

# **4**

## **Using people's skills more effectively to raise productivity in Tlaxcala, Mexico**

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Skills use matters for fostering productivity gains in Tlaxcala. When skills are effectively put to use, workers, employers and the broader economy all benefit. Giving people opportunities to participate in the labour market and putting skills to effective use in workplaces improves individual well-being and strengthens economic growth. This chapter provides tailored policy recommendations for two opportunities regarding using people's skills more effectively to boost productivity: 1) fostering entrepreneurship and supporting small and medium-sized enterprises (SMEs); and 2) promoting the adoption of high-performance workplace practices (HPWP).

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## Introduction: The importance of the effective use of skills in Tlaxcala

Skills development policies will only achieve desired productivity gains if they are accompanied by simultaneous actions to boost the effective use of skills (OECD, 2019<sup>[1]</sup>). When skills are effectively put to use, workers, employers and the broader economy all benefit. Making use of people's skills both in the labour market and in workplaces has therefore been identified as one of the pillars of the OECD Skills Strategy Framework (OECD, 2019<sup>[1]</sup>).

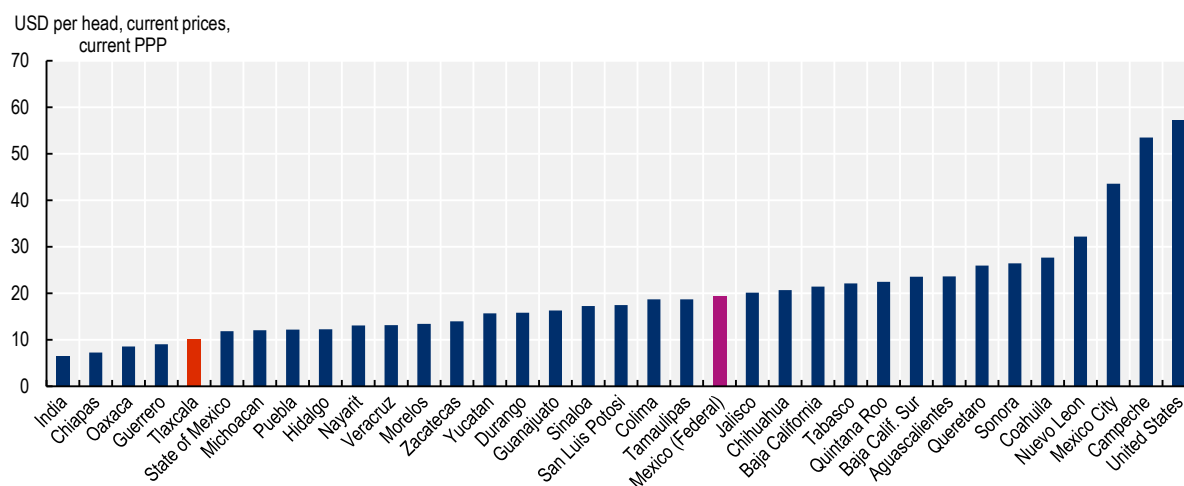
Giving people opportunities to participate in the labour market improves individual well-being and strengthens economic growth. Putting skills to effective use in workplaces through the implementation of innovative organisational and management practices builds on labour participation benefits and helps to improve business innovation, employee job satisfaction and performance, and productivity. Overall, effective skills use raises the return on the initial investment in the development of skills, and limits the depreciation and obsolescence of acquired but unused skills (OECD, 2019<sup>[1]</sup>).

Skills use matters for fostering productivity gains in Mexico, especially in the context of demographic changes compounded by the effects of the COVID-19 pandemic and the renegotiated United States-Mexico-Canada Agreement (USMCA). Mexico's old-age dependency ratio is set to increase from 9.8 in 2015 to 29.2 in 2050 (meaning that there will be almost 30 individuals aged 65 and over for every 100 persons of working age) (OECD, 2019<sup>[2]</sup>). The projected decline in the working-age population will likely decrease Mexico's employment levels, negatively affecting labour utilisation and making productivity an even more important driver of economic growth. Mexico's gross domestic product (GDP) contracted by 9.2% in 2020 due to the COVID-19 pandemic (OECD, 2020<sup>[3]</sup>). Sustained productivity will be key to help Mexico meet USMCA requirements. For example, the agreement establishes that between 40 and 45% of auto content must be manufactured by workers earning at least USD 16 per hour. Therefore, Mexican companies will need sustained productivity gains to reach this threshold and take advantage of the agreement. In this context, the effective use of skills could play an important role in aiding Mexico achieve productivity gains and restore its economic growth to pre-pandemic levels.


As with Mexico as a whole, Tlaxcala faces some significant challenges. Tlaxcala's GDP per capita growth averaged just above 0% between 2003 and 2013, placing the state among the lowest at the national level in terms of GDP per capita (see Figure 4.1). Tlaxcala also faces challenges in fostering a dynamic domestic economy, despite geographical and infrastructural advantages, which is reflected in low female labour force participation and high rates of informality.

## Figure 4.1. Tlaxcala's GDP per capita is among the lowest in Mexico

Regional GDP per capita, thousands of PPP-adjusted USD, 2016



Source: OECD (2019<sup>[2]</sup>), *OECD Economic Survey Mexico 2019*, <https://doi.org/10.1787/a536d00e-en>.

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Evidence suggests that Tlaxcala's business environment could be improved. On the National Index of Science, Technology and Innovation (Índice Nacional de Ciencia, Tecnología e Innovación), Tlaxcala ranked 23 out of 32 Mexican states. However, this near-average ranking hides discrepancies within the state: while cities in Tlaxcala with more than 1 million inhabitants were categorised as having medium to high economic competitiveness, cities with fewer than 1 million inhabitants were categorised as having below average economic competitiveness. The state's population is largely concentrated in urban environments (more than 60%).

Similarly, the World Bank's Doing Business in Mexico 2016 study ranked Tlaxcala in the lower half of Mexican states in terms of ease of setting up and running a business. Tlaxcala ranked last among states in terms of notaries per capita, meaning that it can be difficult to get legal documents authorised. This adds to the cumbersome processes of procuring construction permits or registering property, which are also cited as issues of their own. These challenges make the formalisation process too expensive for Tlaxcala's many SMEs and discourage entrepreneurship.

To foster entrepreneurship, improve the business environment and achieve productivity growth, Tlaxcala will need to take full advantage of its citizens' skills. This chapter presents two opportunities for mobilising Tlaxcala's pool of skills and cultivating a more dynamic, business-friendly economy: 1) fostering entrepreneurship and supporting SMEs, with a focus on female entrepreneurs; and 2) promoting the adoption of high-performance workplace practices (HPWP), including by developing managers' skills.

The chapter starts by providing an assessment of the state's labour productivity performance. Regarding the two abovementioned opportunities, available national and international data are analysed, key actors are mapped, relevant national and international policies and practices are evaluated, and tailored policy recommendations are proposed.

## Overview and performance

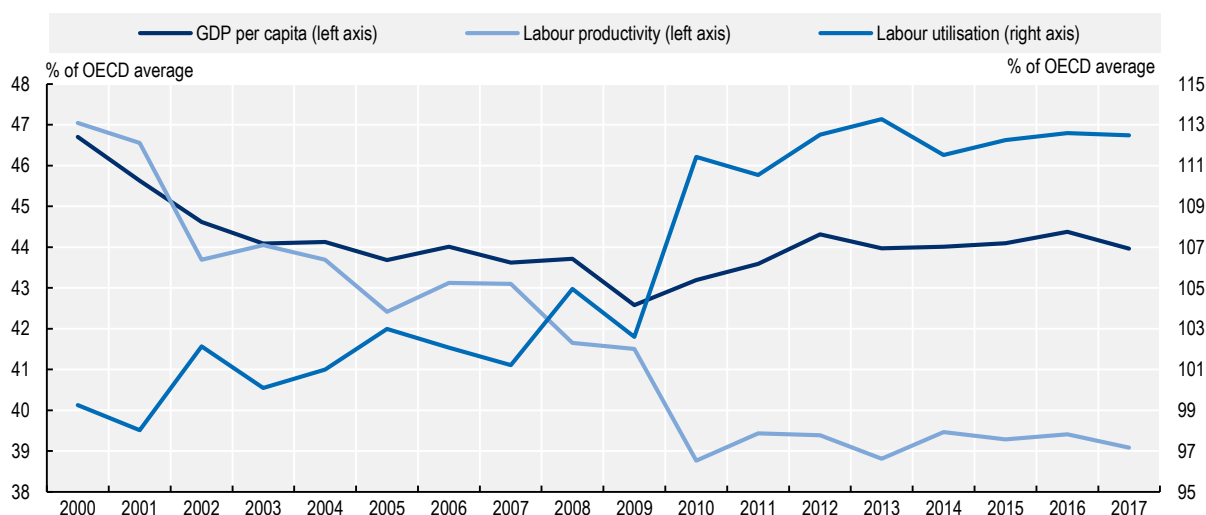
### Labour productivity in Tlaxcala

When examining productivity in Tlaxcala, and Mexico as a whole, the effects of the 1982 financial crisis can still be felt. Although annual growth in GDP per capita has brought Mexico towards the OECD average, the growth rate itself has not exceeded 2% since the 1982 crisis. Beneath the economy's lacklustre growth lies one dominant issue: poor productivity.

The productivity gap between Mexico and OECD countries has widened since the early 2000s. In contrast, labour utilisation has increased by more than 10% in the same period. The recent growth in GDP per capita is thus explained by an expanding workforce rather than increases in the contribution of each worker (see Figure 4.2). Mexico's ageing population, however, means that the once easy option of expanding the labour force to boost GDP is no longer available. This further highlights the need to increase productivity to grow the economy.

**Figure 4.2. Productivity in Mexico is lagging behind other OECD countries**

GDP per capita, labour productivity and labour utilisation, 2000-2017



Note: GDP per capita and labour productivity relative to the OECD average in constant PPP-adjusted USD terms (left axis). Labour productivity is GDP per hour worked. Labour utilisation is hours worked per capita (right axis).

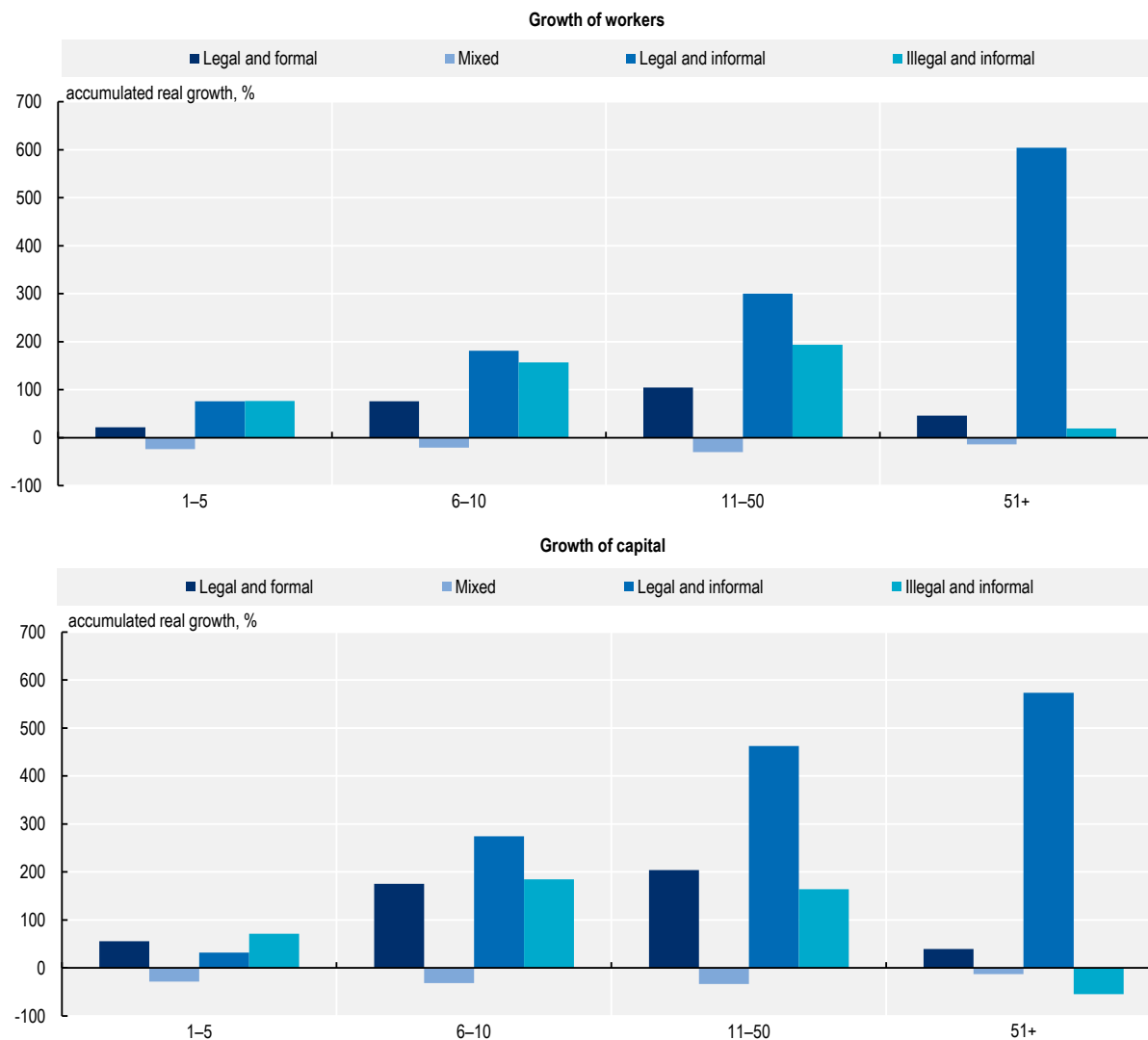
Source: OECD (2019<sub>[2]</sub>), *OECD Economic Survey Mexico 2019*, <https://doi.org/10.1787/a536d00e-en>.

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Total factor productivity (a measure that isolates economic efficiency from input growth) has performed similarly poorly since 2009, dampening growth by -0.4% annually (OECD, 2019<sub>[2]</sub>). This contrasts with the appearance of recent growth in both the number of workers and the capital stock shown in Figure 4.3. Across firms of various sizes and levels of formality (whether firms pay salaries and observe labour and taxation laws), both the stock of capital and number of workers have tended to increase. The fact that GDP per capita only grew incrementally in light of these increases further highlights that the shortcoming for the Mexican economy is firms' productivity.

### Figure 4.3. While productivity in Mexico falls, firms continue expanding their capacity

Growth of workers and capital, by firm size (no. of workers) and type, 1998-2013



Note: “Legal and formal” firms employ only legal, salaried workers. “Mixed” firms employ some legal, salaried workers and some non-salaried, informal workers. “Legal and informal” firms employ non-salaried, informal workers. “Illegal and informal” firms hire illegal salaried workers.

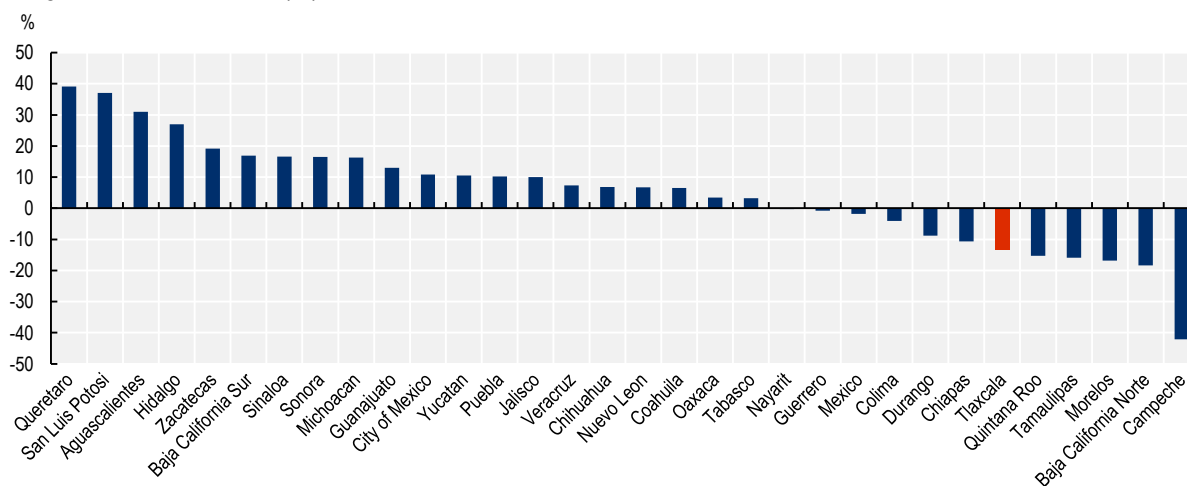
Source: OECD (2019<sup>[2]</sup>), *OECD Economic Survey Mexico 2019*, <https://doi.org/10.1787/a536d00e-en>.

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The productivity trends in Mexico as a whole can also be seen in Tlaxcala. While in some states, such as Querétaro, Potosí and Aguascalientes, productivity rose by roughly 2% per year between 2003 and 2018, Tlaxcala’s productivity growth as a whole was among the lowest in Mexico, contracting 1% annually (Figure 4.4). Tlaxcala also had one of the lowest gross value added per worker in Mexico, a further attestation to the state’s low productivity.

**Figure 4.4. Tlaxcala has one of the lowest productivity growth rates in all of Mexico**

Change in GDP per worker (%), 2003-2018



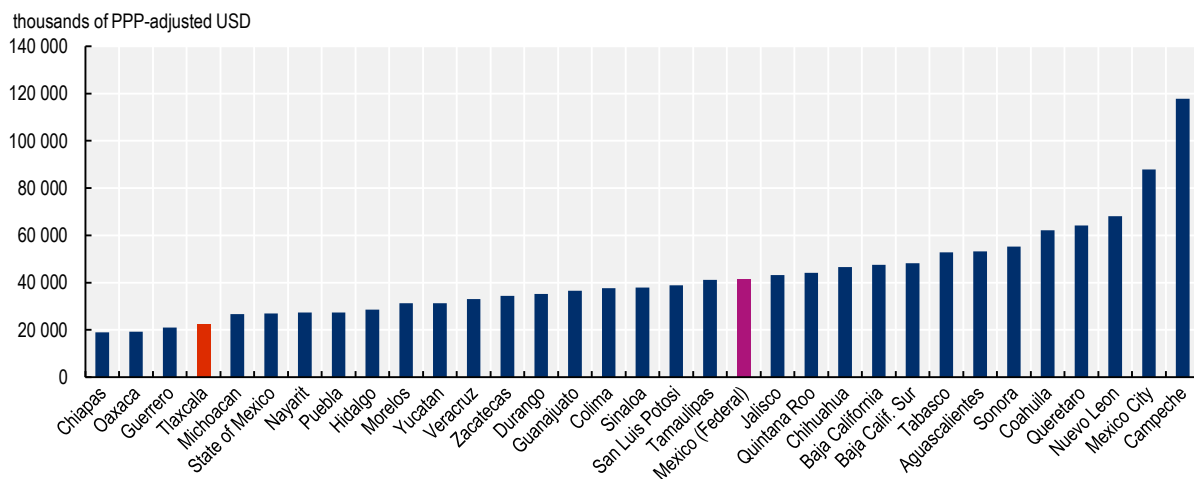
Source: OECD (2018<sup>[4]</sup>), *Regions and Cities at a Glance - Mexico*, <https://www.oecd.org/regional/MEXICO-Regions-and-Cities-2018.pdf>; OECD (2017<sup>[5]</sup>), *Entrepreneurship at a Glance 2017*, [https://doi.org/10.1787/entrepreneur\\_aag-2017-en](https://doi.org/10.1787/entrepreneur_aag-2017-en).

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Tlaxcala's low productivity growth has various consequences. Low labour productivity implies little marginal return on labour for firms, with per worker production a particular weakness. The compounded annual growth rate of gross value added from 2010 to 2015 was 2.7%, placing Tlaxcala in the lower half of Mexican states (Moody's Analytics, 2021<sup>[6]</sup>). This means that firms in Tlaxcala increase the value along the supply chain only marginally. Manufacturing accounted for 29% of gross value added in 2012 (OECD, 2017<sup>[7]</sup>). Tlaxcala has one of the lowest values in the country of gross value added per worker (a measure of productivity and the development of value chains).

**Figure 4.5. Tlaxcala's workers fail to add large value chains**

Regional gross value added per worker, 2016 or latest available year



Source: OECD (2019<sup>[2]</sup>), *OECD Economic Survey Mexico 2019*, <https://doi.org/10.1787/a536d00e-en>.

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Informality (failing to register business activities with relevant authorities) and illegality (non-compliance with business regulations and/or engaging in criminal activities) are dominant in Tlaxcala's economy due to factors that hinder firms' productivity and force them to cut costs. The costs associated with starting a business in Tlaxcala are higher than in many other Mexican states.

The World Bank found Tlaxcala to be one of most difficult states in Mexico for conducting business due to poor access to financial services, inadequate physical communication routes, and the limited use of technology and communication (World Bank, 2016<sup>[8]</sup>). Most challenging to businesses, however, was the difficulty of enforcing contracts, which were found to be the most difficult to enforce in Mexico: in 2018, only 58.1% of contracts in Tlaxcala were completed compared to a national average of above 70%. Regarding commercial disputes, in the states of Campeche and Guanajuato these required an average of 160 and 178 days, respectively, to settle, whereas similar disputes averaged 455 days in Tlaxcala. In terms of court cases, other states delegate proceedings to one specialised court, whereas Tlaxcala requires two courts to simultaneously hear the same case. A process that takes two or three months in other states can take ten months in Tlaxcala (World Bank, 2016<sup>[8]</sup>).

Low economic complexity may also be a factor in Tlaxcala's productivity struggles. Tlaxcala does not house the dynamic export industries of some northern Mexican states, instead producing for the domestic market. In a study of Chiapas, another non-export-oriented Mexican state, low economic complexity entailed little economic capacity, low private investment and low productivity, as potential returns were minimal. Given that retail trade and wholesale trade accounted for 56% of Tlaxcala's GDP in 2018 (41% and 15% respectively), low economic complexity could also be an issue deterring private investment, which could be exacerbating existing issues in access to financial services (INEGI, 2021<sup>[9]</sup>).

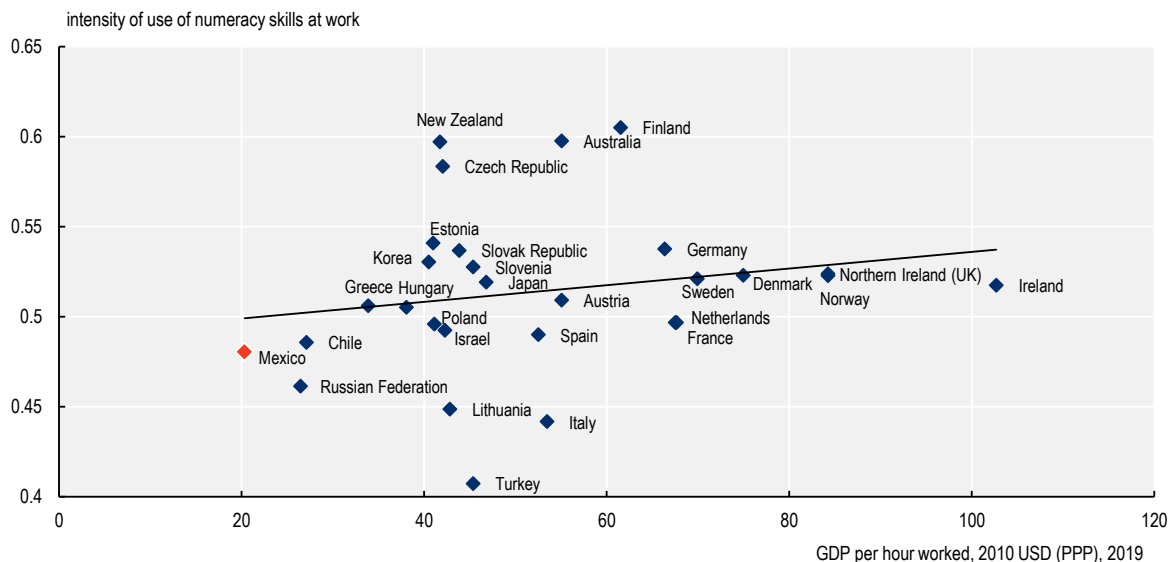
Despite these challenges, Tlaxcala has immense potential. In 2013, it was Mexico's top performer in terms of paved roads per 100 square kilometres (41.2 kilometres paved). This is important as infrastructure is vital to modern value chains, and Tlaxcala could benefit from a strong foundation in this regard (Hausmann, Espinoza and Santos, 2015<sup>[10]</sup>). The Rapid Business Opening System (El Sistema de Apertura Rápida de Empresas, SARE) has aimed to raise productivity in Tlaxcala, for example through simplifying the municipal process of licensing to start a business (directly addressing one of the state's main problems). Although various SARE projects have run their two-year course, the momentum from such projects should be continued. Prior to SARE, between 2014 and 2016 there was only one state implemented reform, which addressed the difficulties in obtaining construction permits. The state should take note from SARE reforms and continue striving to address endemic issues.

### ***Skills use and productivity in Tlaxcala***

There is evidence that effective skills use is one of the key drivers of productivity gains. Results from the OECD Survey of Adult Skills, a product of the Programme for the International Assessment of Adult Competencies (PIAAC), demonstrate a strong link between the effective use of skills and productivity. Figure 4.6 shows that the more intensively workers use their numeracy skills at work, the higher the GDP per hour worked they produce. The same positive relationship can be observed between productivity and the use of reading skills at work (OECD, 2020<sup>[11]</sup>; OECD, 2019<sup>[12]</sup>; OECD, 2020<sup>[13]</sup>).

## Figure 4.6. There is a positive correlation between skills use and productivity

Correlation between productivity and skills use, PIAAC participating countries



Source: Calculations based on OECD (2021<sup>[14]</sup>), *Survey of Adults Skills (PIAAC) (2012, 2015, 2018) (database)*, [www.oecd.org/skills/piaac/](http://www.oecd.org/skills/piaac/); OECD (2021<sup>[15]</sup>), *GDP per hour worked (indicator)*, <https://doi.org/10.1787/1439e590-en>.

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Tlaxcala is currently foregoing significant productivity gains by not making full use of the skills of its population. First, women are overburdened by unpaid housework and there is low female labour force participation, which means that there is significant untapped potential in Tlaxcala's female pool of skills. While many activities that females engage in within the household could be scaled into business opportunities, Tlaxcala's prospective female entrepreneurs face barriers related to lack of experience and confidence, and little leveraging power when seeking financing.

Second, while SMEs dominate Tlaxcala's economy and employ the majority of Tlaxcala's talent, they are not adequately supported. Insufficient financing and high bureaucratic burdens, as well as weak support institutions and institutional frameworks, are barriers to the development and modernisation of Tlaxcalan SMEs.

Finally, Tlaxcalan businesses, especially SMEs, could better organise their workplaces to use the skills of their employees more effectively. The uptake of HPWP and innovative organisational and management practices that positively affect the performance of employees and businesses lags behind the OECD average in Tlaxcala and in Mexico as a whole. Interviewed stakeholders further highlighted that a general culture of innovation and strong managerial skills, which could support the implementation of HPWP, are underdeveloped in Tlaxcala.

### Opportunities to improve the use of skills in Tlaxcala

Based on the desk research of the OECD team, consultations with the Government of Tlaxcala and stakeholder interviews, the following opportunities for improving the use of skills in Tlaxcala have been identified:

1. Fostering entrepreneurship and supporting SMEs.
2. Promoting the adoption of high-performance workplace practices (HPWP).



## Opportunity 1: Fostering entrepreneurship and supporting SMEs

Entrepreneurship is at the heart of Tlaxcala's economic activity. Micro, small and medium-sized enterprises (MSMEs) represent more than 99% of firms in Tlaxcala and employ nine out of ten workers. Entrepreneurship is an important driver of innovation, productivity and economic growth. It helps create jobs and boost local economic activity. By starting their own businesses, people are able to use their skills and fulfil their potential in ways that might not be possible through traditional employment. For these reasons, fostering entrepreneurship and supporting SMEs should be at the centre of Tlaxcala's development strategy.

Tlaxcala should take advantage of the benefits offered by entrepreneurship activities and foster a dynamic entrepreneurial environment by:

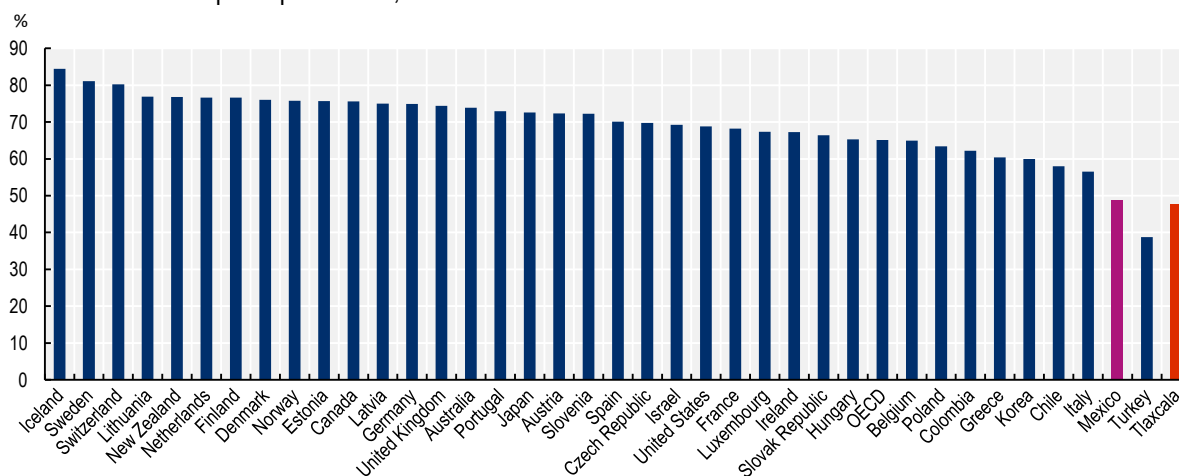
- Supporting female entrepreneurship.
- Enabling the full utilisation of skills through strengthening support to SMEs.

### *Supporting female entrepreneurship*

Despite a continual rise throughout the last decade, female labour force participation in Mexico remains below the OECD average of 64% (see Figure 1.4. ). Among women aged 20 to 64, 47% are active in the labour force, compared to 82% of their male counterparts. Women account for 42% of Tlaxcala's labour force, or 44 464 female employees compared to 61 471 male.

**Figure 4.7. Women's skills could contribute more to Tlaxcala's local economy and productivity**

Female labour force participation rate, 2019



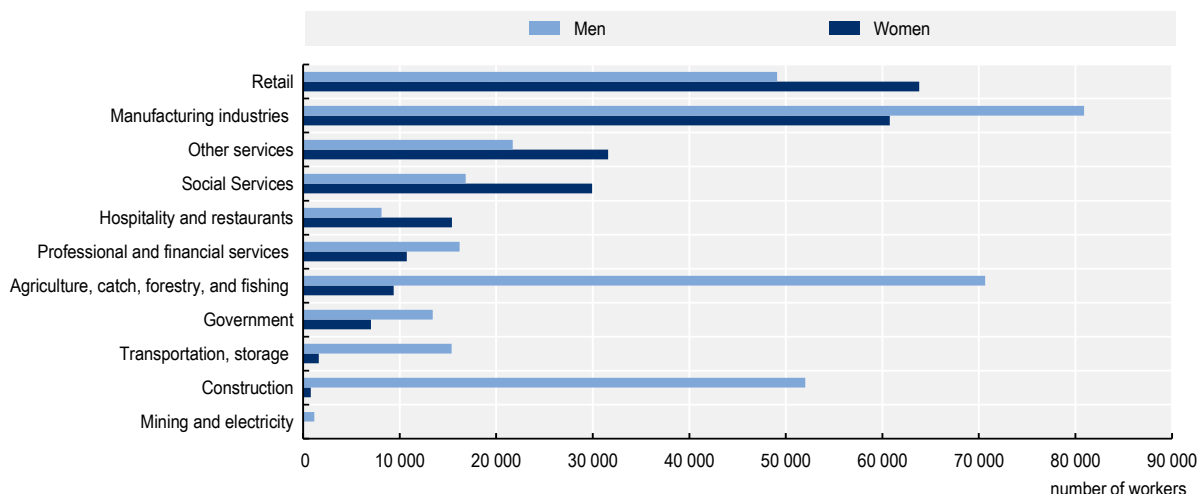
Source: OECD (2021<sup>[16]</sup>), *Labour force participation rate (indicator)*, <https://data.oecd.org/emp/labour-force-participation-rate.htm>; INEGI (2020<sup>[17]</sup>), *Methodological scope of the national occupation and employment survey: ENOEN*, [https://www.inegi.org.mx/contenidos/programas/enoe/15ymas/doc/enoe\\_n\\_notas\\_tecnicas\\_0820.pdf](https://www.inegi.org.mx/contenidos/programas/enoe/15ymas/doc/enoe_n_notas_tecnicas_0820.pdf).

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As shown in Figure 4.8, female workers are likely to work in Tlaxcala's key sectors of retail (27% of total female employment) or manufacturing industries (26%). After this, other services employ 13% and social services employ 12% of the women in Tlaxcala. Some sectors do not necessarily employ a large percentage of the total female workforce in Tlaxcala, but are highly reliant on female labour: health and social assistance services (83%), education (70%), food and beverage (55%) and financial services (52%) all have a greater share of female employees than male.

### Figure 4.8. Females in Tlaxcala are spread across economic sectors

Total female and male employment in Tlaxcala, by economic sector



Source: INEGI (2021<sup>[9]</sup>), Data, <https://en.www.inegi.org.mx/datos/>.

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A variety of factors can prevent or discourage women in Mexico from entering the labour force. The average gender wage gap is 16%, but is higher for educated workers (33%) and self-employed (44%). Lower marginal returns on education for females can be an important driver of low female labour participation.

Mexican law does not prohibit employers from asking about family status, nor does it commit firms to grant flexible working hours to parents. This could result in discriminatory hiring practices. The World Bank's Doing Business study in Mexico reported that simply "getting a job" is the most formidable obstacle to women's economic participation in Mexico (World Bank, 2016<sup>[8]</sup>).

Security is also a concern at the national level, with Mexico having one of the lowest percentages among OECD countries of women who report feeling safe walking home alone at night. However, Tlaxcala defies this trend and is among the safest states in Mexico, with one of the lowest crime rates (4.5 crimes per 1 000 inhabitants) in the country. This comparative security is one factor in favour of increased female labour force participation (OECD, 2017<sup>[18]</sup>; World Bank, 2019<sup>[19]</sup>).

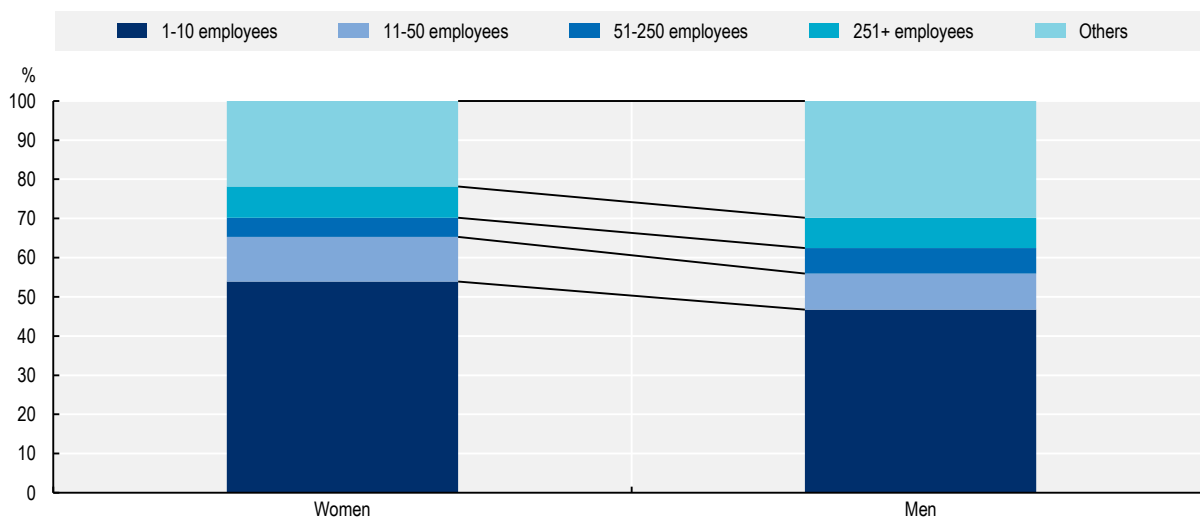
Women in Mexico undertake 75% of unpaid housework and childcare, and an average of four hours per day more domestic work than men (Outhand Consulting, 2019<sup>[20]</sup>). This inadvertently bars women from certain industries. In 2014, the National Institute of Statistics and Geography (Instituto Nacional de Estadística y Geografía, INEGI) found that employees of firms in consumable goods, shipping, textiles, construction inputs, tourist services and plastics averaged over 50 hours of work a week, more often ranging between 60 and 70 hours. This may incentivise women to turn to either entrepreneurship or SMEs as they may be more conducive to flexible schedules than large firms. Women do find success in SMEs, and hold 45.6% of all jobs created by these firms nationally. Within SMEs, women tend to occupy specific roles such as working in human resources or business operations (Flores and Cuahquentzi, 2018<sup>[21]</sup>).

Figure 4.9 shows the distribution of female employment by firm size in Tlaxcala. Micro enterprises account for the dominant share of female employment (54% of total female employment is in enterprises with ten employees or fewer). The large share of women working in SMEs (78.1%) is further indicative of where jobs are available and accessible, and the ability of women in Tlaxcala to create opportunities through

entrepreneurship. However, employment in large firms is also important to women's economic welfare, accounting for 21% of total female employment. Jobs with large firms are most often in manufacturing sectors.


### Figure 4.9. Female employment in Tlaxcala is concentrated in small firms

Share of jobs by firm size and gender, 2020



Note: The "other" category includes government and farming.

Source: INEGI (2021<sup>[9]</sup>), Data, <https://en.www.inegi.org.mx/datos/>.

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Given that women in Mexico are often burdened with housework, and thus potentially in need of flexible work schedules, entrepreneurship is an attractive option to advance female economic empowerment in the country. When uninvolved in the formal labour force, many women engage in a variety of activities domestically that could potentially be scaled into a business. Supporting female entrepreneurship is thus a feasible way for Tlaxcala to leverage the state's existing economic structure and encourage women to formally enter the labour force.

There is a high potential return to scaling up female-headed SMEs. Working women in Mexico allocate 70% of their earnings towards community and family development, while the share allocated by men is between 30% and 40% (Outhand Consulting, 2019<sup>[20]</sup>). Supporting female entrepreneurship in Mexico, therefore, also supports human development.

Women in Mexico face an array of challenges when trying to start their own business, including a lack of experience, confidence and opportunity. A lack of collateral and credit history also hamper female entrepreneurs in need of financing; however, given that female entrepreneurs in Mexico remunerate their debt 99% of the time this should not be an issue (Outhand Consulting, 2019<sup>[20]</sup>). For married women, houses, cars, or bank and credit accounts may be under the name of their husband for cultural reasons. Women in this situation are left with little leveraging power when seeking financing, which explains why women in Mexico are more likely to rely on immediate social networks for financing (Johns Hopkins University and Women Lead, 2019<sup>[22]</sup>). Only 16.9% of working-age women in Mexico use formal credit products.

The same cultural norms that assign women to domestic work also create expectations that work against women in entrepreneurship. In various surveys, women report feeling less capable of starting a business than men. This can stem from cultural norms, but also the fact that women are less likely to have previous experience in self-employment, smaller business networks and potentially few managerial skills (OECD, 2017<sup>[18]</sup>). As a result, only 11.2% of women in Mexico start their own business, which equates to 19% of entrepreneurs nationwide. This is below levels of other Latin American countries such as Peru, where 29% of women are involved in entrepreneurship (OECD, 2012<sup>[23]</sup>). Female entrepreneurs in Mexico are unmarried 53% of the time and are split evenly between the ages of 18-34 and 35-54.

Most states in Mexico have either a secretariat or decentralised agency dedicated to the advancement of gender equality. Tlaxcala is the only state where the Institute for Women (Instituto Estatal de la Mujer de Tlaxcala) is entirely dependent on the governor's office, meaning that its institutional capacity is limited by having to constantly seek approval from the governor's office. Furthermore, Tlaxcala has one of the lowest percentages among Mexican states of municipalities possessing their own office dedicated to women's affairs (40%).

Nevertheless, various programmes and initiatives are currently attempting to combat these institutional gaps and encourage female entrepreneurship. Supérate plays the largest role in this regard. Supérate is a government programme unique to the state of Tlaxcala that focuses on poverty alleviation. It surveys almost 600 000 people to identify beneficiaries of the two-year aid programme, and its work is extensive and uniquely far-reaching beyond urban Tlaxcala. Although the programme's mission statement centres on poverty alleviation, this includes support for female entrepreneurs.

Supérate's latest census relied on women as the contact point for 96% of households. Many of Supérate's potential beneficiaries have entrepreneurial ideas, 75% of which are related to commercial retail such as selling clothes or cosmetic services. Supérate distributes financial aid to its beneficiaries twice during the two-year programme, and provides education sessions. In the first session, a representative from the Institute for Job Training of Tlaxcala (Instituto de Capacitación para el Trabajo del Estado de Tlaxcala, ICATLAX) teaches basic financing (e.g. keeping revenue streams separate, developing savings habits); sessions after this focus on resolving illiteracy. The education sessions are not mandatory to receive aid; however, the programme's impact could be strengthened by making financial aid conditional on the completion of the educational component. Making Supérate's financial aid conditional on participation in literacy and finance workshops could increase household learning and help female entrepreneurs to succeed.

### Box 4.1. Relevant international examples: Encouraging female entrepreneurship

#### Developing skills for female entrepreneurs: The Women's Entrepreneurship Plan (*Plan Entrepreneuriat des femmes*) – France

The Women's Entrepreneurship Plan was launched in 2013 as a multi-ministry effort to increase the proportion of women in new business start-ups by 33% within four years. There are three main pillars of support: 1) improve information dissemination to women entrepreneurs regarding available public support; 2) provide individual support to entrepreneurs (e.g. mentoring, networking); 3) improve access to finance.

Two of the three pillars focus on skills development. The first pillar aims improve communication about entrepreneurship by strengthening entrepreneurship in the education system, supporting promotional events such as the Entrepreneurship Awareness Week and the launch of a new website which provides information and links to available support programmes (e.g. training, mentoring). The second pillar boosts individual support for women entrepreneurs, especially those in rural France, with the creation of 14 regional support networks that provide mentoring to women entrepreneurs.

The third pillar involves building a partnership with the Deposits and Consignments Fund (Caisse des Dépôts et Consignations), two banks (BPCE and BNP Paribas) and financial networks (France Active and Initiative France), which organise breakfast meetings and networking events for entrepreneurs and financial institutions. The programme has succeeded in doubling the number of promotional events and has achieved increased assistance and job creation for women in France. A key to the programme's success is its integrated approach that provides tools for entrepreneurs at all stages (pre-start-up, start-up, and business development).

Source: Bpifrance Création (2021<sup>[24]</sup>), *They (women) do business (Elles entreprennent)*, <https://bpifrance-creation.fr/elles-entreprennent>.

#### Empowerment beyond financing (Pro Mujer – Mexico)

Pro Mujer is a microfinance non-governmental organisation (NGO) founded in Bolivia, but now operating throughout Latin America. Launched in 1990, Pro Mujer seeks to empower women through financing, education and health. Pro Mujer Mexico began in 2001 in the state of Hidalgo, and now supports over 22 000 women in more than 41 communities throughout Mexico, particularly in Oaxaca, Puebla and Tlaxcala.

Pro Mujer has 26 branches in Mexico. The organisation exemplifies digitalised support. Its website is clear and informative, with numerous links to initiatives and registration. These links can also switch over to WhatsApp, which ensures that communication between potential clients and Pro Mujer staff can also take place on a familiar platform. The full outline of Pro Mujer's programmes are available on the website.

Pro Mujer demonstrates an encompassing scope, focusing on much more than micro-finance. The organisation works with women in Mexico on education and health issues. Educationally, Pro Mujer offers courses on self-empowerment, financial organisation, and other topics that translate into skills necessary for entering the workforce and/or starting a business. Regarding health, Pro Mujer has an entire business dedicated to improving health outcomes for Pro Mujer beneficiaries (Ami Cuidado).

Pro Mujer thus exemplifies not only the need for female-specific entrepreneurship initiatives, but also the need for a broad scope. Bankrolling is not the same as empowering female entrepreneurs. To ensure sustained success and formal economic integration, attention must be paid to the education and health of women.

Source: Pro Mujer (2021<sup>[25]</sup>), *Who are we (Quiénes somos)*, <https://mexico.promujer.org/quienes-somos/>.

## Recommendations for supporting female entrepreneurship

- 4.1. Expand the oversight of Supérate and the frequency of its guidance through increased communication between programme officials and beneficiaries.** Supérate funding must be accompanied by diligent oversight (it currently only meets with recipients twice over the course of two years). Supérate can accomplish this by working to increase points of contact with beneficiaries through digital means (e-mail, telephone, etc.). A more fluid dialogue between programme officials and beneficiaries could allow Supérate to provide guidance in areas such as healthy financial habits and business organisation throughout the course of the year, rather than only when aid funding is distributed.
- 4.2. Utilise the existing census to collect better information on entrepreneurship in Tlaxcala, and identify where obstacles for female entrepreneurs tend to arise.** Supérate should leverage its extensive state census to gather more data specific to entrepreneurship. This would help construct a clearer image of entrepreneurship in Tlaxcala and better identify where entrepreneurs, and women in particular, face challenges. Information on how entrepreneurs allocate revenue, their financial organisation, and typical growth strategies, as well as more external factors such as the local density of financial institutions, the number of enterprises a house undertakes, and a household's distance from public transport stations and urban centre, would be helpful in identifying the impediments to female entrepreneurship and where future efforts should be directed.
- 4.3. Create industry-specific channels for communication to help female entrepreneurs create business networks and integrate with existing supply chains.** With a better understanding of the distribution and development of female entrepreneurs across Tlaxcala, Supérate and the state government could take on a matchmaking role by creating channels for communication. Industry conferences or fairs for entrepreneurs would create a lasting outlet (physical and digital) for enterprises to communicate best practices and relevant aid opportunities, as well as assess industry challenges and construct business networks. Helping entrepreneurs congregate could also forge linkages between young businesses and existing supply chain actors.

### *Enabling the full utilisation of skills through strengthening support to SMEs*

MSMEs are dominant in Tlaxcala's economy (see Table 4.1). Only 1 out of 1 000 businesses in Tlaxcala employ more than 250 employees, meaning that almost all of the state's businesses qualify as MSMEs. Based on the INEGI 2018 Economic Survey, SMEs account for 34% of the state's total employment. Micro enterprises play the largest role, accounting for 21% of total employment in Tlaxcala (INEGI, 2021<sup>[9]</sup>).

**Table 4.1. Enterprises in Tlaxcala, by number of employees**

Firm size	Firms	Employment	Share of total employment (%)
Micro (1-10 employees)	68 128	286 736	67.6%
Small (11-50 employees)	1 313	58 658	13.8%
Medium (51-250 employees)	205	33 627	7.9%
Large ( 251+ employees)	69	45 293	10.7%
Total	69 715	424 314	100%

Note: The number of firms corresponds to the “economic unit” reported in the Economic Census. Total employment comprises formal and informal jobs, and excludes job in government and farming.

Source: INEGI (2021<sup>[9]</sup>), Data, <https://en.www.inegi.org.mx/datos/>.

If Tlaxcala can remove certain barriers to SMEs that raise the costs of their doing business, such as ensuring affordable, formal financing and simplifying business registration processes, it could increase the productivity of SMEs and allow them to employ more workers formally. The success of existing SMEs could attract more entrepreneurs and mobilise underutilised human capital from within the state and from the states surrounding Tlaxcala.

Poor productivity and high failure rates of SMEs in Tlaxcala stand in the way of this goal. If the state wishes to bring more workers into the formal labour force, and thus better utilise its human capital, it must remove financial and bureaucratic barriers to SME growth. Through targeted reforms aimed specifically at alleviating administrative burdens, ensuring diverse sources of financing and facilitating the spread of knowledge on available opportunities, Tlaxcala can reduce the fixed costs associated with doing business and help keep SMEs afloat financially. Excessive financial overheads and poor awareness of available financing results in SMEs that minimise labour costs through either informality or under-employment. This translates into the minimal use of skills and can exacerbate poor productivity.

SMEs in Mexico tend to be significantly less productive than large firms. Considering that Tlaxcala had the lowest overall productivity growth among Mexican states between 2010 and 2016, its SMEs are likely subject to the national trend of poor productivity (OECD, 2018<sup>[4]</sup>). SMEs in Tlaxcala exhibit high failure rates. In a representative sample group of SMEs from Tlaxcala and Puebla, 45% failed in the first two years; the failure rate increased to 80% when extending the time period to five years (Paredes, Cruz de los Ángeles and Elías, 2019<sup>[26]</sup>).

Low productivity amongst SMEs deprives Tlaxcala’s population of the ability to use their skills. Total unemployment in Tlaxcala was 4.1% in 2019, slightly above the national average of 3.7%. Unemployment in Tlaxcala among secondary school graduates, however, was 20% (Paredes, Cruz de los Ángeles and Elías, 2019<sup>[26]</sup>). Without a sufficiently high level of skills, people in Tlaxcala have trouble entering the labour force. This could also reflect the tendency of less-educated citizens to find more opportunities in the informal sector or entrepreneurship, whereas highly educated citizens with specialised skills find employment in the few established and productive firms.

Tlaxcala has taken a number of steps to facilitate the growth of SMEs. The state’s partnership with the Secretariat for Economic Development (Secretaría de Desarrollo Económico, SEDECO) demonstrates the type of engagement that should be increased. SEDECO is a state government organisation that serves as the conduit between the Tlaxcala’s government and local entrepreneurs. It targets entrepreneurs working in innovation and technology to “develop suppliers”, i.e. to help co-ordinate integrating arrangements between entrepreneurs and larger companies with specific supply chain needs. SEDECO believes value can be added to Tlaxcala’s economy by simply matching compatible businesses.

SEDECO also uses its federal funding to offer an array of services, such as subsidies and training, the latter in tandem with universities and higher education institutions. Training is intended to teach entrepreneurs how to formalise their business, register patents or intellectual property (if necessary), and search for further funding.

Through SEDECO, the Government of Tlaxcala signed the Entrepreneur Support Network (Red de Apoyo al Emprendedor), a co-ordinating agreement to develop more competitive SMEs. Located in four municipalities and comprised of seven institutions and organisations, the Entrepreneur Support Network offers programmes in business development and entrepreneur financing for SMEs. An example is the Innovation Stimulus Programme, which offers funding for SMEs and large enterprises engaged in scientific research and technological development (SEDECO, 2021<sup>[27]</sup>).

The Tlaxcala Youth Institute (Instituto Tlaxcalteca de la Juventud, ITJ), in conjunction with the Macro Fund for the Internal Development of Tlaxcala (Fondo Macro para el Desarrollo Integral de Tlaxcala, FOMTLAX), offers another example of an SME-targeted programme. Aimed specifically at entrepreneurs age 18 to 30, ITJ and FOMTLAX offer grants of up to MXN 40 000 (Mexican peso) (just below USD 2 000) to entrepreneurs. These grants cover up to 90% of project costs for young entrepreneurs and come with a 6% interest rate that must be paid within two years. Outside of its project with the ITJ, FOMTLAX focuses on established businesses and is a source of credit for economic actors.

Although the above arrangements are encouraging, many challenges remain in facilitating the growth of SMEs. Inadequate financial support is still a problem in Tlaxcala, with only half of enterprises accessing financial funding such as loans or access grants; the other half of enterprises are entirely self-financed. Although this means that enterprises do not accumulate debt, it also indicates that financial resources are too difficult to access. The most cited reason for not procuring external financing among Tlaxcala enterprises is the absence of sufficient guarantees or collateral (Government of Tlaxcala, 2017<sup>[28]</sup>). Demanding financial collateral for aid effectively bars most firms from receiving financing, and grants access only to the firms least in need. A limp financial system with high borrowing costs constrains young enterprises in need of financing. For the half of enterprises that access financial funding, the formal financial system is only the second most used source, clients and suppliers were more frequent sources of financing (Government of Tlaxcala, 2017<sup>[28]</sup>).

Compared to other Mexican states, Tlaxcala has comparatively few support institutions (Agora, 2021<sup>[29]</sup>), which partially explains the scarcity of project follow-up. The poor monitoring of programme implementation is an often cited concern among those involved in the growth of Tlaxcala's SMEs. While offering grants and educational opportunities for SMEs is positive, these resources are wasted when not accompanied by continual oversight and monitoring. Without these measures, public funds may be misused or directed at programmes that have relatively low impact.

Tlaxcala should consider expanding the scope of current SME business support programmes, which currently do not affect activities at the level of the workplace. Tlaxcala should provide further resources and/or mentoring and coaching specifically dedicated to supporting SMEs in adopting innovative workplace practices, such as HPWP (see Opportunity 2). There is a strong association between the adoption of HPWP and skills use (see Figure 4.10), and between higher skills use and higher productivity (see Figure 4.6). Given that Tlaxcalan SMEs could greatly benefit from productivity improvements, support for adopting HPWP and transforming workplaces into environments conducive to innovation should be considered. Box 4.2 provides an example of a Finnish business programme supporting workplace innovation in SMEs, as well as examples of improving managerial capacity and matchmaking SMEs with supportive intermediaries in Mexico and Denmark.



## Box 4.2. Relevant national and international examples: Support measures for SMEs

### Improving managerial capacity (Innovations for Poverty Action – Puebla, Mexico)

Innovations for Poverty Action (IPA) is a research and policy non-profit that works globally to alleviate poverty. IPA launched in Mexico in 2013, where it focused on the large role SMEs assume in both Mexico's business landscape (99.8% of all businesses were SMEs in Mexico at the time) and in employing Mexicans (SMEs account for 72.3% of total employment). In Puebla, 150 randomly selected SMEs were offered highly subsidised consulting and mentoring services for one year.

Of the 150 SMEs offered subsidised services, only 80 chose to proceed (the most cited reason for not participating was insufficient funds). However, the 80 SMEs that did partake in the consulting services saw significant boosts in productivity and were able to expand hiring. Productivity increased for SMEs in terms of sales, accounting for number of employees and asset stock. Hiring improved for SMEs within a five-year examination period. SMEs that received consulting services hired 5.7 more employees (57% growth relative to the control group) and increased wages paid by 72% (roughly USD 125)

Source: IPA (2021<sup>[30]</sup>), *Boosting Firms' Productivity in Mexico with Consulting Services*, <https://www.poverty-action.org/study/impact-consulting-services-msmes-mexico>.

### Matchmaking for growth (Growth Houses – Denmark)

In 2007, the Danish government established five "Growth Houses" (GHs) to accelerate the growth of SMEs, regardless of their size or sector. As part of this programme, advisors assessed an SME's potential and provided a tailor-made growth plan. Based on advisors' conclusions, SMEs were put in touch with relevant public institutions, private firms and general investors that might be interested in accelerating their growth.

The GH services were free, while the services offered by the intermediaries were not. The GH programme succeeded in supporting more than 14 000 companies between 2007 and 2012. Employment, turnover and exports all grew for programme beneficiaries, relative to similar firms.

Source: OECD (2017<sup>[31]</sup>), *Supporting SME Competitiveness in the Eastern Partner Countries: Strengthening SME Capabilities Through a Sustainable Market for Business Development Services in Belarus*, [https://www.oecd.org/eurasia/competitiveness-programme/eastern-partners/Peer\\_Review\\_Note\\_Business\\_Development\\_Services\\_Belarus.pdf](https://www.oecd.org/eurasia/competitiveness-programme/eastern-partners/Peer_Review_Note_Business_Development_Services_Belarus.pdf).

### Workplace innovation (Business Finland – Finland)

Business Finland is the Finnish government's organisation for innovation funding and trade, travel and investment promotion. Business Finland's 600 experts work in 40 offices globally and in 16 regional offices around Finland. Business support in the form of funding and expert services in a plethora of programmes has a clear separation between support programmes for start-ups and SMEs and programmes for large-scale enterprises and research organisations. The idea is that businesses will gain access to different and more services as businesses progress on their growth path according to their goals.

Source: OECD/ILO (2017<sup>[32]</sup>), *Better Use of Skills in the Workplace: Why It Matters for Productivity and Local Jobs*, <https://dx.doi.org/10.1787/9789264281394-en>; Business Finland (2021<sup>[33]</sup>), *Business Finland website*, <https://www.businessfinland.fi/en/>.

The final challenge regarding Tlaxcala's SMEs lies in the state's institutional framework. Due to various administrative burdens, doing business in Tlaxcala is not easy. A medium-sized firm (51-250 employees) needs on average 241 hours a year to prepare, file and pay taxes and social security contributions. Obtaining a VAT refund typically requires 42 weeks (OECD, 2019<sup>[2]</sup>). These times are among the longest in Mexico.

Within a sample of 366 SMEs in Tlaxcala, 58% reported that they do not issue their fiscal receipts for tax purposes (Paredes, Cruz de los Ángeles and Elías, 2019<sup>[26]</sup>). Costly and cumbersome processes encourage firms to avoid formal tax filing and hire informal, non-salaried workers. This explains Tlaxcala's high rate of informality (the fifth highest rate in the country) (OECD, 2013<sup>[34]</sup>). State wide, 66.7% of jobs suffer from low wages and/or poor labour conditions (Paredes, Cruz de los Ángeles and Elías, 2019<sup>[26]</sup>). Other costs associated with starting a business in Tlaxcala stem from the state's bureaucracy. Tlaxcala has the fewest notaries per capita, making any paperwork necessary to starting and registering a business difficult to accomplish. This may dissuade an informal enterprise or entrepreneur from formally entering the state's economy. Another deterrent to potential businesses in Tlaxcala is the difficulty of contract enforcement, in which Tlaxcala ranks last among all Mexican states. This leaves SMEs wary of their ability to protect their rights and property in court proceedings. Without a guarantee of completion of contracts, some may choose simply to avoid such formal proceedings. Inadequate contract enforcement also exacerbates issues regarding the costs of financial support. Low enforcement means that lenders must demand more collateral to cover their interests, ultimately excluding SMEs from credit services.

In a survey of 366 SMEs in Tlaxcala, 63% reported having at least one other income stream outside of their business to support themselves (Paredes, Cruz de los Ángeles and Elías, 2019<sup>[26]</sup>). While revenue remains insufficient to support median households, and entrepreneurs must simultaneously direct attention towards other revenue streams, SMEs will fail to specialise, invest and utilise Tlaxcala's human capital. Simultaneously, the share of self-employed females in Mexico who payroll employees has failed to rise since 2005, and is stuck between 2.2% and 2.3% (OECD, 2021<sup>[35]</sup>). This stagnation of female entrepreneurs payroll employees highlights how the SME business environment benefits other, less marginalised actors. If women's progress is limited, the measures outlined above must be amplified in their accessibility. Low productivity leads to low profitability, hence the need for alternative income streams. Given that female entrepreneurship has stagnated for over a decade, the accessibility of aforementioned programmes (SEDECO, FOMTLAX) is a concern.

## Recommendations for enabling the full utilisation of skills through strengthening support to SMEs

### 4.4. Broaden the scope of SEDECO's business support programmes to include SMEs from more sectors, and offer support for the development of managerial skills and HPWP.

SEDECO should broaden the scope of its operations to include SMEs from more sectors, as its business support programmes are currently restricted to SMEs working in innovation and technology. The organisation's valuable financial and educational resources and its connections with higher education institutions could be leveraged to help develop SMEs across sectors. SEDECO should expand beyond its current support, which is focused on registering patents, formalising businesses, etc., to address managerial skills. In order to accomplish this, SEDECO could use its connections with educational institutions and past beneficiaries that have found success and connect them with current SMEs. In the same vein, coaching SMEs on proven HPWP could further address the current low productivity of Tlaxcala's SMEs (see Opportunity 2 for details).

**4.5. Expand the geographic coverage of SEDECO to alleviate connectivity issues and extend SME support to rural or marginalised municipalities.** SEDECO only has one physical presence (in the state's capital), and its entrepreneur support network reaches only four of the state's 60 municipalities. Establishing a greater physical presence throughout the state's municipalities, either permanently or through announced visits to existing municipal institutions, would help raise awareness of SEDECO's operations and help SMEs in poorly connected municipalities access support.

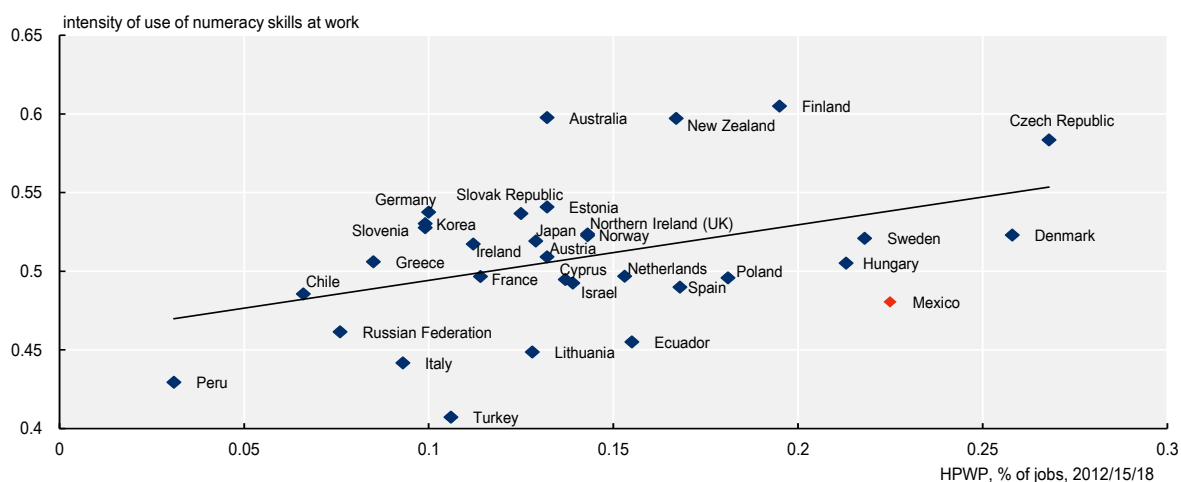
### **Opportunity 2: Promoting the adoption of high-performance workplace practices (HPWP)**

Expanding the formal labour force pool by supporting female entrepreneurship and fostering the growth of SMEs holds great potential for strengthening the effective use of skills in Tlaxcala. At the same time, it is important to pay attention to how effectively Tlaxcalan firms are using the skills of their employees.

In many OECD countries, skills are not being used as effectively as they could be due to how workplaces are organised (OECD, 2019<sup>[12]</sup>; 2020<sup>[13]</sup>; 2020<sup>[11]</sup>). HPWP (*high-performance workplace practices/las prácticas de alto rendimiento en recursos humanos*) are key to the organisation of innovative workplaces in a way that is conducive to effective skills use. Although there is no consensus on the exact definition of HPWP in academic literature, they can be broadly defined as the collection of: 1) employee flexibility and autonomy at work; 2) teamwork and information sharing among colleagues; 3) on-the-job training and development; and 4) performance management practices, benefits and career progression options (OECD, 2020<sup>[13]</sup>; 2020<sup>[11]</sup>). There is evidence that adopting HPWP can drive the effective use of skills in workplaces and foster productivity and innovation. The latter two are crucial for helping Tlaxcala restore its economic growth to pre-pandemic levels. The OECD Survey of Adult Skills (PIAAC) shows that there is a strong link between the adoption of HPWP and the intensive use of skills in workplaces (Figure 4.10).

**Figure 4.10. There is a positive correlation between skills use and the adoption of HPWP**

Correlation between HPWP and skills use, PIAAC participating countries



Note: HPWP refer to planning one's own activities, organising one's own time on a daily basis, and having a large degree of flexibility to decide how to do one's work.

Source: Calculations based on OECD (2021<sup>[14]</sup>), *Survey of Adults Skills (PIAAC) (2012, 2015, 2018) (database)*, [www.oecd.org/skills/piaac/](http://www.oecd.org/skills/piaac/); OECD (2021<sup>[15]</sup>), *GDP per hour worked (indicator)*, <https://doi.org/10.1787/1439e590-en>.

Tregaskis et al. (2013<sup>[36]</sup>) found that the implementation of HPWP is associated with sustained improvements in productivity and safety performance, based on their experiment conducted at a heavy engineering plant. Jensen and Vinding (2007<sup>[37]</sup>) demonstrated that manufacturing and service firms likely to adopt HPWP show higher probabilities of developing products/services new to the company, as well as higher probabilities of introducing products/services new to the market.

Tlaxcala should take advantage of the benefits of HPWP and promote their adoption among Tlaxcalan firms by:

- Raising awareness of the benefits of high-performance workplace practices.
- Fostering the effective implementation of high-performance workplace practices by managers.

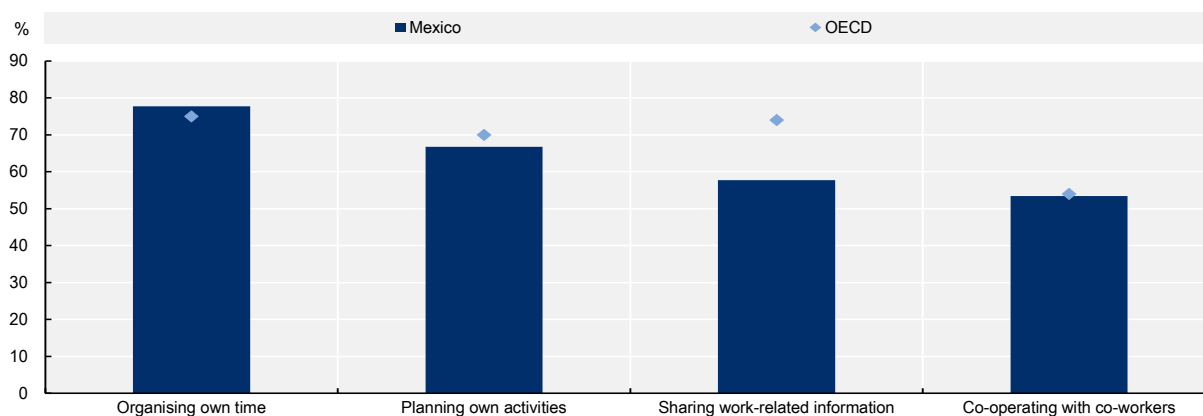
### *Raising awareness of the benefits of high-performance workplace practices*

On policy makers' lists of skills priorities, the effective use of skills in the workplace is typically overshadowed by topics related to skills development. The relative lack of consideration given to using skills effectively in workplaces is driven by several factors. First, measures and practices impacting workplace organisation and the management of firms' human resources have been traditionally viewed as the exclusive responsibility of employers and businesses. Until recently, there has been little public intervention at the level of the workplace except in terms of employment protection, equality legislation, or health and safety. Public entities seeking to advise firms on human resource management policies, workplace relations, or the structure and design of work often face a credibility gap (OECD/ILO, 2017<sup>[32]</sup>). Second, the direct or indirect determinants of skills use in the workplace are not always clear, and policy makers might not be aware of the levers that can be used to influence skills use (OECD/ILO, 2017<sup>[32]</sup>).

A lack of awareness regarding innovative workplace solutions for more effective skills use, such as HPWP, can be reflected in the low uptake of such solutions (OECD/ILO, 2017<sup>[32]</sup>). In Mexico, the share of workers who report frequently (at least once a week, but not every day) engaging in certain HPWP, such as planning their own activities or sharing work-related information with their colleagues, is below the OECD average (Figure 4.11).

### **Figure 4.11. Uptake of certain HPWP in Mexico is lower than the OECD average**

Percentage of workers who report engaging in particular organisational and management practices at least once a week, but not every day

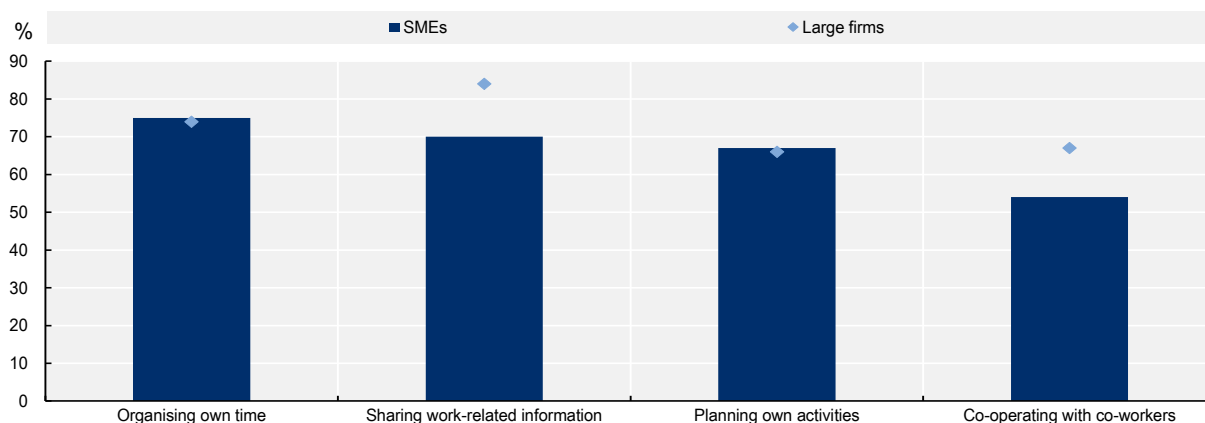


Source: Calculations based on OECD (2021<sup>[14]</sup>), *Survey of Adults Skills (PIAAC) (2012, 2015, 2018) (database)*, [www.oecd.org/skills/piaac/](http://www.oecd.org/skills/piaac/).


Examining the uptake of HPWP by firm size in Mexico reveals lower adoption rates in SMEs than in large firms (Figure 4.12). Although workers in Mexican SMEs tend to be significantly less engaged in practices related to sharing work-related information and co-operation with co-workers, the share of SME workers reporting frequently organising their own time and planning their own activities is roughly the same as in large firms (Figure 4.12).

### Figure 4.12. Large firms in Mexico perform better in HPWP adoption than SMEs

Percentage of workers who report engaging in particular organisational and management practices at least once a week, but not every day



Source: Calculations based on OECD (2021<sup>[14]</sup>), *Survey of Adults Skills (PIAAC) (2012, 2015, 2018) (database)*, [www.oecd.org/skills/piaac/](http://www.oecd.org/skills/piaac/).

StatLink  <https://stat.link/1j9lb2>

Interviewed stakeholders commented that there is limited awareness of HPWP and their benefits among employers and policy makers in Tlaxcala, which is connected to the lack of a more general “culture of innovation”. As mentioned in the Introduction section, according to the latest National Index of Science, Technology and Innovation, which assesses the “state of innovation” in Mexico, Tlaxcala ranked 23 out of the 32 Mexican states (Centre for Analysis in Research and Innovation, 2018<sup>[38]</sup>). On one of the index’s twelve pillars, “innovative companies”, Tlaxcala ranked 28, indicating that Tlaxcalan companies were the fifth least innovative in Mexico (Centre for Analysis in Research and Innovation, 2018<sup>[38]</sup>).

The Tlaxcalacan government has recognised the challenges it faces regarding lagging business innovation and the state’s ability to encourage the take-up of innovative approaches in firms. Tlaxcala’s flagship strategy for economic and social development, the State Development Plan 2017-2021 (Plan Estatal de Desarrollo 2017-2021, PED), includes a sub-chapter on “Competitiveness and promotion of entrepreneurship” (*competitividad y fomento al emprendedurismo*), where innovation is identified as one of Tlaxcala’s key weaknesses. In order to address this challenge, the PED (Objective 1.5 of the plan) pledges to promote scientific and technological advances, innovation, and the development of talent within firms (Government of Tlaxcala, 2017<sup>[28]</sup>). Although the concrete steps under Objective 1.5 foresee the establishment of an institutional framework for technological development and innovation, and the development of tech firm incubators (Government of Tlaxcala, 2017<sup>[28]</sup>), there is no reference to HPWP and their associated benefits.

Given the links between HPWP adoption and gains in innovation, productivity and effective skills use in the workplace (see Introduction section), HPWP present a source of untapped potential for fostering business innovation in Tlaxcala, and should be included in Tlaxcala’s strategies for developing and using

skills. In order to encourage the more intensive adoption of HPWP and address the lagging innovation in Tlaxcalan firms, Tlaxcala should also take further steps to make the benefits of HPWP widely known.

First, Tlaxcala could raise awareness about the concept of HPWP and its associated benefits through targeted information campaigns. Tlaxcala's government and stakeholders could promote the benefits of HPWP through existing websites or social media channels. To motivate employers, managers and entrepreneurs to adopt these practices, information about HPWP should be concrete, applicable and relatable, and the outlined benefits should be tangible and clear (OECD, 2019<sup>[12]</sup>). Public employment services (PES) and employer/employee associations that interact with representatives of firms on a daily basis are well positioned to actively support Tlaxcala's HPWP information dissemination strategies.

Second, Tlaxcala could consider launching public recognition awards, which are incentive tools used by public actors to reward winners (e.g. firms) of a public competition on the basis of outstanding performance in a specific area (e.g. innovation). In the United States, the number of such awards supported by federal agencies and departments has been sharply rising since 2010 (Liotard and Revest, 2019<sup>[39]</sup>). Liotard and Revest (2019<sup>[39]</sup>) argue that awards can help spur innovative approaches among firms through *ex ante* and *ex post* channels. *Ex ante*, the competitive dynamics and related benefits of awards (e.g. funding, publicity, recognition and prestige) exert a strong incentive effect on firms to implement innovative strategies that can help them become the recipients of the final award. *Ex post*, the awards can produce favourable spillovers, inspire other companies to innovate by demonstrating the concrete benefits of successfully implemented innovative practices, and support participating and/or winning firms in raising private capital (Liotard and Revest, 2019<sup>[39]</sup>). Box 4.3 provides examples of contests and innovation prizes awarded to firms in Mexico and the United States.

### **Box 4.3. Relevant national and international examples: Innovation public recognition awards in Mexico and the United States**

#### **Mexico's National Award for Technology and Innovation**

Every year since 2000, Mexico's federal government, through the Secretariat of Economy (Secretaría de Economía, SE) and the National Council of Science and Technology (Consejo Nacional de Ciencia y Tecnología, CONACyT), awards the National Award for Technology and Innovation prize (Premio Nacional de Tecnología e Innovación, PNTI) to selected Mexican companies.

The goal of the PNTI is to demonstrate to society the importance of innovation for achieving competitive advantage in the market, and the impact that investment in science and technology can have on economic development and societal welfare.

In an annual call for applications, companies can submit their applications for free, and experts can apply to serve as judges on the panel. There are four categories in which companies can compete for the most innovative approach: 1) product and service; 2) process; 3) business model; and 4) prototype and technology management. Among other criteria, the expert panel evaluates companies' investment and research and development (R&D) efforts related to human resource improvement.

The SE publishes the names and short descriptions of companies' innovative approaches on its website in a dedicated blog post. The winners are also featured across PNTI's social media accounts, such as Facebook and Twitter.

### United States – Challenge.gov

The Challenge.gov website is the official hub for prize competitions and challenges organised by US federal government agencies, and is part of the Challenge.gov programme. The website is run by the US General Services Administration.

Challenge.gov works on the basis of crowdsourcing. US government agencies can use the website to post, at no cost, prize competitions that seek to advance the goals related to their missions. All companies and members of the public can participate in the publicised contests. For example, in 2019 the US Small Business Administration offered a total of USD 3 million in cash prizes under the Growth Accelerator Fund Competition to support and recognise the most innovative accelerators in the United States that help high-tech entrepreneurs apply for government R&D funding. Applications consisted of a short, 12-slide presentation and an optional two-minute video. The website clearly outlined the eligibility rules for participating in the competition, accompanied by application instructions.

The Challenge.gov website also provides a rich repository of best practices and case studies on running public sector prize competitions, and features insights from prize experts across the US government.

Source: Government of Mexico (2018<sup>[40]</sup>), *Mexican companies receive the National Technology and Innovation Award (PNTI)*, <https://www.gob.mx/se/articulos/reciben-empresas-mexicanas-el-premio-nacional-de-tecnologia-e-innovacion-pnti?idiom=es>; US General Services Administration (2021<sup>[41]</sup>), *Challenge.gov website*, <https://www.challenge.gov/>.

Tlaxcala's public recognition awards could focus on publicly recognising companies that have successfully implemented HPWP and other innovative workplace practices. They would help raise awareness of the benefits of applying innovative solutions in the workplace and share examples of best practices and lessons learned. The most innovative companies could be awarded a monetary or non-monetary prize (e.g. distinction, medal, official recognition) during public ceremonies (Liotard and Revest, 2019<sup>[39]</sup>), while the winning firm's innovative solutions and strategies promoting effective skills use could be widely shared through relevant departments' (*secretaría*) official communication channels.

Announcements of the winners of the public recognition awards, together with details of their innovative workplace approaches and information promoting the adoption of HPWP disseminated by the government and stakeholders, should be centralised in a single online information portal (OECD, 2020<sup>[13]</sup>). Tlaxcala's proposed one-stop shop, the Skills Needs Portal (see Chapter 5), could be adapted to include information on HPWP in a dedicated section. This section would offer space to provide greater detail on the key messages diffused through government and stakeholder information campaigns. The portal's HPWP section should facilitate swiftly finding information on HPWP and easily learning about the practices and their application in more depth. It should feature detailed descriptions of successful examples of HPWP implemented in practice by innovative Tlaxcalan companies, as well as provide information on existing public support for innovation and entrepreneurship, with links to relevant calls for applications. Tlaxcala could also consider including an HPWP self-assessment tool for firms, allowing them to assess the extent to which their workplaces are implementing HPWP. The self-assessment tool could take the form of an online survey, and award firms an overall HPWP adoption score upon completion, based on responses to questions covering all the practices broadly included in the HPWP concept (see Introduction to Opportunity 2).

## Recommendations for raising awareness of the benefits of high-performance workplace practices

- 4.6. Disseminate information on the benefits of HPWP through strategies, targeted campaigns and public recognition awards.** Tlaxcala should make use of various channels to disseminate information and good practices related to the adoption of HPWP. First, HPWP and their beneficial impacts on the use of skills in the workplace, innovation and productivity should be acknowledged in Tlaxcala's next State Development Plan 2022-2026. The plan should also delineate concrete actions for fostering HPWP adoption, accompanied by measurable indicators for monitoring and evaluating implementation. Second, Tlaxcala's government and stakeholders should disseminate HPWP-related information and concrete examples of best practice through existing websites and social media channels. Given their frequent interactions with Tlaxcalan employers, the following actors should be engaged in the HPWP dissemination strategy: 1) Tlaxcala's public employment service (Servicio Nacional de Empleo Tlaxcala, SNET); 2) employer associations and chambers, such as the National Chamber of Commerce, Services and Tourism (Cámara Nacional de Comercio Servicios y Turismo, CANACO) and the National Chamber of the Manufacturing Industry (Cámara Nacional de la Industria de la Transformación, CANACITRA); and 3) the proposed Future Skills Needs Committee (see Chapter 5). Finally, Tlaxcala should consider launching public recognition awards to recognise Tlaxcalan companies that have successfully integrated innovative workplace solutions into their business models. Tlaxcala should decide whether to opt for awards with monetary or non-monetary prizes, drawing on examples of innovative public recognition awards in Mexico and the United States (Box 4.3).
- 4.7. Centralise information on HPWP in Tlaxcala's new Skills Needs Portal.** Tlaxcala should centralise key information on the concept of HPWP and the associated benefits in one place, such as an online portal, that is easily accessible to the public. A dedicated section on HPWP could be integrated within Tlaxcala's proposed one-stop shop, the Skills Needs Portal (see Chapter 5 for details). The portal's HPWP section should offer more granular HPWP information than is communicated through information campaigns (see Recommendation 4.6), complemented by rich, practical examples of successful and unsuccessful implementation strategies and lessons learned. The portal's HPWP section should also include information on innovation and entrepreneurship public support measures, explain how HPWP are linked with the goals of these programmes, and facilitate companies' applications to open calls for funding. Tlaxcala could also consider including an HPWP self-assessment tool within the portal's HPWP section that would allow Tlaxcalan firms to assess how advanced they are in their uptake of HPWP.

### *Fostering the effective implementation of high-performance workplace practices by managers*

It is essential that employers and entrepreneurs in Tlaxcala become more aware of HPWP and their benefits in order to strengthen their motivation to adopt such practices. Equally, it is important that individuals responsible for workplace organisation and the implementation of innovative solutions are equipped with the right skills to implement HPWP effectively and efficiently. Even those who have “bought in” to the benefits of HPWP may lack the know-how to concretely put them into practice in the workplace (OECD/ILO, 2017<sup>[32]</sup>). In larger firms, individuals responsible for the implementation of innovative workplace practices often work at the management level, while in SMEs they tend to be the entrepreneurs themselves. In SMEs, the challenge of effectively implementing HPWP in practice may be especially



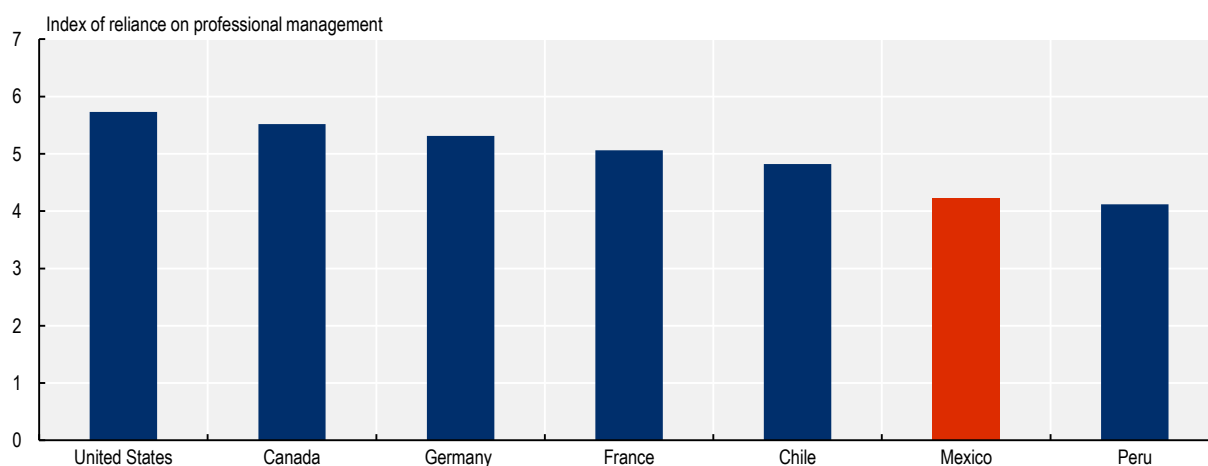
prevalent as they often lack dedicated human resource staff, and the quality of management tends to be lower (OECD/ILO, 2017<sup>[32]</sup>).

There is evidence that robust managerial skills developed by firms' managers increase the likelihood of firms innovating in terms of their products and adopting innovative solutions. Chief executive officers (CEOs) who acquire general managerial skills over the course of their professional careers help spur innovation in the workplace, while the firms they lead tend to produce more patents (Custódio, Ferreira and Matosc, 2019<sup>[42]</sup>). There is a strong and significant relationship between managerial capability (i.e. decision making, management style, people development and succession planning), adaptive capability (i.e. horizon scanning, change management and resilience) and organisational innovation in SMEs (Ali, Sun and Ali, 2017<sup>[43]</sup>). Therefore, for the effective implementation of HPWP and related innovative workplace solutions into practice, strong managerial skills are indispensable.

Interviewed stakeholders in Tlaxcala suggested that low levels of managerial skills among Tlaxcalecan managers and entrepreneurs were a significant barrier to the successful implementation of HPWP in Tlaxcalan workplaces. There is evidence that the share of firms in Mexico with professional managers (i.e. chosen for merit and qualifications) occupying senior management positions is comparatively low (Figure 4.13), suggesting that managers of Mexican firms are not always adequately skilled and qualified.


### Figure 4.13. Managers in Mexico are not always adequately skilled and qualified

Reliance on professional management, Mexico and selected countries, 2019



Note: Score based on responses to the question: "In your country, who holds senior management positions in companies? [1 = usually relatives or friends without regard to merit; 7 = mostly professional managers chosen for merit and qualifications]".

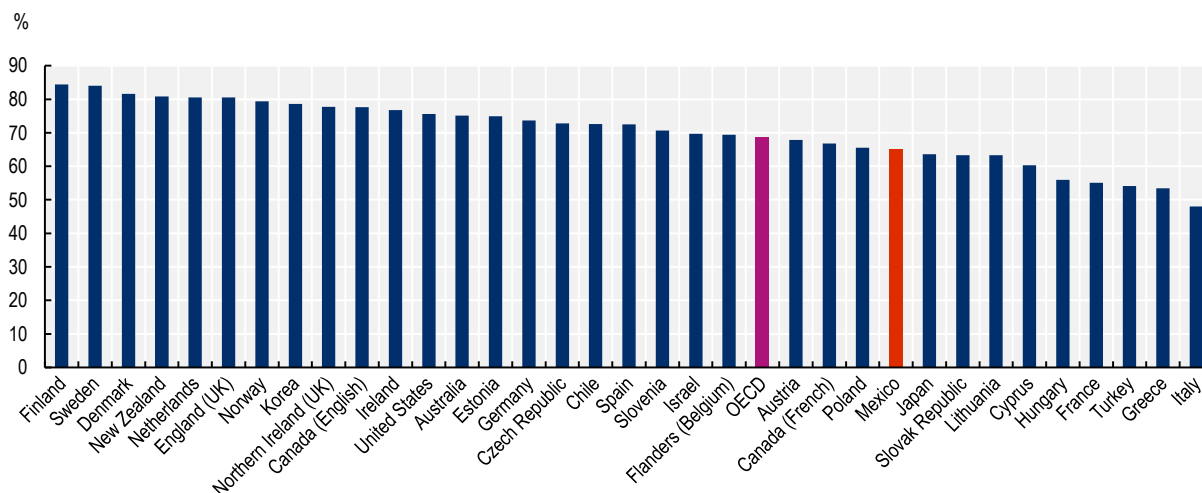
Source: World Economic Forum (2019<sup>[44]</sup>), *Global Competitiveness Report 2019: How to end a lost decade of productivity growth*, <https://www.weforum.org/reports/how-to-end-a-decade-of-lost-productivity-growth>.

StatLink  <https://stat.link/wvhrsk>


Given the comparatively low skill levels of Mexican managers, it is crucial that they participate in relevant training. However, the training participation of managers in Mexico lags behind the OECD average: 69% of managers reported participating in education training in the last 12 months in the OECD on average, compared to 65% in Mexico (Figure 4.14).

**Figure 4.14. Training participation of managers in Mexico lags behind OECD**

Percentage of managers who reported participating in education training in the last 12 months



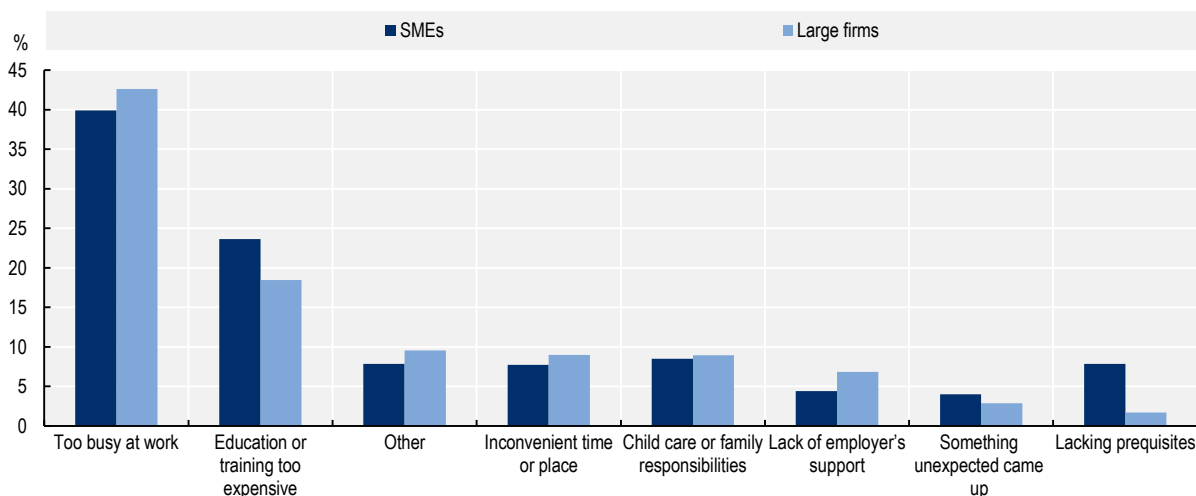
Source: Source: Calculations based on OECD (2021<sup>[14]</sup>), *Survey of Adults Skills (PIAAC) (2012, 2015, 2018) (database)*, [www.oecd.org/skills/piaac/](http://www.oecd.org/skills/piaac/).

StatLink  <https://stat.link/98pt6k>

Managers in Mexico are prevented from participating in training by different barriers depending on whether they manage SMEs or large firms. While more managers reported being prevented from training participation due to being too busy at work in large firms than in SMEs, more SME managers than large firm managers reported struggling with the cost of training (Figure 4.15).

**Figure 4.15. Managers of large firms and SMEs in Mexico face different barriers to training participation**

Percentage of managers who reported participating in education training in the last 12 months



Source: Calculations based on OECD (2021<sup>[14]</sup>), *Survey of Adults Skills (PIAAC) (2012, 2015, 2018) (database)*, [www.oecd.org/skills/piaac/](http://www.oecd.org/skills/piaac/).

StatLink  <https://stat.link/ewpz2f>

Tlaxcala's offer of courses that could help managers develop stronger managerial skills is limited, while the geographical coverage of training is uneven. Training in management (*administración*) is provided through the training units (*unidad de capacitación*) of Tlaxcala's state Institute for Job Training of Tlaxcala (Instituto de Capacitación para el Trabajo del Estado, ICATLAX). However, ICATLAX runs its training units in only 10 out of Tlaxcala's 60 municipalities, which limits training options for Tlaxcalans living in regions far removed from a training unit. Additionally, out of ICATLAX's ten training units, only six offer options for adults to specialise in management. As a result, individuals interested in participating in managerial training living far from these six municipalities have a significant disadvantage.

Managerial training offered by ICATLAX's training units is provided through three training modalities: 1) regular courses (*cursos regulares*); 2) extension courses (*cursos de extensión*); and 3) accelerated targeted training (*capacitación acelerada específica*, CAE). Regular courses, which require between 40 and 600 hours to complete, seek to furnish adults with a basic level of skills, knowledge and competences in a selected specialisation to boost their on-the-job performance or employability. Extension courses, which require at least 15 hours to complete, aim to deepen the knowledge of individuals enrolled in or graduated from regular courses, as well as the general population requiring training that can be completed over a shorter period of time. Accelerated targeted training targets firms and organisations looking to upskill their workers in a field tailored to the firm's needs in agreement with ICATLAX (ICATQR, 2021<sup>[45]</sup>).

The depth and diversity of the management training offer differs greatly across the six ICATLAX training units that provide managerial training. As Table 4.2 shows, only three training units (Calpulalpan, Chiautempan and Zitlaltepec) offer managerial training as part of regular courses, whereas individuals keen on honing their managerial skills in Huamantla, San Pablo del Monte and Tepetitla can only do so through much shorter extension or CAE courses. At the same time, the diversity of managerial training modules differs. For instance, while the Tepetitla training unit offers six managerial training modules through extension and CAE courses, including "micro and small business management" (*administración en la micro y pequeña empresa*) and "effective communication" (*comunicación efectiva*), Huamantla's managerial training offer is constrained to CAE courses in "warehouse management" (*administración del almacén*) (Table 4.2). In comparison, many OECD countries offer a rich variety of upskilling programmes for managers that cater to a wide variety of managerial needs (Box 4.4 shows examples from Ireland and Poland).

**Table 4.2. Depth and diversity of managerial training differs widely across ICATLAX training units**

Managerial training offer provided through regular courses, extension courses or accelerated targeted training

	Regular courses	Extension courses	Accelerated targeted training courses
Calpulalpan	Micro and small business management Customer service and communication Telephone service and telemarketing Management of auditing tools	Entrepreneurship and business management Basic accounting Family businesses and strategic alliances in microenterprise	n/a
Chiautempan	Micro and small business management Customer service and communication Telephone service and telemarketing Management of auditing tools	Entrepreneurship and business management Basic accounting Reading and writing workshop	n/a

	Regular courses	Extension courses	Accelerated targeted training courses
Huamantla	n/a	n/a	Warehouse management
San Pablo del Monte	n/a	Micro and small business management	Basic Accounting Sales processes
Tepetitla	n/a	Introduction to Marketing Customer Service Micro and small business management Marketing and sales strategies in the organisation	Effective communication Introduction to finance
Zitlaltepec	Management in Micro and Small Businesses Customer service and communication Customer service and telemarketing Management of auditing tools	n/a	n/a

Source: ICATLAX (2021<sup>[46]</sup>), *Find the training unit closest to your community*, <http://sepol-sepuede-icatlx.gob.mx/unidades.html>.

#### Box 4.4. Relevant international examples: Ireland's and Poland's upskilling programmes for managers

##### Management development programmes of Skillnet Ireland

In Ireland, the national agency, Skillnet Ireland, promotes training and upskilling for Irish companies. It designs tailored training programmes for companies and is overseen by a board consisting of representatives from the Department of Education and Skills and key industry stakeholders. Accessed through networks that link companies based on areas of interest and business needs, it facilitates networking, the sharing of best practices and the delivery of upskilling programmes for employees. A core part of the programme is aimed at upskilling managers. The “management development programme” offers courses for a wide variety of managerial needs. Managers can improve their leadership and communication skills, foundational skills, and the techniques necessary for managing teams, as well as learn specific skills required in sectors such as retail. Courses are subsidised, and in 2018, 56 182 people were trained from 16 462 member companies.

##### Management development programmes of the Polish Agency for Enterprise Development

The Polish Agency for Enterprise Development (PARP) has a number of programmes targeting managers. For instance, the SME Manager Academy finances training and advisory support for managerial staff in SMEs in the area of business management, including human resources. The academy aims to: 1) diagnose the needs of SMEs and the skills gaps of owners and managers; and 2) train managers of enterprises from the SME sector. Financial support covers up to 80% of projects, while the remaining 20% is covered by the SME. PARP has also introduced the PARP Academy, which is an e-learning platform that offers 50 free-of-charge online training sessions tailored to the needs of the SME sector. The sessions are in four thematic areas related to setting up and running a business. Since 2006, over 180 000 participants have benefited from PARP Academy training.

Source: PARP (2021<sup>[47]</sup>), *Polish Agency for Enterprise Development website*, <https://en.parp.gov.pl/>; Skillnet Ireland (2021<sup>[48]</sup>), *Skillnet Ireland website*, [www.skillnetireland.ie/](http://www.skillnetireland.ie/).

With the COVID-19 pandemic and associated social distancing measures underlining the importance of e-training and learning, Tlaxcala should be prepared to provide managerial skills training at distance. However, ICATLAX's distance training offer (*cursos de capacitación a distancia*) for 2021 does not include managerial skills courses (ICATLAX, 2021<sup>[49]</sup>). The lack of distance managerial training constitutes a further obstacle to equipping Tlaxcala's managers with strong managerial skills that are conducive to the adoption of innovative workplace solutions.

The managerial training offer of Tlaxcala's Training Centre for Industrial Work (*Centro De Capacitación Para El Trabajo Industrial*, CECATI) is similarly constrained. Across Tlaxcala, CECATI runs three training centres (in Apizaco, Xaloztoc and Xicohténcatl) that offer vocational qualification courses. Due to the COVID-19 pandemic, these courses are provided virtually. Out of CECATI's three training centres, two offer only one training module in management (Apizaco offers sales strategies and Xaloztoc offers accounting). With six training modules offered under the "management" specialisation, only CECATI's training centre in Xicohténcatl offers Tlaxcalans a relatively more varied management training option.

## Recommendations for fostering the effective implementation of high-performance workplace practices by managers

### 4.8. Strengthen the provision of managerial skills training to support the adoption of HPWP.

Tlaxcala should consider bolstering the diversity and depth of the managerial skills training offer and ensure accessibility across all regions. First, ICATLAX should encourage the provision of managerial training as part of regular courses in all of its ten training units. Second, the diversity of managerial extension courses should be improved across all of ICATLAX's training units. Third, CECATI should similarly encourage the provision of managerial courses by all of its training units. The provision of managerial skills training should be widely advertised by ICATLAX and CECATI to increase the courses' visibility and foster wide participation. Finally, ICATLAX should consider including managerial skills courses within its distance training offer for 2021 to support the provision of relevant training for managers, even under pandemic conditions. These efforts would act as an effective complement to SEDECO's business support programmes, the scope of which could be expanded to cover managerial skills and support for HPWP (See Opportunity 1 for details).

### 4.9. Support managers of SMEs and large firms to participate in training that takes into account their specific needs.

Managers in SMEs and large firms in Mexico face different obstacles that prevent them from participating in training, which limits the uptake of innovative workplace solutions. While managers in large firms are mainly prevented from taking part in training by lack of time due to other work commitments, the biggest barrier faced by SME managers is their ability to shoulder the cost of training. Tlaxcala should pay attention to managers' varying obstacles to participation in training. Given that SMEs make up the majority of Tlaxcala's business structure, financial incentives (e.g. tax exemptions or credits, subsidised training schemes) for supporting the training participation of managers of Tlaxcalan SMEs should be considered.

## Overview of recommendations

Policy directions	Recommendations	Responsible parties
<b>Opportunity 1: Fostering entrepreneurship and supporting SMEs</b>		
Supporting female entrepreneurship	4.1 Expand the oversight of Supérate and the frequency of its guidance through increased communication between programme officials and beneficiaries.	Supérate ICATLAX
	4.2 Utilise the existing census to collect better information on entrepreneurship in Tlaxcala, and identify where obstacles for female entrepreneurs tend to arise.	Supérate ICATLAX
	4.3 Create industry-specific channels for communication to help female entrepreneurs create business networks and integrate with existing supply chains.	Supérate ICATLAX
Enabling the full utilisation of skills through strengthening support to SMEs	4.4 Broaden the scope of SEDECO's business support programmes to include SMEs from more sectors, and offer support for the development of managerial skills and HPWP.	SEDECO Higher education institutions
	4.5 Expand the geographic coverage of SEDECO to alleviate connectivity issues and extend SME support to rural or marginalised municipalities.	SEDECO Municipalities
<b>Opportunity 2: Promoting the adoption of high-performance workplace practices (HPWP)</b>		
Raising awareness of the benefits of high-performance workplace practices	4.6 Disseminate information on the benefits of HPWP through strategies, targeted campaigns and public recognition awards.	SNET ICATLAX Selected employer associations
	4.7 Centralise information on HPWP in Tlaxcala's new Skills Needs Portal.	SEP and STPS (Tlaxcala) departments with strong technical and ICT expertise
Fostering the effective implementation of high-performance workplace practices by managers	4.8 Strengthen the provision of managerial skills training to support the adoption of HPWP.	ICATLAX CECATI SEDECO
	4.9 Support managers of SMEs and large firms to participate in training that takes into account their specific needs.	ICATLAX CECATI SEDECO

Note: SEP refers to Secretariat of Public Education (Secretaría de Educación Pública), and STPS refers to Secretariat of Labour and Social Welfare (Secretaría de Trabajo y Protección Social).

## References

- Agora (2021), *How Inclusive is the Support Ecosystem for Social Entrepreneurs in Latam?*, [29]  
[Accessed January 15, 2021], <https://agora2030.org/how-inclusive-is-the-support-ecosystem-for-social-entrepreneurs-in-latam/>.
- Ali, Z., H. Sun and M. Ali (2017), "The Impact of Managerial and Adaptive Capabilities to Stimulate Organizational Innovation in SMEs: A Complementary PLS–SEM Approach", [43]  
*Sustainability*, Vol. 9/12, p. 2157, <http://dx.doi.org/10.3390/su9122157>.
- Bpifrance Création (2021), *They (women) do business (Elles entrepreneurent)*. [24]
- Business Finland (2021), *Business Finland website*, [Accessed January 15, 2021], [33]  
<https://www.businessfinland.fi/en/>.

- Centre for Analysis in Research and Innovation (2018), *Índice Nacional de Ciencia, Tecnología e Innovación 2018 (National Index of Science, Technology and Innovation 2018)*, <https://www.caiinno.org/indice-cti-2018/> (accessed on 22 February 2021). [38]
- Custódio, C., M. Ferreira and P. Matos (2019), “Do general managerial skills spur innovation?”, *Management Science*, Vol. 65/2, pp. 459-476, <http://dx.doi.org/10.1287/mnsc.2017.2828>. [42]
- Flores, E. and M. Cuahquentzi (2018), “Analysis of the participation of women as a member of the family business in decision-making in the central southern region of Tlaxcala”, *Revista Mexicana de Agronegocios*, Vol. 42, pp. 829-841, <https://www.redalyc.org/jatsRepo/141/14156175002/html/index.html>. [21]
- Government of Mexico (2018), *Reciben empresas mexicanas el Premio Nacional de Tecnología e Innovación (PNTI) (Mexican companies receive the National Technology and Innovation Award)*, <https://www.gob.mx/se/articulos/reciben-empresas-mexicanas-el-premio-nacional-de-tecnologia-e-innovacion-pnti?idiom=es> (accessed on 22 February 2021). [40]
- Government of Tlaxcala (2017), *Plan Estatal de Desarrollo 2017-2021 (State Development Plan 2017-2021)*, <https://prensa.tlaxcala.gob.mx/2017/Junio/PED%202017-2021/PED%2017%2021%20HD.pdf>. [28]
- Hausmann, R., L. Espinoza and M. Santos (2015), “The Low-Productivity Trap: Chiapas Growth Diagnostics”, *CID Working Paper No. 304*, Vol. 304, [https://growthlab.cid.harvard.edu/files/growthlab/files/chiapas\\_diagnostics\\_cidwp304\\_english.pdf](https://growthlab.cid.harvard.edu/files/growthlab/files/chiapas_diagnostics_cidwp304_english.pdf). [10]
- ICATLAX (2021), *Cursos de capacitación a distancia: Oferta educativa 2021 (Distance Training Courses: Education Offer 2021)*, Instituto de Capacitación para el Trabajo del Estado de Tlaxcala (Institute for Job Training of Tlaxcala), <http://sepol.icatlax.sepuede.gob.mx/inscripcion/> (accessed on 23 February 2021). [49]
- ICATLAX (2021), *Encuentra la Unidad de Capacitación más cercana a tu comunidad (Find the training unit closest to your community)*, Instituto de Capacitación para el Trabajo del Estado de Tlaxcala (Institute for Job Training of Tlaxcala), <http://sepol-sepuede-icatlax.gob.mx/unidades.html> (accessed on 23 February 2021). [46]
- ICATQR (2021), *Training Institute for Work in the State of Quintana Roo*, Instituto de Capacitación para el Trabajo del Estado de Quintana Roo (ICATQR), <https://qroo.gob.mx/icatqr/> (accessed on 25 February 2021). [45]
- INEGI (2021), *Data*, Instituto Nacional de Estadística y Geografía (National Institute of Statistics and Geography), <https://en.www.inegi.org.mx/datos/> (accessed on 31 January 2021). [9]
- INEGI (2020), *Alcance metodológico de la encuesta nacional de ocupación y empleo (Methodological scope of the national occupation and employment survey)*, Instituto Nacional de Estadística y Geografía (National Institute of Statistics and Geography), [https://www.inegi.org.mx/contenidos/programas/enoe/15ymas/doc/enoe\\_n\\_notatcnica\\_0820.pdf](https://www.inegi.org.mx/contenidos/programas/enoe/15ymas/doc/enoe_n_notatcnica_0820.pdf). [17]
- IPA (2021), *Boosting Firms’ Productivity in Mexico with Consulting Services*, Innovations for Policy Action, <https://www.poverty-action.org/study/impact-consulting-services-msmes-mexico>. [30]

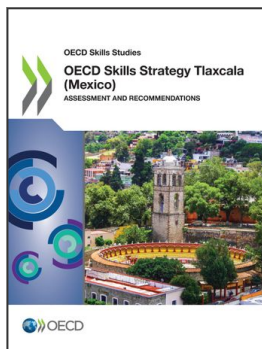
- Jensen, M. and A. Vinding (2007), *High Performance Work Practices and Innovation in the Manufacturing and Service Sectors*, ServINNo project: Service Innovation in the Nordic Countries: Key Factors for Policy Design. [37]
- Johns Hopkins University and Women Lead (2019), *Women in the Mexican Plant-based Industry: 10 Lessons on Empowering Entrepreneurs*, [https://drive.google.com/file/d/1m8tmFpDlrikmEETo0v8iVHhjXLq7yvf\\_/view](https://drive.google.com/file/d/1m8tmFpDlrikmEETo0v8iVHhjXLq7yvf_/view). [22]
- Liotard, I. and V. Revest (2019), "Contests as innovation policy instruments: lessons from the US federal agencies' experience", *Technological Forecasting and Social Change*, <http://dx.doi.org/10.1016/j.techfore.2017.07.008>. [39]
- Moody's Analytics (2021), *Mexico's Productivity Puzzle: What the State Economies Can Tell Us*, <https://www.economy.com/home/products/samples/2017-06-15-mexicos-productivity-puzzle.pdf>. [6]
- OECD (2021), *GDP per hour worked (indicator)* [accessed February 15, 2021], OECD, Paris, <https://doi.org/10.1787/1439e590-en> (accessed on 31 January 2021). [15]
- OECD (2021), *Labour force participation rate (indicator)*, OECD, Paris, <https://data.oecd.org/emp/labour-force-participation-rate.htm> (accessed on 31 January 2021). [16]
- OECD (2021), *SDBS Structural Business Statistics: Number of SMEs and large firms*, OECD, Paris, <https://stats.oecd.org/index.aspx?queryid=81354> (accessed on 31 January 2021). [35]
- OECD (2021), *Survey of Adults Skills (PIAAC) (2012, 2015, 2018) (database)*, OECD, Paris, <http://www.oecd.org/skills/piaac/> (accessed on 31 January 2021). [14]
- OECD (2020), *OECD Economic Outlook, Volume 2020 Issue 2*, OECD Publishing, Paris, <http://dx.doi.org/doi.org/10.1787/16097408>. [3]
- OECD (2020), *OECD Skills Strategy Northern Ireland (United Kingdom): Assessment and Recommendations*, OECD Skills Studies, OECD Publishing, Paris, <https://dx.doi.org/10.1787/1857c8af-en>. [11]
- OECD (2020), *OECD Skills Strategy Slovak Republic: Assessment and Recommendations*, OECD Publishing, Paris, <https://doi.org/10.1787/bb688e68-en>. [13]
- OECD (2019), *OECD Economic Surveys: Mexico 2019*, OECD Publishing, Paris, <http://dx.doi.org/doi.org/10.1787/a536d00e-en>. [2]
- OECD (2019), *OECD Skills Strategy Poland: Assessment and Recommendations*, OECD Publishing, Paris, <https://doi.org/10.1787/b377fbcc-en>. [12]
- OECD (2019), *Skills Strategy 2019: Skills to Shape a Better Future*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264313835-en>. [1]
- OECD (2018), *Regions and Cities at a Glance 2018 - Mexico*, OECD, Paris, <https://www.oecd.org/regional/MEXICO-Regions-and-Cities-2018.pdf>. [4]
- OECD (2017), *Entrepreneurship at a Glance 2017*, OECD Publishing, Paris, [https://doi.org/10.1787/entrepreneur\\_aag-2017-en](https://doi.org/10.1787/entrepreneur_aag-2017-en). [5]
- OECD (2017), *OECD Territorial Reviews: Morelos, Mexico*, OECD Territorial Reviews, OECD Publishing, Paris, <https://doi.org/10.1787/9789264267817-en>. [7]



- OECD (2017), *Supporting SME Competitiveness in the Eastern Partner Countries: Strengthening SME Capabilities Through a Sustainable Market for Business Development Services in Belarus*, OECD, Paris, [https://www.oecd.org/eurasia/competitiveness-programme/eastern-partners/Peer\\_Review\\_Note\\_Business\\_Development\\_Services\\_Belarus.pdf](https://www.oecd.org/eurasia/competitiveness-programme/eastern-partners/Peer_Review_Note_Business_Development_Services_Belarus.pdf). [31]
- OECD (2017), *The Pursuit of Gender Equality: An Uphill Battle*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264281318-en>. [18]
- OECD (2013), *OECD Territorial Reviews: Puebla-Tlaxcala, Mexico 2013*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264203464-en>. [34]
- OECD (2012), *Cerrando las Brechas de Género: es Hora de Actuar – México (Closing the Gender Gap: Act now – Mexico)*, OECD, Paris, <http://www.oecd.org/gender/Closing%20the%20Gender%20Gap%20-%20Mexico%20FINAL.pdf>. [23]
- OECD/ILO (2017), *Better Use of Skills in the Workplace: Why It Matters for Productivity and Local Jobs*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264281394-en> (accessed on 22 February 2021). [32]
- Outhand Consulting (2019), *Las mujeres emprendedoras en Mexico (Women entrepreneurs in Mexico)*, <https://outhand.mx/las-mujeres-emprendedoras-en-mexico/>. [20]
- Paredes, A., J. Cruz de los Ángeles and G. Elías (2019), *Características del fenómeno emprendedor en los municipios de Puebla y Tlaxcala, México (Characteristics of the entrepreneurial phenomenon in the municipalities of Puebla and Tlaxcala, Mexico)*, <https://revistas.uned.ac.cr/index.php/rna/article/view/2683>. [26]
- PARP (2021), *Polish Agency for Enterprise Development website*, Polish Agency for Enterprise Development, <https://en.parp.gov.pl/> (accessed on 23 February 2021). [47]
- Pro Mujer (2021), *Who are we (Quiénes somos)*. [25]
- SEDECO (2021), *Programa de Estímulos a la Innovación (Innovation Stimulus Programme)*, Secretaría de Desarrollo Económico (Secretariat of Economic Development), <http://www.sedecotlaxcala.gob.mx/>. [27]
- Skillnet Ireland (2021), *Skillnet Ireland website*, <https://www.skillnetireland.ie/> (accessed on 23 February 2021). [48]
- Tregaskis, O. et al. (2013), “High Performance Work Practices and Firm Performance: A Longitudinal Case Study”, *British Journal of Management*, Vol. 24/2, pp. 225-244, <http://dx.doi.org/10.1111/j.1467-8551.2011.00800.x>. [36]
- US General Services Administration (2021), *Challenge.gov website*, <https://www.challenge.gov/> (accessed on 22 February 2021). [41]
- World Bank (2019), *Mexico Gender Assessment*, World Bank, Washington DC, <http://documents1.worldbank.org/curated/en/377311556867098027/pdf/Mexico-Gender-Assessment.pdf>. [19]
- World Bank (2016), *Doing Business in Mexico 2016*, World Bank, Washington DC, <https://www.doingbusiness.org/en/reports/subnational-reports/mexico>. [8]

World Economic Forum (2019), *Global Competitiveness Report 2019: How to end a lost decade of productivity growth*, World Economic Forum, Geneva,  
<https://www.weforum.org/reports/how-to-end-a-decade-of-lost-productivity-growth> (accessed on 18 February 2021).

[44]



**From:**  
**OECD Skills Strategy Tlaxcala (Mexico)**  
Assessment and Recommendations

**Access the complete publication at:**  
<https://doi.org/10.1787/13925818-en>

**Please cite this chapter as:**

OECD (2021), “Using people’s skills more effectively to raise productivity in Tlaxcala, Mexico”, in *OECD Skills Strategy Tlaxcala (Mexico): Assessment and Recommendations*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/5ac9bb58-en>

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