

3 Why do enterprises train?

Understanding the reasons why firms provide training rather than adopting alternative strategies, and more critically, the factors limiting training provision, is of paramount importance to design appropriate incentives to foster learning in enterprises. It is also crucial to study which groups of employees receive more training than others, and why this is the case, as there might be a role for public policy in reducing these differences. This chapter presents existing and new evidence on the main reasons and benefits of training provision by enterprises, on the obstacles to training provision, on the groups of employees that are trained more than others, and on the strategies other than training that firms adopt to address skill needs.

In Brief

Why do enterprises train?

Firm-provided training has many important benefits, both for the firm and for its employees. For an enterprise, training leads to increases in productivity and profitability. For the employee, it translates into higher wages and better career prospects. New evidence from the case studies shows that the main motivation for firms to train their employees is actually not directly related to firm performance but is to comply with legal requirements regarding health, safety and security training. Reasons more directly related to firm performance, such as the need to stay competitive or to engage employees, are also cited as important drivers of firm-provided training but come second.

At the same time, enterprises face a number of constraints limiting the amount of training they can offer. While the economic literature has mainly focused on external obstacles hindering training provision, such as the introduction of minimum wages, or the rise of non-standard forms of work, evidence from quantitative surveys shows that internal factors, such as financial and time constraints, matter to a large extent. Evidence from the case studies shows that lack of time in particular appears to be a key impediment to training provision, and provides detailed insights on what this obstacle means in practice.

As alternative to training, enterprises mainly adopt two strategies to address their skill needs: either they hire individuals with specific competences, or they outsource the activity for which there is a skill gap. The choice between training and these other options is driven by cost considerations, as highlighted by the existing literature, but also by a number of internal and external factors, such as the specificity and level of skills needed, labour market tightness, and expected duration of the skill need, as evidenced by the new data stemming from the case studies.

Reasons for employees to train differ starkly across groups of individuals. Existing evidence from the research literature has identified precisely which employees tend to train more than others: younger employees, those with higher skills and higher wages, as well as those under a permanent contract. New evidence from the case studies largely corroborates these findings but also shows that employees' specific position and role in the company matters at least as much as demographic characteristics to explain training participation. More specifically, employees in office positions or subject to legal requirements, those working in specific sectors, high-skilled employees, and new hires receive more training than other groups. Such differences stem from both higher benefits and lower costs of providing training to these employees.

Introduction

Enterprises acknowledge various benefits from providing training, ranging from increased profitability and performance to lower turnover. These benefits vary across different groups of employees. Yet, firms also face a number of obstacles that can substantially limit training provision. When they cannot train, they consider alternatives, including hiring or outsourcing to address skill gaps.

Understanding the reasons why firms provide training rather than adopting alternative strategies, and more crucially the factors limiting training provision, is of paramount importance for policy makers to design appropriate incentives to foster learning in enterprises. It is also crucial to study which groups of employees

receive more training than others, and why this is the case, as there might be a role for public policy in reducing these differences.

This chapter presents existing and new evidence on the reasons why enterprises train, and why they do not train more. More specifically, it investigates (i) the main reasons and benefits of training, (ii) the obstacles to training provision firms encounter in practice, (iii) why some groups of employees train more than others, and (iv) how firms choose between different alternatives available to address skill needs.

Reasons and benefits of training

Firm-provided training presents many important benefits, both for the firm and for its employees. For an enterprise, training leads to increases in productivity and profitability. For the employee, it translates into higher wages and better career prospects. However, and despite an abundant research literature on the topic, a number of knowledge gaps subsist. While the benefits of training are well-known to researchers, it is not entirely clear whether enterprises are fully aware of them, and the exact reasons behind training provisions deserve more attention. New evidence from the case studies makes it possible to investigate the reasons why enterprises decide to offer training to their employees, and to explore mechanisms through which training affects productivity and firm performance.

Existing evidence on the reasons and benefits of training

Benefits of enterprise provided training

Existing research consistently shows that training increases **employee productivity**. For instance, Brunello and De Paola (2008^[1]) show that training leads to increased literacy scores, and improved job performance (greater breadth of service quality, improved relations with customers, increased task efficiency). Georgiadis and Pitelis (2016^[2]) find that employees' training has a positive impact on firms' labour productivity and profitability, and that this effect was stronger for employees than for managers.

These productivity increases result in **higher profits and improved firm performance**. Brunello and De Paola (2008^[1]) show that improvements in outcomes at the individual level translate into better firm performance along several dimensions: The authors cite increased customer satisfaction leading to greater customer loyalty, better reputation and hence higher revenues; and reductions in wastage, errors, and time spent by supervisors monitoring and correcting work of their staff, leading to important cost savings. The positive relationship between training and firm performance is present for firms of different sizes, operating in various sectors, with varying degrees of technological intensity, and is stronger in countries with low performance orientation and low labour costs (Garavan et al., 2020^[3]).

Training is used by firms to **increase their competitiveness** and, hence to escape or survive competition, especially in industries relying to a larger extent on workers' human capital (Heywood, Jirjahn and Pfister, 2019^[4]).

At the individual level, productivity increases induced by training may in turn lead to **wage increases and job promotions**, and to **reduction in unemployment threats** (Fialho, Quintini and Vandeweyer, 2019^[5]; Kluve, 2010^[6]; Picchio and van Ours, 2013^[7]). Regarding the impact of firm-sponsored training on wages, the most comprehensive study is the recent meta-analysis of 38 studies by Haelermans and Borghans (2012^[8]) that finds an average wage increase of 2.6% for each occurrence of training. Returns vary for different types of training but also according to the research approach adopted: for instance, studies that take into account the fact that the best workers sort themselves into the firms that provide more training find smaller returns.

Training may also be viewed by firms as **a mean to retain employees and reduce turnover**. Indeed, training enhances organisational commitment and perceived organisational support, and this translates

into higher attractiveness and retention rates, and hence lower hiring costs (Frey, Buettgen and Pietsch, 2014^[9]). There are exceptions, though: for instance, the economic literature on human capital theory shows that firms' provision of general training is strongly reduced when labour markets are perfectly competitive. Indeed, in this case, skills learned during general training can be easily applied in other enterprises (Becker, 1964^[10]).

Training generates **spillovers at the industry level** and **wider social benefits**, but the evidence on these topics is less abundant. Some studies highlight positive impacts of employees' training on their colleagues and of managers' participation in training on their employees (De Grip and Sauermann, 2012^[11]; Prada, Rucci and Urzúa, 2019^[12]). Other works show that training fosters generic cognitive and personal development, facilitating self-management and reflection, and the development of resilience and grit through learning experiences (Feinstein and Hammond, 2004^[13]). Several studies relate participation in training to improved health and well-being (attitudes, confidence, social capital, and health, mental health, stress, self-confidence, self-esteem) (Brunello and De Paola, 2008^[1]; Panitsides, 2013^[14]), social and political attitudes, participation in civic, political, and cultural activities (Ruhose, Thomsen and Weilage, 2019^[15]).

Little is known however about the **differentiated impact of different types of training**. Indeed, most of the existing research takes an undifferentiated view of training (Field, 2011^[16]). In particular, only limited evidence exists on the impact on wages and productivity of the various types of training targeting different skills. Training content varies a lot (see Chapter 2), but very few studies have examined the benefits or returns to training with different content. Professional training and some training targeting soft skills, such as project management and sales and marketing training, seem to deliver the highest returns for wages (Dostie, 2013^[17]). Other studies have analysed the impact of very specific interventions, making it difficult to compare returns across types of training.

The literature has also dedicated limited attention to investigate the impact of class-room vs. on-the-job training. A study focusing on administrative-level Canadian data from 1999 to 2006 concludes that class-room training has larger short-term productivity returns than on-the-job training, but this is driven by the type of training provided (Dostie, 2013^[17]). A large fraction of on-the-job training, classified as orientation for new employees, is not productivity enhancing. Furthermore, professional training has a stronger impact on wages and is more likely to be covered in classroom training. Once these factors are taken into account, the study finds that many types of on-the-job training are as productivity enhancing as classroom training.

Reasons for enterprises to provide training

In spite of this extensive body of evidence, researchers and policy makers still have a limited understanding of the reasons why firms choose to provide training (or not). One exception is a recent study focusing on micro and small companies (CEPS, 2020^[18]) that shows that the main drivers for up- and re-skilling in those firms are related to **legal requirements**.

The European Company Survey can also shed some light on the issue, as it asks firms about the importance of four other reasons for providing training to their employees. In this survey, 96% of managers in establishments that provided some type of training said it is important for ensuring that employees have the skills they need to do their current job; 84% declared it is important for improving employee morale; 81% said it helps to increase the capacity of employees to articulate ideas about improvements to the establishment; 70% reported it is important to increase flexibility (Cedefop, 2020^[19]). An econometric analysis of the ECS data provides a more detailed picture on the issue (see Box 3.1).

Box 3.1. Enterprise characteristics and main reasons for providing training

Econometric analysis of data from the European Company Survey 2019 (see Annex B for an illustration of the results and the methodology) provides additional insights on the relationship between several firm characteristics and the reasons why they provide training. The results show that:

- There is some degree of heterogeneity between firms in different sectors regarding the main reason behind training provision: firms in the Information and Communication sector are less likely to report flexibility and skill needs as important reasons, while those in accommodation and food services seem more likely to report innovation as an important motivation to provide training to their employees.
- Market strategies focused on customisation, better quality, and introduction of new products and services are all positively correlated with the different reasons for providing training, but the relationship is weak in most cases.
- The different High Performance Work Practices explain reasons driving training provision: workforce autonomy and performance pay being positively correlated to all four reasons (developing workforce flexibility, increasing workforce motivation, improving workforce skills, fostering innovation), teamwork being negatively correlated with flexibility as a main driver of training provision but positively related to the other three reasons.
- The relationship between technology adoption and the main reasons for providing training is not conclusive in general. The same is true for the correlation between other firms' characteristics (age, number of hierarchical levels, number of employees) and the four different reasons (not reported in the figure).

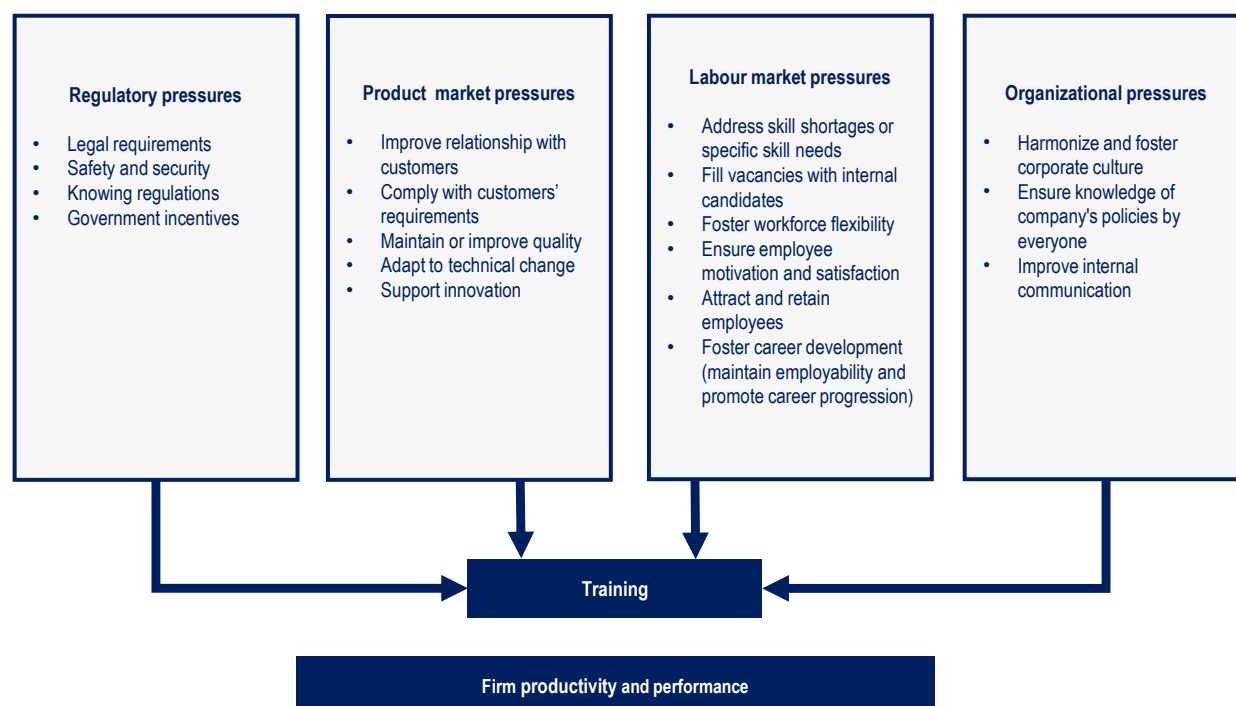
New evidence on the reasons and benefits of training

Thanks to new evidence from the case studies, it is possible to provide more details on why enterprises decide to offer training to their employees, and to explore mechanisms through which training affects productivity and firm performance. Compared to the ECS, the present study adopts a bottom-up approach and is able to identify a broader range of reasons behind firm training provision. It also allows for an exploration if any important factors have been overlooked by the existing literature.

Key reasons driving training provision

The **most important reasons behind training provision** as reported by firms in the sample can be broadly classified in four categories (Figure 3.1). Regulatory pressures come first, followed by pressures faced by firms in the product and labour markets. Product and labour market pressures can be due to mainly external factors (e.g. necessity to comply with customers' requirements, attraction of new employees) or internal forces (e.g. support innovation, address specific skill needs). More marginally, several firms reported reasons stemming from purely internal, or organisational, pressures. These different categories are explored in more detail below.

Figure 3.1. Reasons for training provision in enterprises



Note: Interviewees were asked to describe in detail the main reasons they provide training to their employees.

Source: OECD Enterprise training strategies case studies; based on interviews in 100 enterprises in AUT, EST, FRA, IRE, ITA.

First, **regulatory pressures** are a major driver of firm-provided training. Almost half of the firms interviewed declare that they provide training to comply with legal requirements regarding health, safety and security training, and about a third of firms in the sample cite it as one of the most important reasons. These trainings are often course-based due to the need to obtain a certification (see also Chapter 2). Legal requirements are especially important for firms operating in manufacturing sectors, both high-tech and low-tech, as evidenced by a manufacturer of wood products in Ireland.

Given the nature of the business' activities' in manufacturing and construction, training is primarily offered to ensure ongoing compliance with various Health and Safety legislations and required practices.

Manufacturer of wood products, Ireland

In service sectors, regulatory pressures also play a role. Indeed, several companies in the sample declare that they provide training to their employees to ensure that they know existing regulations. This is for instance the case for firms operating in the financial sector. Providing training to respond to government incentives also falls in this category, albeit very few firms cited this as a reason behind training provision.

These mandatory trainings are more formalised (see also Chapter 2) and they seem more burdensome for firms and employees. What is more, evidence from the case studies suggests that some employees do not consider these actions to be “proper training”. Some companies report that the amount of mandatory training is actually an obstacle to providing other types of training, that could, according to firms, be more appropriate and productivity enhancing.

Pressures faced by firms in the product and labour markets come second in terms of importance. Both pressures seem equally important reasons for firms to provide training: about a third of firms in the sample report only pressures in the product market as drivers of training provision, a third report pressures in the labour market only, and a third say both forces as drivers of their decisions.

Product market pressures relate to the need for firms to stay competitive vis-à-vis other firms proposing similar products or services. Training seems to be crucial to enable them to sustain their strategy in their product market. A number of firms stress the importance of customers' satisfaction. Soft skills (in particular communication) training can be a way to improve relationship with clients. Other types of training are sometimes necessary to comply with their requirements. For instance, a large company active in the catering sector in Ireland declared that training is necessary to meet customer expectations and hence is crucial to increase the likelihood of securing future business. Training may also be necessary to maintain or improve product quality, and is in some cases an integral part of a company's approach to quality management. Finally, training can also be used to help the firm and its employees adapt to technological change and introduce or foster innovation.

The main reason for having training is related to the final goal of keeping high qualitative standards of the product, and giving to all employees the possibility to do this having all the possible instruments and knowledge. In this specific market, the quality standards of the product should be as high as possible.

Large publishing company, Italy

Labour market pressures take different forms. Reasons in this category are listed in Figure 3.1 and range from company-focused to more employee-oriented pressures. First, a number of firms reported providing training to their employees to address specific skill shortages or specific skill needs. Training is also sometimes offered to accompany career moves within the firm, when the candidate needs upskilling. In addition to filling job openings, firms also provide training in order to benefit from a more adaptable workforce and to allow job rotation. For example, a medium-sized high-technology manufacturing company in Italy trains its employees to make sure they can replace their colleagues on leave.

The company is engaged in realising annual training plans designed to provide expertise on the different production lines to the employees, in order not to expose the company to the risk of not having trained and expert staff to place on a specific line in the case of absence of the operator.

Medium-sized high-technology manufacturing company, Italy

Employee motivation and satisfaction is another important benefit of training reported by firms, and can translate into employee retention. Training can also be viewed as an attractive feature for job candidates. Finally, several enterprises declared that one important reason to provide training was to permit career development of their employees, by maintaining competences and hence employability, or by increasing employees skills and hence foster career progression. Employee retention and career progression are the two main drivers of training provision in a large knowledge-intensive service company in Ireland.

The main reasons for providing training relate to being able to better retain employees and their skills. Training is also offered to address specific needs identified within its wider strategies: for instance, to encourage more female representation in management and senior roles in the business. A training for female leader's programme has a clear impact on the business' strategy to encourage more diversity within its leadership and senior management.

Large knowledge-intensive service company, Ireland

It is notable that service sector firms are more likely to cite product market pressures, while firms in manufacturing sectors, larger firms, and firms in rural areas are more likely to cite labour market pressures.

Finally, training may also be organised to respond to **organisational pressures**, to improve internal communication and promote a harmonised corporate culture. As opposed to the other pressures mentioned above, which are mainly externally driven, these reasons are purely internal. This is the case for instance in a medium-sized family firm in Italy.

The other key type of training carried out (“culture”) is related to developing a shared set of values, attitudes, mission, in the company and is strongly driven by the family vision. This type of training has the key objective of improving communication, improving the set of shared values, the internal “atmosphere”.

Manufacturer of rubber and plastic products, Italy

Main obstacles limiting training provision

Enterprises can experience a number of obstacles hindering training provision. Existing evidence provides an overview of different external and internal constraints that explain why companies do not provide (more) training, while new evidence from the case studies sheds light on what these obstacles mean in practice. The majority of enterprises in the sample cited firm internal, rather than external obstacles, and in particular emphasised time constraints as key obstacle to training.

Existing evidence on obstacles

External factors limiting training provision

While the literature on benefits of firm-provided training abounds, evidence regarding constraints and obstacles to training participation faced by enterprises is much scarcer and less conclusive. A recent study published by the European Investment Bank (Brunello and Wruuck, 2020^[20]) discusses a number of **institutional factors** that could, in theory, hinder firm-training provision, such as the introduction of minimum wages, or the rise of non-standard forms of work. In practice, the hypotheses are not always validated empirically. For instance, higher employment protection (including higher firing costs) should in theory increase firms’ incentives to provide training, by raising tenure and hence increasing the time span to reap training benefits. However, higher protection may also lead firms to shift to temporary contracts and thereby provide less training (Bratti, Conti and Sulis, 2021^[21]). Similarly, there is no consensus regarding the effect of minimum wages on training, with results varying both across and within countries. One detrimental factor that seems to be less contested is the recent diffusion of non-standard employment practices: employees under such working schemes are less likely to be trained. However, the literature on this topic is still nascent, and more evidence needs to be collected.

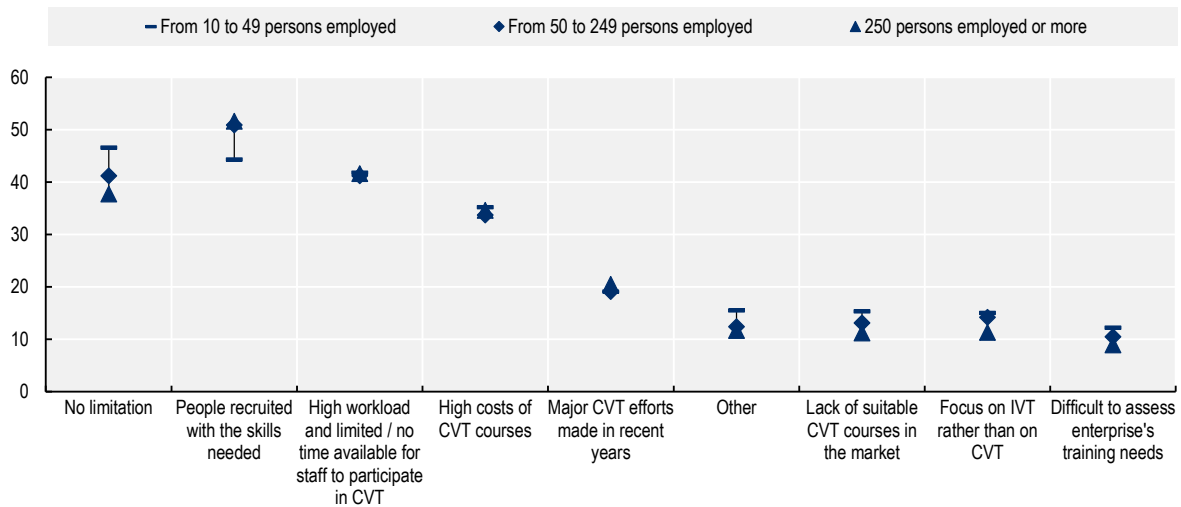
Internal constraints faced by firms

The **cost of training** is a key obstacle to the provision of (more) training. It is important to note that cross-country differences in financing constraints are important, but explain only a limited share of the observed heterogeneity in training investment across European economies (Brunello and Wruuck, 2020^[20]).

Another important internal obstacle reported in existing studies and surveys is **the lack of time**. For instance, a Canadian study evaluated the impact of workplace essential skills training on a number of firms and workers outcomes. The project offered up to 40 hours of training for each employee with wage compensation to employers for half of the release time, up to a maximum of 20 hours. The study finds that only few employers maximised this subsidy by providing the full amount of training available. This was particularly – although not only – true for smaller firms (counting less than 20 employees). The study thus concludes that the amount of release time that employers can make available, given their current business demands, is an important barrier to training. Subsidies to cover costs related to employees’ absence do not seem sufficient to incentivise firms to provide more training, and alternative approaches that better address workplace constraints should be explored (Dowie et al., 2014^[22]).

Figure 3.2. Factors limiting the provision of CVT

Percentage of enterprises reporting that the factor is an obstacle to provision of CVT, across EU-27



Note: This question on limiting factors was asked to enterprises that provided CVT courses or other forms of CVT for their persons employed during 2015. Similar results are obtained when considering the reasons why some enterprises do not provide any CVT.

Source: Eurostat, CVTS 2015, [trng_cvt_03n2]

Box 3.2. Enterprise characteristics and time constraints

Econometric analysis of data from the European Company Survey 2019 (see Annex B for an illustration of the results and the methodology) provides additional insights on the correlation between several enterprise characteristics and the probability that it gives priority to workload and work schedules over training. The results show that:

- About a third of enterprises in the survey declare that participation in training and professional development activities is only possible if workload and work schedules allow for it.
- Enterprises in the financial sector, and those performing professional, scientific and technical activities are less likely to report workload as an obstacle, as are firms whose product market strategy are based on quality or the introduction of new products. Similar conclusions can be made for firms operating with autonomous teams or using data analytics. One possible explanation is that these firms tend to be more flexible in general and hence are able to adjust their work schedules more easily, or that training their workforce is more important for them and is given priority.

This finding is corroborated by results from the CVTS (Figure 3.2). Indeed, time and cost constraints are cited as prominent factors limiting the provision of training in the workplace. Time constraints are further investigated using ECS 2019 data; results are reported in Box 3.2. Other reasons (such as the difficulty to assess needs and the lack of suitable training offer) appear to play a minor role. Importantly, there is very little heterogeneity in the obstacles reported by firms of different sizes. It is important to note that an important share of respondents declare that they do not provide further or any training because they do not need to, and hence report no particular obstacle. This is because existing skills in the enterprise correspond to the needs, because they recruit people with the right skills directly, because they already

invested heavily in continuous vocational training, or because they prefer focusing on initial rather than continuous training.

Finally, and as foreshadowed in Chapter 2, the literature puts a strong emphasis on **poaching concerns** as obstacle to training provision. Seminal work by Becker (1962^[23]) argues that enterprises might not provide training if they are concerned that their employees might leave for other firms. These poaching concerns are problematic especially in the case of general training, and when labour market are perfectly competitive. It is therefore not clear whether firms really consider employee turnover as an obstacle limiting training provision in practice.

New evidence on obstacles

The qualitative evidence collected in the context of this project allows an in-depth understanding of the obstacles faced by enterprises to offer training to their employees. Thanks to this new data, it is possible to understand what the constraints reported in different quantitative surveys mean in practice. In particular, this subsection sheds light on the reasons why lack of time remains an important barrier for many firms. The data also helps understand if any constraint has been overlooked in existing research, and to study what firms' characteristics and context are associated with different obstacles. Table 3.1 summarises the different types of obstacles faced by firms interviewed for the qualitative analysis and their prevalence in the sample. The remainder of this subsection discusses each precise obstacle in more details.

Table 3.1. Types of obstacles limiting provision of training by enterprises

Type of obstacle	Precise obstacle	Incidence in the sample
Time constraints	Lack of time to participate in training	High
	Lack of time to organise training	Medium
Financial constraints	High training costs	Medium
Constraints related to employees' attitudes or skills	Negative employees attitudes	Medium
	Negative management attitude	Low
	Low levels of employees' skills	Low
Planning constraints	Absence or inadequacy of vision, plan, processes	Low
	Difficulty to assess skill needs	Low
Supply constraints	Difficulty to find suitable training offers	Low

Note: Interviewees were asked to describe in detail the main obstacles limiting training provision. In the majority of enterprises, answers given by the different types of interviewees do not contradict and the analysis was thus conducted pooling the answers of the different respondents for each firm. High incidence means that more than 60% of enterprises interviewed report this obstacle; medium incidence corresponds to an obstacle cited by 20-60% of enterprises interviewed; low incidence for an obstacle cited by less than 20% of enterprises.

Source: OECD Enterprise training strategies case studies; based on interviews in 100 enterprises in AUT, EST, FRA, IRE, ITA.

Time as key constraint

Lack of time is by far the most prominent obstacle reported by firms (named by two out of three interviewed enterprises). This is the case for firms of various sizes and operating in different sectors. The majority of enterprises mentioning this constraint declare that workload and work schedules make it difficult for some employees to participate in training. In practice, firms in the manufacturing sector often give priority to production and to the fulfilment of orders over anything else, including workforce development and training. Some respondents recognise that freeing up time to train could lead to important benefits, but state that finding the right balance between **short-term production concerns** and longer-term training needs is challenging. This seems to be especially important for high-growth firms, as exemplified by a manufacturer of transport equipment in Austria:

I think the critical factor is time: because we are growing so fast and because growth is also the company's goal, many things have to happen quickly and the pressure is already very high on employees in certain areas.

Manufacturer of transport equipment, Austria

Some firms have also adopted a **rigid organisation of production**, including for instance continuous production schedules and shiftwork, that does not allow employees to take part in training during their working time. In these enterprises, training is associated with output losses not only for the employee undertaking training, but also for the entire team. One way to overcome this barrier reported by one interviewed company is to concentrate training activities in periods of lower production levels. During such periods, instead of asking employees to take leave, the company organises training courses.

For firms in the service sector, **deadlines and the need to deliver on time** are often reported as a priority. Employees are sometimes made responsible for the organisation of their own training and they are encouraged to find time to attend courses themselves, on top of their work assignments. **Travel time** to training centres constitutes another important barrier, particularly for companies located in rural areas, where training offers are scarcer.

Training could certainly be more, but that is a time problem; employees are already very stressed, so it is important not to overstretch the bow.

Medium size knowledge intensive service company, Austria

When companies report time as an obstacle, they not only mean that it is difficult to find time for employees to participate in training, but also to find **time for human resources or management to plan training**, especially when replacements need to be identified and organised, as mentioned by a manufacturer of electrical equipment in Ireland.

The biggest impediment to providing training is purely of time – both in investing the time in employees but equally having to release them from work or projects and having to either forego or substitute an employee's absence to attend any training during normal working hours.

Manufacturer of electrical equipment, Ireland

Other obstacles to training provision

The second most cited type of obstacle relates to **training costs**, direct (to cover for training programmes fees) or indirect (to cover for productivity losses). Direct costs can be particularly problematic when firms rely on external providers. However, it is important to recognise that this obstacle is relatively less important compared to the lack of time. Indeed, only 20% of firms in the sample report costs as a major impediment, and it does not vary with firm size, sector, or financial situation. It is however important to note that time and cost obstacles are actually very closely related in that time is not an obstacle when firms can afford short term output losses or hire replacements.

More training would be beneficial for the company as an investment to their employees. The main obstacles to more training include financial opportunities (staying within the training budget).

Medium size low-technology manufacturing company, Estonia

A third set of obstacles encountered by companies relate to the **attitudes and skills of employees and managers**. In particular, **negative employees' attitudes** seem to represent an issue in several firms in the sample. Certain individuals may be reluctant or even refuse to take part in training activities, because they are not aware of the benefits, or are afraid of change. This is often the case of more experienced and older employees, and especially – but not limited to – training for digital skills. Furthermore, in several instances, respondents declared that the content of compulsory training is not interesting, or that

employees would not define it as proper training. The low engagement of employees is mentioned for instance by a large high technology manufacturing company in Estonia.

One obstacle is the low interest of employees in learning new things due to their relatively old age. When a new department was recently set up, all employees were offered the opportunity to learn a new job, but it was almost impossible to find people to do it. The company recruited new people through a staffing company. Employees feel that they can do their current job, it is safe, they get their workloads, their efficiency bonuses, but in a new job they do not know what needs to be done.

Large high technology manufacturing company, Estonia

This is particularly problematic in enterprises where access to training mainly relies on employees' self-initiatives. Indeed, as discussed in Chapter 4, approximately one in five of the enterprises interviewed rely on a bottom-up approach to accessing training, whereby individuals are responsible for the identification of their own training needs and the selection of appropriate training actions. In these enterprises, less motivated individuals may not take the necessary steps to participate in training. As emphasised by several enterprises in the sample and as exemplified below, measures to raise employees' awareness around training benefits might be needed.

It is necessary to raise the awareness of the employees and show them the benefits, as there is often a lack of self-initiative.

Medium size knowledge intensive service company, Austria

One respondent emphasised that adapting training format to different learners is key to engage less motivated employees in training activities. Indeed, some employees are less receptive to classroom training, but more open to on-the-job training.

We have found over the years that some employees do not like to go on training courses but tend to be more open to on-the-job training. We attribute this to the method of teaching and the importance of understanding the type of learner each individual is. With the appointment of the head of HR in the last few years, training and learning has been 'revolutionised'. What we mean by this, is that the approach taken by HR was to understand the learning needs of staff by identifying the type of learner they are and which teaching methods are most aligned to that style of learning.

Large low knowledge intensive service company, Ireland

Attitudes of line managers are also reported as constituting an obstacle to training in several instances. Indeed, some line and middle managers do not encourage, and in some cases can discourage or even prevent employees to take part in training. In this respect, there seems to be some disconnection between middle-level management and senior management, the latter stating that training should not be the sole responsibility of the HR department, and that department and line managers should also encourage training instead of acting as gatekeepers (on this aspect, see also Chapter 4).

There are examples where new employees are recruited and they have superior skills or additional skills to the site manager. Sometimes, the manager feels intimidated and can block that person from progressing. We are very quick to observe this and push managers to see this person's skills as an asset and not a threat.

Large low knowledge intensive service company, Ireland

Finally, **existing skills and education levels** of employees can constitute an important obstacle. This is for instance the case when it comes to the language skills of some employees, especially when their mother tongue is different from the official language in the country. One strategy to address this difficulty reported by one firm in the sample is to rely on employees with a good understanding of the local language to participate in the training themselves, translate training content, and train their colleagues in turn. Several firms also reported that heterogeneity in employees' background and skills represents an

additional difficulty, since a suitable training offer has to be found for employees in the same position but with different levels of skills and education.

Russian speaking employees are sometimes in a worse situation as most of the trainings provided are in Estonian language. As the company is located in an area with many Russian speaking people this problem is somewhat relevant there. One solution for that problem that the company has come up with is that the Estonian speaking people participate in the training and after that carry out the internal training with the same content in Russian language to the Russian speaking colleagues in the company.

Medium size knowledge intensive service company, Estonia

A number of other obstacles are mentioned by respondents, although much less frequently than the obstacles described above. First, several firms declare that **finding suitable training offers** is particularly complicated, because they are located in rural areas, or because they consider the quality or content of available training offers not satisfactory. Employee representatives also mention in several instances that a **lack of appropriate vision, plan, or process** can hinder training provision, and this is sometimes corroborated by the management or HR respondent. For example, the absence of a workforce strategy makes it difficult to anticipate or assess training needs. The process between application and registration in training may also be too long and the training may be no longer necessary.

Several potential obstacles widely discussed in the literature are less frequently mentioned by respondents or not at all. Very few enterprises declared that fear of poaching limits training provision, and no interviewee mentioned that a lack of information on training options constitutes a challenge. It is also interesting to note that approximately 10% of interviewed firms declare facing no obstacle in providing training, including because there is no need to provide more training or because training is not a priority. When they see no need for more training, some firms are actually reluctant to allow employees to participate in training, even if cost is low, as they fear to have an overqualified workforce and to create unmanageable expectations among employees.

Alternatives to training

Enterprises can adopt two alternative strategies to training to address their skill needs: they can either hire individuals with specific competences, or outsource the activity for which there is a skill gap. The choice between training and these other options is driven by cost considerations, as highlighted by the existing literature, but also by a number of internal and external factors, such as the specificity and level of skills needed, labour market tightness, and expected duration of the need, as evidenced by the new data stemming from the case studies.

Existing evidence on alternatives to training

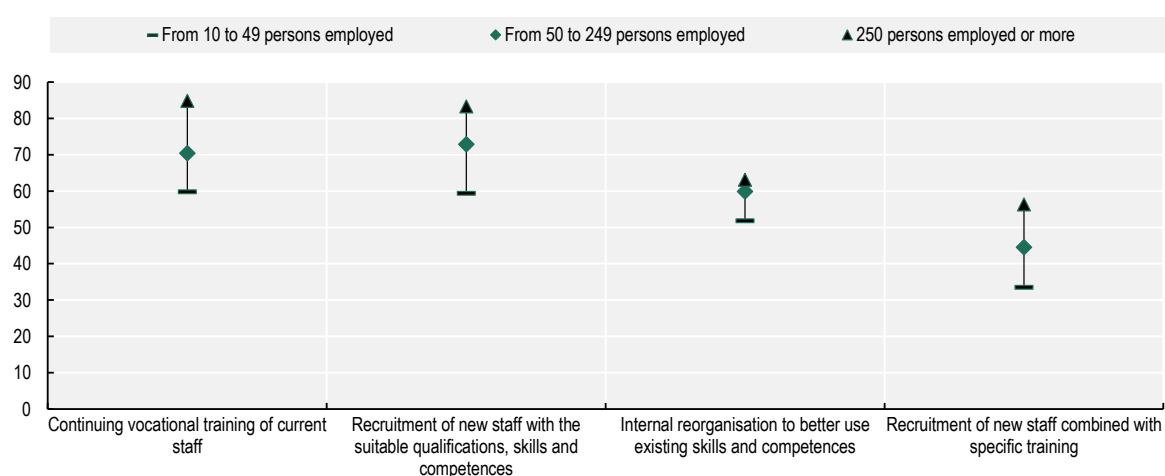
The academic literature on the alternatives to providing training, and the factors associated with the type of alternative chosen by firms, is relatively scarce and the available evidence focuses on one particular alternative -hiring- and one particular type of training – apprenticeships. Blatter et al. (2015^[24]) highlight the importance of hiring and training costs to explain which alternative is chosen, and finds that a 1 standard deviation increase in average external hiring costs increases the number of internal training positions by more than half of a standard deviation. Mühlemann (2016^[25]) shows that there is a large heterogeneity with respect to costs and benefits of apprenticeship training across countries and occupations, but also within occupations. They also argue that labour mobility is a critical factor to explain training provision: when labour mobility is high, long-term benefits are lower and short-term benefits must be higher to exceed training costs for firms to favour training over hiring.

More evidence on different alternatives adopted by firms to address skill gaps can be retrieved from the CVTS. Figure 3.3 shows that the two most widely reported reactions of firms when confronted to skill needs

are to train current employees and to recruit employees with the required skills (more than two-thirds of firms). The third reaction consists in an internal reorganisation to better use existing skills of current employees. The least preferred option, albeit still reported by approximately half of the enterprises, is to recruit new employees and offer them training to fill their skill gaps. Larger firms are systematically more likely to report any of these options, even though the difference between firm size is smaller for the use of internal reorganisation. Yet, it remains unclear whether these options are clearly substitutes or rather complements, and when and why firms choose one option over the others.

Figure 3.3. Alternatives adopted by firms to address skill gaps

Percentage of enterprises reporting adopting the alternative to address skill gaps, across EU-27



Source: Eurostat, CVTS 2015, [trng_cvt_11s].

New evidence on alternatives to training

The qualitative evidence collected in the context of this study increases the understanding of what alternatives to training firms favour, and the reasons behind their choices.

Hiring is the most popular approach to ensure that the enterprise has the skills required to perform its activities, according to the enterprises in the sample (>50%). In most cases, the decision to train or hire is managed on a case by case basis by firms, depending on need and availability of skilled people. Cost seems an important factor to explain which alternative is chosen. Yet, few enterprises having a systematic approach to it.

Several firms still report that training is preferred over hiring, notably because it is usually a cheaper option. Hiring is reported as a suitable alternative to address very precise needs: when specific competences are needed, for particular projects or occupations. This is the case for instance in a manufacturer of rubber and plastic products in Ireland.

The business recognises that it can meet skills needs amongst its workforce through carefully targeted recruitment of new employees who can come with ready formed skills sets and capabilities. However, this is only relevant to employees in managerial roles – the bulk of employees are in roles that require skills that relate to specific pieces of machinery and manufacturing processes which are harder to transfer from other environments. As such, the enterprise is very limited in the alternatives it can access to training to meet skills needs.

Manufacturer of rubber and plastic products, Ireland

In some cases, hiring is less cumbersome than training. Hiring also seems to be faster than training, and hence can be used to fill skill gaps within a short timeframe. This is the case for instance when labour market conditions make it easy to hire individuals with the right skills. This is also the case when skill requirements are low or not specific, as in a low knowledge-intensive services enterprise in Italy.

There is abundance of people who offer to work in this company and the company is able to select those who already match best what is needed in terms of experience and skills. Moreover, the low-skill requirements do not make it difficult to find employees.

Low knowledge-intensive services enterprise, Italy

In general, **hiring** is viewed by firms **as a complement to training**, and not a substitute. In several instances, hiring is used by companies not only to address skill gaps but also to bring new talents and ideas to the company. Furthermore, some training is still required for the new employees. One medium-sized high technology manufacturing company reported that when very specific skill needs arise at short notice, due to one employee leaving the company for instance, the firm will look for talents among the competitors, in order to avoid the issue of training the new hire. The experience of a large high technology manufacturing company below exemplifies the complementarity between training and hiring.

There are no ready-made employees to recruit, and the company has to offer additional skills itself. This is especially true for production workers, for whom comprehensive training programs have been developed, but also for engineers who need very narrow specialisation. The settling time in the office is shorter, but there is still a lot of company-specific knowledge – product specificity, business specificity. Even if the employee has previous work experience, the role is not the same as it may have been with the previous employer.

Large high technology manufacturing company, Estonia

Outsourcing is another approach to satisfy the skill needs of enterprises. About one-third of firms in the sample report to outsource some of their activities. Outsourcing is mainly used for skills that are not at the core of the firm's business; it allows them to focus on their core activity. This is the case for instance for digital skills, for marketing or logistic activities, or to implement new technologies, depending on the firm's business. Frequency of the particular skill need plays an important role: companies choose to outsource when the competence need is not large enough, or does not materialise often enough, so that it would not be cost effective to build the competence internally. This is best illustrated by the experience of a large high technology manufacturer in Estonia.

Outsourcing depends on how often a missing competence is needed. Is it needed daily or once a month? What are resources and what is reasonable? It might be reasonable to outsource some skills in some time, but later not and then it might be more reasonable to train own employees to do these things.

Large high technology manufacturer, Estonia

Outsourcing or hiring external consultants seem to represent suitable alternatives especially when recruiting is challenging, for instance because of the company's location, as it is the case for a large low technology manufacturing company in Austria.

The central strategy is to hire the employees and to cover the need for competencies internally. Otherwise, external consultants are recruited. According to the manager, the company's location is sometimes a disadvantage in finding personnel. Currently, the main topics are digitisation and big data, where specialists are hard to find. The company also uses technological solutions, and therefore, uses a mix of different strategies to perform its entrepreneurial activities.

Large low technology company, Austria

Groups of employees training more than others

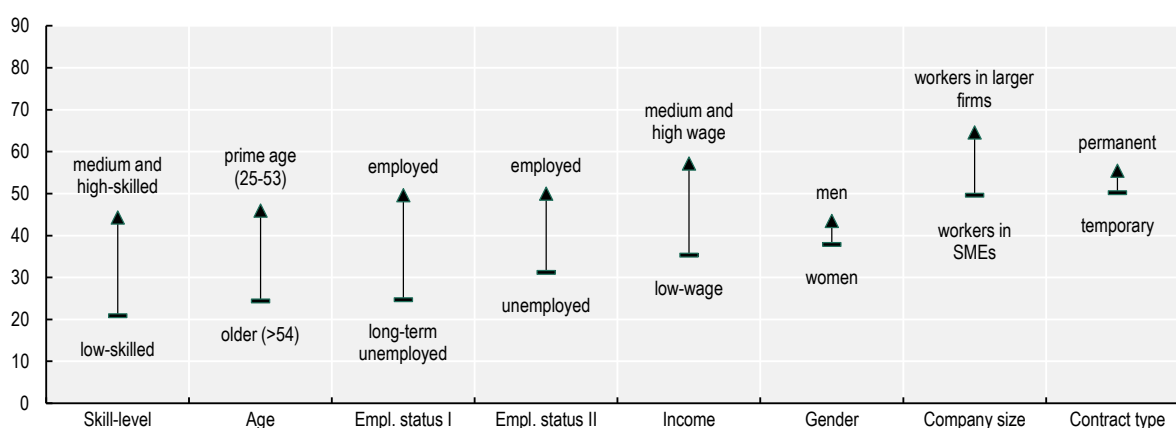
There exist stark differences in training participation between different groups of employees. Existing evidence has identified precisely which employees tend to train more than others: younger employees, those with higher skills and higher wages, as well as those on a permanent contract. New evidence from the case studies largely corroborates these findings and looks at some employees' characteristics overlooked by the literature, finding that an employee's specific position and role in the company matters at least as much as its demographic characteristics to explain training participation. Companies declare that such differences stem from both higher benefits and lower costs of providing training to these employees.

Existing evidence on differences in training participation

The literature is in general remarkably clear on the types of employees that tend to train more than others (Dostie, 2020^[26]). For instance, those on a permanent contract and in managerial positions receive more training (Ferreira, de Grip and van der Velden, 2018^[27]; Cabrales, Dolado and Mora, 2017^[28]). Younger and higher skilled employees also train more, as is also the case for those receiving higher wages in general (Fleischmann, Koster and Schippers, 2015^[29]; MARTIN et al., 2013^[30]; OECD, 2019^[31]). Figure 3.4 uses data from the Survey of Adult Skills in 2012 and 2015 to show differences in participation rates between groups of individuals. Small gaps are found between men and women, and between workers employed in firms of different sizes. Large gaps, up to 25 percentage points, are instead observed between medium and high-skilled and low-skilled individuals, younger and older individuals, employed and unemployed individuals, medium-high wage and low wage individuals, and to a lower extent between permanent and temporary employees.

Figure 3.4. Gap in participation by socio-demographic characteristics

Percentage of individuals participating in job-related training, OECD average



Note: Job-related formal and non-formal learning; the baseline varies across categories, e.g. skill-level refers to all adults, while contract type refers to employed adults only. Low-skilled refers to adults scoring at Level 1 or below in literacy and/or numeracy in PIAAC; low-qualified refers to adults not holding an upper secondary qualification; long-term unemployed are defined as those who have been unemployed for 12 months or more; low-wage refers to workers who earn at most two-thirds of the national median wage; high risk of automation refers to adults in jobs with at least 70% probability of automation; temporary refers to workers in temporary contracts; workers in SMEs refers to workers in enterprises between 1 and 249 employees.

Source: Survey of Adult Skills (2012, 2015), <https://www.oecd.org/skills/piaac/>.

A recent study (CEPS, 2020^[18]) nuances these findings, more specifically regarding the difference in training propensity for employees with different education backgrounds: the study finds no systematic difference in training propensity for different groups, but instead highlights that the types of learning activities offered to these employees differ.

Other studies look more specifically at the difference in training propensity between migrants and native-born employees and find a gap in favor of the latter (Barrett et al., 2012^[32]; Hum and Simpson, 2003^[33]; Van den Heuvel and Wooden, 1997^[34]). This training disadvantage faced by individuals with a migrant background is both due to the fact that they are employed in enterprises that provide less training in general, and to the fact that they are offered less training by their employer compared to their non-immigrant colleagues. An interesting finding from this literature is that migrants perform especially worse when they come from a country speaking a different language than the host country.

In general, it remains unclear why some groups of employees train more while others train less, and whether these differences in training intensity are justified or desirable. Cost-benefit considerations of training would suggest that the observed variation might be due to differences in training costs or in training returns. Indeed, it seems that high-skilled individuals have lower training costs (Blundell et al., 2005^[35]). However, some evidence suggests that returns are in fact higher for blue-collar rather than white-collar workers (Colombo and Stanca, 2014^[36]) and employees rather than managers (Georgiadis and Pitelis, 2016^[2]). However these findings are based on a limited number of studies, and more research is needed in this area.

New evidence on differences in training participation

The qualitative evidence collected in the context of this study provides more details on what groups of employees have better access to training, looking not only at individuals from specific demographic groups (younger vs older employees, higher-educated vs lower-educated employees, etc.), but also at people in specific jobs, an issue that has received much less attention in the literature. It can also shed light on the situation of employees in disadvantaged position in the labour market, for example those in jobs at risk of automation or those with low skills. Furthermore, the qualitative evidence also improves the understanding of *why* some groups of employees train less.

In general, employees in specific positions, and new and younger employees, train more than their colleagues. The list of specific groups of employees training more than others, and the reasons why this is the case, are summarised in Table 3.2, and more details are provided in the rest of this section.

Table 3.2. Groups of employees receiving more training and main reasons

Specific groups	Reasons
Employees in specific office positions:	Higher needs
• Sales	Higher returns
• Human resources	Strategic importance of the roles
• Administrative support	Higher opportunities for career progression
• Management	Lower costs related to the organisation of training
• IT	
• Client service departments	
Employees in specific sectors: finance and IT	Higher needs
High-skilled employees	Higher needs
Employees subject to legal requirements	Higher needs
New and younger employees	Induction programmes
	Lower costs related to the organisation of training

Note: Interviewees were asked to describe whether some groups of employees train more than others, and why.

Source: OECD Enterprise training strategies case studies; based on interviews in 100 enterprises in AUT, EST, FRA, IRE, ITA.

Access to and participation in training primarily varies based on the position of individuals within the enterprise, and less directly based on socio-demographic characteristics, according to the interviewees. In particular, **employees in office positions**, including in sales, human resources, administrative support, management, IT, and client service departments, **tend to train more**. Firms report that this is because they need more training in general, without necessarily mentioning what type of training is needed. Interviewees also suggest that training is likely to have a greater impact for these employees, both in terms of firm and individual outcomes. Some of these positions are strategically important for firms, which is why they invest in the human capital of these employees. This is the case for instance of management and IT departments. This is also the case for employees dealing with customers since the need to ensure customers' satisfaction is key for firm long-term profitability. Furthermore, firms report that employees in executive positions usually have more opportunities for career progression than employees in production. These **higher benefits of training** are mentioned for instance by a manufacturer of beverages in Austria, and by a manufacturer of transport equipment in France.

Sales representatives most often attend training courses (sales seminars, customer acquisition, and dealing with customers,...), because this area is strategically important for the overall success of the company.

Manufacturer of beverages, Austria

Executives and technicians train more than the rest of the employees. It is due to the fact that they have more proposals for evolution than the employees in production.

Manufacturer of transport equipment, France

Interviewees also believe that the **cost of training these employees is lower**, in particular regarding **indirect training costs related to the organisation of training**. Indeed, these employees are more likely to request training, and in general have more flexible schedules, even though objectives in terms of sales and deadlines remain important constraints. On the contrary, employees in production face a stricter organisation of work, including shift work, that prevents them from participating in training, and are sometimes less interested in improving their skills in general and their soft skills in particular. The advantage of flexible schedules for employees in the administration department is mentioned for example by a low knowledge-intensive services company in Estonia.

Administration might train more because of better access to trainings (more flexible schedule and working pattern allows more training).

Low knowledge-intensive services company, Estonia

Some interviewees suggest that **high-skilled employees** need more training because they have more skills to update. In **some sectors** (for instance finance and technology) regular updates are required and employees in these sectors attend more training sessions. Finally, **employees that have to take compulsory training** also train more, because of legal requirements. In several companies included in the sample, **new and younger employees train more** than others because they attend programmes for the induction to the enterprise, and are, in general, more motivated and eager to learn. For them, indirect training costs seem lower. Interestingly, while many firms claim they train because of regulatory pressures as discussed at the beginning of this chapter, regulation is not cited as a reason to train for the groups that train the most.

Given their fragile position in the labour market and their higher needs for (re)training, two groups of employees deserve special attention: **immigrant employees**, and **those at higher risk of automation**. Respondents mentioned employees with a low knowledge of the official language in several instances, and most companies indicated that this precludes them from attending other training courses. It can nevertheless be noted that few enterprises reported that these individuals actually receive more training

because they attend language classes. Results from the qualitative interviews therefore seem to suggest that language skills might be an important obstacle to offer training to immigrant employees, corroborating the existing literature. Regarding employees at risk of automation, very few enterprises declare having specific training for them. When this is the case (in two large high-technology manufacturers in Estonia and in Ireland), they offer programs either to ensure employees can work with new processes and systems, or to train them for an entirely new role within the firm.

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