

ERF Policy Brief

Education-Occupation Mismatch among Vocational Secondary and University Graduates in Egypt

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About the authors

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In a nutshell

- Education-occupation mismatch is an issue globally and in Egypt, in particular. Recent data from the 2023 Egypt Labor Market Panel Survey reveals that overeducation was very common among both vocational secondary and university graduates.
- Job satisfaction was lowest among the overeducated group. Overeducation was associated with a wage penalty, as compared to the well-matched group, but undereducation was associated with a wage premium among vocational secondary graduates and with a wage penalty among university graduates.
- The data also highlights the importance of acquiring skills over credentials to effectively address the existing education-occupation mismatch in the Egyptian labor market.
- These results highlight the urgent need for comprehensive multi-stakeholder interventions focusing on both the supply and demand sides of the labor market to address mismatch.
- On the supply side, improving educational outcomes, skill development, and career counseling is vital to better equip workers with the competencies needed for the labor market.
- On the demand side, policymakers should focus on formalizing the large informal sector and on improving job-matching platforms and labor market information systems.

We acknowledge the financial support of the International Labour Organization through the Government of the Netherlands and the Swedish International Development Cooperation Agency, the World Bank Poverty and Equity Global Practice supported by the UK-funded Strategic Partnership for Egypt's Inclusive Growth trust fund (SPEIG TF), and World Bank MENA Chief Economist office, Agence Française de Développement (AFD), Ministry of Planning, Economic Development and International Cooperation, Egypt, and UNICEF for the Egypt Labor Market Panel Survey 2023, on which this policy brief is based.

Introduction¹

The mismatch between education and occupation, where there is a considerable gap between workers' educational levels and the educational demands of their jobs, is a global issue. More than 935 million employees across 114 countries are mismatched, 72 percent of whom are overeducated and 28 percent are undereducated (see ILO 2020). This education-occupation mismatch phenomenon poses substantial challenges to countries' economic development and social stability. As a result, a vast literature has focused on conceptually formulating education-occupation mismatch and measuring over- and under-education as compared to the job skills required (see Aina and Pastore 2023; Caroleo and Pastore 2015; Diem and Wolter 2014; Flisi et al. 2017; Leuven and Oosterbeek 2011). However, fewer studies have focused on identifying the correlations and consequences of such a mismatch, particularly in the developing world (see Kassem 2021; Bedir 2014; El-Hamidi 2009).

In Egypt, as in many countries in the MENA region, despite rising educational attainment, many graduates find themselves mismatched and their talents underutilized, affecting their productivity, job satisfaction, and earnings (David and Nordman 2017). The main objective of this policy brief is to contribute to the limited literature on education-occupation mismatch in Egypt using recent data from the Egypt Labor Market Panel Survey (ELMPS) 2023 to assess the extent of mismatch among employed vocational secondary and university educated graduates.² The brief employs the subjective self-reported approach for measuring education-occupation mismatch and primarily focuses on comparing the main background and job characteristics of the overeducated, undereducated, and well-matched workers, as well as their skills, wage penalty, and sense of job satisfaction.

¹ This policy brief is based on the working paper: Roushdy, R and N. ElKhouly (2024). "Education-Occupation Mismatch among Vocational and University Graduates in Egypt," ERF Working Paper Series No.1757 (<https://erf.org.eg/publications/education-occupation-mismatch-among-vocational-secondary-and-university-graduates-in-egypt/>).

² The brief specifically focuses on graduates of vocational secondary schools and universities, as these represent the two main terminal educational tracks in Egypt.

Data and methods

There are two main classifications of education-occupation mismatch: vertical mismatch (misalignment of education level) and horizontal mismatch (misalignment of educational field) (see McGuinness, et al. 2015). Drawing on data from the nationally representative ELMPS of 2023,³ this brief examines the subjective indirect self-assessment measure of the vertical education-occupation mismatch, using workers' self-reported perceptions of the educational requirements for their jobs.⁴ The analysis in this brief focuses on 7,596 individuals who were aged 15-64 (the working age population), were working for a wage (during the three months preceding the survey interview), and had either vocational secondary education (4,499 individuals; 4,013 men and 486 women), or a university degree and above (3,097 individuals; 2,169 men and 928 women).

The main variables utilized from the ELMPS data include the highest level of education attained, and the self-reported education level required by the job based on the question "What is the highest level of education required for your current job?" A self-reported mismatch status variable was developed based on comparing each employed graduate's attained education level to the self-reported required level for his/her job and grouping them depending on the identified shortage or surplus in education level. Individuals with more education than that required for their job are referred to as "overeducated," the same level of education is referred to as "well-matched," and those with less education than the required level are referred to as "undereducated." The analysis also utilizes data on the hourly wage and job satisfaction from the ELMPS. Information regarding job satisfaction is based on the individual's response to the question "Are you satisfied with your current job?" with responses of "rather satisfied, fully satisfied, neither satisfied nor dissatisfied, rather dissatisfied and fully dissatisfied." There is also a battery of questions asking about satisfaction regarding various aspects of

³ The ELMPS was conducted by the Economic Research Forum (ERF) in partnership with the Central Agency for Public Mobilization and Statistics (CAPMAS). The first wave of the ELMPS was conducted in 1998, then four follow-up waves were carried out in 2006, 2012, 2018, and the most recent one in 2023. For detailed information on the ELMPS, see Assaad and Krafft (2024).

⁴ The ELMPS 2023 is now publicly available through the ERF's Open Access Microdata Initiative (OAMDI). For current and previous waves of the ELMPS, see <http://www.erfdataportal.com/index.php/catalog/LMPS>.



one's job, with the same five categories of responses. Those aspects include job security, earnings, workplace, working hours, working schedule, working conditions, location/commuting, and matching with one's qualifications.

Moreover, ELMPS 2023 includes two large modules providing information on the individual's own acquired skills, as well as on the skills required for his/her job. The list of skills included core academic skills, technical, and soft skills. The acquired skills questions ask: "To what extent do you have the following skills?" with responses of either: "not at all, very weak, weak, strong, and very strong." The skills required by the job questions ask: "Does your job require any of the following specific abilities?" with responses of "yes, no, and do not know."

Main results

Mismatch and background characteristics

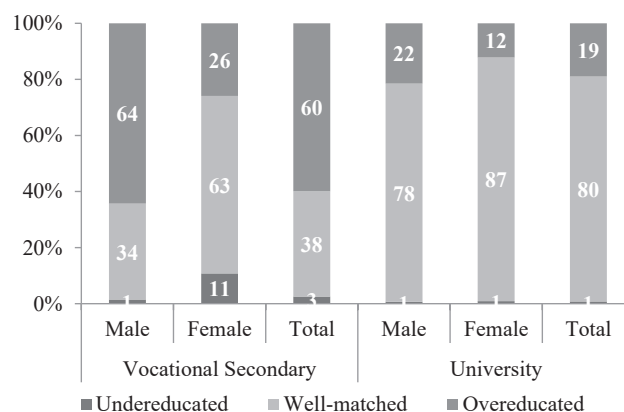
Undereducation is not a major problem in the Egyptian labor market, but overeducation is widespread, particularly among men and vocational secondary graduates.

The prevalence of overeducation, well-matched, and undereducation among vocational and university graduates is shown in Figure 1. It is interesting to note how undereducation does not seem to be a major problem in the Egyptian labor market among both vocational and university graduates based on the self-reported mismatch measure.⁵ University graduates were considerably more likely to report themselves as being well-matched, as compared to their vocational secondary graduate peers. Almost 80 percent of university graduates self-reported being well-matched and 19 percent were overeducated, compared to only 38 percent well-matched and almost 60 percent overeducated among vocational graduates.

Moreover, the mismatch phenomenon is less prevalent among women in Egypt. Female university graduates were more likely to be well-matched (87 percent) than their male peers (78 percent). Similarly, about 63 percent of female vocational secondary graduates self-reported being well-matched compared to only 34

⁵ Similar patterns were observed based on several objective, statistical, approaches measure of the vertical education-occupation mismatch (see Roushdy and ElKhoully 2024) for a detailed comparison of different measures).

Figure 1. Prevalence of self-reported mismatch among vocational secondary and university graduates, by sex (percentage)



Source: Authors' compilation based on ELMPS 2023

percent among their male peers, and only 26 percent reported being overeducated versus 64 percent among men. This should not come as a surprise, as it is well-known from the Egyptian labor market literature that educated women in Egypt either wait for a suitable employment opportunity that matches their educational qualifications or just choose to exit the labor market, while men generally face greater pressure to avoid prolonged unemployment duration due to their traditional role as primary breadwinners and/ or their need to save to finance their future marriage expenses (Selwaness and Roushdy 2019).

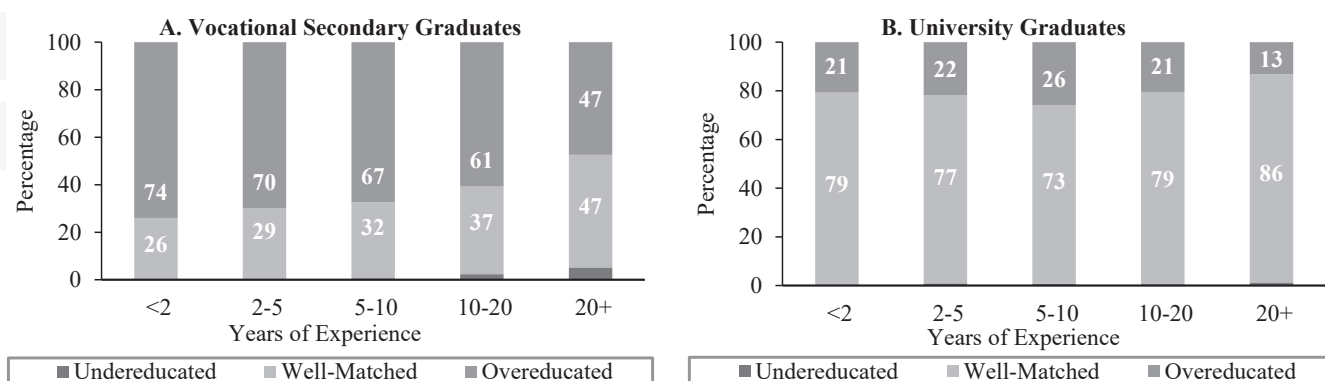
Overeducation is higher among less experienced workers, rural residents, and graduates with low educated fathers.

Focusing on socioeconomic factors, overeducation was more prevalent among the younger cohorts of both vocational secondary and university graduates, with a substantially higher percentage among vocational secondary graduates. The data shows that about 75 percent of the vocational secondary graduates aged 20-29 were overeducated compared to only 26 percent among their university graduate peers. In contrast, about 35 percent of vocational and 11 percent of university graduates who were 50 years and above were overeducated.

Mismatch also substantially declined with experience. Similar to age, overeducation was most prevalent among early career vocational secondary graduates, with less than 2 years of experience, affecting about 74 percent versus only 47 percent among those with 20 or more years of experience (Figure 2). Also, 21 percent of the university graduates who are in their early careers



Figure 2. Self-reported mismatch among vocational and university graduates, by years of experience (percentage)



Source: Authors' compilation based on ELMPS 2023.

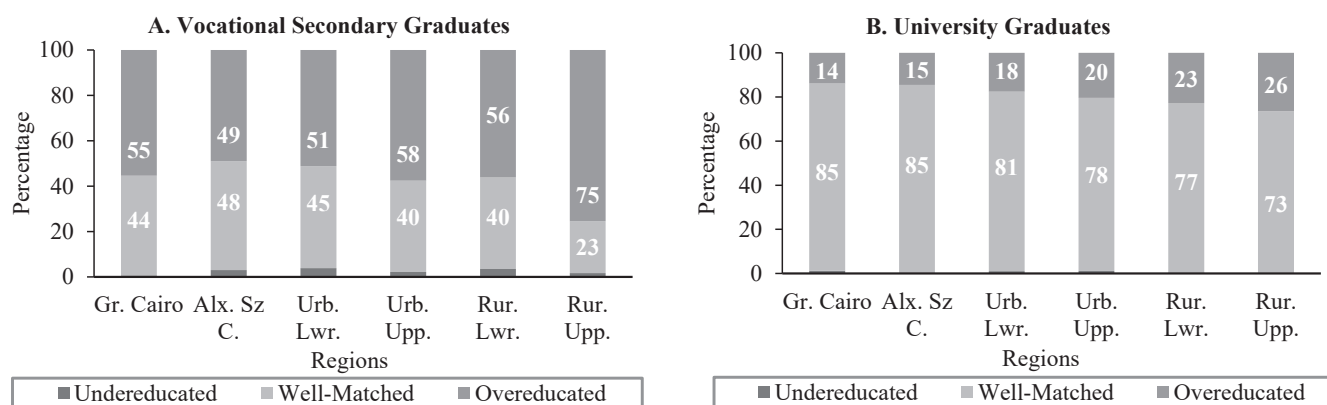
(<2 years of experience) reported being overeducated, as compared to only 13 percent among their peers with 20 or more years of experience. This result aligns with expectations, as individuals tend to gain better information about job opportunities that correspond to their educational qualifications as they age and acquire more experience. Consequently, they are more likely to receive promotions and develop on-the-job skills, reducing their susceptibility to job mismatch over time.

by Greater Cairo and urban Lower Egypt. These results fit expectations, as outside the metropolitan regions fewer jobs are generally available for highly educated labor market entrants, causing a higher probability of being mismatched.

Regarding the region of residence, Figure 3 shows that the highest rate of overeducation is found in rural Upper Egypt where 75 percent of vocational secondary graduates and 26 percent of university graduates were overeducated. In contrast, the highest percentage of well-matched workers among both vocational secondary and university graduates was observed in the Alexandria and the Suez Canal governorates followed

Father's education appears to also influence the mismatch of university graduates, as it is generally a good proxy of household wealth statutes, networks, connections, and children's career paths. The results show that the higher the father's education level, the more likely the individual is to be well-matched. Almost 84 percent of university graduates and 48 percent of vocational secondary graduates who had a university or higher-educated father were well-matched, compared to less than 79 percent of university graduates and 33 percent of vocational secondary graduates among graduates whose fathers are illiterate.

Figure 3. Self-reported mismatch among vocational and university graduates, by region of residence (percentage)



Source: Authors' compilation based on ELMPS 2023.



Mismatch and job characteristics

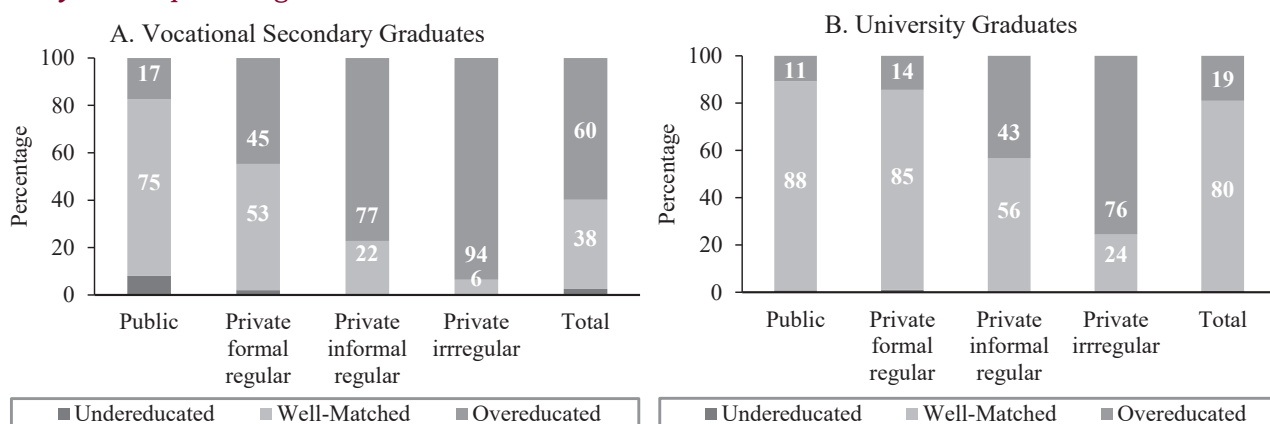
Overeducation is widespread in the informal private sector, outside establishments, and in small firms.

Education-occupation mismatch is more prevalent in irregular and informal employment (Figure 4); particularly, in private irregular employment, where over 94 percent of vocational secondary graduates and 76 percent of university graduates reported being overeducated. In contrast, among public sector workers, only 17 percent of vocational secondary graduates and 11 percent of university graduates reported being overeducated. Also, in the formal private sector, only 14 percent of university graduates

were overeducated, compared to over 45 percent among vocational secondary graduates.

Moreover, the rate of overeducation considerably declines with firm size and increases with working outside an establishment. Table 1 shows that the highest percentage of overeducation was observed among vocational secondary (87 percent) and university (54 percent) graduates who work outside of an establishment, followed by those working in small firms (68 percent vocational secondary and 35 percent university graduates). In contrast, the percentage of overeducation is only 30 percent among vocational graduates and 12 percent for university graduates working in large firms.

Figure 4: Self-reported mismatch among vocational and university graduates, by sector of employment and formality status (percentage)



Source: Authors' compilation based on ELMPS 2023.

Table 1. Self-reported mismatch among vocational secondary and university graduates, by firm size and economic activity group (percentage)

	Vocational secondary graduates			University graduates		
	Under-educated	Well-Matched	Over-educated	Under-educated	Well-Matched	Over-educated
Firm size						
Outside of establishment	0	13	87	0	46	54
Small	1	31	68	1	65	35
Medium	8	53	38	0	87	12
Large/do not know	3	66	30	1	87	12
Economic Activity						
Agriculture	0	8	92	0	34	66
Industry/ Construction	1	32	67	1	74	26
Services and Others	4	47	49	1	83	16
Total	3	38	60	1	80	19

Source: Authors' compilation based on ELMPS 2023.



Overeducation is highest among skilled agricultural, forestry, and fishery workers.

A higher rate of overeducation is observed among both vocational and secondary graduates working in the agricultural economic activity sector (92 percent vocational secondary and 66 percent university graduates), followed by the industry and construction sectors (Table 1). Regarding occupations, consistent with the above economic activity results, almost 98 percent of both vocational secondary and university graduates working in the skilled agricultural, forestry, and fishery workers reported being overeducated (Figure 5).

Overeducation is also widespread among elementary occupations (80 percent of vocational secondary and 76 percent of university graduates), plant and machine operators and assemblers (78 percent of vocational secondary and 74 percent of university graduates), and craft and related trades workers (78 percent of vocational secondary and 57 percent of university graduates). In contrast, professionals and managers were the least likely to report being overeducated.

Figure 5. Self-reported mismatch among vocational and university graduates, by occupation (percentage)

A. Vocational Secondary Graduates



B. University Graduates



Source: Authors' compilation based on ELMPS 2023.



Mismatch and earnings

Overeducation was associated with a wage penalty, compared to the well-matched group; yet undereducation was mostly associated with a wage premium.

Median monthly wages varied substantially by self-reported mismatch status among both men and women (Figure 6). It is interesting to note that the highest median monthly wage is observed among the small group of undereducated women university graduates (5167 EGP), followed by their well-matched male peers (5000 EGP).

On the other hand, consistent with the mismatch literature, overeducation was associated with a wage penalty, as compared to the well-matched group; yet undereducation was mostly associated with a wage premium. Among vocational secondary graduates, overeducation was associated with a wage penalty of about 733 EGP (3467 vs. 4200 EGP as compared to the well-matched group), while a wage premium of about 300 (4500 vs. 4200 EGP) was observed among the undereducated group. In contrast, among university graduates, both over- and under-education were associated with a wage penalty of about 1000 EGP (4000 vs. 5000 EGP for the well-matched).

When analyzing the magnitude of the wage premium/penalty by gender, a gender-based wage differential is observed among the mismatched groups. The small group of undereducated women received the highest wage premium among both education groups, relative to their well-matched peers, but at the same time, overeducated women vocational secondary graduates suffered from the highest wage penalty. More specifically, among university graduates,

undereducated women received a wage premium of about 792 EGP (5167 vs. 4375 EGP for the well-matched), and overeducated women suffered from a wage penalty of about 575 EGP (3800 vs. 4375 EGP), as compared to almost a 1000 EGP wage penalty for both their under- and over- educated men peers. Similarly, undereducated secondary graduate women enjoyed almost a four times larger wage premium (4300 vs. 3667= 633 EGP), than that of their undereducated male peers (4583 vs. 4420=163 EGP). In contrast, overeducated male vocational graduates suffered from a lower wage penalty (3500 vs. 4420 well-matched= 920 EGP) than their overeducated women counterparts (2427 vs. 3667= 1240 EGP).

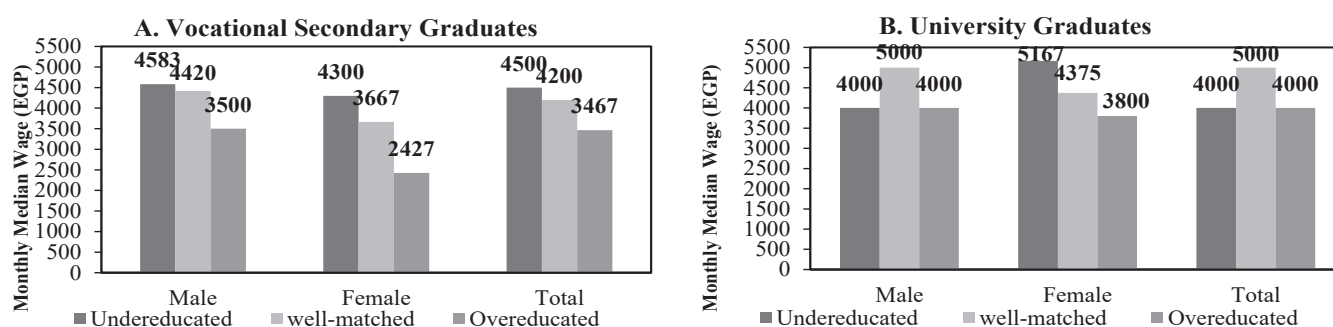
Mismatch and job satisfaction

The percentage of fully satisfied individuals was the lowest among the overeducated.

Mismatch is associated not only with lower earnings but also with the individual's job satisfaction. Figure 7 shows that the undereducated and well-matched university and vocational secondary graduates were generally more fully satisfied with their jobs than their overeducated peers. More specifically, the highest rates of full satisfaction with one's job were observed among undereducated vocational secondary graduates (75 percent), followed by well-matched university graduates (58 percent). The lowest rates of full satisfaction were prevalent among the overeducated vocational secondary (30 percent) and university (41 percent) graduates.

The figure also shows the prevalence of full satisfaction for several different aspects of one's job by self-reported mismatch status and education level. In terms of the job security and earnings aspects of the job, the undereducated (40 percent security and 39 percent

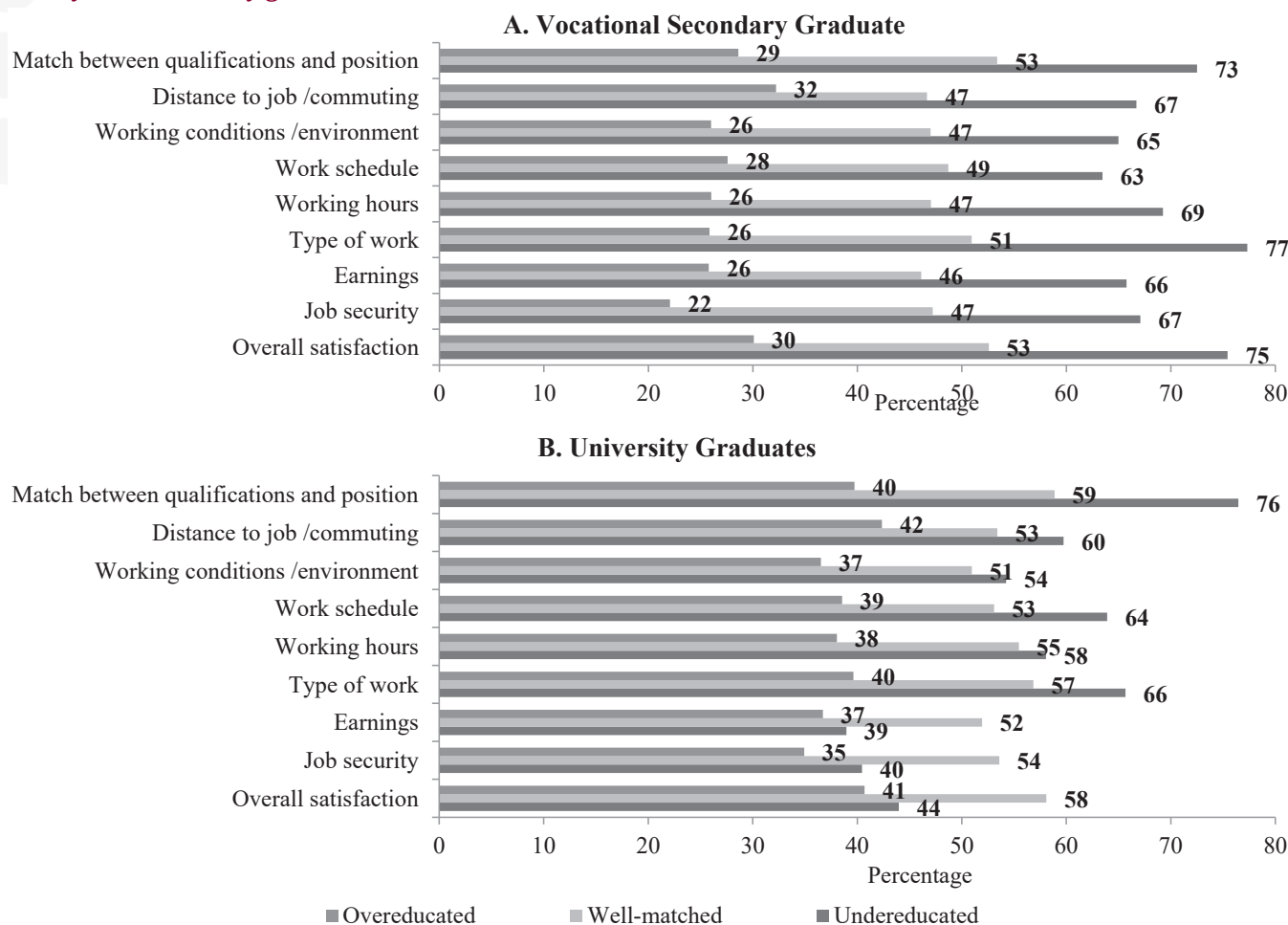
Figure 6. Median monthly wage in EGP by self-reported mismatch among vocational and university graduates and sex



Source: Authors' compilation based on ELMPS 2023.



Figure 7. Percentage fully satisfied with different job aspects, by self-reported mismatch among vocational secondary and university graduates



Source: Authors' compilation based on ELMPS 2023.

earnings) and overeducated (35 percent security and 37 percent earnings) university graduates were less likely to be fully satisfied with those two aspects of their jobs, as compared to their well-match peers (54 percent security and 52 percent earnings). Overall, the highest percentage of full satisfaction was reported by both the vocational and university undereducated graduates for the match between qualification and position (73 percent vocational and 76 percent university) and the type of work aspect (77 percent vocational and 66 percent university).

Mismatch and skills

Having strong skills was more prevalent among the well-matched and undereducated graduates.

While vocational secondary education is supposedly designed to provide its students with technical skills,

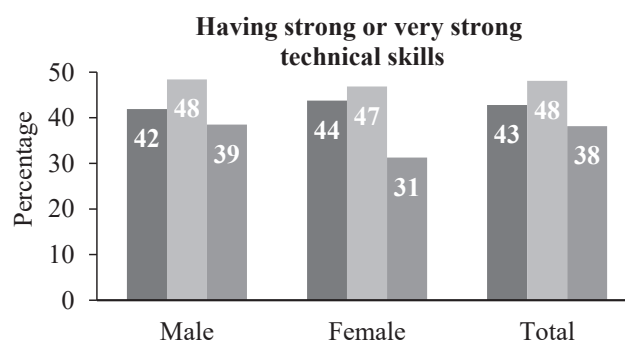
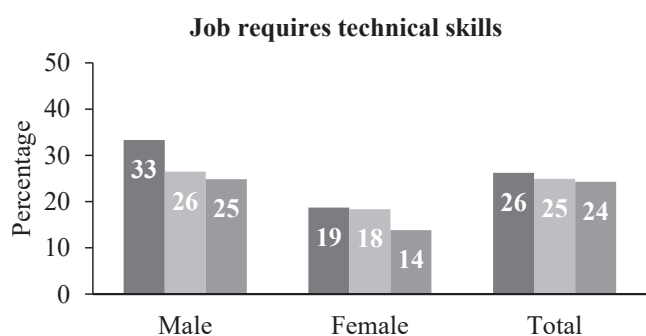
the data reveals that only 42 percent of vocational graduates reported having strong (strong or very strong) technical skills, which were 13 percentage points lower than the rates reported by university graduates (55 percent). Additionally, only about a quarter of vocational school graduates, compared to 32 percent of university graduates, reported working in jobs that require technical skills.

Furthermore, Figure 8 illustrates that strong technical skills were most prevalent among the undereducated university graduates (59 percent), followed by their well-matched peers (56 percent vs. 52 percent for the overeducated). Among vocational secondary graduates, the well-matched group had a higher prevalence of individuals with strong technical skills (48 percent), followed by their undereducated graduate peers (43 percent). Similar gradients are observed among both male and female vocational education graduates, though no clear pattern emerges among male and female university graduates.

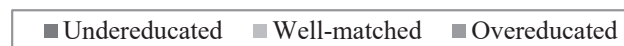
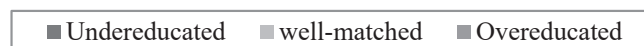
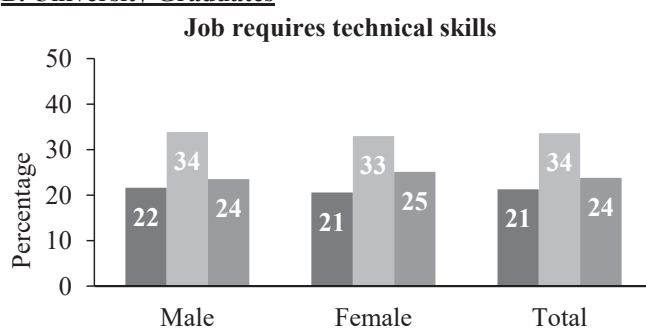


Figure 8. Percentage having strong technical skills or a job requiring technical skills by self-reported mismatch among vocational secondary and university graduates

A. Vocational Secondary graduates



B. University Graduates



Source: Authors' compilation based on ELMPS 2023.

In terms of job requirements, overall, the likelihood of working in jobs requiring technical skills did not vary much by mismatch status among vocational secondary graduates. However, some variation exists among men, where vocational secondary undereducated men were the most likely to work in jobs requiring technical skills (33 percent), compared to their well-matched (26 percent) and overeducated (25 percent) peers. In contrast, among university graduates, the likelihood of working in a job that requires technical skills substantially varied by mismatch status. The well-matched group had the highest prevalence of working in such jobs (34 percent), followed by the overeducated group (24 percent), and the undereducated group (21 percent). Similar patterns were observed here among men and women university graduates.

Turning to the other skills included in the ELMPS 2023 questionnaire, a similar pattern across both education levels was observed for all the acquired and required skills by (mis)match, which differs slightly from the pattern observed above for the technical skills. Among both university and secondary-educated graduates, strong proficiency in a specific skill was more prevalent

among the well-matched and undereducated compared to the overeducated group. This is once again not surprising, as undereducated individuals are more likely to seek additional skills to bridge the gap between their education level and job requirements. On the other hand, the overeducated group does not share this urgency since they are already employed in positions that do not fully utilize their educational qualifications.

Under the same analogy, this is why we see the prevalence of working in jobs that require a specific skill higher among well-matched and undereducated graduates. The undereducated individuals had likely acquired the necessary skills to attain these positions, regardless of their education mismatch. Overall, consistent with previous literature (Krafft et al. 2019; Assad and Krafft 2018) the results of this section provide compelling evidence that the likelihood of securing a job is more closely related to one's skills rather than to their level of education in the Egyptian labor market. Hence, to effectively address the existing education-occupation mismatch, the education system in Egypt should work towards prioritizing skill development over mere credentials.



Policy recommendations

Education-occupation mismatch in Egypt remains a persistent challenge, driven by the misalignment between the output of public education institutions and labor market needs. In Egypt, as in several other countries in the MENA region, this mismatch is compounded by a large public sector that prioritizes credentials over skills and a private sector that fails to provide clear signals regarding the necessary skills (Krafft et al. 2019; Salehi-Isfahani 2012). Accordingly, to address this mismatch phenomenon, a comprehensive, multi-stakeholder approach is essential, focusing on both the supply and demand sides of the labor market.

Recommendation pertaining to the supply-side of the labor market

Curriculum reform and emphasis on practical skills

To align education with labor market needs, Egypt should continuously update and reform its educational curricula at both vocational and university levels. Curricula must emphasize the development of practical skills relevant to high-demand sectors. The emphasis on acquiring practical skills should be fostered by offering more classes that provide hands-on practical experience such as having more work-related components, project-based learning, and academic institutions collaboration with the private and public sectors to offer students planned internships and apprenticeships for vocational students within their field of specialization. Krafft (2018) showed that the returns to skills obtained outside of the formal education system in Egypt, through an apprenticeship, substantially outperformed that of the formal vocational secondary school graduates. The importance of internships was also evident in a randomized experiment conducted on Yemeni youth in 2014 (McKenzie, Assaf and Cusolito, 2015). The results indicated that participating in an internship led to a substantial increase in work experience and income (by 73 percent), as compared to the control group during the same period. Furthermore, internship recipients continued to outperform the control group in terms of employment outcomes during the first five months after the program concluded.

Additionally, the government should promote the inclusion of courses that foster critical thinking, problem-solving, and adaptability. This shift would help students develop the skills necessary to succeed in

growing sectors like the information and communication technologies (ICT) sector (ITIDA, 2024).⁶

Strengthening career guidance and counseling

An essential element of reducing the education-occupation mismatch is improving career guidance and counseling systems. Egypt should invest in comprehensive career guidance programs, starting as early as the final year of preparatory education and continuing through secondary and university education. These programs should provide students with a clear understanding of different educational tracks—vocational and university—and how they align with labor market demands. Countries like South Korea and Germany, with their robust career guidance systems, have seen significant improvements in youth employment rates and job matching (see Right 2017). Moreover, involving parents and guardians in the educational process is equally important. Engaging them in school activities, career guidance sessions, and job fairs would help them stay informed about current labor market trends and shift perceptions over time regarding the value of skills versus credentials.

Targeted job placement and retraining programs

Targeted support, including retraining and job placement assistance, should be provided to individuals experiencing education-occupation mismatches, particularly those with lower earnings or job dissatisfaction. Tailored programs, similar to those in the Netherlands, can help workers whose skills are no longer in demand due to automation or outsourcing transition into high-demand industries (Right, 2017). Such interventions would help reduce mismatches by providing workers with the skills and support needed to align their qualifications with current labor market demands, improving both job satisfaction and earning potential.

⁶ Egypt's ICT sector experienced substantial growth of about 14.4% during the fiscal year 2023/2024, outperforming all other sectors. According to the Information Technology Industry Development Agency, this growth generated over three hundred thousand jobs, with the government aiming to achieve five hundred thousand jobs by opening over twenty companies that will establish outsourcing centers in Egypt for the first time. Additionally, fifty other companies are planned to expand by 2026 (see ITIDA 2024).



Fostering lifelong learning and up-skilling

As labor market demands evolve, lifelong learning programs must be a priority to help workers adapt. Egypt should encourage continuous learning through up-skilling initiatives, particularly in sectors affected by automation and technological advancements. A well-established system of lifelong learning, similar to those in Denmark and Australia, has proven effective in helping workers reskill and remain competitive in changing labor markets (OECD, 2019; Australian Government Department of Education, 2020, p. 3). These programs would ensure that workers can transition between industries and improve their job match over time.

Enhancing vocational education and skill-based training

Egypt should prioritize enhancing vocational education. The stigma often associated with vocational tracks must be addressed, and vocational education should be improved to provide its students with higher-quality learning experiences. This can be achieved through targeted scholarships, stipends, and guaranteed job placements for vocational students, which would enhance the perception and attractiveness of these programs. Additionally, Egypt should promote alternative skill-based training and certification programs, particularly in sectors like technology and manufacturing. These programs offer non-degree credentials, providing a viable alternative pathway to employment. Similar initiatives in countries like the U.S. have demonstrated the effectiveness of coding boot camps and digital skills programs in addressing skill gaps in high-demand industries (Gallagher and Maxwell, 2019).

*Supply-side and job-matching platform recommendations**Formalize the informal sector*

On the demand side of the labor market, policymakers should focus on formalizing the large informal sector in Egypt. This includes providing incentives for private sector firms to grow and formalize their workers, leveraging labor unions to enhance working conditions, and reevaluating high social insurance contribution rates, which deter formalization. Also, public awareness campaigns about social insurance benefits are essential to inform workers of their rights and options.

Improving job-matching platforms and labor market information systems

To better align labor supply with demand, Egypt should enhance its job-matching platforms and labor market information systems. These platforms should provide clear and up-to-date data on job opportunities, required skills, and wage expectations, making it easier for job seekers to find relevant positions. For instance, Germany's Jobbörse platform uses sophisticated algorithms to match job seekers with opportunities based on their education, experience, and job requirements, significantly reducing mismatches (Federal Employment Agency, 2021). Similarly, Estonia's robust online job-matching platform has proven effective in connecting job seekers with employers by using labor market data to match individuals to appropriate opportunities (OECD, 2019). Developing similar systems in Egypt would facilitate better communication between job seekers and employers, enhancing labor market efficiency and improving the alignment between workers' qualifications and vacant positions.

The government should also raise awareness of the large number of employment offices, existing nationwide under the Ministry of Manpower and Migration, ensuring that these offices are regularly trained to update their career advice services and job search tools in response to labor market changes.

Promoting data-driven policymaking and labor market forecasting

Finally, Egypt must invest in regular labor market research and data collection to assess the extent of education-occupation mismatch and identify emerging skill gaps. Data-driven policymaking will allow policymakers to stay informed about evolving skill demands and make timely adjustments to educational curricula, training programs, and hiring practices. This continuous assessment and forecasting will enable Egypt to proactively address labor market shifts and ensure that its workforce remains competitive in a rapidly changing global economy.

References

- Assaad, R. & Krafft, C: Introducing the Egypt Labor Market Panel Survey 2023. Economic Research Forum Working Paper; 2024.
- Australian Government Department of Education: The Contribution of Microcredentials to Lifelong Learning. Department of Education, Skills and Employment; 2023.



- Aina, C. & Pastore, F: Delayed graduation and overeducation: a test of the human capital model versus the screening hypothesis; 2023.
- Becker, G.S.: Human capital: A theoretical and empirical analysis, with special reference to education. University of Chicago press; 2009.
- Bedir, N: The Impact of Over-education and Under-education on Earnings: Egypt in a Post-Revolutionary Era. Lund University; 2014.
- David, A. and Nordman, C.J: Education mismatch and return migration in Egypt and Tunisia. Espace populations sociétés. Space populations societies; 2017.
- Diem, A. & Wolter, S. C: Overeducation among Swiss university graduates: determinants and consequences. Journal of Labor Market Research, 47; 2014: pp. 313–328.
- El-Hamidi, F: Education-occupation mismatch and the effect on wages of Egyptian workers. Handbook on International Studies in Education; 2009: pp. 123–138.
- Ernesto, C.F. & Francesco, P: Overeducation: A disease of the school-to-work transition system. In Youth and the crisis; 2015: pp. 36-56. Federal Employment Agency: Annual report 2020; 2021.
- Flisi, S., Goglio, V., Meroni, E. C., Rodrigues, M. & Vera-Toscano, E: Measuring occupational mismatch: Overeducation and over-skill in Europe—Evidence from PIAAC. Social Indicators Research, 131(3); 2017: pp. 1211–1249.
- Gallagher, S. & Maxwell, N.L: Community Colleges and the New Era of Work and Learning. Working Paper 66. Mathematica Policy Research, Inc; 2019.
- International Labour Organization: 258 million workers in the world are over-educated for their jobs; 2020.
- International Labour Organization; Measurement of qualifications and Skills mismatches of persons in employment; 2018. ITIDA: Industry Outlook; 2024.
- Kassem, M. M.: Labour market has deteriorated the quality of education: a study of the discourse of educational outcomes/ labour market demands mismatch In Egypt. Alexandria University; 2021.
- Krafft, C: Is school the best route to skills? Returns to vocational school and apprenticeships in Egypt. Journal of Development Studies, 54(7); 2018: pp. 1100–1120.
- Krafft, C., Elbadawy, A. & Sieverding, M: Constrained school choice in Egypt. International Journal of Educational Development, 71; 2019: 102104.
- Leuven, E. & Oosterbeek, H: Overeducation and mismatch in the labor market. In: Handbook of the Economics of Education, 4; 2011: pp. 283–326.
- Lu, M: A study on the phenomenon of overeducation in China and its trend analysis. Open Journal of Social Sciences, 5(1); 2017: pp. 191–204.
- McGuinness, S., Pouliakas, K. & Redmond, P: Skills mismatch: Concepts, measurement, and policy approaches. Journal of Economic Surveys, 32(4); 2018: pp. 985–1015.
- McGuinness, S., Whelan, A. & Bergin, A: Recruitment methods and educational provision effects on graduate over-education and over-skilling. BE Journal of Economic Analysis and Policy; 2015.
- McKenzie, D., Assaf, N. & Cusolito, A. P: The demand for, and impact of, youth internships: Evidence from a randomized experiment in Yemen. IZA Discussion Paper No. 9487; 2015.
- Organisation for Economic Co-operation and Development: OECD skills strategy 2019: Skills to shape a better future. OECD Publishing; 2019.
- Right, G. S: Skills for Jobs Indicators. Retrieved from: https://www.oecdilibrary.org/employment/getting-skills-right-skills-for-jobs-indicators_9789264277878-en; 2017. (Accessed on: 28.04.2021)
- Salehi-Isfahani, D: Education, jobs, and equity in the Middle East and North Africa. Comparative Economic Studies, 54; 2012: pp. 843–861.
- Roushdy, R. & ElKhouly, N: Education-Occupation Mismatch among Vocational and University Graduates in Egypt. Economic Research Forum Working Paper Series No. 175; 2024.
- Selwaness, I. & Roushdy, R: Young people school-to-work transition in the aftermath of the Arab Spring: Early evidence from Egypt. International Journal of Manpower, 40(3); 2019: pp. 398–432.
- Tandrayen-Ragoobur, V: Addressing the education and skills mismatch in the Mauritian economy [online]; 2020.





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