faced temporary layoffs. By June 2021 (Figure 4iv) the situation slightly improved in Morocco compared to Tunisia, where many more workers continued to face reduced hours and temporary layoffs. Tunisian women of both age cohorts were especially vulnerable to temporary layoffs.

Figure 5 depicts transitions over time for workers who were in each employment category as of February 2020. We focus on the transitions from February 2020 to February 2021 and to June 2021, and only comment below on a few key observations from each country highlighting important tendencies across various groups and country differences. (Transition figures to November 2020 and April 2021, waves 1 and 3, are not shown due to similarities with the waves 2 and 4 depicted here, and to save space. These are available on request.)

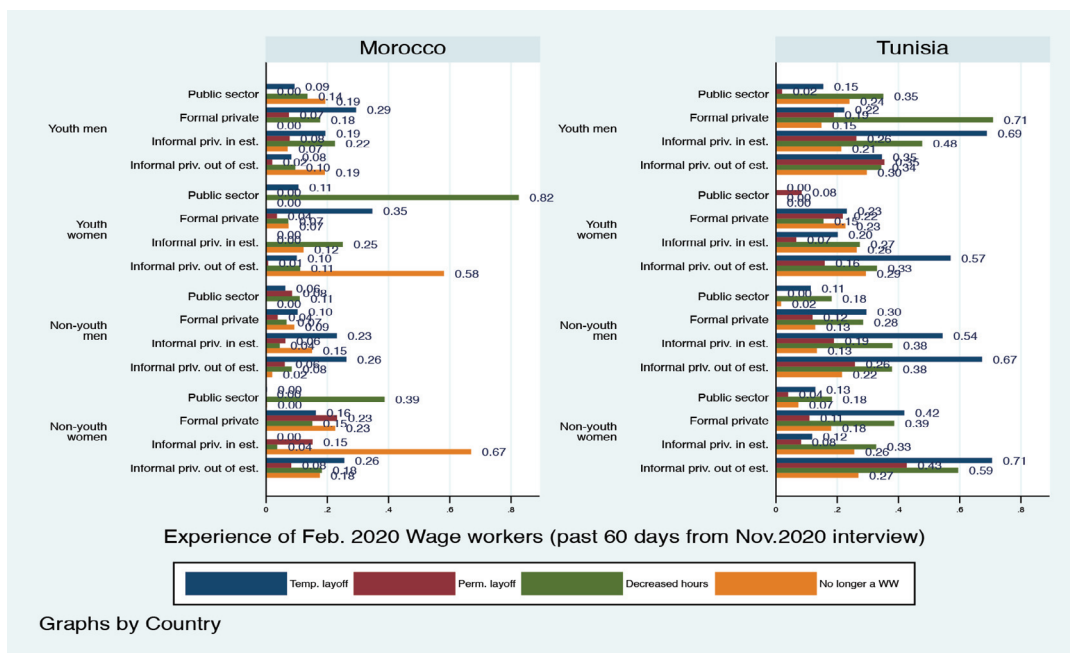
For Morocco (Figure 5i), we find that some public-sector workers were unable to maintain their employment status, especially youth females in February 2021, when 44% of them became unemployed, while by June 2021 there was some transition to informal employment and to being unemployed for both age cohorts of men. Over 50% of non-youth women who were public sector wage workers in February 2020 changed their status by June 2021, finishing either in the formal private sector or out of the labour force. Young workers who had been unemployed in February 2020 fared worse over time, getting entirely discouraged and leaving the labour force. 86% of young males and 44% of young females who had been unemployed in February 2020

were still looking for jobs in February 2021. By June 2021 many young males had accepted informal employment while the majority of young females had exited the labour force altogether.

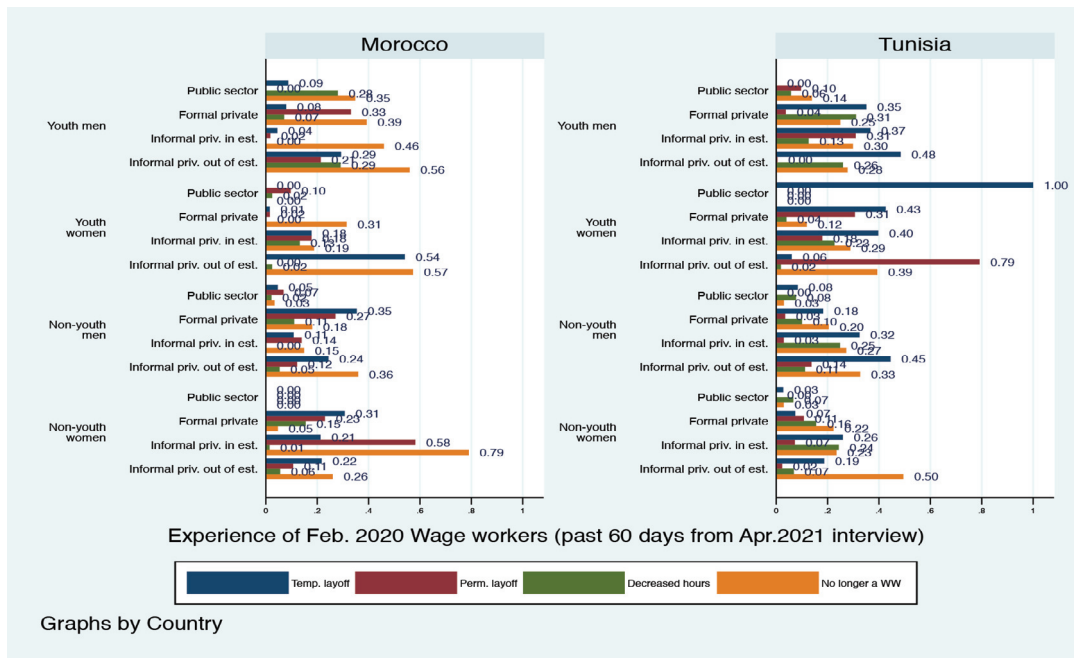
In Tunisia (Figure 5ii), a large share of those who had been formally employed in the private sector in February 2020 transitioned to the informal sector, and in the case of women to unemployment or economic inactivity. It is also noteworthy that a large share of women, particularly non-youth, who changed their status, transitioned to being out of the labour force by June 2021, almost 18 months after the beginning of the pandemic, confirming the lingering labour market effects of crises on women.

**Figure 4.** Experience of Feb. 2020 wage workers in past 60 days

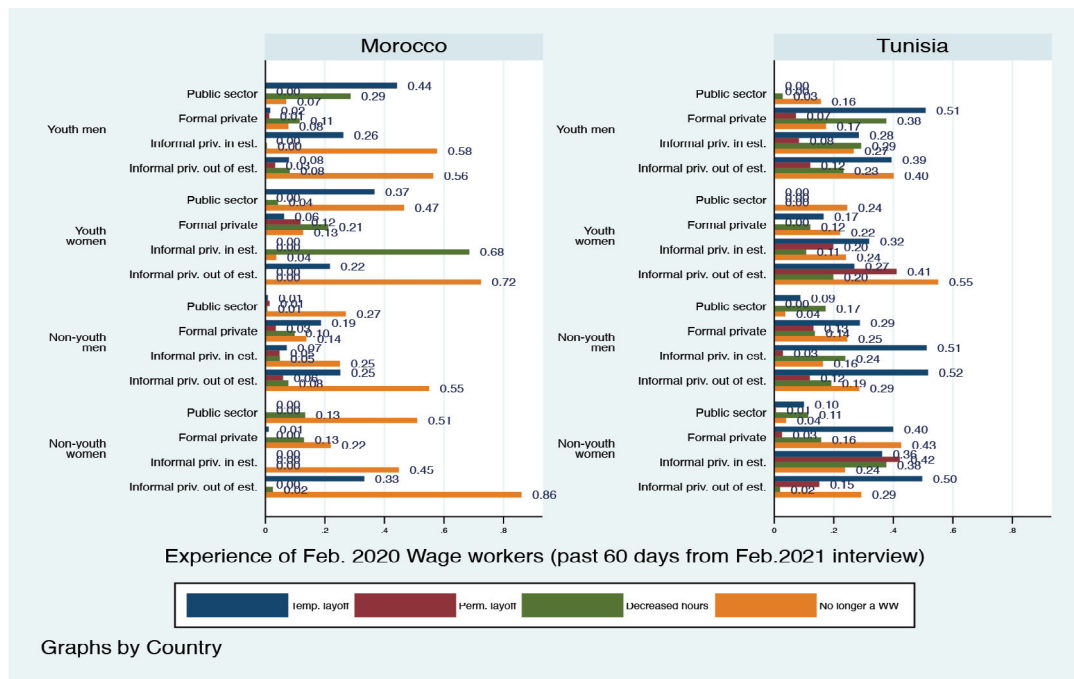
i. As of Nov. 2020 (Wave 1)



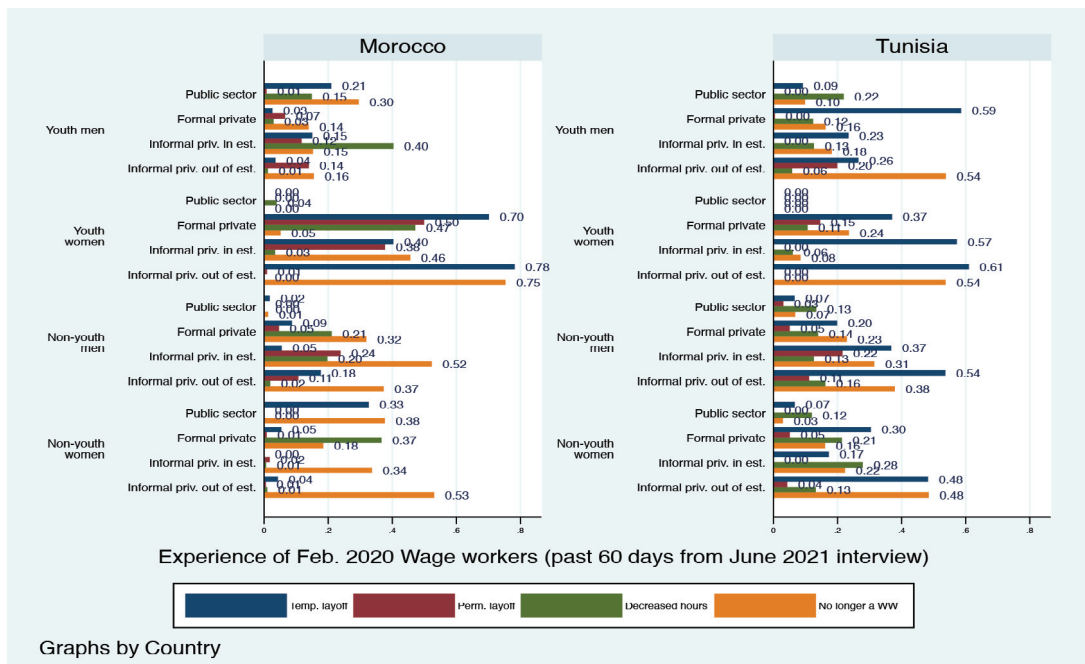
ii. As of Feb. 2021 (Wave 2)



iii. As of Apr. 2021 (Wave 3)



iv. As of June 2021 (Wave 4)



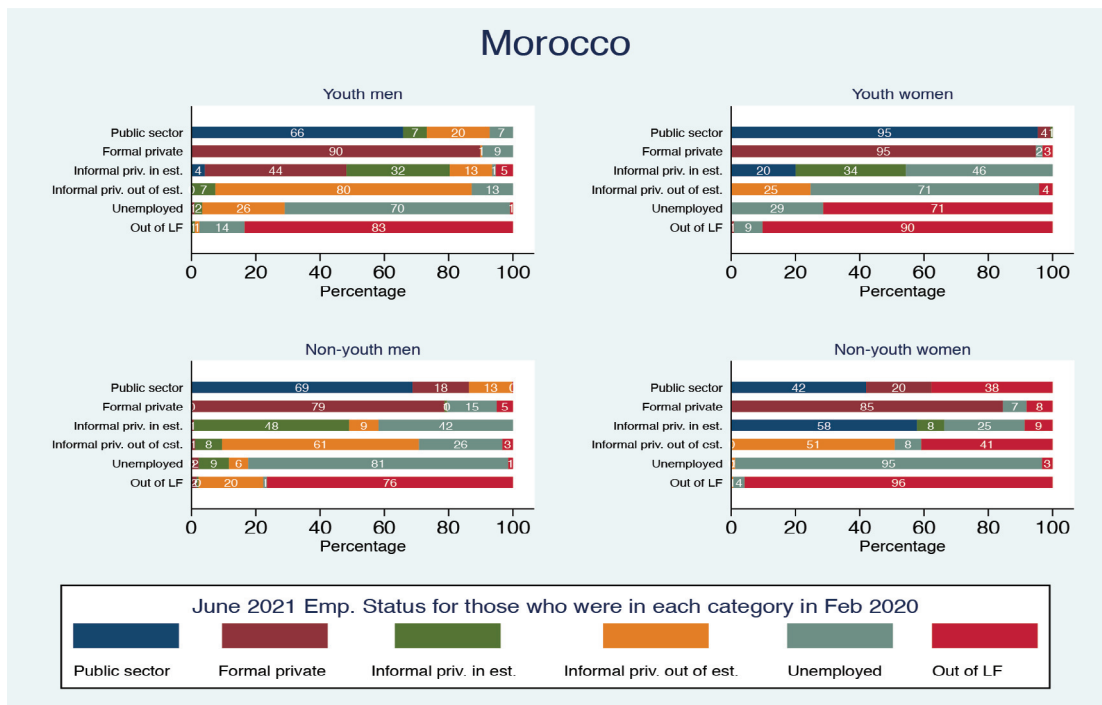
Notes: Authors' calculations based on ERF COVID-19 Household Monitors, Waves 1–5. Wave 1 occurred during October–November 2020; Wave 2 during January–February 2021; Wave 3 during March–April 2021; Wave 4 during May–July 2021.

**Figure 5.** Employment status transitions from Feb. 2020 to Feb. 2021, and June 2021

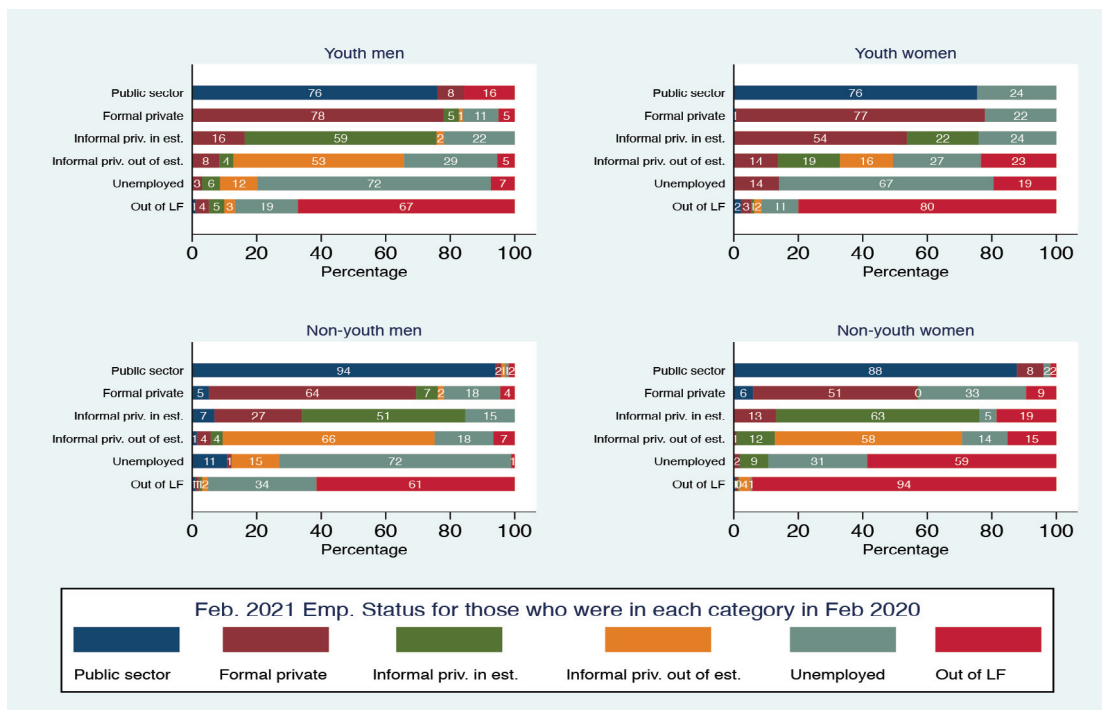
i. Morocco (Waves 2 & 4)



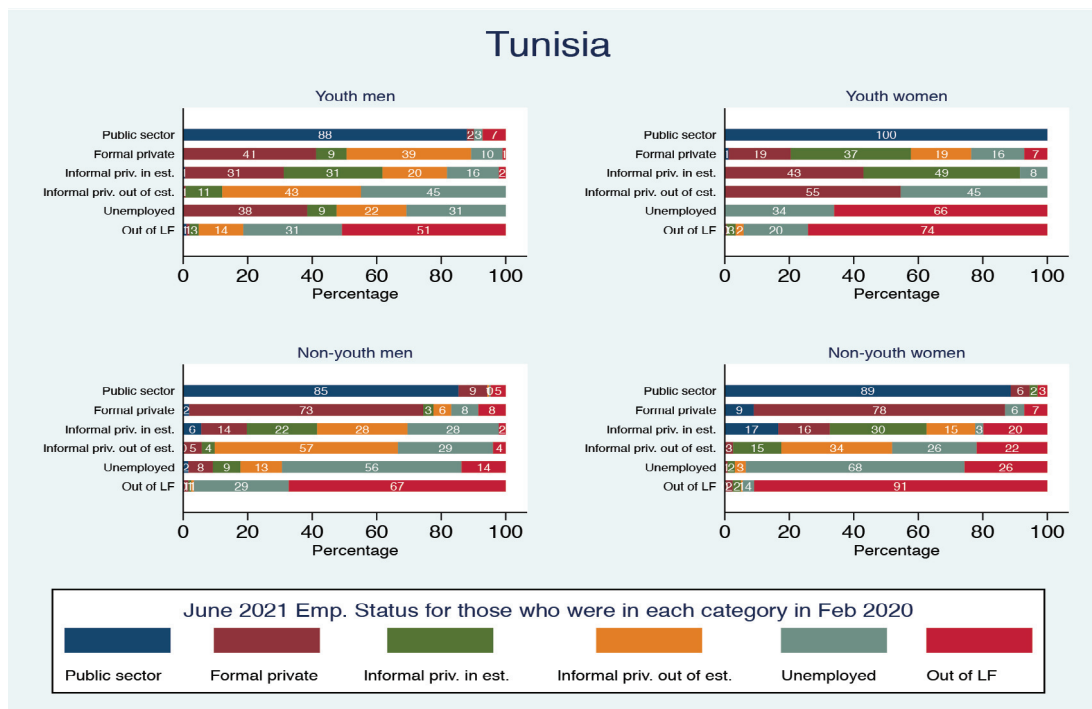




ii. Tunisia (Waves 2 & 4)







Notes: Authors' calculations based on ERF COVID-19 Household Monitors, Waves 2 and 4. Wave 2 occurred during January–February 2021; Wave 4 during May–July 2021.

### Factors behind differing labour market experiences

Given the significant differences in the COVID-19-era experiences between distinct gender and age groups, the immediate question arises regarding the causal interpretation of the differences. We need to assess whether it was the individuals' membership in the marginalised groups that was responsible for their experiences amid the pandemic, or whether other factors – such as their demographics, or discrimination irrespective of COVID-19 – were responsible.

Multivariate probabilistic analysis of adverse labour market experiences reveals several important tendencies. The stringency regime of government responses is shown to have had the theorised ex-

acerbating effect on workers experiencing lost hours/pay or layoffs. In Tunisia, youth workers were more susceptible to losing hours/pay or being laid off under the baseline non-stringent regimes, but in Morocco youth workers fared as well as or better than older workers. Women's prospects did not differ from men's in the baseline but, under stringent COVID-19 regimes, their prospects of experiencing adverse impacts rose relative to men. Tunisian women with pre-school children were more likely to face adverse impacts including a job loss in Tunisia – through a layoff or a voluntary separation to provide childcare – but, in Morocco, mothers of pre-school children were not affected more gravely than other women. This is partly due to the more complete reopening of Moroccan schools in the fall of 2020 and spring of 2021.

Workers starting out in informal jobs, and especially those working outside establishments, were significantly more likely to experience adverse impacts including layoffs amid the pandemic, confirming the findings from the transition analysis. Finally, mitigating the effects of the pandemic on workers' labour market outcomes – as evidenced by statistical analysis of ERF COVID-19 Household Monitors – was the workers' human capital, including their advanced education and higher potential work experience. These qualities protected workers from the most adverse impacts such as layoffs.

Multivariate probabilistic analysis of workers' employment outcomes reveals consistent patterns. The COVID-19 regime stringency had the expected negative effect on workers' employment prospects, including the coveted formal employment, and a positive effect on remaining unemployed or out of the labour force. Youths and women had a lower risk of being employed, and a higher risk of remaining unemployed or OLF even before the onset of the COVID-19 stringency regimes, but this effect disappears or is overturned when the groups' indicators are interacted with the stringency indicator. Among Tunisian men, youths had a lower risk of remaining employed in the fall of 2020, and the gap further increased all the way to July 2021. Being married made one less likely to remain employed, and more likely to exit the labour force, suggesting that workers' engagement in family care work was an important consideration for workers and/or their employers.

Workers with a lower prior propensity to be employed were also typically less likely to hold employment and more likely to become unemployed or OLF under COVID-19. This reflects the high degree of state-dependence of employment

status, and the difficulty for workers to exit vulnerability, across the 17-month spell of time under our analysis. Countering the adverse impacts of COVID-19, workers' education and potential work experience helped them retain employment and avoid unemployment. However, the potential work experience was also positively associated with an increase in the risk of exiting the labour force, suggesting that more experienced workers may have chosen an early retirement, or chose to exit if they got laid off.

In sum, these findings confirm several hypotheses regarding the dynamics of workers' employment statuses during the pandemic. Non-youth males outperformed youths in terms of employment prospects, but the youths' and non-youths' outcomes could not be consistently ranked among women as the government responses to the pandemic varied over time. The results also highlight the importance of higher education, work experience, access to urban labour markets, and initial investment into attaining a formal job, for workers' ability to reach and hold decent jobs down the line.

## Conclusions

This study aimed to bring attention to the impacts of the COVID-19 crisis and of government responses to it on the trend in employment outcomes in two developing countries in North Africa, a region characterised by particularly high levels of informality and labour market vulnerability, Morocco and Tunisia. Focusing on youths and women in Morocco and Tunisia, we confirm quite confidently that these groups were disadvantaged even before the onset of the pandemic and the government lockdowns and other responses to it. Stringency of governments' response to COVID-19 was found to have the expected adverse effect on em-

ployment and labour force participation in both countries, as well as on the workers' experiencing of lost hours, lost pay, and temporary layoffs. Evidence of particularly adverse impacts on youths, women and child caring mothers was also observed, but was weaker and less consistent. Sketching the employment prospects of workers to months following the peak of the pandemic, to June-July 2021, men's employment prospects appear to have recovered from the pandemic shock of the year 2020 and early 2021, with little difference between age cohorts. Women, by contrast, have witnessed more of a stagnation of their status by being largely excluded from work opportunities.

These results are valuable as a yardstick for policy advocacy, and for more advanced, disaggregated analyses as more and higher-quality data becomes available. Our analysis points toward several important factors behind workers' employment vulnerability amid crises. Human capital as measured by education takes centre stage at improving workers' employment prospects. Workers' potential work experience, proximity to labour markets in the countries' key cities, and fresh graduates' investment in landing in a formal initial job are also critical. The regionality of employment impacts is also a sign

that local policy measures may supplement national responses to tackle crises and support workers.

Our analysis points to the need to assist those most susceptible to vulnerability, especially amid the lasting COVID-19 effects and other potential future shocks, particularly those workers who were knocked off their feet by the crisis. While our analysis does not estimate this explicitly, we surmise that the countries' expansion of their pre-existing social-protection programmes during the pandemic is contributing to the alleviation of workers' hardships, and the recovery of employment prospects. In fact, social protection programmes provided an important safety net in North Africa even before the onset of the COVID-19 pandemic, and labour market interventions implemented in selected sectors helped to dampen informality in Algeria, Egypt, Morocco and Tunisia (Kiaga & Leung, 2020). Takaful and Karama in Egypt, and United Nations High Commissioner for Refugees (UNHCR) cash transfers to Syrian refugees in Jordan helped to alleviate poverty and keep them employable. During the pandemic, countries expanded their pre-existing programmes, for instance expanded eligibility and benefits in Egypt's Takaful (Krafft et al. 2021).

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