



SCIENCE FOR POLICY BRIEF

SMEs, skills shortages and third-country nationals

HIGHLIGHTS

→ Reliance on workers from outside the EU to address skills and labour shortages is found to increase with firm size. This suggests that small firm size may be a significant barrier to the recruitment of these workers. Increasing the possibility for micro enterprises and small firms to hire non-EU people is therefore an important challenge for the EU.

→ Our results suggest that compared to older SMEs, younger SMEs are more likely to consider the recruitment of third-country

nationals as a solution to labour and skills shortages. Further research is however needed to confirm these findings.

→ SMEs are more likely to rely on third-country nationals to fill low to medium-skilled positions than highly skilled positions. Given the existence of skill shortages in high level occupations in Europe, it is important to investigate what factors make SMEs less likely to consider filling high skilled vacancies with third-country nationals.

BACKGROUND

As outlined in Draghi's Report [1], there is an urgent need for the EU to address the skills shortages issue. Many employers across the economy are experiencing difficulties in recruiting suitable workers. They report that there are few or no applicants, or those who apply do not have the appropriate qualifications. Securing an adequate supply of skilled workers is key, especially in light of the twin transition. Firms are increasingly required to integrate sustainability practices into digital transformation initiatives, and this requires the availability of a skilled green and digital workforce that meets employers' demand and supports industry needs [2].

The international dimension of this problem needs also to be considered. Available evidence suggests that the extent of skills shortages is wider among EU companies compared to their counterparts in other countries (e.g., US, Japan, UK) [3]. This may have negative consequences for the EU's competitiveness given that

the lack of skilled labour is found to be an impediment to innovation and economic growth [4]. Moreover, in coming decades, the EU may be facing more challenges in closing the skills gap than its competitors. This is because while the working-age population is projected to decline in Europe, the opposite is predicted to occur in other advanced economies (e.g., US, UK).

In recent years, there have been extensive discussions about how to improve the EU's ability to attract and retain non-EU workers to tackle labour and skills shortages. In her State of the Union address in 2022, President von der Leyen highlighted the importance of attracting skilled third-country nationals to the EU. Relevant initiatives have been taken both at the EU level and at the level of the Member States. Some countries (e.g., Luxembourg) have introduced new work visas, loosened immigration requirements for specific highly skilled personnel, and provided several incentives (e.g., lower taxation, easier family reunion procedures). In 2022, the European Commission proposed the Talent Partnerships. Its aim is to offer a comprehensive policy framework and funding support

to enhance mutually beneficial international mobility based on better matching of labour market needs and skills between the EU and partner countries. In mid-November 2023, the Skills and Talent Mobility Package was adopted. This consists in a comprehensive set of measures from the European Commission to attract, retain and maximise foreign talent. More recently, Directive 2024/1233 introduced a unified application procedure for residence and work permits, marking a major step towards harmonisation.

In addition to helping firms solve labour and skills shortages, hiring non-EU employees may bring other advantages. First, by improving the diversity characteristics of their employees, companies may become more competitive. Knowledge about various cultures may boost firm productivity since workers from different backgrounds might introduce new ideas and innovations [5]. Second, the presence of foreign employees may help companies expand their global reach. These employees may have contacts and connections in their home country that can help firms meet potential new investors, partners and clients. Third, at macro-level, third countries may benefit from increased remittances, contributing to national economies and the alleviation of poverty.

In this brief, using data from two recent Eurobarometer surveys, we investigate the extent to which, in a context of skills shortages, recruiting non-EU people plays an important part in EU SMEs' hiring strategy. We have a twofold aim. First, we explore the characteristics of those SMEs that are more likely to rely on third-country nationals to address the problem of skills shortages. Second, we analyse whether SMEs are more likely to recruit third-country nationals to fill high or low-to-medium skilled positions.

The first survey we use is Flash Eurobarometer 529 (European Year of Skills: Skills Shortages, Recruitment and Retention Strategies in Small and Medium-sized Enterprises) that was carried out in May 2023 and was targeted at SMEs in all EU Member States [6]. Our second survey is Flash Eurobarometer 537 (SMEs and Skills Shortages) that was conducted between September and October 2023 [7]. While Flash Eurobarometer 537 gathers information on companies of different dimensions in all EU Member States and in some nations outside the EU, to make results from the two surveys comparable, in our analysis we consider only SMEs in EU countries.

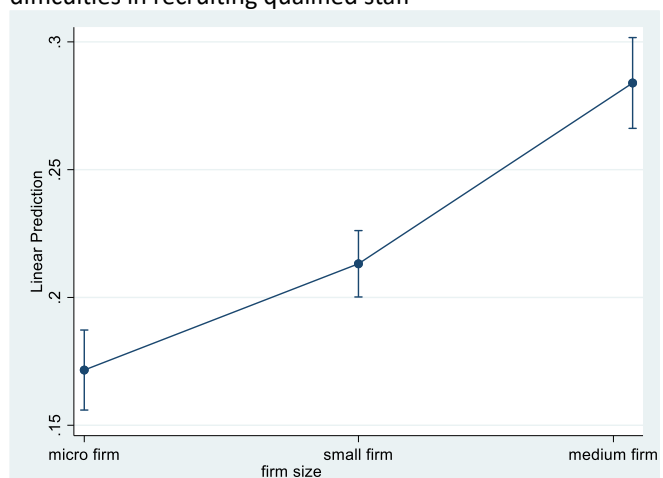
Both surveys collect data capturing firm-specific perceptions of labour shortage (i.e., difficulties in finding workers with the right skills) as well as information on whether EU firms have recently hired (Flash Eurobarometer 529) or tried to hire (Flash Eurobarometer 537) third-country nationals. Results from these two surveys are compared in an attempt to identify consistent findings.

Skills shortages, recruitment of third-country nationals and firm characteristics

Selecting only EU SMEs reporting to have difficulties in recruiting qualified staff, we set up a model where we estimate the probability that a firm has recently hired or tried to hire non-EU workers as a function of several firm characteristics (i.e., country location, age, size, sector of activity, turnover in 2022). Focusing our attention on consistent results across the two surveys, two findings emerge.

First, as shown in Figures 1A and 1B, the probabilities of having recently hired or tried to hire third-country nationals increase with firm size.

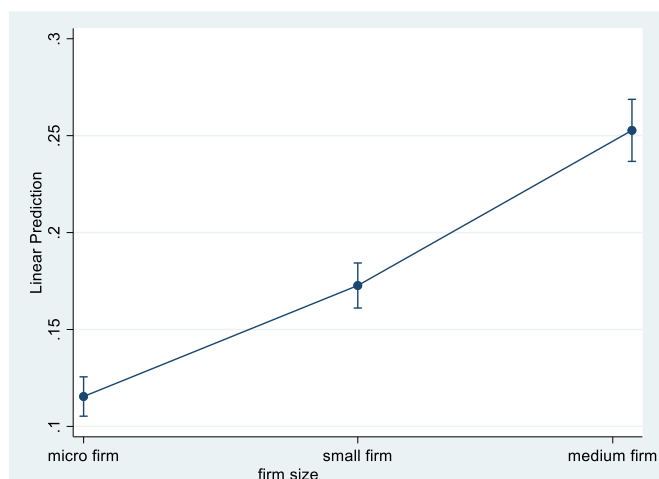
Figure 1A – The probability of having tried to hire third-country nationals by firm size across EU SMEs reporting difficulties in recruiting qualified staff



Note: this figure shows how the probability of having tried to hire third-country nationals varies by firm size across EU SMEs reporting difficulties in recruiting qualified staff. Results are based on a multivariate regression (see the Quick Guide for details). Lines indicate the 95% confidence intervals.

These probabilities are the highest for medium sized companies (between 50 and 250 employees); they are lower for small companies (between 10 and 49 employees) and the lowest for micro firms (between 1 and 9 employees). This outcome is in line with the hypothesis that smaller firms tend to face a number of difficulties that make it more difficult for them to search, attract and hire workers from outside the EU.

Figure 1B – The probability of having recently hired third-country nationals by firm size across EU SMEs reporting difficulties in recruiting qualified staff



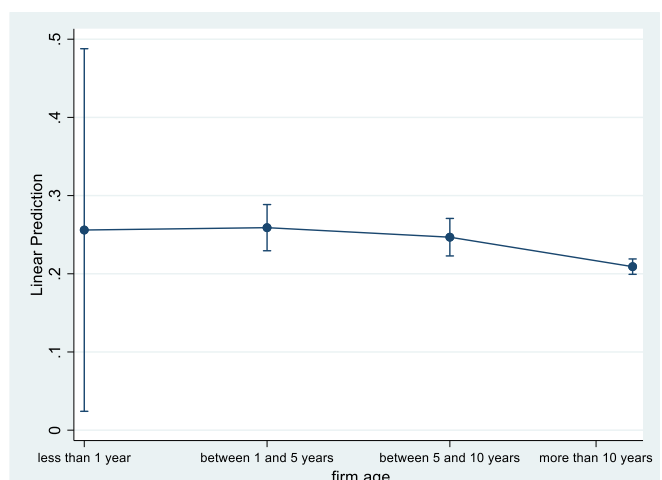
Note: this figure shows how the probability of having recently hired third-country nationals varies by firm size across EU SMEs reporting difficulties in recruiting qualified staff. Results are based on a multivariate regression (see the Quick Guide for details). Lines indicate the 95% confidence intervals.

Compared to larger companies, smaller firms are less likely to have dedicated human resources personnel, less likely to have contacts and connections abroad, less likely to benefit from economies of scale in recruiting, and less likely to develop competences in relevant administrative procedures [8]. A 2020 Eurobarometer survey found that, when asked to describe their key problems, SMEs report most often problems of regulation, including specific issues related to bureaucracy and administrative burden [9].

Second, as illustrated in Figures 2A and 2B, the probabilities of having recently hired or tried to hire third-country nationals are found to slightly decrease with firm age. While this result needs to be interpreted cautiously (due to wide confidence intervals that make it difficult to draw precise conclusions), it is suggestive that, compared to older SMEs, younger SMEs are more likely to rely on third-country nationals to address their problems in finding appropriately qualified staff. One possible explanation for this result is that, as shown by several studies [e.g., 10], employment tends to grow faster in the latter group of firms. Faced with the need of having to hire more workers (holding firm size, sector of activity, and turnover in 2022 constant) and the difficulty of finding them in the EU labour market, younger firms may be more likely to consider the possibility of recruiting people from outside the EU. Another explanation may be that entrepreneurs of younger SMEs, who tend to be disproportionately young or relatively young individuals [11], are more likely to have a broader global perspective. They are more likely to have studied and travelled abroad (including outside the EU), more likely to have a network

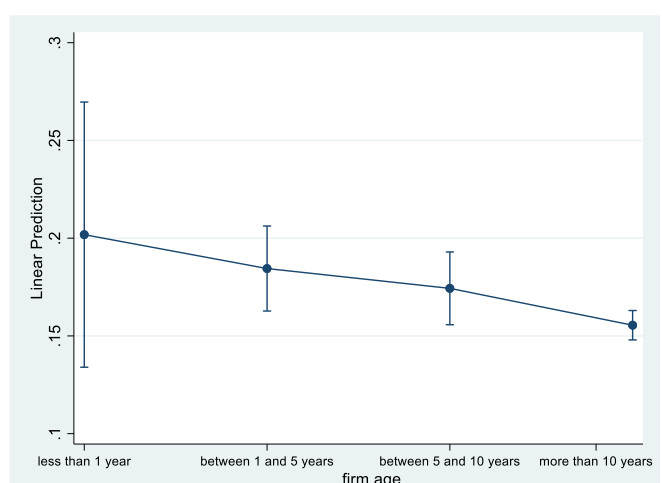
of international contacts, and more likely to value multicultural diversity.

Figure 2A – The probability of having tried to hire third-country nationals by firm age across EU SMEs reporting difficulties in recruiting qualified staff



Note: this figure shows how the probability of having tried to hire third-country nationals varies by firm age across EU SMEs reporting difficulties in recruiting qualified staff. Results are based on a multivariate regression (see the Quick Guide for details). Lines indicate the 95% confidence intervals.

Figure 2B – The probability of having recently hired third-country nationals by firm age across EU SMEs reporting difficulties in recruiting qualified staff



Note: this figure shows how the probability of having recently hired third-country nationals varies by firm age across EU SMEs reporting difficulties in recruiting qualified staff. Results are based on a multivariate regression (see the Quick Guide for details). Lines indicate the 95% confidence intervals.

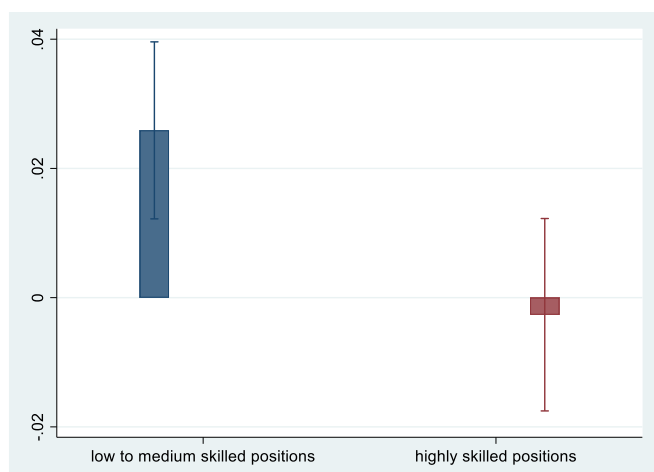
Types of skills shortages and the role of third-country nationals

We now look at whether SMEs are more likely to rely on non-EU workers to fill low to medium-skilled positions or highly skilled positions. To distinguish between these two types of positions, in Flash Eurobarometer 537 we use a question that asks companies about the educational level they find most difficult to recruit. We define highly skilled positions as

those requiring a bachelor’s degree, a master’s degree or a PhD degree, whereas low to medium-skilled positions are those requiring secondary education or vocational training/education. While the same question is not included in Flash Eurobarometer 529, firms are asked about the job roles they face difficulties in recruiting. We include managers, professionals, associate professionals and technicians in the category of highly skilled positions, whereas manual labourers, machine operators, craft and skilled trade workers are encompassed in the category of low to medium-skilled positions.

Using data from each survey, we estimate a model investigating how the probability of resorting to third-country nationals changes depending on whether firms exhibit shortages in low to medium-skilled positions or highly skilled positions. Figures 3A and 3B consistently show that the probabilities of having recently hired or tried to hire non-EU workers are considerably higher among SMEs reporting difficulties in filling low to medium-skilled positions relative to similar companies facing problems in filling highly skilled positions. Estimates reported in Figure 3A indicate that the probability of having tried to hire third-country nationals is not statistically different from zero for SMEs reporting difficulties in filling highly skilled positions. This finding would seem to indicate that in the EU SMEs are especially likely to rely on workers from outside the EU to address shortages in low to medium-skilled occupations.

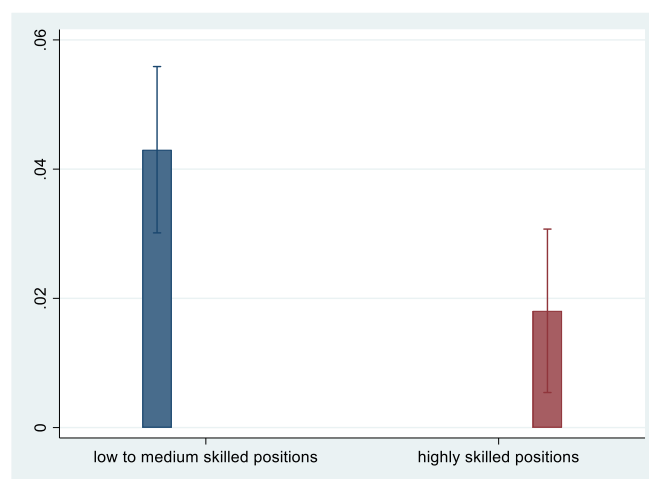
Figure 3A – The probability of having tried to hire third-country nationals by SMEs’ difficulties in filling low to medium-skilled positions or highly skilled positions



Note: Note: this figure shows how the probability of having tried to hire third-country nationals varies depending on whether EU SMEs report difficulties in filling low to medium-skilled positions or highly skilled positions. Results are based on a multivariate regression (see the Quick Guide for details). Lines indicate the 95% confidence intervals.

Such an outcome is consistent with the results of individual country (e.g., Poland, Sweden, Romania, Malta, Netherlands) studies stating that companies are recruiting non-EU workers particularly in hospitality, construction, agriculture, transport and construction industries. Our result is also in line with the findings of a recent EU report [12] showing that workers born outside the EU are more likely to be employed in occupations facing persistent labour shortages, particularly in low-skilled occupations.

Figure 3B – The probability of having recently hired third-country nationals by SMEs’ difficulties in filling low to medium-skilled positions and highly skilled positions



Note: Note: this figure shows how the probability of having recently hired third-country nationals varies depending on whether EU SMEs report difficulties in filling low to medium-skilled positions or highly skilled positions. Results are based on a multivariate regression (see the Quick Guide for details). Lines indicate the 95% confidence intervals.

While EU SMEs are more likely to rely on third-country nationals to cover low to medium-skilled positions than highly skilled positions, it is important to bear in mind that skill shortages in high level occupations do exist in Europe. A recent brief [3] found that EU firms are more likely to report than their non-EU counterparts that they have problems in filling jobs for master’s or PhD degree holders and in hiring R&D experts. Therefore, our results would seem to imply that EU SMEs are less likely to consider filling high skilled vacancies with non-EU workers. This idea is also supported by the findings of a study indicating that in the EU third-country nationals make up 2.7% and 4% of workers with digital and green occupations, respectively, while they account for 4.9% of workers with other occupations [13]. Although our analysis cannot shed light on the reasons for this situation, it is possible that difficulties and delays in the recognition of higher educational qualifications may contribute to discourage SMEs from recruiting qualified personnel from outside the EU.

CONCLUSIONS AND POLICY IMPLICATIONS

The lack of qualified workers is a persistent problem in the EU. Labour and skills shortages are expected to remain or even rise in the future as the EU population ages and the green and digital transitions advance. There is a large scientific and political consensus that the attraction and retention of non-EU workers is key to help EU firms tackle this issue. In the last decade, several measures have been taken by the EU and its Member States to facilitate the recruitment of third-country nationals.

In this brief, we have attempted to shed light on how EU SMEs use third-country nationals to ease labour and skills shortages. Results from such analysis may provide valuable information about the characteristics that influence SMEs' probability to resort to non-EU workers. This information, in turn, may be utilized to improve the effectiveness of provisions designed to make it easier for EU SMEs to hire suitably qualified third-country nationals. The analysis uses data from two different recent Eurobarometer surveys and is based on a multivariate model that considers several firm characteristics.

Reliance on workers from outside the EU to cope with the lack of qualified staff is found to increase with firm size. This would seem to suggest that small firm size may be a significant barrier to the recruitment of third-country nationals. The bureaucracy and the high costs involved in the process of attracting and hiring non-EU workers may discourage firms of smaller dimensions from embarking on the recruitment of these workers. It is therefore important to remove these barriers, thereby increasing the chances for smaller companies to be able to rely on workers from outside the EU to

address labour and skills shortages. The proposed creation of an EU Talent Pool goes in this direction. Such a platform is expected to match third-country nationals and employers more quickly and easily, hence reducing the recruitment costs incurred by firms when looking for non-EU workers.

Our findings are also suggestive that the recruitment of third-country nationals may be considered as a solution to labour and skills shortages especially by younger SMEs. While this result needs to be confirmed by further research, it may have important policy implications. Given the critical role played by younger companies in driving innovation and job creation [14] and the fact that the lack of qualified staff may hamper their growth prospects, helping them tackle skill shortages may have the potential to significantly benefit the EU economy.

Finally, our results show that EU SMEs are more likely to rely on third-country nationals to fill low to medium-skilled positions than highly skilled positions. The probability of resorting to non-EU workers to fill highly skilled positions is found to be zero or very low. Given the existence of skill shortages in high level occupations in Europe, our result can be interpreted as suggesting that EU SMEs are unlikely to consider filling high skilled vacancies with non-EU workers. While this topic deserves further investigation, one possible explanation relates to difficulties and delays in the recognition of higher education qualifications of third-country nationals. This issue has been recognised as an important problem by the European Commission. The Commission has recommended that efforts need to be made to achieve a quick recognition of qualifications, skills and working experience of non-EU individuals.

QUICK GUIDE

Data used in this policy brief come from: Flash Eurobarometer 537 'SMEs and Skills Shortages' and Flash Eurobarometer 529 'European Year of Skills: Skills Shortages, Recruitment and Retention Strategies in Small and Medium-sized Enterprises' (<https://europa.eu/eurobarometer>).

Flash Eurobarometer 537 was conducted between 11 September and 13 October 2023 at the request of the European Commission's Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs. More than 19,350 companies (both SMEs and large companies) in each of the 27 EU Member States and in 9 non-EU countries were interviewed. Interviews were held with someone with decision-making responsibilities (managing director, general manager, CEO, financial director), someone leading the commercial activities (commercial manager, sales manager, marketing manager) or a legal officer. All interviews were carried via Computer-Assisted Telephone Interviewing (CATI). The sample covers approximately between 500 and 600 companies per country, except for Luxembourg, Cyprus, Malta and Iceland (ca. 250 each). In this brief, we focus our attention on SMEs in all EU countries.

Flash Eurobarometer 529 was carried out between 4 and 23 May 2023 at the request of the European Commission's Directorate-General for Employment, Social Affairs and Inclusion. 12,909 SMEs in each of the 27 EU Member States were interviewed. Interviews were held with someone with decision-making responsibilities (managing director, general manager, CEO, financial director), someone leading the commercial activities (commercial manager, sales manager, marketing manager) or a legal officer. All interviews were carried out via CATI. The sample covers approximately 500 companies per country, except for Luxembourg, Cyprus and Malta (ca. 250 each).

Figure 1A reports the average marginal effects from a linear probability model where the dependent variable takes the value 1 if the SME has tried to hire foreign talent from countries outside the EU to solve skill shortage and 0 otherwise. Explanatory variables include firm size dummies (micro, small, and medium (base dummy)), sector dummies (retail, services, manufacturing, and industry (base dummy)), firm age dummies (less than 1 year, between 1 and 5 years, between 5 and 10 years, unknown and more than 10 years (base dummy)), dummies related to firm turnover in 2022 (less than 25,000 euro (base dummy), between 25,000 and 50,000 euro, more than 50,000 to 100,000 euro, more than 100,000 to 250,000 euro, more than 250,000 to 500,000 euro, more than 500,000 to 2 million euro, more than 2 million to 10 million euro, more than 10 million euro to 50 million euro, more than 50 million euro, and unknown), and EU country dummies (France is the base dummy). The sample comprises SMEs that over the past 24 months found it very difficult or slightly difficult to hire staff with the right skills.

Figure 1B reports average marginal effects from a linear probability model where the dependent variable takes the value 1 if the SME has recently hired anyone from outside the EU and 0 otherwise. The model includes the same explanatory variables as the model used for Figure 1A. The sample comprises SMEs that found it very difficult, moderately difficult and slightly difficult to find workers with the right skills.

Figure 2A reports average marginal effects from the same linear probability model employed for Figure 1A. The only difference is that SMEs not reporting information on firm age have been removed from the sample.

Figure 2B reports average marginal effects from the same linear probability model employed for Figure 1B. The only difference is that SMEs not reporting information on firm age have been removed from the sample.

Figure 3A reports average marginal effects from the same linear probability model employed for Figure 1A. There are, however, two differences. First, a variable has been added to the explanatory factors (a dummy taking the value 1 if the SME finds most difficult to recruit for low to medium-skilled (highly skilled) positions and 0 otherwise). Second, the sample comprises all SMEs.

Figure 3B reports average marginal effects from the same linear probability model employed for Figure 1B. There are, however, two differences. First, a variable has been added to the explanatory factors (a dummy taking the value 1 if the SME faces difficulties in recruiting low to medium-skilled (highly skilled) positions and 0 otherwise). Second, the sample comprises all SMEs.

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