

Polarization of the labour market: are middle-skill jobs disappearing?

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Recent evidence suggests that labour markets are becoming increasingly polarized (World Bank, 2016; Breemersch, Damijan and Konings, 2017; Goos, Manning and Salomons, 2010; Autor, 2010). Middle-skill occupations are losing ground compared to low- and high-skill occupations. Skill-biased technological change, off-shoring, deindustrialization, import competition and labour market institutions are often cited as driving factors. This trend has, to an extent, contributed to the rise in income inequality observed in many countries as argued in the [World Social Report 2020](#). The discussion on polarization is often focused on the experience of developed countries, but there is some evidence that a similar trend is unfolding in developing countries (World Bank, 2016). Has the share of middle-skill jobs universally declined and does this imply these jobs have disappeared en-masse in favour of low- and high-skill employment? This brief explores the data and concludes that middle-skill employment continues to play a vital role in the global labour market.

Shares versus numbers

In order to evaluate the trend in low-, middle- and high-skill employment, one can review both the respective shares in total employment and the actual number of jobs per skill level. Both measures highlight different aspects of labour market polarization. The ILO provides data on the employment distribution by skill level based on labour force surveys and census data. A total of 113 countries (accounting for 58 per cent of the world's population) have both a recent (post-2010) and a past observation (at least 10 years prior to the most recent one) to allow for a basic trend analysis for all three skill levels.

Table 1: Change in composition of labour force by skill level (1990s to 2010s)

Direction change	Share of jobs			Number of jobs		
	Low-skill	Middle-skill	High-skill	Low-skill	Middle-skill	High-skill
Increase	44%	24%	81%	69%	76%	92%
Decrease	56%	76%	19%	31%	24%	8%

Source: ILOSTAT (2019). Employment distribution by occupation (by sex) (%) – Annual & Employment by sex and occupation (thousands) – Annual. Available at <https://ilostat.ilo.org/data/bulk/>. Accessed on 5 December 2019.

Notes:

1. The table shows the percentage of countries that have experienced either an increase or a decrease in the composition of their labour force by skill level.
2. For 44 out of 113 countries the first observation is in the 2000s rather than the 90s.

Table 1 shows that the share of middle-skill jobs has declined in 76 per cent of countries with data. This clearly implies that in most countries, middle-skill jobs are becoming a less prominent source of employment. It is not just middle-skill jobs that are losing ground, however. Low-skill jobs are also seeing their share of total employment diminish in a majority of countries. In fact, only high-skill jobs are seeing a near universal rise, with 81 per cent of countries showing an increase in their share. Hence, while labour market shares have been changing, there has not been a universal polarization trend away from middle-skill jobs towards low- and high-skill employment. Table 2 shows the average annual rate of change across countries, which further underlines that the share of both low- and middle-skill jobs has been declining – albeit at different rates – while high-skill jobs have flourished.



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Table 2: Average annual rate of change in total employment share (percentage points)

Low-skill	Middle-skill	High-skill
-0.005	-0.268	0.271

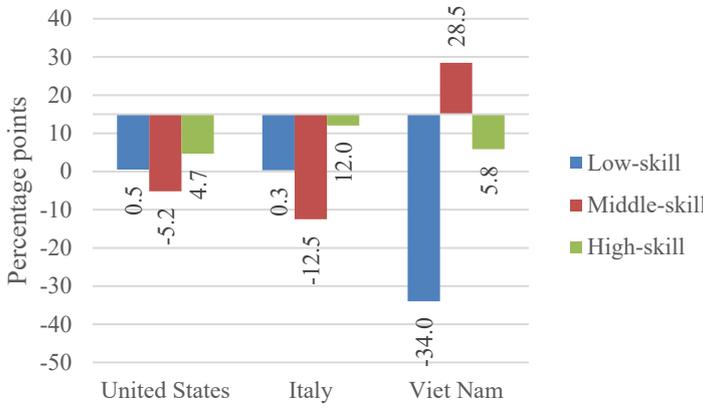
Source: Author's calculations based on ILOSTAT (2019).

Furthermore, the declining share does not mean that middle-skill jobs are disappearing. Turning once more to table 1, the total number of middle-skill jobs has only declined in 24 per cent of countries with data. In fact, low-skill employment fares worse, with a decrease in 31 per cent of countries. On the other hand, high-skill employment consistently sees near universal gains, with 92 per cent of countries showing an increase in the number of high-skill jobs.

A declining share does not necessarily equal fewer jobs

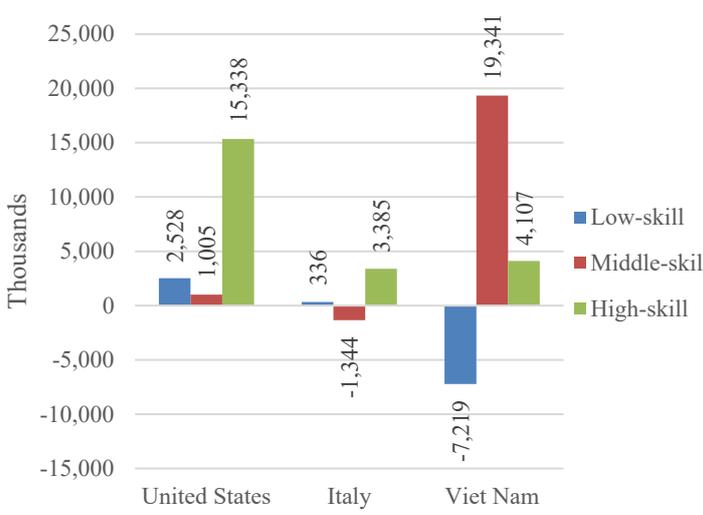
What does this mean? Simply put, the change in labour market shares is a complex phenomenon that is unfolding in different ways across countries. There is little evidence to suggest that the trend is the same everywhere, with the share of middle-skill jobs consistently losing out to low- and high-skill employment. However, this is not to suggest that labour market polarization cannot be observed anywhere. The United States, for example, has seen a sharp decline in the share of middle-skill jobs in favour of the other two categories between 2000 and 2018 (see figure 1). The same holds true for countries as diverse as Belgium, Brazil, Estonia, the Republic of Korea, Mexico and Turkey, among others. However, it is important to note that even for the United States, the number of middle-skill jobs has still increased by approximately 1 million during the same period. As a matter of fact, there are only a few countries where both the share and number of middle-skill jobs declined, while low- and high-skill employment saw an increase in both measures. One such example is Italy, where the level of labour market polarization was significant between 1992 and 2018. However, on the other end of the spectrum, Viet Nam saw a dramatic decline in the share and number of low-skill jobs between 1999 and 2018, while both middle- and high-skill employment flourished. In other words, the experience with changing labour market shares differs substantially by country.

Figure 1: Change in share of employment by skill level for three selected countries



Source: Author's calculations based on ILOSTAT (2019).

Figure 2: Change in number of jobs by skill level for three selected countries



Source: Author's calculations based on ILOSTAT (2019).

Conclusion

Changes in the labour market have occurred in myriad ways around the world. Countries faced divergent local circumstances that each had their unique effects on labour markets. As a consequence, during the past two to three decades the respective shares of low-, middle- and high-skill employment have changed all over the world. However, while the share of middle-skill jobs has declined, there does not



appear to be a universal decline in the number of middle-skill jobs in favour of low- and high-skill jobs. All three skill categories have played important roles in the economies of countries. The relative importance of each of them will continue to vary over time, with high-skill employment likely continuing to grow more quickly than the other two categories. The near universal rise in the demand for high-skill workers has been a key contributor to widening wage and income inequality during the past decades and is set to continue this trend (United Nations, 2020).

The fact that there has not been a ubiquitous decline in either middle- or low-skill employment to date may change in the future. Technological advances in fields such as artificial intelligence and automation stand to further impact the relative labour shares. Estimates of these impacts vary widely, however, and do not yet offer an undisputed set of predicted outcomes by country. Hence, for the time being, it seems unlikely that the total number of middle-skill jobs will dramatically decline on a global level in the near future. Additionally, this analysis does not address the quality of employment. While the number of middle-skill jobs has not dramatically declined so far, the quality of these, and low-skill jobs, may have been adversely affected by recent developments in the labour market, such as the rise of the 'gig' economy.

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