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**Sharing the Fruits of Growth  
with all Mexicans**

**Eduardo Olaberría,  
Valéry Dugain**

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**Eduardo Olaberría and Valéry Dugain**

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**ABSTRACT/RÉSUMÉ****Sharing the Fruits of Growth with all Mexicans**

In 2013 the Mexican government embarked on a major reform agenda which, if fully implemented and pushed forward, will help Mexico break out from a recent history of economic stagnation and high levels of poverty and inequality that has hampered the quality of life of its citizens. Indeed, compared with other OECD countries, Mexico performs poorly in indicators that are essential to a good life, often resulting in traps that hinder growth and well-being. The government has introduced major structural reforms to fight poverty, improve the quality of education, create more jobs in the formal sector and move towards a universal social security system. This is a substantial accomplishment. However, Mexico needs to build a more inclusive state. This implies raising more tax revenue (without necessarily increasing tax rates) to expand social protection. It also means promoting an inclusive labour market to reduce informality and increase female labour market participation; inclusive schools to reduce educational gaps; inclusive health systems so that health care quality no longer depends on employment status; and inclusive cities to reduce geographical segregation.

This Working Paper relates to the 2015 *OECD Economic Survey of Mexico* ([www.oecd.org/eco/surveys/economic-survey-mexico.htm](http://www.oecd.org/eco/surveys/economic-survey-mexico.htm)).

Keywords: Mexico, income, inequality, education, health and informality.

JEL Classification: H1; H5; I1; I2; J3

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**Partager les fruits de la croissance entre tous les Mexicains**

Le gouvernement mexicain a entrepris, en 2013, un vaste programme de réforme qui, s'il est pleinement mis en œuvre et poursuivi, aidera le Mexique à rompre avec la stagnation économique et les taux élevés de pauvreté et d'inégalité qui ont marqué son passé récent et pesé sur la qualité de vie de ses citoyens. Par rapport à d'autres pays de l'OCDE, le Mexique est médiocrement classé en ce qui concerne les indicateurs indispensables à une qualité de vie acceptable, ce qui crée souvent des engrenages qui nuisent à la croissance et au bien-être. Le gouvernement a lancé des réformes structurelles de grande envergure visant à lutter contre la pauvreté, à améliorer la qualité de l'éducation, à créer davantage d'emplois dans le secteur formel et à poser les premières pierres d'un système de sécurité sociale ouvert à tous. Il s'agit là d'un grand pas en avant. Toutefois, le Mexique doit devenir un État plus solidaire. Pour cela, il lui faut accroître ses recettes fiscales (sans nécessairement augmenter les taux d'imposition) pour étendre la protection sociale. Il lui faut également promouvoir l'inclusivité du marché du travail, pour réduire le nombre des travailleurs du secteur informel et accroître la présence des femmes sur le marché du travail des établissements scolaires, pour réduire les lacunes en matière d'éducation des systèmes de santé, pour que la qualité des soins ne dépende plus de la situation professionnelle, et des villes, pour réduire la ségrégation géographique.

Ce document de travail économique se rapporte à l'Étude économique 2015 de l'OCDE sur le Mexique ([www.oecd.org/fr/eco/etudes/etude-economique-mexique.htm](http://www.oecd.org/fr/eco/etudes/etude-economique-mexique.htm)).

Mots clés: Le Mexique, le revenu, l'inégalité, l'éducation, la santé et l'informalité.

Classification JEL : H1; H5; I1; I2; J3

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## SHARING THE FRUITS OF GROWTH WITH ALL MEXICANS

By Eduardo Olaberría and Valéry Dugain<sup>1</sup>

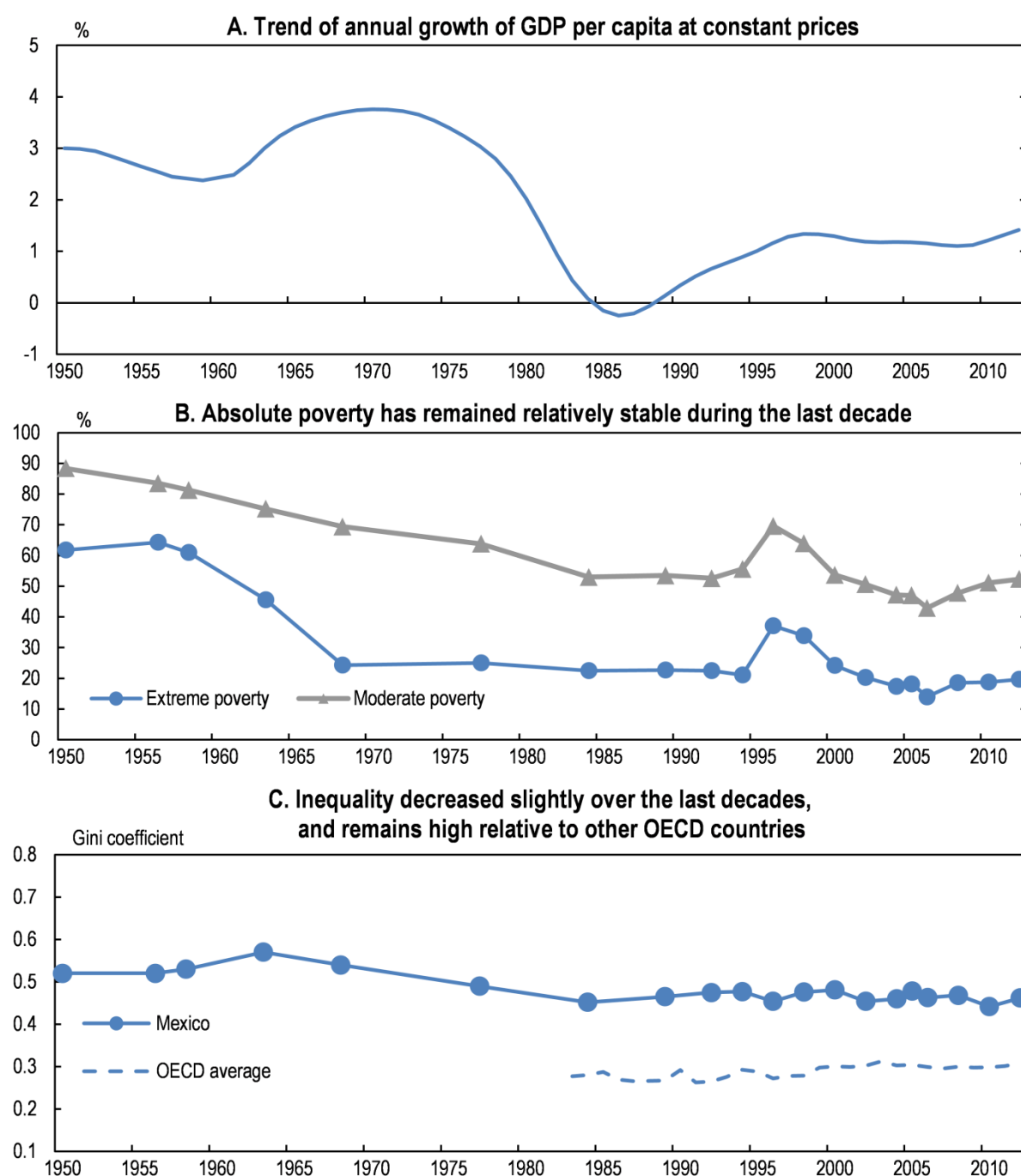
The Mexican government embarked in 2013 on a major reform agenda to break out from a history of economic stagnation and high levels of poverty and inequality (Figure 1). Previous governments had already attempted to achieve rapid economic expansion and significant reductions in poverty and inequality rates. However, these attempts were not entirely successful, in part because growth was not sustainable and led to the financial crises in 1982 and 1994. Poverty and inequality have, therefore, remained at levels that are very high compared to other OECD countries.

Mexico needs to improve its performance in many dimensions that are essential to a good life. Some areas where particular efforts are required are education, safety, income, housing, work-life balance and health (Figure 2, Panel A). The interrelation of these variables generates a vicious cycle that hinders economic growth and well-being. Indeed, poor qualities of education and health have a negative impact on people's productivity and induce informality (Mayer-Foulkes, 2008). Informality means poor job quality – affecting work-life balance and the time parents can spend nurturing their children with a negative effect on their well-being and future prospects – and lower fiscal revenues, which affects the state's capacity to provide high-quality public goods like health, education and social protection (LaPorta and Shleifer, 2014). As a result, intergenerational mobility is relatively low in Mexico: children of poor parents stay poor and children of rich parents stay rich, perpetuating the inequalities in time (Figure 2, Panels B and C) (Azevedo and Boullion, 2010).

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1. Eduardo Olaberría is Economist at the Mexico, Chile and Argentina Desk in the OECD Economics Department (contact email: [Eduardo.Olaberria@oecd.org](mailto:Eduardo.Olaberria@oecd.org)) and Valery Dugain is Statistician at the Economics Department. This paper was prepared for the OECD Economic Survey of Mexico published in January 2015 under the authority of the OECD Economic and Development Review Committee. It was prepared with extensive input from Patrick Lenain. Contributions to the paper were made by Marissa Plouin, Diana Toledo Figueroa, Ian Forde and Natalia Fernández-Vázquez. Comments from EDRC committee members, numerous Mexican officials and OECD colleagues Robert Ford, Christian Daude, Álvaro Pereira, Sean Dougherty, Gabriela Ramos and Juan Yermo were greatly appreciated. Document preparation was expertly co-ordinated by Brigitte Beyeler and Nadia Kameleddine.

**Figure 1. Mexico has suffered from a combination of economic stagnation and high levels of poverty and inequality**

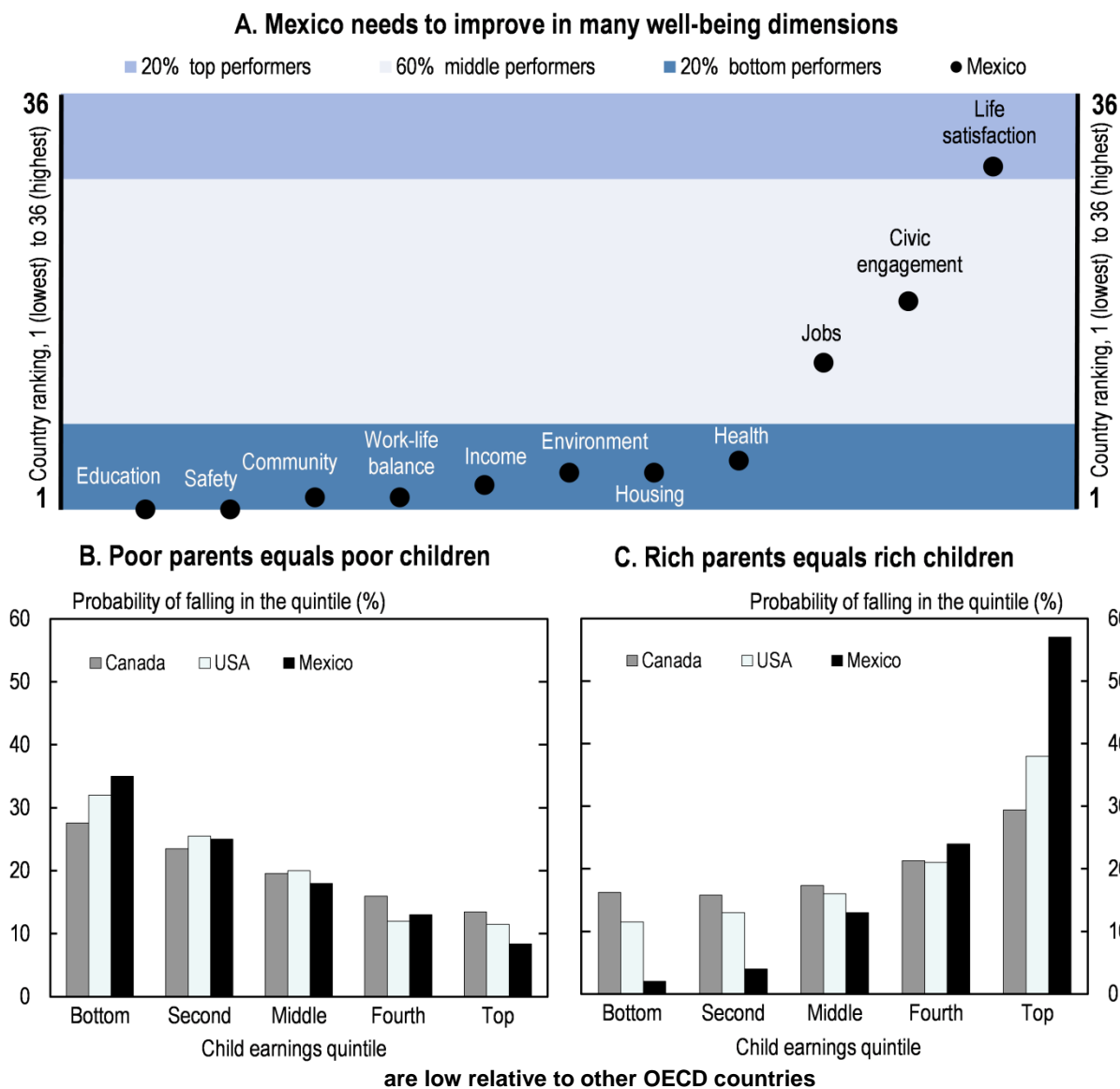


**Note:** Panel A GDP: smoothed by a Hodrick-Prescott filter with a lambda of 100. Panel B: *Moderate poverty* is the lack of income needed to buy a basic food basket, as well as to cover expenses of health, education, housing, transportation and clothes, even if total household available income is exclusively used to purchase the goods in such basket. *Extreme poverty* is the lack of income needed to acquire a basic food basket, even if total household available income is only used to purchase the goods in such basket

Source: Penn World Table; Székely (2005) and Socio-Economic Database for Latin America and the Caribbean (CEDLAS and World Bank)



Figure 2 Mexico’s well-being and social mobility



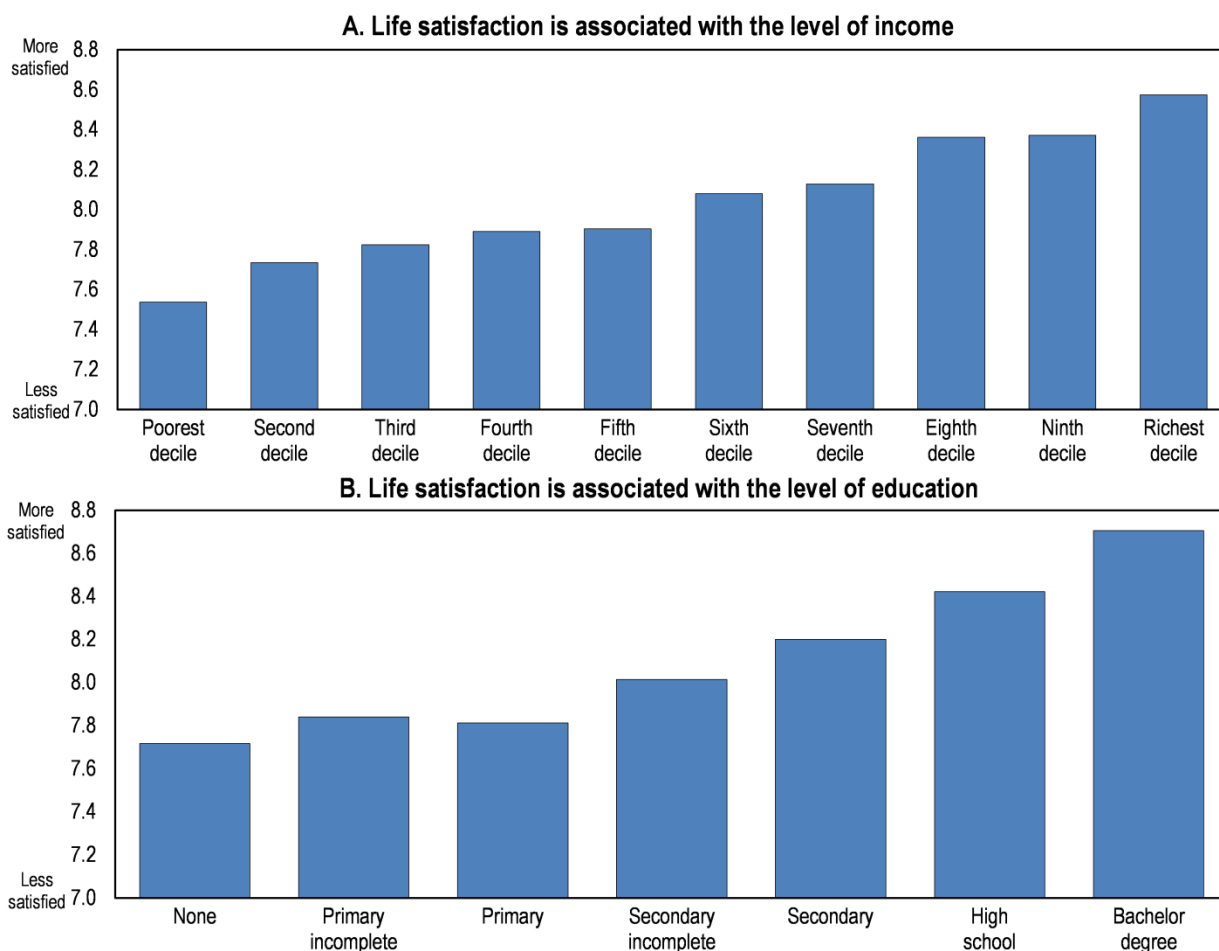
**Note:** Data for panel A include Brazil, Russia and the 34 OECD countries. Panel B shows the distribution of earnings of children whose parents’ earnings are in the bottom income distribution. Panel C shows the distribution of earnings of children whose parents’ earnings are in the top income distribution.

Source: OECD, *How’s Life? Measuring Well-being* (2014); and Mazumder (2005, table 2.2); Corak and Heisz (1999, table 6) and Olaberria, E. and N. Fernandez-Vazquez (2014).

Large inequalities of income reduce growth (Causa et al., 2014). Evidence shows that large inequalities can undermine progress in education and health, as well as create political instability, all of which reduce investment and affect long-run growth (Ostry et al., 2014). Furthermore, they translate into differences in subjective well-being (Stevenson and Wolfers, 2013). Although on average Mexicans report

being more satisfied with their lives than people in most OECD countries, subjective well-being varies considerably across socio-economic groups (Figure 3). Empirical evidence produced for this *Survey* suggests that the level of subjective well-being in Mexico is significantly associated with the levels of income, education, job security, housing, health status and degree of social mobility (Box 2.1).

**Figure 3 Inequalities affect happiness**



Source: INEGI, Módulo de Bienestar Autorreportado (BIARE), 2012.

To end this vicious cycle and put the country back on a path of prosperity, the new government decided to take action and launched in 2013 the *Pacto por México*, which seeks to boost growth, reduce inequalities and improve well-being. Indeed, the major structural reforms discussed in the previous chapter have the potential to increase long run growth and will certainly contribute to reduce absolute poverty. Poverty reduction is determined not only by the rate of growth of the economy, but also by the change in the distribution of income (Bourguignon, 2005). Recognizing this, the administration has introduced reforms that go beyond macroeconomic variables and focus on improving the quality of life of Mexican citizens.

This chapter reviews these reforms and suggests areas where further improvements could be necessary. It argues that while what has been accomplished is substantial, more work remains to ensure that the fruits of growth are shared among all Mexicans. In particular, to reduce inequalities and improve well-being to the level of other OECD countries, Mexico needs to build a more inclusive state. This

implies raising more tax revenue (not necessarily by increasing tax rates) to expand social protection; but also promoting *inclusive labour markets* to reduce informality, *inclusive schools* to reduce the educational gaps, *inclusive health* so that staying healthy no longer depends on employment status and *inclusive cities* to reduce geographical segregation. If efforts to do this are not heightened further, inequalities will persist and there is a risk that Mexico will remain with low levels of growth and well-being, ruining people's hopes and eroding government's credibility.

### Box 1. What makes Mexicans happy?

It is increasingly recognized that measures of subjective well-being can be a good indicator of quality of life *per se* and help to understand what matters to people, beyond their material conditions (Stiglitz et al. 2009). Most studies analysing subjective well-being across countries find that around 80 % of the variance in country life satisfaction can be explained by objective measures of material conditions, health, job security, personal security and education (Oishi et al, 2009; Stevenson and Wolfers, 2008). These studies also show that Mexico and other Latin American countries report, on average, levels of life satisfaction that are above what would be predicted by objective measures of well-being. This is a paradox. Do Mexicans report relatively high average levels of happiness because of a cultural bias, a data bias or because their levels of happiness are simply not affected by objective measures of well-being? To understand better the relationship between the objective and subjective measures of well-being in Mexico, a study conducted for this survey (Dugain and Olaberría, 2014) carried out an econometric analysis following the methodology of Caldera Sanchez and Tassot (2014) and using data from *Modulo de Bienestar Autorreportado done by the Instituto Nacional de Estadística y Geografía* and Gallup. The results suggest that in Mexico there is a significant association between objective and subjective measures of well-being, in particular:

- **Income/expenditure:** Individuals are better off when their incomes is high compared with other groups. After controlling for all other characteristics, results show that, while comparing the bottom quintile of the income distribution with the second and third quintiles does not show a significant difference in life satisfaction and happiness, being in the top two quintiles of the income distribution does make a significant difference in terms of subjective well-being among the Mexican people.
- **Education:** Controlling for income and other demographic characteristics, Mexicans with lower levels of education are significantly less satisfied with their lives than people with higher levels of education.
- **Unemployment:** Controlling for income and other demographic characteristics, Mexicans with jobs are significantly more satisfied with their lives and are happier than the unemployed.
- **Minorities:** Belonging to an ethnic minority does not have a significant effect on subjective well-being once income and education are controlled for. This result suggest that the fact that indigenous people report, on average, lower levels of life satisfaction and happiness is mostly explained by their lower opportunities.
- **Housing:** Mexicans that are more satisfied with their housing are also significantly more likely to be satisfied with their life and report higher levels of happiness.
- **Work-life balance:** Time spent on physical activities or with family and friends are significantly and positively associated with overall life satisfaction as well as overall happiness. Those Mexicans who practice sports regularly have 14 % higher probability of having higher levels of life satisfactions than those who do not practice sports. Also, Mexicans more satisfied with their family and social life are significantly more likely to be very satisfied with their life than Mexicans not having good family and social life.
- **Intergenerational Mobility:** results show that in Mexico, regardless of the objective economic situation, individuals who live better than their parents (e.g. had better educational opportunities, jobs or income) are significantly more satisfied with their lives and happier than individuals that are in a similar or worse situation than their parents.

In conclusion, increasing incomes, improving educational and health outcomes and housing conditions, and reducing work related stress will not only contribute to higher growth, it will also increase the level of happiness in Mexico.

### Building an inclusive state

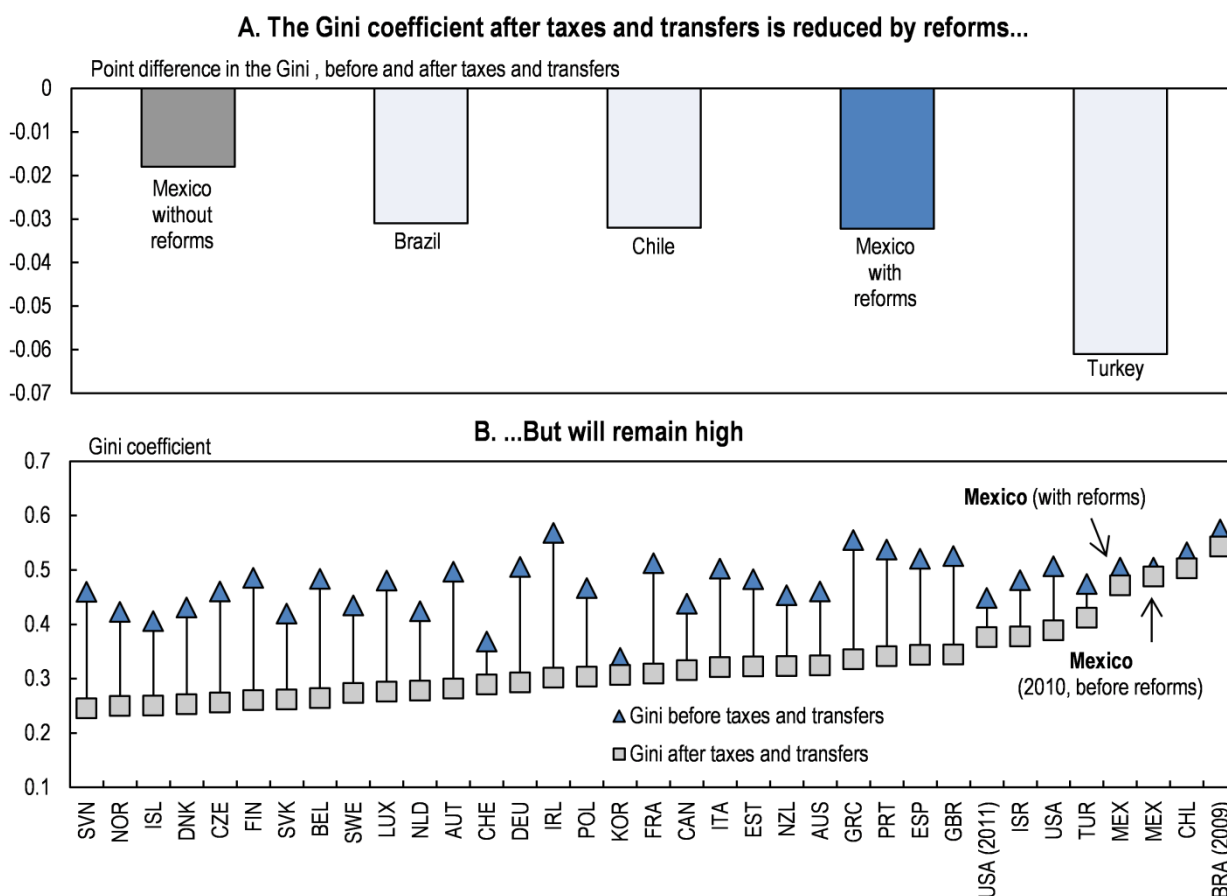
An inclusive state is one that, while supporting growth, ensures that no person is left behind and levels the playing field providing opportunities for everyone to reach their maximum potential. To do this, the state needs to be efficient and effective at raising enough tax revenues to be able to provide social

protection to all citizens, pay pensions, set the right incentives to join the formal market, guarantee an education of high quality for all children, guarantee a decent quality of health services and exercise a unique power to compel and maintain law and order. For many years, the Mexican state has failed to do this in a satisfactory way, but the recent reforms are contributing to change this history.

Despite progress made during the last decade (Scott, 2014), compared with most OECD economies where fiscal policy contributes to reducing inequalities, in Mexico poverty and inequality remain very high even after taxes and social spending are considered (Figure 4, Panel A). Even when compared to other countries in Latin America with similar products per capita (e.g. Argentina, Brazil and Uruguay), incidence studies of social spending suggest that in Mexico the impact of the tax and transfer system on reducing poverty and inequality is undoubtedly lower (Lustig, Pessino and Scott, 2014). This is mainly because these countries raise more tax revenues (as a share of GDP) that enable them to have a higher level of social spending with a relatively similar degree of tax progressivity (López-Calva et al, 2014).

The tax reform passed by the current administration will increase general government revenues from 19.6 % to 22.6 % of GDP over the period 2014-2018, and contribute to reduce inequality indexes, as more than half of this increase will come from higher taxes on the richest 10 % of the population. With this reform the Gini coefficient after taxes and transfers will decrease (Figure 4, Panel B). Indeed, Mexico will no longer be the OECD country where the tax and transfer system does the least to reduce income inequality (so far, the Gini coefficients before and after taxes and transfers were very similar). However, revenues as percentage of GDP will still remain way below OECD averages (35%) and income inequality will remain well above the OECD average. Therefore, to reduce inequalities further, enhanced efforts are required to increase tax revenues and increase the efficiency of social spending.

**Figure 4. Tax policy should do more to reduce inequality and poverty**



**Note:** For panel A, 2012 for Australia, Finland, Hungary, Korea, Mexico, the Netherlands and the United States. 2010 for Belgium.

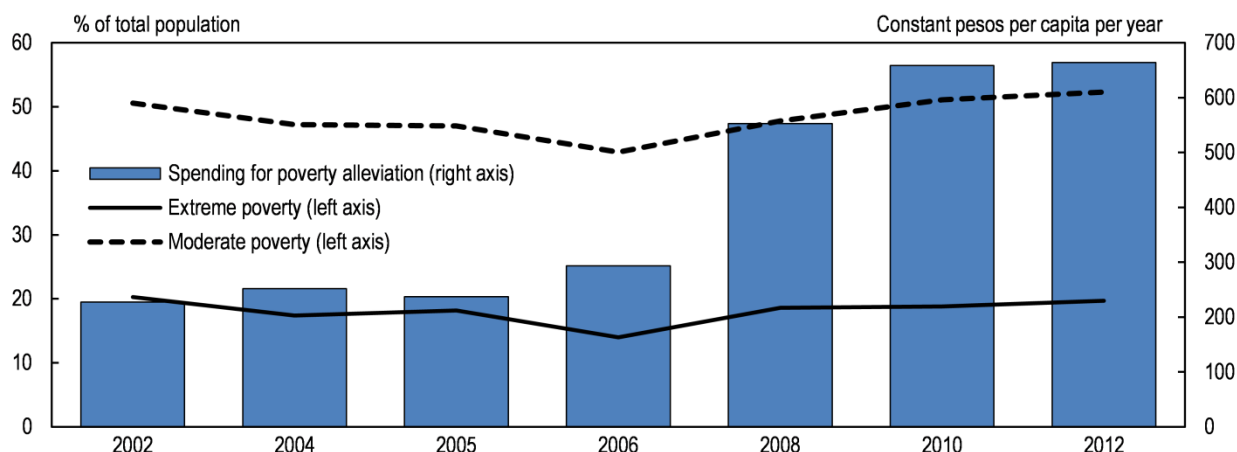
Source: OECD, Income and Poverty Database; Mexico Ministry of Finance (SHPC); Commitment to Equity (Panel B, for Mexico and Brazil).

Tax revenues can be improved in many ways, not just by increasing tax rates. In particular, revenues can be increased by reducing informality and encouraging more women to join the labour force. Encouraging formality and raising women labour force participation will enable more workers to have access to social rights – such as unemployment insurance, health care and pensions. As more workers join the formal sector, the vulnerability of social institutions will recede, fiscal revenues will increase and long-term sustainability of social entitlements will be strengthened. In the end, it will reduce the need for poverty alleviation. Hence, a key priority discussed in the next section is to make the labour market more inclusive.

The recent reforms will also help to improve the efficiency of social spending to fight poverty more effectively. Historically, Mexican households living in poverty have had limited capacity to insure against shocks. Consequently, their income and consumption patterns are very volatile and follow closely overall macroeconomic trends, increasing in good times and decreasing in bad ones (Banerjee and Duflo, 2007). For example, from 2007 to 2010, after the global financial crisis, Mexico recorded a cumulative decrease in real household disposable income of more than 5 %, one of the largest declines among the OECD countries. The drop in household disposable income at the lowest levels of the distribution was even larger.

As a result, despite an increase of 126 % in real terms in anti-poverty spending, the absolute moderate poverty rate increased from 42.9 % to 52.3 % since 2006 (Figure 5).

**Figure 5. Poverty has remained relatively constant despite higher anti-poverty spending**



**Note:** *Moderate poverty* is the lack of income needed to buy a basic food basket, as well as to cover expenses of health, education, housing, transportation and clothes, even if total household available income is exclusively used to purchase the goods in such basket. *Extreme poverty* is the lack of income needed to acquire a basic food basket, even if total household available income is only used to purchase the goods in such basket.

Source: CONEVAL, INEGI and Government Report Statistical Annex, 2013.

To strengthen the fight against poverty, the current administration has started to overhaul several social programmes. Among these is the “National Crusade Against Hunger” (*Cruzada Nacional Contra el Hambre*), which seeks to help 7 million people in hunger by pooling human and financial resources from various programmes at the federal, state and municipal levels. The goal is to lift people out of poverty, reduce infant mortality rates and improve inclusion. This reform seeks to improve the effectiveness of the fight against poverty by making social spending more progressive and targeting it better. Furthermore, by improving coordination this reform will reduce duplication among programmes and resources, raising their impact without raising costs. *Oportunidades* – the conditional cash transfer programme that helped to reduce poverty (Box 2) – is being modernized under the new name of “*Prospera*”. Under this new programme, all beneficiaries will continue to receive support they had under *Oportunidades* and will also benefit from new tools to help them improve their productive potential. Specifically, children can now receive scholarships for college or technical college; and those looking for a job have priority in the National Employment Service. Furthermore, *Prospera* will facilitate access to financial education, savings, insurance and credit; it will also allow families to strengthen their own income by providing training and microcredits to support their productive activities in areas such as agriculture and craftsmanship.

### Box 2. Oportunidades

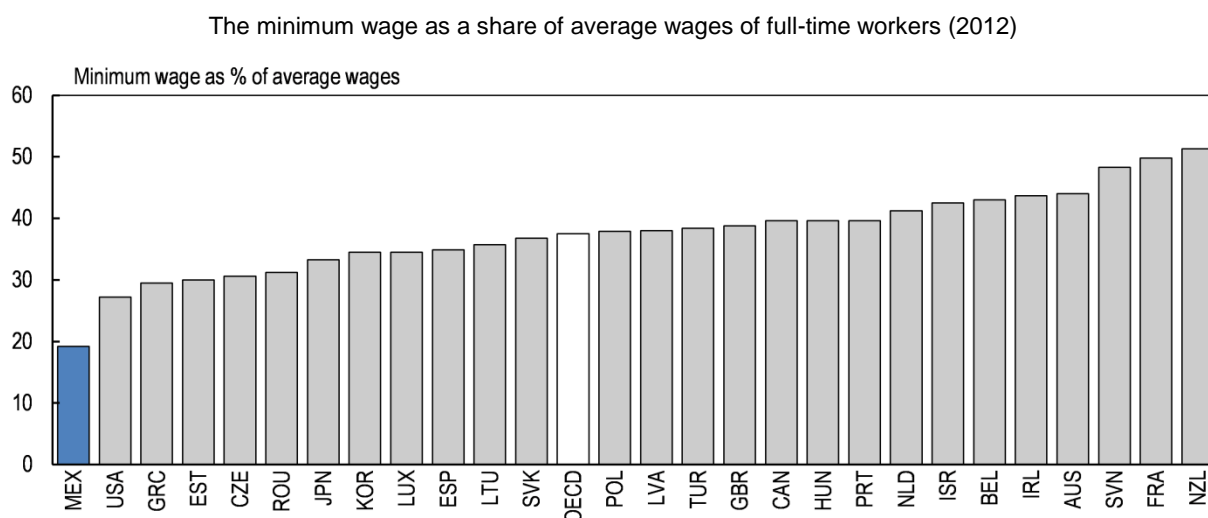
*Progres*a was introduced in 1997 in rural areas. In 2002, it was converted to *Oportunidades* and extended to urban areas. This federal conditional transfer programme aims to improve the educational, health and nutritional conditions of people living in extreme poverty. In Mexico about 18% of the population lives in extreme poverty, being defined as living under the lowest national poverty line. This means that those people are not even able to satisfy their food requirements. From the beginning of the *Oportunidades* programme, the implementation was accompanied by a rigorous evaluation process, including the collection of data at individual level and the analysis of this data by national and international research institutions (SEDESOL, 2010). In its early years, the programme helped to decrease poverty, contributed to human capital formation and helped to smooth consumption during economic downturns (CONEVAL, 2012).

Currently *Oportunidades* covers the whole country and attains about 6 million households, being about a quarter of the total Mexican population. The aim is to help families living in the conditions of extreme poverty by giving them better access to education, health care and nutrition. Different ways of assistance to families are available according to their needs, among others: resources for women, mothers of family, for the family income and a better nutrition; Scholarships for children and adolescents, starting from the third grade of primary going up to the last grade of semi-superior education (high school level); help for school tools; medical services packages and education session in health care; and nutrition complements for boys and girls from 6 to 23 month and with undernourishment between 2 and 5 years, as well for pregnant women and during the period of breastfeeding.

To provide income protection to the elderly, the administration has proposed a Universal Pension Act. Approving this Act should be a main priority as Mexico has one of the highest old-age poverty rates in the OECD. Approximately 66% of total population older than 65 years do not have access to a pension and 4 million live in poverty. The Universal Pension Act will assure that all Mexicans living in the country who are over 65 years old and are not entitled to receive a pension benefit will be eligible for a minimum pension granted by the Federal Government. It will be fully funded by the Federal Government and will have an average annual cost of 0.4% of GDP for the period 2014-2018, and will remain below 1% of GDP in the long term.

Similarly, to cushion the income of workers who lose their formal job and allow them to seek for a new job, the administration has proposed the creation of an unemployment insurance. This will guarantee a 6-month benefit to all workers who lose their job in the formal sector, and who have contributed during a minimum of 24 out of the last 36 months. The funding will be a mixed sub-account, funded by the employer, who will be required to contribute 3% of the employee's basic wage. This will not represent a new cost for the employer, given that this 3% comes out of the 5% that the employer now contributes to a worker's housing fund. This sub-account belongs to the worker, who can choose whether to use it for housing, pension or unemployment insurance. To complement this, there will be a Solidarity Fund that will guarantee a minimum wage for 6 months to all workers, funded with a Federal Government contribution of 0.5% of the workers basic wage, which represents approximately 9 billion pesos a year.

These reforms are an important step forward; however, a stronger commitment to improve social protection and increase household income is required to reduce poverty and inequality to the levels observed in other OECD countries. For instance, increasing the minimum wage and delinking it from the evolution of other prices in the economy should be considered. Mexico has the lowest minimum wage relative to the average wage in the OECD (Figure 6), and, measured in dollars at PPP rates, the lowest in Latin America. In Mexico the minimum wage fell in dollar terms between 2000 and 2012. As a result, Mexico is the only country in Latin American where the minimum wage is below the *per capita* poverty line (Cepal, 2014).

**Figure 6. The minimum wage is relatively low in Mexico**

Source: OECD, Labour Force Statistics Database.

Evidence shows that low minimum wages have contributed to higher income inequality in Mexico (Bosch and Manacorda, 2010), a result that is consistent with evidence for the United States (Card and Di Nardo, 2002; Lemieux, 2006). Hence, Mexico should consider raising the minimum wage to fight poverty and inequality. The fact that, according to INEGI, 14% of workers – mostly in the informal sector – receive an income that is below the minimum wage, suggests that raising it may not be effective. Despite this, some studies on the impact of minimum wages on informality, although not conclusive, show that modest increases in the minimum wage may in fact draw more people into the formal workforce and spur productivity (Eyraud and Saget, 2008). Furthermore, Mexico should delink the minimum wage from other administrative and social features: Many wages, social benefits, pensions, fellowships, and even fines have traditionally been expressed as multiples of the minimum wage (Bosch and Manacorda, 2010). This should be changed as it generates pervasive incentives when potential increases are proposed as a result of the fear that it could put pressure on costs and inflation.

### **Inclusive labour markets**

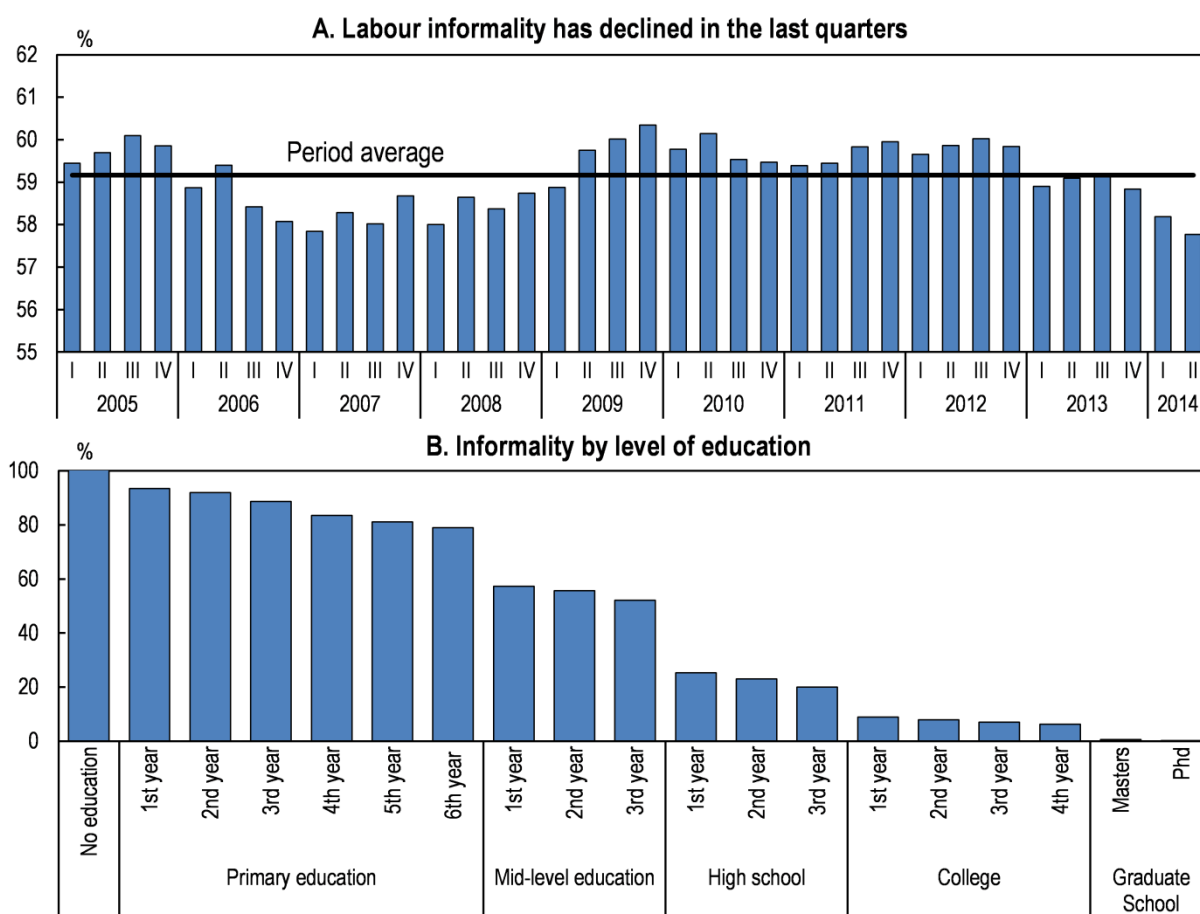
Labour informality is a pervasive characteristic of the Mexican economy and is a central concern for public policy. Many workers are self-employed or work in small and precarious firms, without access to social protection. Despite some improvements in recent years, around 60 % of workers still operate in the informal sector (Figure 7, Panel A). Indeed, while many Latin American countries saw a significant decline in informality rates over the last decade, in Mexico it remained relatively constant (Tornarolli et al., 2014).

Informality is widespread in less urbanized areas and in the agricultural sector: Almost 6 of every 10 informal workers live in localities with less than 100 thousand inhabitants. In turn, two thirds of formal workers live in localities of more than 100 thousand inhabitants, where there is a higher presence of larger and legally constituted enterprises. Informality has a regional pattern (Dougherty and Escobar, 2013). The South of Mexico – characterized by poorer infrastructure, low population density and predominance of agricultural activities – has higher informality rates. Informality is also associated with educational attainment (Figure 7, Panel B). While on average, the informality rate among workers who have only primary education or less is above 80 %, informality among workers with at least secondary education is 20 %, among workers with tertiary education is 6 % and among those with doctoral studies is 0.3 %.



As described in Chapter 1, the government has started to address this problem through a publicity campaign in 2014 to “Go Formal” and through a variety of fiscal incentives that resemble the Brazilian example (Box 3). Recent evidence suggests that these measures may be having a positive effect as already 4.3 million firms have registered under the new scheme, as compared to 3.5 million under its predecessor. Similarly, the comprehensive labour reform law of late 2012 also represented an important step forward to reduce informality. It contained provisions to reduce the costs associated with workforce adjustment in formal sector firms. These reforms are likely to be effective as evidence from a panel of Latin American countries shows that more regulated labour market, in particular a larger tax wedge, increases the size of the informal economy (Lehmann and Muravyev, 2012). Indeed, since the adoption of the Law the informality rate has decreased (Figure 7, Panel A).

**Figure 7. Labour informality has decreased over the last two years, but remains very high**



Source: INEGI. Encuesta Nacional de Ocupación y Empleo. Informalidad laboral. Tasas de informalidad trimestral.

However, further efforts are needed to improve formal employment prospects, especially for women and young people. For instance, Mexico should improve enforcement capacity, especially the resources devoted to labour inspection, so that labour laws can work more effectively. Evidence from other emerging economies suggests that stricter enforcement leads to a higher proportion of formal employment (Almeida and Carneiro, 2007; Ulyseas, 2008). Therefore, allocating more resources to enforcement, *i.e.* increasing the number of inspections and increasing fines for breaches of labour regulations, is a policy option that Mexico should consider.

### Box 3. Policies to reduce informality: the example of Brazil

Many Latin American countries have been relatively successful at reducing informality during the last decade. Among these, Brazil stands out as one of the most successful cases (Tornarolli et al., 2014). The Brazilian example could, therefore, be of interest for Mexico to learn what policies have been successful in countries with a similar level of development.

Brazil experienced a significant reduction in the informality rate from 62.2 % in 2000 to 49 % in 2012. As in other Latin America countries (e.g. Argentina, Peru and Ecuador), this significant reduction in the informality rate was driven, on a large extent, by economic growth (Baltar, Krein and Moretto, 2006; Bosch, Goni and Maloney, 2007; Corseuil and Foguel, 2012; Tornarolli et al., 2014). Hence, it is likely that continued emphasis on creating the right conditions for economic growth will lead to further gains in formal employment. However, evidence suggests that, in the case of Brazil, specific policy interventions also contributed to reduce the informality rate.

For instance, a number of studies of the Brazilian case suggests that the reduction of employment costs helped to reduce informality. In particular, the introduction in 1996 of the Integrated Tax and Contribution Payment System for Micro- and Small Enterprises (*Sistema Integrado de Pagamento de Impostos e Contribuições das Microempresas e Empresas de Pequeno Porte* or SIMPLES Law), had a significant effect on the informality rate (Monteiro and Assunção, 2006; Cardoso Junior, 2009; Fajnzylber, Maloney and Montes-Rojas, 2011). This law facilitated registration and lowered the rate of taxation for small and microenterprises. Evidence suggests that this law contributed to the formalisation of nearly 500 000 microenterprises between 2000 and 2005, accounting for around two million jobs (Delgado et al., 2007). A more recent law aimed at microenterprises with up to one employee (Lei Complementar 128/2008) was approved in 2009 and also significantly reduced the cost of formalisation and contributions to social security. Recent evidence suggests that this law also had an impact on the formalisation of the self-employed (Corseuil, Neri and Ulyssea, 2013), although there appears to be some perverse effect also on firms substituting regular employees for self-employed service providers.

Stricter enforcement mechanisms have also contributed to a higher proportion of formal employment. Evidence suggests that stricter enforcement leads to a higher proportion of formal employment (Almeida and Carneiro, 2007; Ulyssea, 2008). Although Brazil did not increase the number of labour inspectors to the level recommended by the International Labour Organization, it introduced a couple of initiatives that have enhanced monitoring and enforcement. In particular, Brazil changed the incentives under which inspectors work, including a bonus system linking salaries to performance targets, which have greatly increased the effectiveness of enforcement and led to an increase in formal worker registration (Berg, 2010).

Note: This box is based on the findings of OECD (2014c).

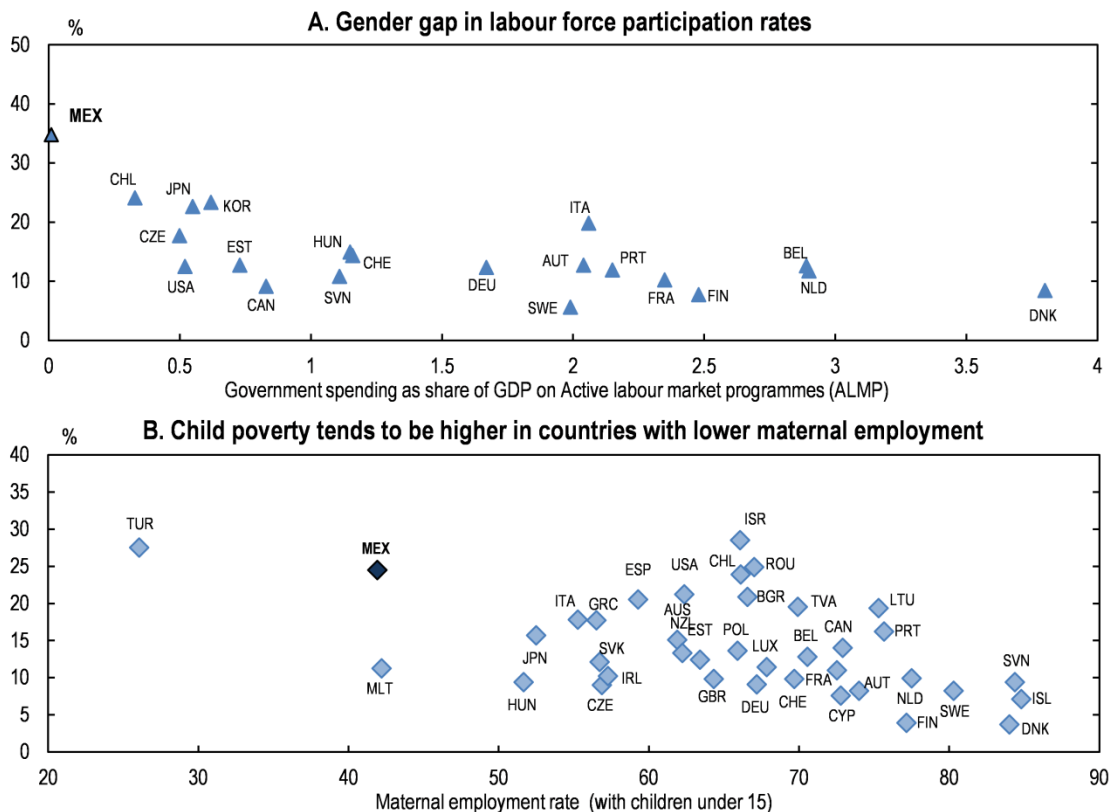
Policies to encourage more women to join the labour force should be a priority. Mexico is the OECD country with the widest gender gap in labour participation rates (Figure 8, Panel A). Empirical evidence suggests that reducing the gender gap can have significant impact on growth (Thévenon et al., 2012). In particular, recent OECD estimates suggest that a 25% reduction by year 2025 in the gender gap for labour force participation rate would lead to an expected additional GDP growth of 1% in Mexico by then (OECD- ILO-IMF-World Bank, 2014), also boosting fiscal revenues. Bringing more women into the labour force should also reduce child poverty (Figure 8, Panel B). In Mexico, the percentage of single-mother heads of households increased from 14.6% in 1992 to nearly 25% in 2008, and an increasing proportion of them live in poverty (Arias et al., 2010).

To reduce the gender gap, policies should seek to increase job market options for women, while reducing the opportunity costs of joining the labour force. Evidence shows that female labour supply is much more responsive to wage changes than male labour supply, affecting the hours they work but even more their decision to participate in the labour market (Killingsworth and Heckman, 1986; Evers, De Mooij and Van Vuuren, 2006). This is because the decision faced by women takes into account that there is a high opportunity cost (an outside option) of joining the labour force: choosing to bear children and/or become a housewife, while a partner may provide household income.

A place to start to increase the returns of joining the labour market is by expanding active labour market policies. Evidence suggest that active labour market policies are potentially very important to bring women into employment as the average effects of these programmes are larger for women than for men (Bergemann and Van den Berg, 2008). This is because women's labour supply is more elastic than men's, and therefore participation in a programme that increases labour market opportunities, like a successful skill-enhancing training programme, may subsequently lead to job offers that are acceptable. Mexico is the OECD country with the lowest level of public spending devoted to active labour-market policies (Figure 8,

Panel A). Therefore, expanding spending in labour-market programmes could contribute to increase women’s labour participation and reduce the gender gap.

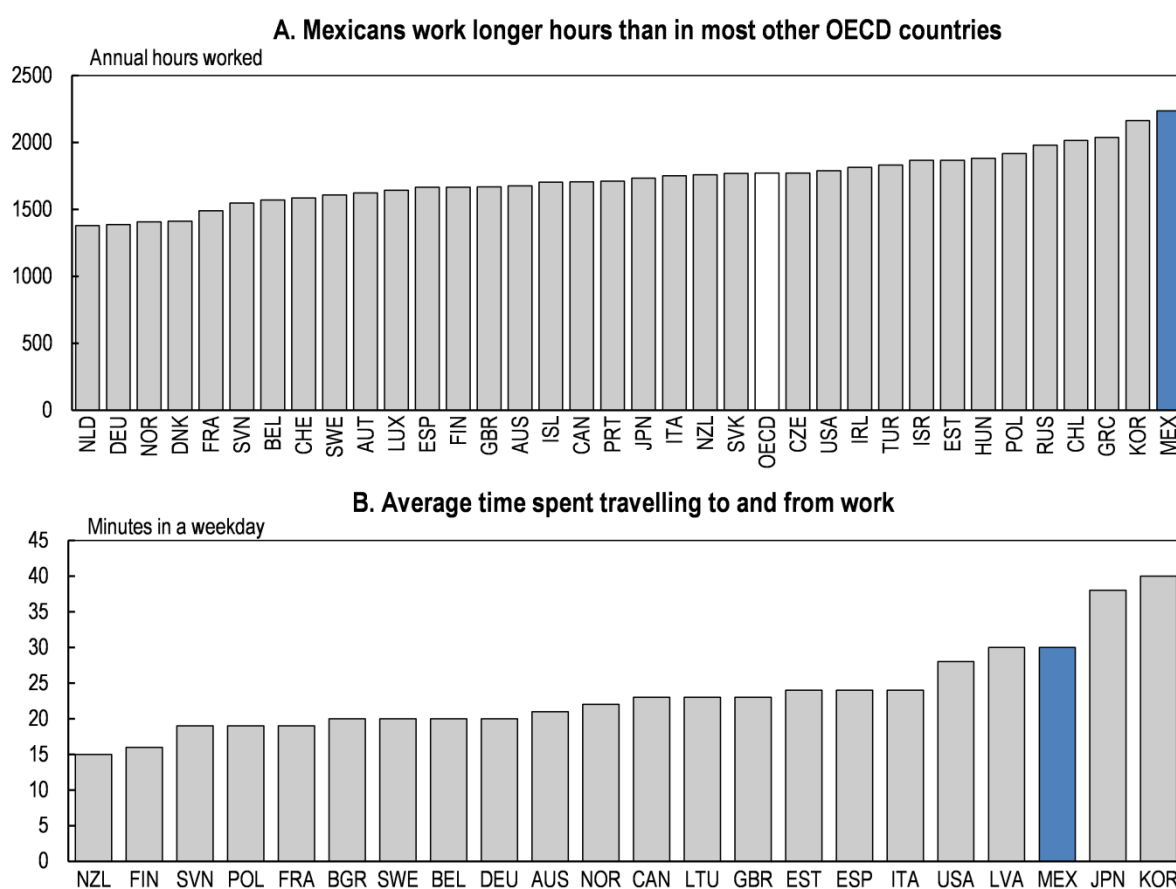
**Figure 8. Mexico spends little on Labour Market Programmes and has the widest gender gap in the OECD**



Source: OECD, Labour Market Programmes Database and Family Database; and ILO.

But this should be complemented with policies to reduce the opportunity cost of joining the labour force. In particular, to encourage more women to join the labour force, Mexico needs to improve work-life balance and increase public support for family benefits and child-related entitlements. Data show that Mexicans face important work-life conflicts. People in employment work longer hours (2,236 hours annually) in Mexico than in all OECD countries (OECD average of 1,770 hours) (Figure 9, Panel A). For most people at full-time work, 40 hours of work are required every week over 50 weeks per year (hence 2 000 hours annually). Mexicans not only spend long hours at work, because of poor public transportation services (in part as a result of the lack of an urban development plan, an issue discussed in the next section) they also spend a long time traveling to and from work (Figure 9, Panel B).

Figure 9. Mexicans workers are under stress

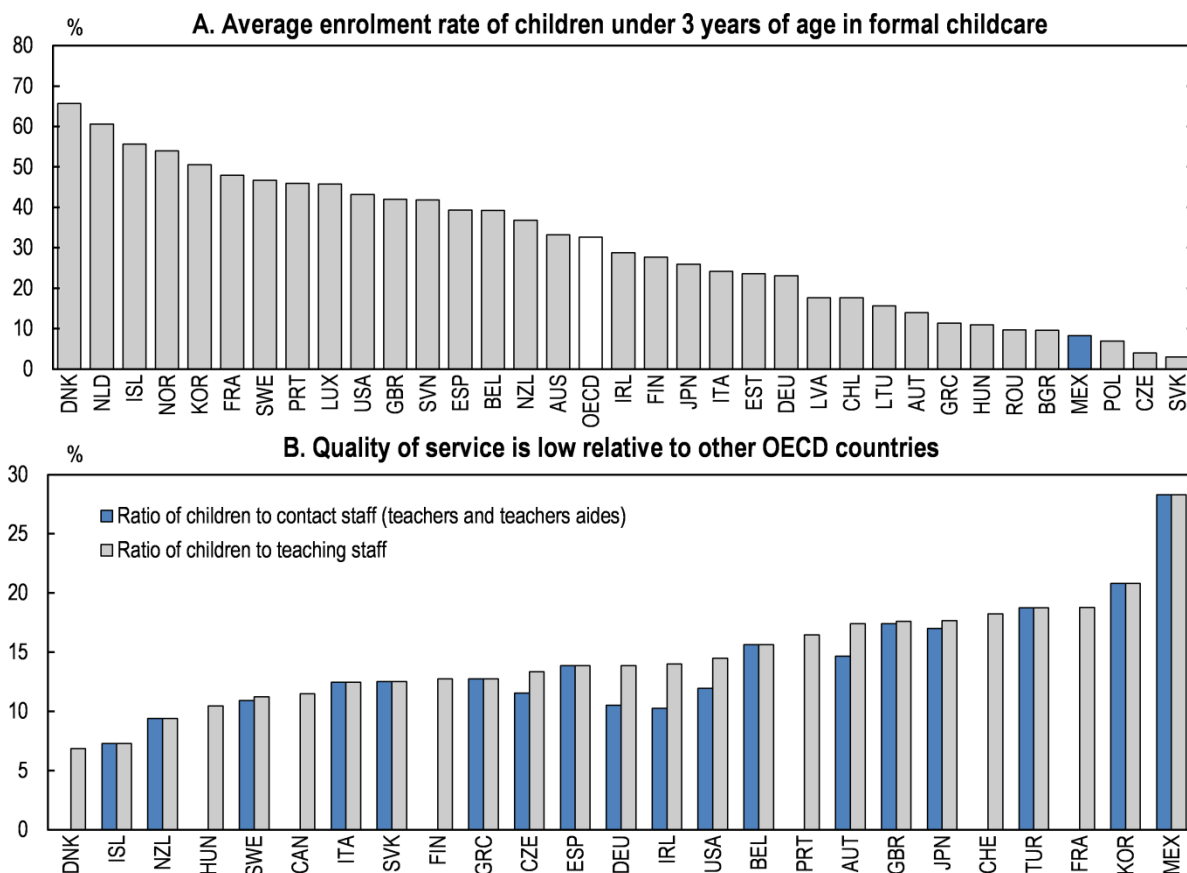


Source: OECD, Family Database and Labour Force Statistics Database.

Work-life conflicts do not affect everyone equally; it depends on how people can cope with job pressures, which many times depends on the support available through their jobs and the public sector. For instance, working mothers have a reduced amount of time to spend with their children, unless they have access to networks or help for child care. Therefore, to bring more women to the labour market, a key priority is to provide more public support to families with children. In Mexico, women are three times more likely than young men to be neither in education nor employed, a number that largely reflects young women raising families. A priority should be to expand high-quality childcare (OECD, 2011b), especially for children aged up to three years, as Mexico is one of the OECD countries with the lowest share of children of that age in pre-school programmes.

In Mexico, child-related leave entitlements are limited. Maternity leave, although paid at 100% of last earnings, lasts just 12 weeks and only covers women in formal employment. No other form of parental leave, including for fathers, is available. Also, access to high-quality and affordable care is central for facilitating parental employment. Although efforts to increase childcare (*Programa de Estancias Infantiles para Madres Trabajadoras*) and pre-school enrolment rates (by implementing compulsory pre-school education) have translated into higher participation rates, more can be done. For example, childcare enrolment rates among under-3's in Mexico remain one of the lowest among OECD countries (Figure 10).

**Figure 10 Enrolment rates and quality of service among under-3's in Mexico remain relatively low**



Source: OECD, Family Database and Labour Force Statistics Database.

As well, policies to modify gender roles could also contribute to higher female labour market participation. Gender gaps in unpaid (home) work in Mexico are among the largest in the OECD area: at home Mexican women spend 4 hours per day more on unpaid work than men (OECD, 2013a). This constitutes an important barrier to women’s economic opportunities

Finally, improving work-life balance will not only help increase female labour-force participation rates, it can also contribute to improving educational and health outcomes. Evidence suggests that work-life conflicts can crowd out quality time spent with children, with negative effects on investment in children’s human capital (Gauthier et al. 2014). Also, recent research shows that working long hours can have negative consequences for health (Dembe et al. 2008). For instance, people that report working long hours are more likely to follow unhealthy lifestyles, such as smoking, coffee intake and alcohol consumption, lack of exercise and poor diet Burke and Cooper (2008). Finally, working long hours can have a negative effect on mental health, life satisfaction and happiness (Barnay, 2014).

**Inclusive schools**

Despite important improvements during recent decades (Box 4), Mexico’s educational system needs to do more to increase growth and reduce inequalities. The Mexican educational system has grown rapidly in the last fifty years – from three million students to more than 30 million – and today nearly all children between the ages of 5 and 14 are in school. However, the quality of education remains well below OECD

average (Figure 11, Panel A). For instance, the average student in Mexico has a PISA score of 417 out of 600 in reading, maths and science, much lower than the OECD average of 497 and the lowest rate in the OECD. But there are also important differences across states: those with lower poverty and inequality rates have higher PISA scores (Figure 11, Panels B and C). Finally, Mexico's public spending in education is low for OECD standards, inefficient and very regressive (Arias et al., 2010; Scott, 2009).

#### **Box 4. Recent improvements in the Mexican education system**

In recent years, education in Mexico has been a focus of many reforms and important progress has been made. For instance, Mexico has made the curriculum competence-oriented; it has professionalised teachers and school leaders; and it has strengthened the evaluation and assessment system to attain more transparency, accountability and support for improvement. Mexico has also established mandatory full time education for all children. Until recently, Mexico was the only OECD country providing part time education for its students across many schools, with either morning or afternoon schools with different staff, and with very different outcomes (with students in the morning shift doing significantly better than those in the afternoon). This consolidation of schools and their staff and more stable studying hours for students, may contribute to raising student performance if the learning time of students at school is used effectively.

Also, in 2009, Mexico introduced a National System of Upper Secondary Education (Sistema Nacional de Bachillerato) to provide a coherent framework of upper secondary education through better academic guidance, more education offer, a monitoring system for institutions, and mechanisms to deliver education (e.g. teacher training, school leadership professionalisation, infrastructure, scholarships).

Educational attainment and outcomes have also improved. Enrolment rates in Mexico cover virtually all children aged 4 to 15 and have increased among 15-29 year-olds from 42% in 2000 to 53% in 2012. Upper secondary graduation rates increased by 14 percentage points between 2000 and 2012 (compared with an OECD average increase of 8 percentage points), although only 47% of students graduate, in part, because dropout rates remain very high.

Mexico is also one of the few countries where both boys and girls improved their PISA mathematics performance between 2003 and 2012. However, the gender gap persists: boys scored 30 points higher in 2012 than in 2003 while girls scored 26 points higher, overall, student performance in mathematics has improved between 2003 and 2012 by an average of 28 score points.

To continue improving the quality of, and the access to, education, the current administration has made education a key area of reforms. The reform of the Mexican Constitution (2013) culminated in the new professional teaching service law, designed to provide coherence to the profession in primary and secondary education. This law aims to clarify selection, recruitment, induction, training, promotion and evaluation for teachers, school leaders and supervisors and promotes a new technical assistance service for schools. This is a step towards substantially improving initial teacher education; hiring the best candidates for teaching positions; guiding teachers during their first years in the classroom; promoting continuous development of all teachers, and consolidating in-service teacher evaluation and performance management system that recognises effective teachers while focusing on improvement.

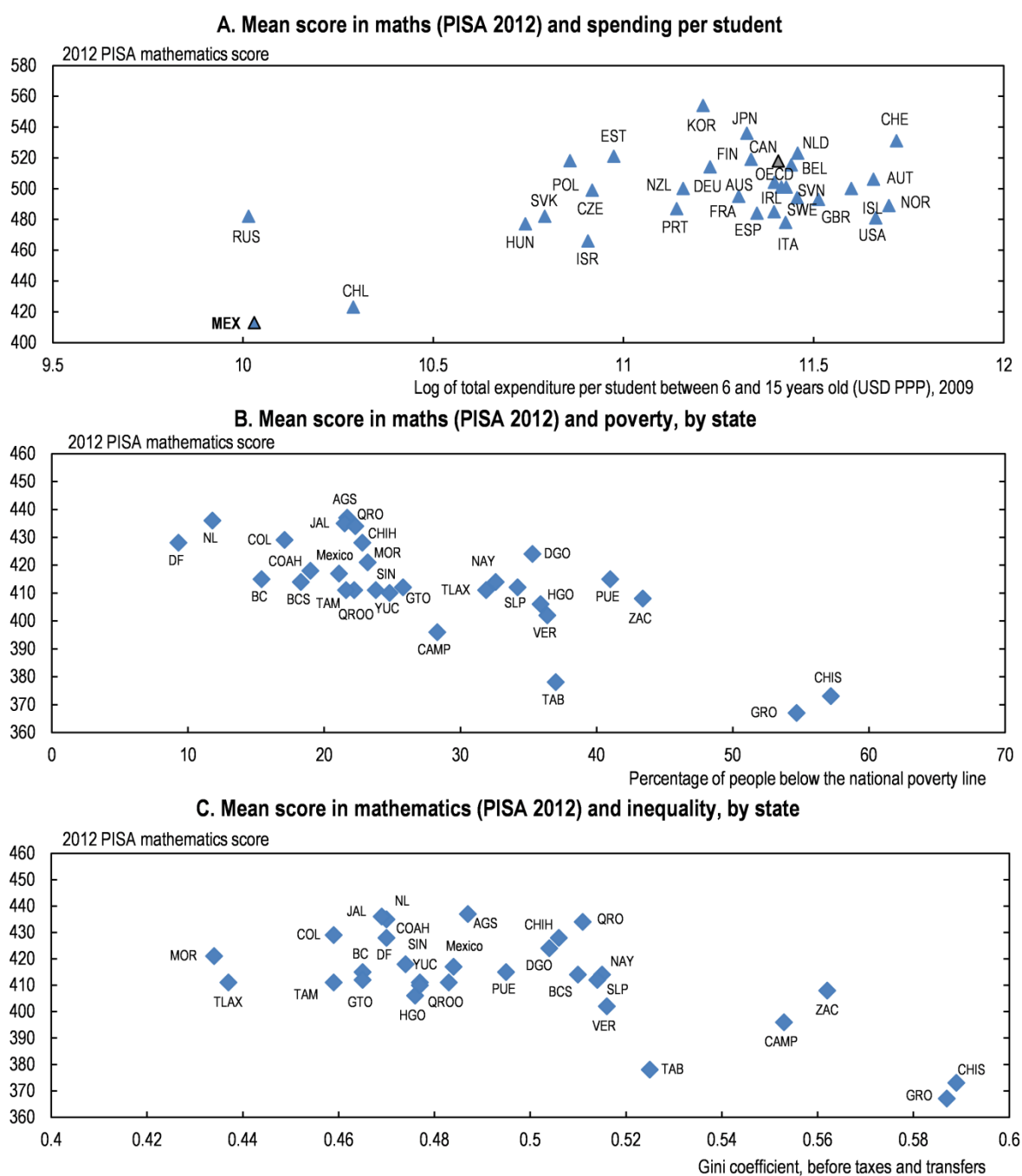
The new law also provides autonomy to the National Institute for Educational Assessment and Evaluation (Instituto Nacional para la Evaluación de la Educación, INEE). This is an improvement and a step towards the development of Mexico's national assessment system and widens its efforts to bring data back to the school. This data can be very useful to guide improvement plans not only of teachers but also of schools. It will also serve to guide educational authorities in the support they provide for schools and teachers.

To address this challenge, the Mexican administration has introduced important reforms. The amendments to the Mexican Constitution (2013) established commitments that have materialised in a series of (secondary) legislative reforms: the General Education Act, a new professional teaching service law, and the Law of the National Institute for Educational Evaluation that will improve the quality of the teaching profession. These reforms help to tackle one of the most important causes of the low educational outcomes: Mexico's teaching profession has been weak and poorly managed. However, these reforms are only the beginning of a broader and deeper transformation of the educational system, which will also require reallocating spending and fostering motivation of students to remain in school and put more effort in school work. If students are not motivated to stay in school, put effort to school work and complete their education, it is unlikely that they will benefit from better standards set by the educational reform.

Mexico's public spending on education as a share of GDP is around the OECD average. However, the share of the population in school age is significantly higher than in most OECD countries: the population under 15 years of age represents around 38%, while the OECD average is around 22%. Expenditure per student is lower in Mexico than the OECD average at all levels. Moreover, 92% of education expenditure in Mexico is allocated to staff compensation and 83% is allocated to teachers' salaries, which leaves little room for investment in infrastructure. Mexico's education expenditure is inefficient, in part, because teacher unions absorb a substantial amount of resources in benefits for their members and strongly oppose compensation based on performance (Mayer-Serra, 2009).

**Figure 11. Spending per student and PISA's mathematics score, national and state level**

Panel A. In equivalent USD converted using PPPs for GDP, by level of education



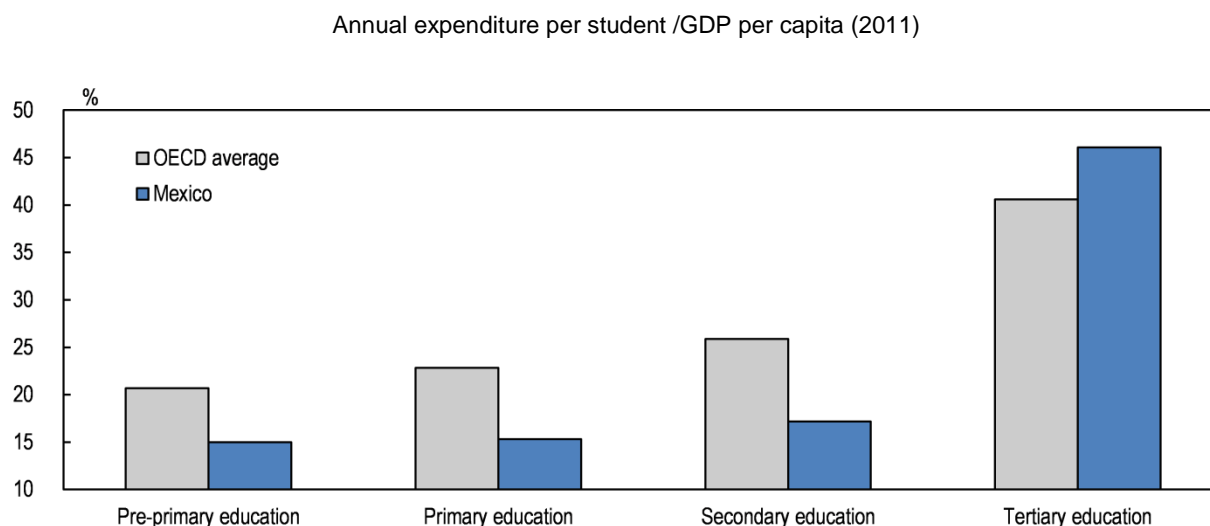
Source: OECD, Education at a Glance (2013); PISA 2012 Results: What Students Know and Can Do, Volume I (2013).

Mexico's public spending in education is regressive (Figure 12). Expenditure per student is proportionally high in tertiary education: it spends 3 times as much on university students – who come in very large proportions from high income families (Scott, 2009) – than on primary students. Indeed, public spending on tertiary education is one factor contributing to high levels of inequality (Scott, 2014).



Evidence suggests that investments in the early years can be more productive than those in later years, particularly investments in disadvantaged children (Heckman, 2006). Early investments lay the foundation for later investments. Although remediation for early deficits can be achieved later in life – e.g. when adolescent – it is costlier (Cunha and Heckman, 2006). Hence, efforts to level the playing field and give all students, including those from the most disadvantaged families, an opportunity to succeed regardless of their social background need to ensure that sufficient investment is made in the early years.

**Figure 12. Annual expenditure per student by educational institutions for all services, relative to GDP per capita**



**Note:** Spending in tertiary education excludes spending in R&D.

Source: OECD, Education at a Glance 2014.

More attention to Early Childhood Education would reduce the gap generated by family environments early in life, and also to increase motivation. Empirical evidence shows that early childhood care support can help reduce high school dropout rates, improve student performance and reduce gaps in learning achievement generated by different social backgrounds (Heckman, 2013; OECD, 2011a). Early learning confers value on acquired skills, which leads to self-reinforcing motivation to learn more. Early mastery of a range of cognitive, social, and emotional competencies makes learning at later ages more efficient and therefore easier and more likely to continue. This is particularly relevant for children from disadvantaged environments who typically do not receive the same degree of early enrichment that children from middle-income and upper-income families receive.

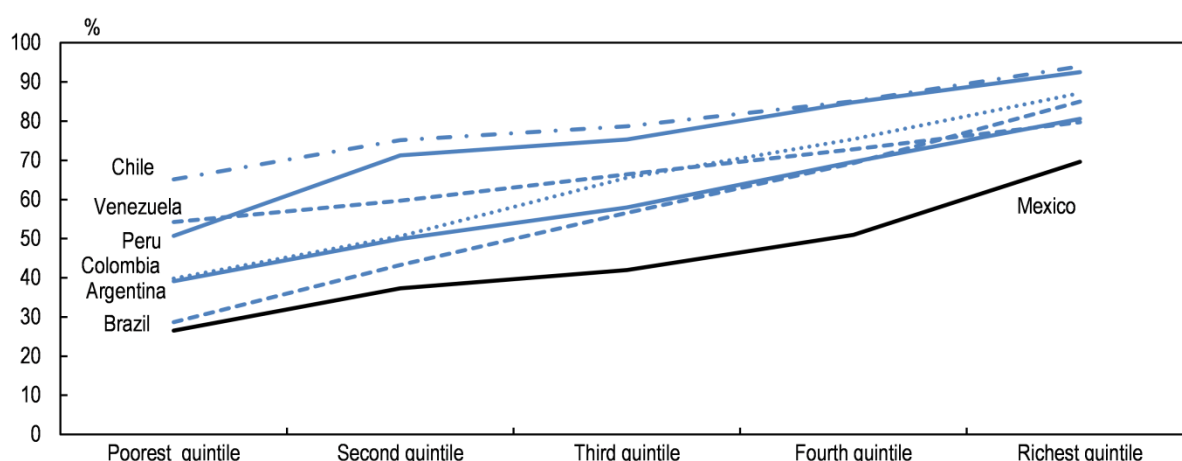
Although Mexico has achieved one of the highest rates of school enrolment among 4-year old in the OECD area, only 25 % of children under the age of three received external care, which places the country in the bottom of OECD countries in care coverage and services for this population group. And intervention before the age of three has been shown to be very important. Human abilities are formed in a predictable sequence of sensitive periods, which have been established to be part of the formation of cognitive skills, before age three, where interactions among nutrition, stimulation and the environment play crucial roles.

### ***Focus on the forces outside of school contributing to high dropout and low graduation rates***

A key priority should be to reduce high school dropout rates and increase graduation rates. Mexico's high school graduation rates are low not only compared to other OECD countries, but also compared to

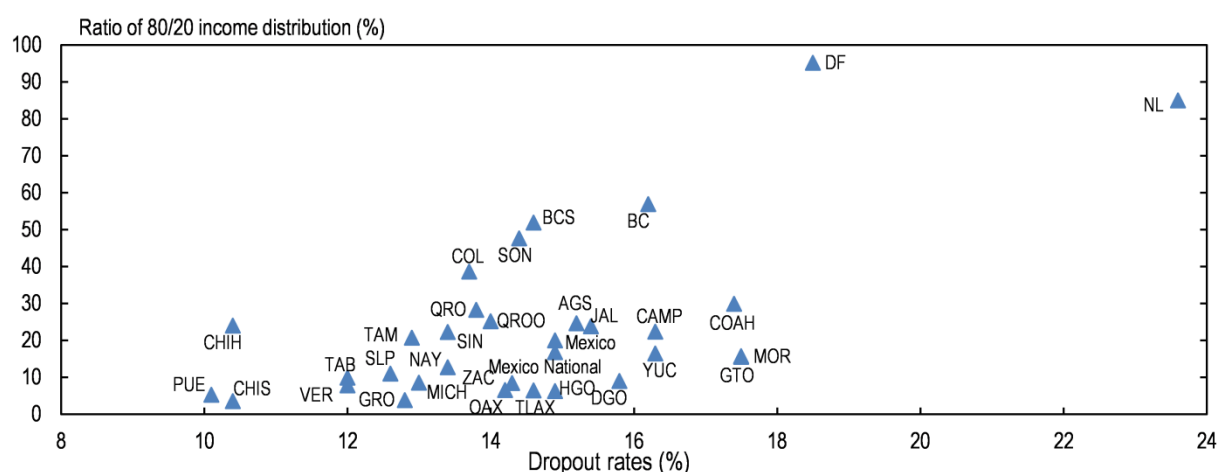
other Latin American economies (Figure 13). The probability of dropping out from school and not completing education are influenced by many factors that go beyond the school. Indeed, evidence suggests that in most emerging market economies – including Mexico – family background matters more than schools (Baker et al., 2002). One important factor affecting dropout rates is income inequality. A recent study on the US schools shows that students who grow up in locations with greater levels of lower-tail income inequality are relatively more likely to drop out from school (Kearney and Levine, 2014). In Mexico a similar pattern seems to hold as states with higher income inequality between top income quintiles and bottom income quintiles are also states with the highest dropout rates (Figure 14).

**Figure 13. High-school graduation rates in Latin America by quartile of income distribution**



Source: Inter-American Development Bank.

**Figure 14. States with higher inequality tend to have higher dropout rates**

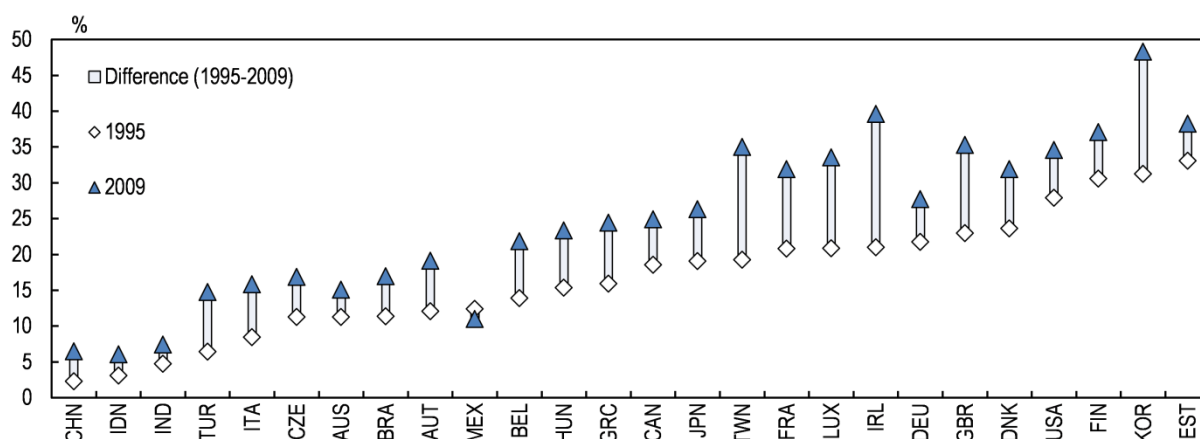


**Note:** The ratio of people at the 80th percentile of income distribution with the people at the 20th percentile of income distribution.

Source: OECD estimations based on Subsecretaría de Educación Media Superior (SEMS) and OECD Regional Well-Being database.

Other factors contributing to low high school graduation rates are the important changes in the structure of production and the structure of families during the last few decades (Atkin, 2012; Arias et al., 2010). For instance, since the 1980s, when Mexico started to open to world trade, but particularly since entering into NAFTA in 1995, its industrial structure has been transformed. In particular, the share of manufacturing increased from 12 % of total exports in 1980 to 83 % in 2000, and total employment in export manufacturing sector rose from 900 000 formal sector jobs in 1980s to almost 3 million in 2000. Consistent with this, while in most countries the share of hours worked by high-skilled persons increased since 1995, in Mexico this share decreased (Figure 15).

**Figure 15. The share of total hours worked by high-skilled persons increased everywhere except in Mexico**



Source: OECD calculations based on World Input-Output Database (WIOD).

Recent empirical evidence suggests that this deep transformation in the production structure has had an important impact on educational attainment in Mexico (Le Brun et al., 2011; Atkin, 2012). The large increase in the relative demand for low-skilled labour generated by the boost in manufacturing activities increased the opportunity cost of remaining (or keeping children) in school, contributing to low graduation rates. According to Atkin (2012), for every 20 jobs created, one student between 9<sup>th</sup> and 12<sup>th</sup> grade dropped out of school. Similarly, Le Brun et al. (2011) find that, while in Mexico manufacturing employment is accompanied by small improvements in educational attainment at early levels, the gains are erased by the time children reach 16 years of age. Specifically, they find that girls aged 16 to 18 have a lower probability of graduating the more maquiladora employment there is in their area of residence.

The policy remedy to this problem should consider the trade-off between creating more jobs and keeping kids in school. One simple solution would be to raise the employment age for manufacturing industries to ensure that kids cannot be employed in these industries until they have reached high-school graduation age. Another option would be to modify the conditional cash transfer programme (*Oportunidades/Prospera*) to encourage students to remain in school until graduation, offsetting the negative effect generated by the strong demand of low-skill manufacturing jobs. Empirical evidence shows that, so far, *Oportunidades* has not had a significant impact on dropout rates (Azevedo et al., 2009). The effects of *Oportunidades* have been limited to increasing enrolment rates, and not necessarily graduation rates, because it is designed to increase school attendance starting in the elementary years.

A potential solution could be to change the flow of payments of *Oportunidades/Prospera* with a large final payment conditional on graduating. A programme like this has been tested in Colombia. Barrera-Osorio et al (2011) compared a number of education-based conditional cash transfers designs among

which are: a standard design, like *Oportunidades*, and a design called “tertiary treatment” that lowers the reward for attendance but incentivizes graduation and tertiary enrollment. This programme provides children with lower bi-monthly transfers relative to the standard treatment, but then guarantees a large payment upon graduation. Despite the reduced bi-monthly transfers, Barrera-Osorio *et al* (2011) find that the tertiary treatment increases attendance rates by at least as much as the basic treatment. However, the tertiary treatment appears superior to the *Oportunidades*-like type of payment structure when it comes to increasing enrollment rates at the tertiary levels. The tertiary treatment proves particularly effective, increasing matriculation by 48.9 percentage points. And the difference in the performance of the basic and tertiary treatments is entirely driven by their effects on the most at-risk students.

Changes in family structure have also had an impact on high-school dropout rates. Students who come from disadvantaged families – families who are under stress or who are indigenous – are at a higher risk of leaving school without a diploma (Arias *et al.*, 2010). For instance, one of the adverse trends that have emerged in recent years is the increasing number of children born into poverty. This is a consequence of many factors, such as more births that occur out of wedlock, an increase in teenage pregnancy, more children living with single-parent households, and more children in households with a partner absent due to migration. According to Arias *et al.* (2006), all of these trends indicate a transformation of the family in Mexico, and its role in child development, that likely reduces the quality of parenting affecting educational outcomes of the children.

Among these, migration is a key factor affecting educational outcomes. Migration to the United States has increased greatly in the last 20 years, and although it has slowed down during the recent global economic crisis, recent research suggests that it will continue to be significant in the coming years (Chiquiar and Salcedo, 2013). Migration reduces the time parents spend with their children. Empirical evidence suggests that the effect of migration of the head of the household to the United States, on the educational attainment of the children left behind is considerable (McKenzie and Rapoport, 2006). This can happen because of lower expected returns to education or financial constraints. For instance, migration of a family member can create a culture of migration (Massey *et al.*, 1998). Some children left behind see a lower return of investing in education as they expect to migrate to the United States later in life to join their parent and to work in jobs that require low skills (Chiquiar and Hanson, 2005). But parental absence as a result of migration can also force the children left behind to undertake housework or work to help cash shortages (Meza and Pederzini, 2008).

A way to offset these effects could be to promote more remittances of the emigrants targeted to educational attainment. Evidence from several research studies show that remittances can have a large and significant effect on school retention, particularly in poor areas, by alleviating credit constraints of the left behind (Cox-Edwards and Ureta, 2003; Taylor and Mora, 2006; Lopez-Cordoba, 2005). Mexico already has a programme called “*tres por uno*” that encourages Mexican migrants abroad to invest in their communities of origin. Migrants have contributed US\$15 million annually since the programme began (Hazán, 2012). This programme could be enlarged or broaden to channel remittances to education. Evidence suggests that channelling remittances to education can significantly increase educational expenditure on the target student (Ambler *et al.*, 2014).

Finally, to make upper secondary education more appealing to students, the transition from school to work should be a priority. One way to prepare students for the labour market is through vocational education and training (VET) and work-based programmes (OECD, 2010). In Mexico, the VET system provides learning opportunities in remote regions and support for students at risk. To improve the system, Mexico reformed the technological baccalaureate and created trainee grants. VET has a key economic function in up-skilling and integrating young people into the labour market and in providing high quality technical skills. But Mexico should enhance efforts to expand the VET sector as it remains among the smallest in the OECD area. There are different possible pathways for Mexico to improve the VET sector.

For example, the government could establish a formal consultation framework between employers, unions and the VET system, adopting quality standards and apprenticeships to support and expand workplace training as an integral part of vocational programmes. It could also provide pedagogical training to VET teachers before they start teaching and develop the capacity to analyse and use data on labour market needs to guide the design of policies and improve decision making.

Finally, evidence suggests that mobility and the probability of dropping out from school are strongly linked (Weissbourd, 2009). Hence, community development efforts that focus on housing can help reduce dropout rates. This suggests that it is very important to integrate policies that seek to improve educational outcomes with housing and urban development programmes. In other words, the state should focus on building inclusive cities.

### **Inclusive cities**

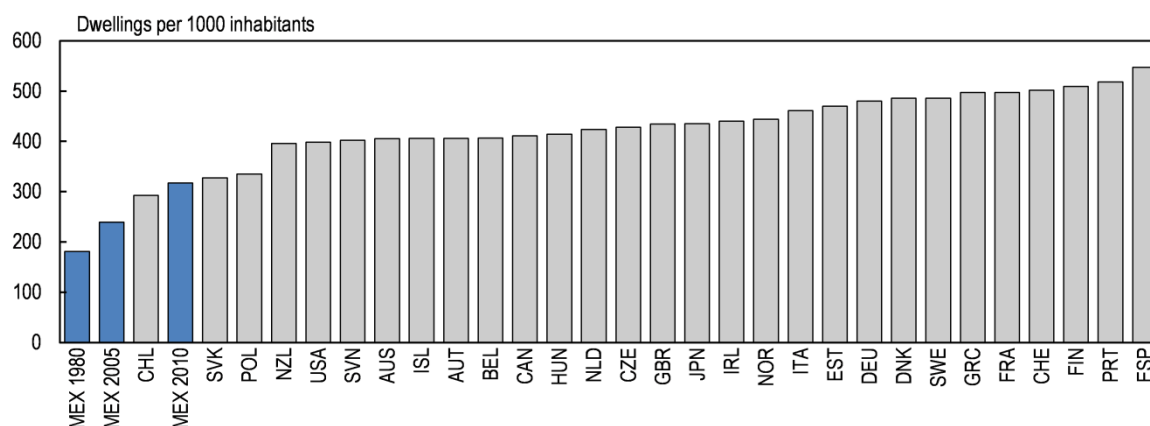
While Mexico's housing policies have been effective in facilitating the population access to housing (Figure 16), they insufficiently considered the housing sector's significant impact on urban development (Rojas, 2014). In Mexico, formal and informal housing production occurred in a weak urban development management framework with mostly uncoordinated and fractioned institutional arrangements for the planning and implementation of basic network infrastructure, transportation services, and the provision of basic urban services and amenities (see Box 5). The result is that, in spite of improved access to housing, there has been a worsening of the quality of life of a significant portion of households.

Today, the reality of many low and low-middle income families in Mexico is that they obtained a house but ended up with poor services, and poor access to good schools, hospitals, employment and economic development opportunities. Moreover, housing policies have contributed to increasing socioeconomic geographical segregation (Sánchez Peña, 2012), which can have negative effects on the well-being of the disadvantaged by affecting their health, educational achievements, work-life balance and personal security (Leigh and Wolfers, 2001).

The trend toward expansive peripheral development and declining cities centres has also put additional strain on transport and public services by increasing travel time and distances, contributing to rising motorisation rates and making the provision of efficient, quality public transport alternatives more challenging and costly. New housing developments in the outskirts are often built in absence of adequate public transport planning and investment, rendering car travel a necessity. Between 2000 and 2011, the number of registered vehicles in metro zones increased from 7.9 to 16.1 million. Meanwhile, the motorisation rate doubled over the past decade, from 10 vehicles per 100 people to 20 vehicles per 100 people. Rising motorisation rates in turn generate externalities, such as congestion, air pollution, greenhouse gas emissions, auto accidents and noise pollution. Regarding other public services, such as water, in the most egregious cases, agreements with developers to build water pipelines and other services remain unfulfilled.

**Figure 16. Mexico has been effective in facilitating the population access to housing**

Number of dwellings per 1 000 inhabitants (1980, 2005, 2010)



**Note:** 1981 for Australia and Greece; 1982 for France; 1986 for Germany; 1988 for Finland; 1989 for Portugal and 1990 for Italy; 1982 for Chile. 2001 for Belgium, Czech Republic and Greece; 2002 for the Russian Federation; 2003 for Australia and Italy; 2004 for France and Switzerland; 2002 for Chile; 2005 and 2010 for Mexico.

Source: INEGI (1980) Censo General de Población y Vivienda 1980; INEGI (2005) Conteo de Población y Vivienda 2005; Andrews, D., A. Caldera-Sánchez and A. Johannson (2011), "Housing Markets and Structural Policies in OECD Countries", OECD Economics Department Working Papers No. 836, OECD Publishing, Paris

A basic problem with recent housing policies in Mexico is that they have been based on allocating resources on the basis of employment status and not on actual housing needs. The quantity and amounts of housing loans made by INFONAVIT are positively associated with formality rates across states (Figure 17). Associating housing programmes to employment status does not help to target resources or guarantee their effectiveness in improving housing conditions. Furthermore, given that neighbourhoods have a major impact on the socio-economic outcomes of their residents, housing policies should be thought of an integral part of the national plan to improve inclusiveness, and not in isolation, as has been the case.

The goal should be to build inclusive cities, not simply houses. The housing sector should adopt an urban-based approach to producing housing that contributes to building compact, liveable and diverse cities and not simply fulfilling the objective of adding more houses to the stock. Therefore, the consistency of housing policies needs to be reviewed, as they have mainly relied on the provision of subsidies and below-market-rate mortgage to meet the needs of low-income households. In fact, Mexico has been one of the few OECD countries, along Italy and Spain, where social housing policy has relied exclusively on offering assistance for home ownership, rather than renting. This policy has been largely driven by quantitative objectives, without paying attention to geographical patterns, and has generated rapidly sprawling cities.

### Box 5. Housing policies and urban development in Mexico

This box presents a short description of recent housing and urban trends in Mexico and the policies that have shaped them; and describes briefly the changes in housing and urban policy introduced by the current administration.

Over the second half of the twentieth century, Mexico urbanised more rapidly than most OECD countries, and by 2010 roughly 78% of the population lived in cities. Mexico has had a long history of informal housing development. For many years, the functioning of Mexico's housing sector restricted access to adequate housing for a large portion of the population, especially low-income households. Since housing developers have traditionally supplied houses for high-income and middle-income households, those not able to find housing solutions in the formal market resorted to informal solutions to cover their shelter needs. As a result, homes were for the most part self-built through an incremental, largely informal, process without permits. Even today around one-quarter of urban households in Mexico continues to be self-built, lacking legal titles, or constructed outside the formal development process.

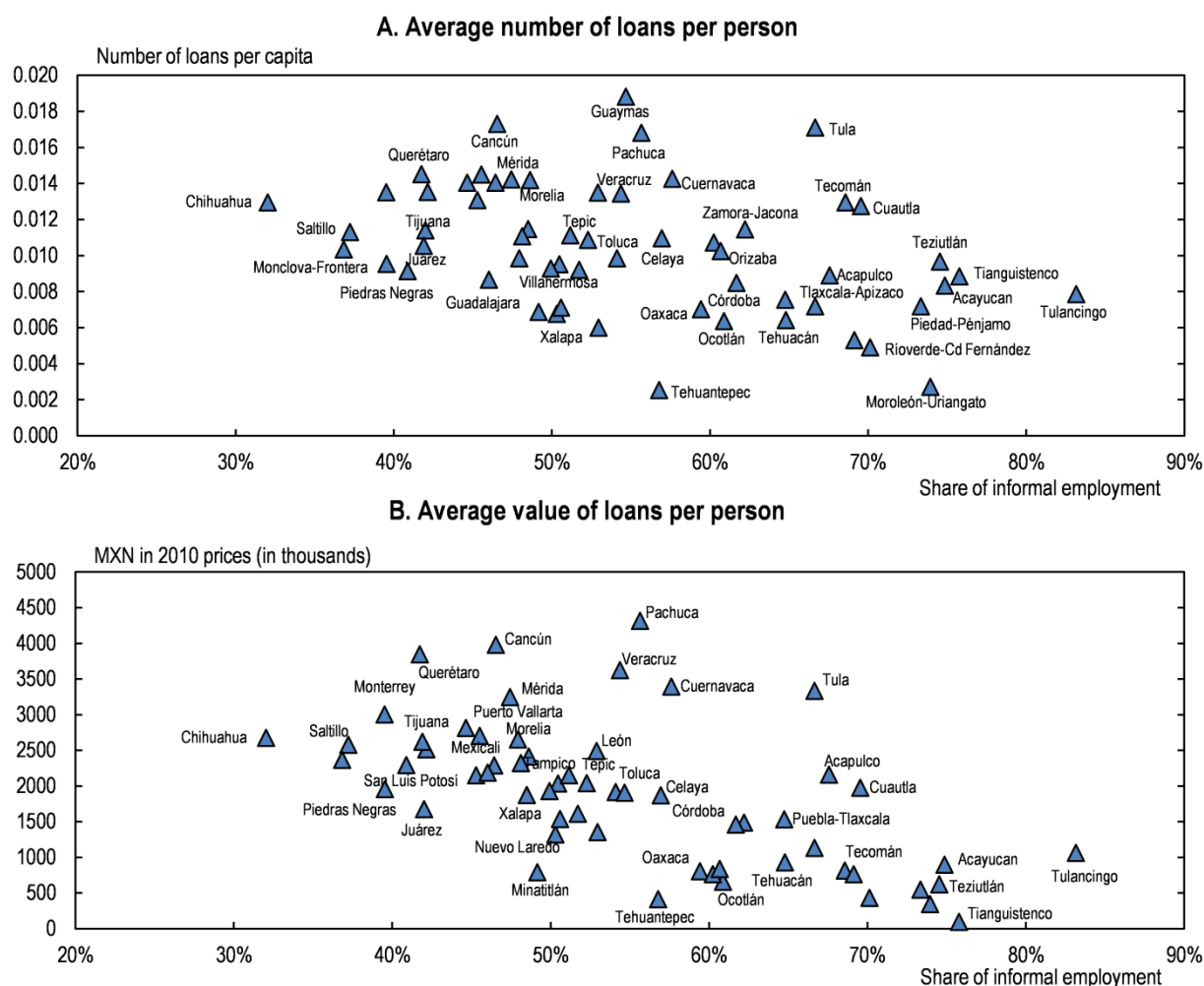
In 1972, the creation of two publicly-backed housing agencies tasked with providing finance for formal housing – INFONAVIT, for private sector workers, and FOVISSSTE, for federal workers – radically changed the face of housing development in Mexico. These institutions, which are financed with a 5% payroll tax collected on all formal workers, received a constitutional mandate to assist workers in accessing housing and became the most important actors in housing development in Mexico. Indeed, the rapid expansion of housing finance led by these institutions enabled the country's transition from informal to formal housing on a grand scale. By 2005 a majority of Mexican households bought a home built by a private developer with a mortgage financed by these agencies. By 2012, INFONAVIT granted about 73% of all housing loans in Mexico, for a total value of MXN 79 billion (USD 6.1 billion). Such a rapid expansion of the housing stock has been seen in only a few OECD countries, including Portugal, Ireland, Japan and Spain. This process helped Mexico address to a large extent and with remarkable speed transition to more permanent housing for an increasing share of the population. However, since in many cases housing development occurred without regard for urban development plans, it also contributed to many of the current challenges facing Mexican cities.

Partly as a consequence of these policies, urban expansion in Mexican metropolitan areas has been inefficient and costly, and has contributed to social segregation. By concentrating lending on lower-income segments of the formally employed population, favouring home ownership over other alternatives and relying on a business model of formal, mass-produced homes, INFONAVIT financed homes that were often developed where land was least expensive (in large land reserves far from city centres and disconnected from urban services and infrastructure). And in some cases, agreements with developers to build water pipelines and other services were never fulfilled, while promised transport infrastructure connecting the developments to urban centres never materialised. Also, many settlements are located in risk-prone areas, such as river banks and unstable hills, with devastating social and economic costs when disaster strikes. The suboptimal location of many INFONAVIT-financed homes in the past decade, has been a main contributor to a large share of uninhabited homes – estimated at approximately 270 000 for the stock of INFONAVIT homes alone. Furthermore, this process contributed to socio-economic segregation across metropolitan areas. In some cities, e.g. Cancun and Monterrey, low-income groups tend to be located in the outskirts, a trend that is fostered by housing subsidies and lower land prices in peripheral areas. In other cases, e.g. Guadalajara and Merida, there is a clear geographical divide (north/south; east/west) within the metropolitan zone.

Despite the country's rapid urbanisation, Mexico has until very recently lacked an urban policy to guide urban development. In the past, Mexican authorities have focussed on building houses, rather than building cities, and urban policy happened by accident through housing policy. But Mexico is now beginning to transition out of this type of policies. Housing and urban policy is considered a priority within the reform agenda the current administration initiated in January 2013. The authorities seek to reduce the housing deficit that still affects around 35% of Mexican households and to address the inefficient development patterns of recent decades. This new approach to housing and urban policy differs from those of the recent past in shifting from quantitative objectives for housing to a more explicit qualitative focus on housing and the urban environment. The objectives are made explicit in the National Housing Programme 2014-2018, which aims to: (i) provide decent housing for Mexicans, (ii) address the housing gap, (iii) transition toward a smarter, more sustainable urban development model and (iv) improve inter-institutional co-ordination.

OECD (2015), OECD Urban Policy Reviews: Mexico 2015: Transforming Urban Policy and Housing Finance, OECD Publishing, Paris. DOI: <http://dx.doi.org/10.1787/9789264227293-en>

Figure 17. The number and amounts of loans from INFOAVIT is positively associated with formal jobs



Source: CONAVI (2014), *Historicos de vivienda*, accessed July 2014.

To curb urban sprawl, the current administration has adopted new operating rules for federal subsidies, whereby larger housing subsidies will be granted to more centrally-located developments. This is a good step forward, but heavy reliance on home ownership could still be inefficient because, in many states, it is financially more advantageous to rent than purchase a home (OECD, forthcoming). Moreover, rental housing may be the most efficient and cost-effective way to reduce the curb urban sprawl, since they often are more densely developed and located in city-centres (Blanco et al, 2014). Finally, relative to home ownership, rental housing is subject to lower transaction costs, which can improve labour mobility and productivity.

In 2013, INFONAVIT introduced a pilot programme, *Arrendavit*, to assist affiliates with rental housing, but results have been much lower than expected. The likely reasons for this poor result are that Mexico has relatively high tenant protection and high taxation of rental income, which limits the supply of rental housing. There is a complex and burdensome regulatory framework and judicial system that tends to



favour the tenants. Other problems are that underdeveloped credit markets limit access to long-term financing for landlords, and that social housing policy is still focused on promoting home ownership. To promote rental housing for low income families, Mexico should first reduce the tax burden on rental properties. And it should boost the demand of rental housing by following the examples of Chile's "*Ciao Suegra*" or the US housing choice voucher programme, which supplements household's monthly rent by assuming the difference between 30 % of household income and the metropolitan area's fair market rent, with a minimum housing quality.

### **Inclusive health**

Mexico needs to improve health outcomes and reduce current inequalities in the health system, which have negative effects on people's well-being, educational outcomes, and productivity (Mayer-Foulkes, 2008). Building a "National Universal Health System" to ensure effective access to high quality health care to all Mexicans, regardless of their employment status, should be a top priority as proposed by the government. The *Pacto por Mexico* recognized this and committed to a system where quality and access are equal across all providers and where individuals can choose freely between them. However, effective action has been hampered by opposition of some key players unwilling to sacrifice vested interests and, to a lesser extent, disagreement over where and how to start.

Health care in Mexico is currently provided by segmented health networks employing their own staff and with entitlements determined by employment status (Box 6). The largest providers are *Instituto Mexicano de Seguridad Social* (IMSS), which targets people with formal employment, and *Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado* (ISSSTE) for civil service employees. *Seguro Popular* – a publically-funded universal health insurance – covers other families, thus helping to achieve nearly complete coverage of the population. Indeed, thanks to the introduction of *Seguro Popular* in 2004 some measures of health performance have improved (Bosh et al., 2012). However, most health indicators remain poor. For instance, life expectancy is 74 years, six years below the OECD average (Figure 18); infant mortality rates are among the highest in Latin America; mortality from coronary heart disease is increasing while it is falling in almost every other OECD country; Mexico has the second highest obesity rate in the OECD and almost 1 in 6 adults is diabetic (OECD, 2015).

#### **Box 6. The structure of the Mexican health system**

The Mexican health care system is fragmented among numerous and unconnected providers. The various social security institutes (such as IMSS, ISSSTE and PEMEX) cover about 45% of the population, while the *Seguro Popular*, introduced in 2004 and run by the Ministry of Health (MoH) account for another 40.8%. *Seguro Popular* works through decentralised state health services (SHS). The social security schemes rely on a combination of employer and employee contributions and a transfer from the federal government budget, and *Seguro Popular* is financed through federal and state subsidies as well as a small fee. Horizontal integration between the different schemes is weak. Affiliates to one scheme cannot, in general, access services provided through the others, and regulation, financing and provision functions are vertically integrated within each scheme.

The high fragmentation of the system is an important source of inefficiencies. The fact that the several social security institutes, private insurers, federal and state health services have their own vertically integrated service providers with no access to each other's services, has resulted in a costly duplication of health administration and infrastructure, curtailment of patient choice and lack of competition between providers. For instance, in the Federal District, discharges per hospital bed in the MoH network are around three times the rate in IMSS. This suggests that those of IMSS may be underutilised.

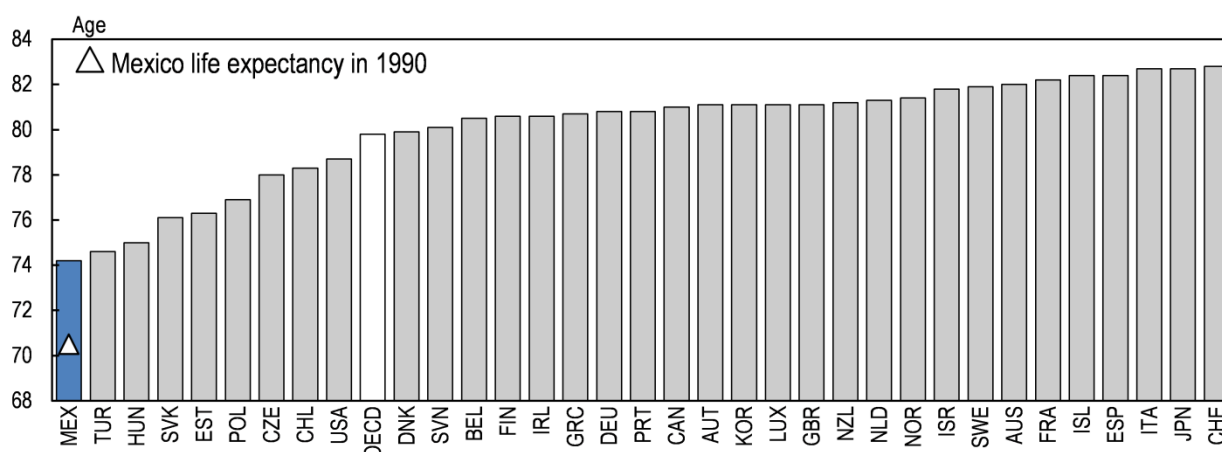
The fragmentation of the Mexican health system also reduces efficiency by increasing administrative costs. The existence of several vertically integrated insurer-providers leads to the duplication of administrative structures and precludes taking advantage of economies of scale in administration. This may explain why the Mexican health system has the highest relative administrative costs in the OECD (Figure 19).

Gaps in the governance of the health system across the federal and state levels also need to be addressed. Health care provision by the MoH was decentralised to the states in two waves in the 1980s and the 1990s. In this system, the central government would only set the overall policy framework (objectives, the regulatory framework, coordination and evaluation) while state authorities organise and operate health care services. The aim was to reduce bureaucratic and highly centralised

decision making, which was perceived to be the source of a mismatch between resources and needs. This reform was also expected to improve coordination between providers that serve the uninsured population. However, it has not led to efficiency gains as the MoH tends to have weak regulatory and supervisory powers. There is also lack of coordination between the federal and the state levels, and marked differences in financial resources and management capacities across federal states. The historically-based federal transfers to the states have only recently been reformed, and many states still lack information and management systems for output-based management of their health care facilities. Moreover, the states' autonomy in organising and operating health care services is constrained by the centrally negotiated collective labour contract for health care employees, which limits the funds for non-wage uses.

Finally, the multitude of programmes targeted at the currently uninsured may lead to targeting errors and inefficiencies. Around one third of IMSS-Oportunidades users, a non-contributory scheme for the poor run by the main social security institute, are also insured by the main social security provider (IMSS). There is also some overlap between IMSS and *Seguro Popular*, which results in higher fiscal costs through the double payment of the subsidy per enrollee that both insurers receive from the federal government.

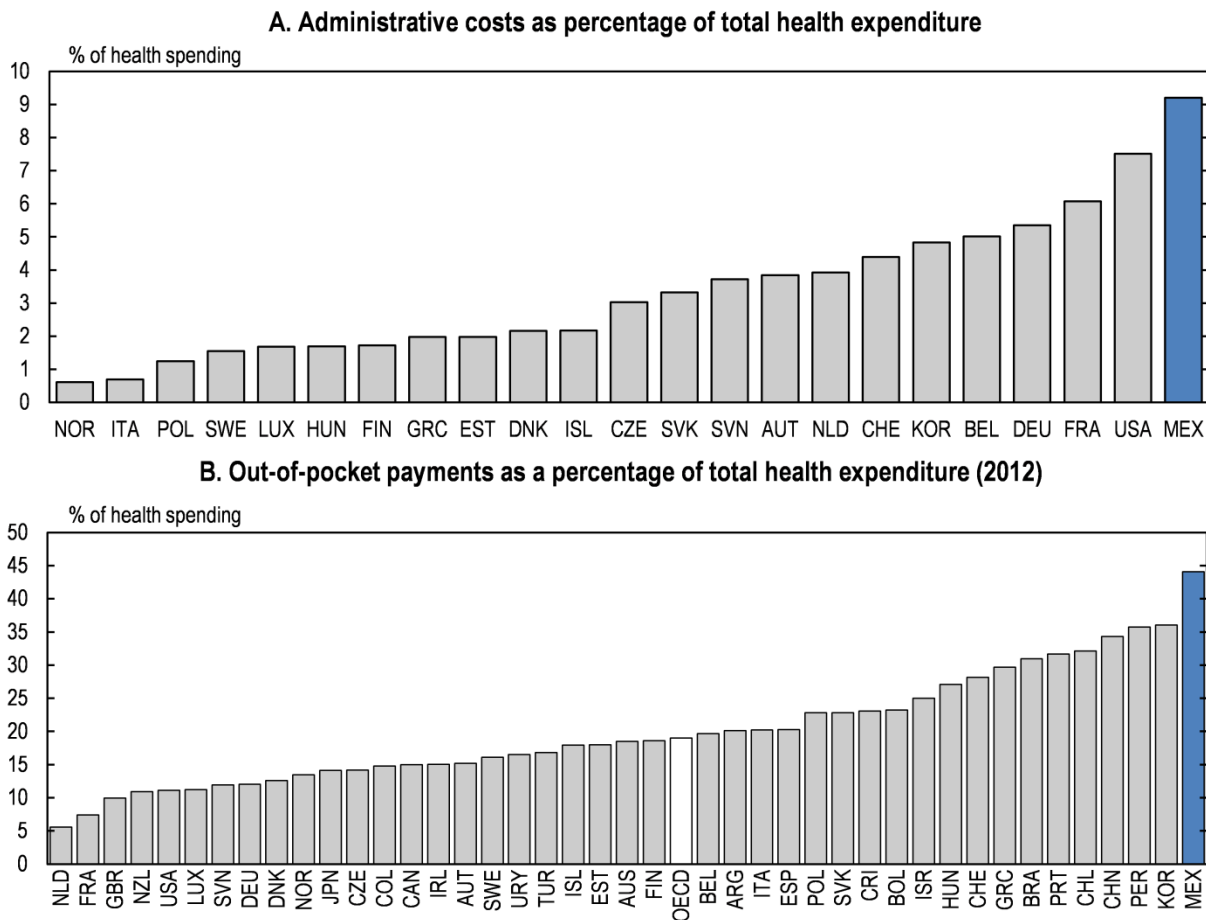
**Figure 18. Life expectancy in Mexico is the lowest among OECD countries (2013)**



Source: Better Life Index, 2013.

In part as a result of its current structure, the Mexican health system has large inefficiencies (Box 5). Mexico public spending on health is 6.2 % of GDP, significantly less than the OECD average of 9.3 %, and spending is often inefficient. Administrative costs, at 9.2 % of total health spending, are the highest in the OECD and have not declined over the past decade (Figure 19, Panel A). Likewise, out-of-pocket spending remains at nearly 50 % of total health spending – the highest in the OECD – and implies that individuals feel the need to visit private clinics despite having health insurance (Figure 19, Panel B). High out-of-pocket spending is a main factor driving families into poverty, offsetting the beneficial effects of social programmes like *Oportunidades* (Lustig, 2007).

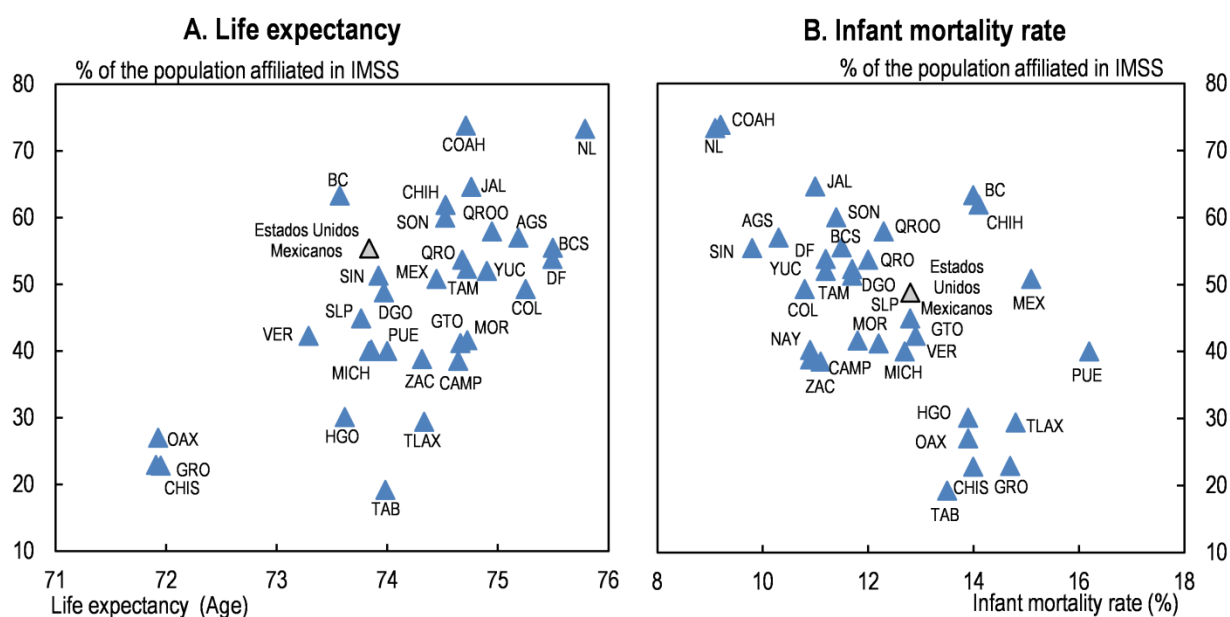
**Figure 19. Out-of-pocket payments in Mexico are the highest among OECD countries**



Source: OECD, Health Expenditure Database and WHO Global Health Expenditure database.

Furthermore, the current fragmented system translates into differences in access and quality of practice since there are considerable gaps across providers. For instance, the number of specialist out-patient consultations per 1 000 enrollees is 47 within *Seguro Popular*, compared to 101 within IMSS; and the share of prescriptions that cannot be dispensed by a pharmacist due to lack of stock is 33 % within *Seguro Popular*, compared to 3.6 % within IMSS. Partly as a result, there are large differences in health outcomes between IMSS affiliates and the rest – also reflected in differences across regions depending on the share of the population affiliated to IMSS (Figure 20). Furthermore, possibly related to the fact that treatment for some common and devastating illnesses remain excluded from *Seguro Popular*, its affiliates’ out-of-pocket spending on medications and diagnostics is 456 Mexican pesos per consultation, compared to 114 pesos within IMSS. That the poor spend a much higher proportion of their income on health care than the richest households is a clear manifestation of social injustice, and calls for urgent reform.

Figure 20. Health outcomes and affiliation to IMSS



Source: IMSS and INEGI, Censos de Población y Vivienda, 2010.

While a comprehensive reform of the Mexican health system should involve the integration of the existing sub-systems, such a reform would likely face extreme resistance due to concerns about diminished quality of service and reduced entitlements. Therefore, it is important to identify reforms that, without involving the elimination or merger of the institutions in place, have desirable features such as encouraging all people to have health insurance, providing equity of access to quality health care, and facilitating portability.

A place to start would be to move away from the current configuration of vertically-integrated and disconnected health care networks. While beneficial, this would be a significant break from existing arrangements, with possible risks, and thus should be introduced gradually and after thorough consultations and experimentation. The ultimate goal should be to move towards a more inclusive and efficient system, where access to high-quality care depends on need, rather than employment status, and where individuals have some degree of choice over insurer and provider, thus introducing a higher degree of transparency and competition, which would drive up efficiency and quality.

In particular, Mexico should improve co-ordination in health care supply by allowing patients to receive health care in other public health institutions through Exchange Agreements, as already experimented in Baja California (Convenios de Intercambios de Servicios). This has the potential of improving spending efficiency, by reducing duplication, and also of improving access to high-quality care. It should also allow free choice of health networks for new employees, and encourage competition between health care providers. Another incremental reform would be to allow Mexicans to retain their insurer even if their employment status changes. This would result in a gradual increase in the degree of choice of workers among existing competing network, fostering competition and quality.

At the core of existing arrangements is a large unevenness between the large amounts of contributions made to IMSS by employers and the more limited contributions made to *Seguro Popular* by the government. Increasing payments to *Seguro Popular* and improving access to quality care depends mainly

on the financial ability of the federal government, since funding would come, in a large part, from budgetary resources.

In addition to improving spending efficiency, other measures could also contribute to improved revenues. For instance, enrolment in social security should be made mandatory for all self-employed workers. So far, the enrolment in social security is voluntary for these workers, creating a large adverse selection problem. Many self-employed workers choose not to be affiliated and only decide to affiliate once they need it, with a high cost for the system. A mandatory enrolment would eliminate this problem.

Furthermore, to make mandatory enrolment effective in practice, Mexico should strengthen enforcement mechanisms, notably better coordination with the tax collection agency (*SAT*). This will also help reduce the underreporting of wages to social security. In Mexico there is significant underreporting of wages by registered firms to evade payroll taxes (Kumler et al, 2013), and over-reporting of wages to the tax authorities to obtain deductions. Current legislation allows firms to do this as the Social Security Act (the law that defines payroll taxes) and the income tax law allows the basis for wage compensations to be different. A bill that has been approved by the House of Deputies and is currently waiting to be voted on in the Senate amalgamates the basis for wage compensations in both of these laws, which would solve this problem and pave the way for the social security and the tax collection agencies to share information and enforce compliance.

To improve efficiency and fiscal sustainability, resource allocation should be redesigned. Allocation of funds to health care services should be determined according to price, quality or optimal distribution of service provision, not by rigid institutional relations as it is today. Financial allocations to State Health Service (*Servicios Estatales de Salud*) from federal revenues should be determined according to need, and not on historical precedents, and give more flexibility to the states to determine their own mechanisms to ensure that funds are spent to best meet local health care needs, promoting productivity and quality. Furthermore, for the high cost diseases, resources should go directly to providers avoiding state intermediation as is currently the case.

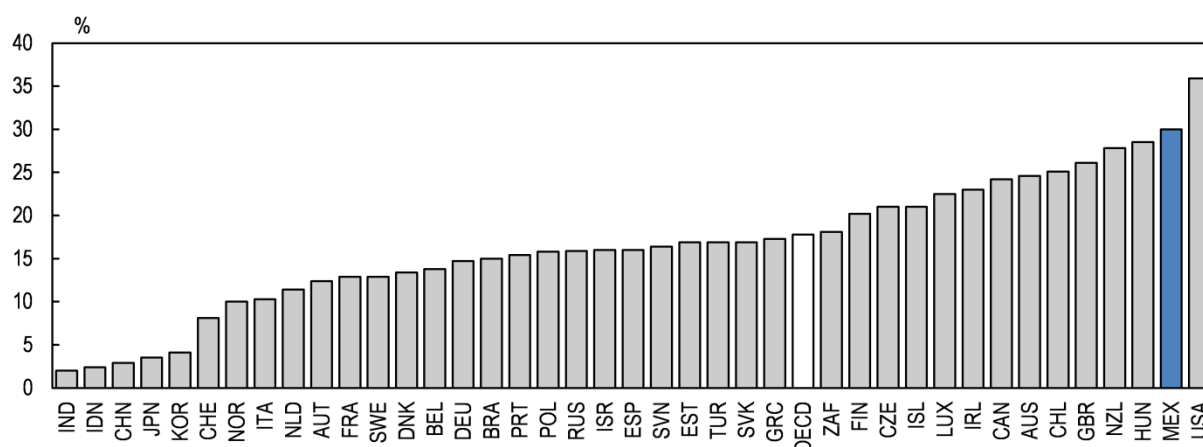
Finally, to boost health service delivery and reduce administrative costs, Mexico should consider converting government hospitals into corporate entities. The majority of public hospitals, owned and operated by the states, have little autonomy, usually limited to the purchase of supplies, and must comply with broader procurement legislation. Budgets are allocated on a historical basis to each hospital, allowing little margin for decision-making at the unit level. Moreover, managers of these hospitals are subject to state and federal government legislation regarding human resource management. Converting government hospitals into corporate entities, and freeing them from institutional and governmental control, could improve hospital performance. Evidence for Latin American countries (including Mexico) suggests that hospitals with corporate status tend to have better facility and equipment maintenance, more availability of medicines and auxiliary services, greater administrative and labour efficiency, and superior clinical quality, including at the level of nursing training (Bogue *et al.*, 2007).

### ***Tackle the obesity epidemic which is a health as well as an economic and social problem***

Although obesity rates have increased in recent decades in all OECD countries, with 30 % of the adult Mexican population reported as obese, the Mexican rate is the second highest in the OECD, where the average is 17.8% (Figure 21). Obesity causes health problems, such as diabetes, cardiovascular diseases and asthma. Estimates suggest that, in Mexico, obesity was among the six main risk factors for mortality in 2010 (The Burden of Disease Project, 2010). While healthcare costs of 13 obesity-related diseases in 2013 were estimated at US\$880 million, with alarming projections for the next few years, recent estimates predict that, if an effective policy does not control the current trend, by 2020, direct healthcare costs in Mexico will rise above US\$1 billion (Rtveladze et al., 2013).

**Figure 21. Mexico has the second highest obesity rate in the OECD**

As a percentage of the population aged 15 and above, 2010 or latest available year



Source: OECD, Health Statistics Database.

Bending the obesity trend would also reduce inequalities. In Mexico, the prevalence of obesity is increasing at faster rates in the most vulnerable populations, such as those living in poverty (Fernald et al., 2004). Paradoxically, in Mexico obesity coexists with under-nutrition (e.g. obesity with iron deficiency) within the most vulnerable communities (Rivera et al., 2012). And obesity not only reduces self-esteem increasing discrimination, it also has implications for the accumulation of human capital and labour-market opportunities (Lundborg et al., 2014). According to Lundborg et al. (2014), there is a large adult male labour market penalty for being overweight and obese as a teenager. Furthermore, this study shows that child obesity affects cognitive skills and non-cognitive skills. Hence, a large part of the estimated labour-market penalty may reflect lower skill acquisition among overweight and obese teenagers.

Policy should target the several drivers of the obesity trend, among the most important are unhealthy diet and lack of exercise. For instance, Mexico is among the countries with the highest consumption of caloric beverages in the world (Barquera et al., 2010). Caloric beverages contribute 20–23% of the total energy intake in the population. Also, physical activity is very low across the country: in a national survey conducted in 2012, 58.6% of children and adolescents from 10 to 14 years reported not having done any organized physical activity in the 12 months preceding the survey (Medina et al., 2012).

During the last five years, there has been some progress in terms of policy. In 2008, the Ministry of Health (MoH) established an expert panel to develop recommendations for a healthy life. Subsequently, the MoH, with support from academia, initiated the development of the National Agreement for Healthy Nutrition (ANSA). ANSA was signed by all relevant actors in 2010 and led to initiatives banning sodas and regulating unhealthy food in schools and the design of other yet to be implemented initiatives, such as a front-of-package labelling system. This is a move in the right direction, but efforts should be enhanced.

In particular, the state should promote physical activity among the Mexican population in the school, work, community and recreation environments through the collaboration of the public, private and social sectors. It should also promote and protect exclusive breast-feeding for the first six months of life and complementary adequate feeding afterward, as research shows that breastfeeding can help prevent obesity (Moreno et al., 2011). Finally, the state should educate the public about controlling the recommended

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portion sizes in foods prepared at home and in permitted processed foods and encourage restaurants and food outlets to offer smaller portion sizes.

### **Recommendations to improve the well-being of Mexicans**

#### *Social protection and labour markets*

- Reduce income inequality with further reforms to the tax and social transfer system.
- Approve draft legislation for unemployment insurance and universal pension to protect job seekers and old-age people against the risk of income losses, and reduce inequality.
- Fully roll-out the new Prospera cash transfer programme to help beneficiaries expand their capabilities, complete their education, join the formal sector and obtain well-paid jobs.
- Enhance policies to encourage more women to join the labour force by improving access to quality child-care for children under-3 years of age and increasing spending in active labour market policies.
- Consider raising the minimum wage relative to the average wage and delink it from other prices in the broader economy.

#### *Education*

- Improve the efficiency of education spending by refocusing such spending on pre-primary, primary and secondary education. Focus on the reform to improve the quality of teaching.
- Enhance investment in dual education and vocational education and training programmes.

#### *Health*

- Promote access to quality health care through improved coordination across health institutions to reduce redundancies and allow new employees to freely choose their health care network.
- To improve quality and reduce costs of services across all health care providers, amalgamate procedures and make health insurance mandatory.
- Allow free choice of health networks for new employees, and encourage competition between health care providers.
- Make mandatory enrolment effective in practice strengthening enforcement mechanisms by better coordination between social security and the tax collection agencies.
- Allocate financial resources to state health services according to need and give more flexibility to the states to determine how to spend them.
- Consider converting government hospitals into corporate entities.
- Tackle obesity by promoting physical activity across the population and exclusive breast-feeding for the first six months of life.

#### *Urban policy*

- Develop a coherent national urban policy that takes into account the broader impacts of housing development on the urban environment and people's well-being.
- Eliminate distortions towards homeownership.



## BIBLIOGRAPHY

- Almeida, R. and P. Carneiro (2007), “Inequality and employment in a dual economy: Enforcement of labor regulation in Brazil”, *IZA Discussion Papers*, No. 3094.
- Ambler K., D. Aycinena and D. Yang (2014), “Channelling remittances to education: A Field Experiment among Migrants from El Salvador”, *NBER Working Paper 20262*.
- Arias, J., O. Azuara, P. Bernal, J. Heckman, C. Villarreal (2010) “Policies to Promote Growth and Economic Efficiency in Mexico.” Discussion papers series. IZA DP No. 4740
- Atkin, D. (2012), "Endogenous Skill Acquisition and Export Manufacturing in Mexico," *NBER Working Papers* 18266, National Bureau of Economic Research, Inc.
- Azevedo, V., C. Bouillon, and P. Yáñez-Pagans. (2009), “Simulating Changes to Mexico’s Oportunidades in Urban Areas”. IDB Working Paper #680. Washington, DC: Inter-American Development Bank (IADB).
- Azevedo, V. M. R. and C. P. Bouillon (2010), "Intergenerational Social Mobility in Latin America: A review of existing evidence," *Revista de Analisis Economico – Economic Analysis Review*, Ildes-Georgetown University, vol. 25(2), pages 7-42, Diciembre.
- Baker, D.P., Goesling, B., LeTendre, G.K., (2002). “Socioeconomic status, school quality, and national economic development: a cross-national analysis of the ‘Heyneman–Loxley effect’ on mathematics and science achievement.” *Comparative Education Review* 46, 291–312.
- Banerjee, A. V. and E. Duflo (2007). "The Economic Lives of the Poor." *Journal of Economic Perspectives*, 21(1): 141-168.
- Barrera-Osorio, F., M. Bertrand, L. L. Linden and F. Perez-Calle (2011). “Improving the Design of Conditional Transfer Programs: Evidence from a Randomized Education Experiment in Colombia” *American Economic Journal: Applied Economics* 3: 167–195
- Barnett, W and Nores, M. (2012) “Estimated Participation and Hours in Early Care and Education by Type of Arrangement and Income at Ages 2 to 4 in 2010”, National Institute for Early Education and Research.
- Bergemann, A. and G. J. Van den Berg (2008). “Active Labor Market Policy Effects for Women in Europe — A Survey”, *Annales d'Économie et de Statistique* No. 91/92, pp. 385-408
- Bogue, R. J., C. H. Hall, Jr., and G. M. La Forgia (2007), “Hospital Governance in Latin America Results from a Four Nation Survey” HNP Discussion Paper, The World Bank.
- Barnay, T. (2014). "Health, Work and Working Conditions: A Review of the European Economic Literature," *TEPP Working Paper*, TEPP 2014-08, TEPP.
- Baltar, P.E., D. Krein and A. Moretto (2006), “O emprego formal nos anos recentes” [Formal employment in recent years], *Carta Social do Trabalho*, No. 03, Campinas, SP: Instituto de Economia/UNICAMP.

- Barquera S, Campirano F, Hernández-Barrera L, Rivera J. and Popkin B (2010), “Caloric beverage consumption patterns in Mexican children”, *Nutrition Journal* 2010; 9: 1–10.
- Berg, J. (2010), “Laws or luck? Understanding rising formality in Brazil in the 2000s”, ILO Office in Brazil Working Papers, No. 5.
- Blanco, A., V. Fretes Cibils, A. Munoz (2014), *Rental Housing Wanted: Policy Options for Latin America and the Caribbean*, Inter-American Development Bank.
- Bosch, M. and M. Manacorda (2010), “Minimum Wages and Earnings Inequality in Urban Mexico”, *American Economic Journal: Applied Economics* 2 (October 2010): 128–149
- Bosch, M., M. B. Cobacho, and C. Pagés (2012), “Taking stock of eight years of implementation of Seguro Popular in Mexico”, *IDB TECHNICAL NOTES* No. IDB-TN-442.
- Bosch, M., E. Goni and W. Maloney (2007), “The determinants of rising informality in Brazil: Evidence from gross worker flows”, IZA Discussion Papers, No. 2970.
- Bourguignon, F. (2005), “The Poverty-Growth-Inequality Triangle”, World Bank.
- Burke, R.J. and C. Cooper (2008): *The long work hours culture: Causes, consequences and choices* (United Kingdom, Emerald Publishers).
- Caldera Sánchez, A. and C. Tassot (2014), "An Exploration of the Determinants of the Subjective Well-being of Americans During the Great Recession", *OECD Economics Department Working Papers*, No. 1158, OECD Publishing.
- Cascio, E. U. and Whitmore Schanzenbach, D. (2013) “The Impacts of Expanding Access to High-Quality Preschool Education”, NBER Working Paper No. 19735, December 2013.
- Card, D. and J. E. DiNardo (2002). “Skill-Biased Technological Change and Rising Wage Inequality: Some Problems and Puzzles.” *Journal of Labor Economics*, 20(4): 733–83.
- Cardoso Junior, J.C. (2009), “Determinantes da recuperação do emprego formal no Brasil: Evidências para o período 2001/2005 e hipóteses para uma agenda de pesquisa”, *Revista de Economia Política*, Vol. 29/4, pp. 357-376.
- Causa, Orsetta, Alain de Serres and Nicolas Ruiz (2014), “Can growth-enhancing policies lift all boats? An analysis based on household disposable incomes”, *OECD Economics Department Working Papers*, OECD Publishing, Paris, *forthcoming*.
- CEPAL (2014), “Pactos para la igualdad: hacia un futuro sostenible”,
- Chiquiar, D. and A. Salcedo, (2013). “Mexican Migration to the United States: Underlying Economic Factors and Possible Scenarios for Future Flows.” *Banco de Mexico Working Papers* No 2013-20.
- CONEVAL (2012), “Evaluación de Consistencia y Resultados 2011-2012”, <http://tinyurl.com/lvx3k2t>
- Corseuil, C.H.L. and M.N. Foguel (2012), “Economic expansion and increase in labour market formality: A poaching approach”, *Revista Brasileira de Economia*, Vol. 66/2, pp. 207-224.

- Corseuil, C.H.L., M.C. Neri and G.L. Ulyssea (2013), “Uma análise exploratória dos efeitos da política de formalização dos microempreendedores individuais”, *IPEA Boletim Mercado de Trabalho*, No. 54.
- Cox E., A., and Ureta, M. (2003). “International Migration, Remittances, and Schooling: Evidence from El Salvador,” NBER Working Paper 9766, National Bureau of Economic Research.
- Cunha, F. and Heckman, J. J. (2006). "Investing in Our Young People." Unpublished manuscript, University of Chicago, Department of Economics.
- Delgado, G. et al. (2007), “Avaliação do SIMPLES: Implicações à formalização previdenciária”, IPEA Discussion Papers, No. 1277.
- Dembe, A.E., Delbos R.G. and J.B. Erickson (2008): “The effect of occupation and industry on the injury risks from demanding work schedules”, in *Journal of Occupational and Environmental Medicine*, 50(10), pp. 1185.
- Doucoulagos, Hristos and T. D. Stanley. 2009. "Publication Selection Bias in Minimum-Wage Research? A Meta-Regression Analysis." *British Journal of Industrial Relations*, vol. 47, no. 2, pp. 406-428.
- Dougherty, S. and O. Escobar (2013), “Understanding Informality: Sub-National Determinants in Mexico”, *OECD Working Papers*, No. 1043.
- Dugain, V. and E. Olaberría (2014), “What makes Mexicans happy?”, *OECD Economics Department Working Papers*, forthcoming
- Eyraud, F. y C. Saget (2008), “The revival of minimum wage setting institutions”, In *Defence of Labour Market Institutions: Cultivating Justice in the Developing World*, J. Berg y D. Kucera (eds.), Palgrave MacMillan.
- Fajnzylber, P., W.F. Maloney and G.V. Montes-Rojas (2011), “Does formality improve micro-firm performance? Evidence from the Brazilian SIMPLES program”, *Journal of Development Economics*, Vol. 94, pp. 262–276.
- Fernald LC, Gutierrez JP, Neufeld LM, Olaiz G, Bertozzi SM, Mietus-Snyder M. and Gertler PJ (2004), “High prevalence of obesity among the poor in Mexico.” *JAMA* 2004; 291: 2544–2545.
- Gallup (2010) *The Economics of Wellbeing*.
- Gauthier, A.H., Smeedeng T.M. and Furstenberg, F.F (2014) “Are Parents Investing Less Time in Children? Trends in Selected Industrialized Countries”, *Population and Development Review*, 30(4)
- Gibbs, B.G. and T. B. Heaton (2014) “Drop out from primary to secondary school in Mexico: A life course perspective”. *International Journal of Educational Development* 36 (2014) 63–71
- Hazan, M. (2012). “Beyond 3x1: Linking Sending and Receiving Societies in the Development Process,” *International Migration*, doi:10.1111/j.1468-2435.2012.00784.x
- Heckman, J. (2006) “Skill Formation and the Economics of investing in Disadvantaged Children”, *Science* Vol. 312, No. 5782, pp. 1900-02
- Heckman, J. (2009) “The Case for Investing in Disadvantaged Young Children”. In *First Focus*, e.d. Big Ideas for Children: Investing in our Nation’s Future (Washington: First Focus, 2009), p. 49.

- Heckman, J. (2013) *Giving Kids a Fair Chance* (Boston Review Books).
- Hernández B, Gortmaker S, Colditz G (1999), “Association of obesity with physical activity, television programmes and other forms of video viewing among children in Mexico City.” *International Journal of Obesity* 1999; 23: 845–854.
- Huerta, M.C., Adema, W., Baxter, J., Han W.H, Lausten, M. Lee RaeHyuck, Waldfogel, J. (2012) *Father’s leave, father’s involvement and child development: Are they related? Evidence from four OECD countries*. OECD Social, Employment and Migration Working papers No. 140.
- International Labour Organisation (2012), “The Influence of Working Time arrangements on work-life integration or balance: A review of International Evidence”.
- Kearney M. S. and P. B. Levine (2014), “Income Inequality, Social Mobility, and the Decision to Drop Out of High School”, *NBER Working Paper* No. 20195, June 2014
- LaPorta, R. and A. Shleifer (2014), “Informality and Development”, *Journal of Economic Perspectives* 28, no. 3: 109-126.
- Le Brun, A. S. R. Helper and D. I. Levine (2011), "The Effect of Industrialization on Children’s Education. The Experience of Mexico," *Review of Economics and Institutions*, Università di Perugia, Università di Perugia, vol. 2(2).
- Lehmann, H. and A. Muravyev (2012), “Labor market institutions and informality in transition and Latin American countries”, *IZA Discussion Papers*, No. 7035.
- Leigh, Andrew and Justin Wolfers, (2011), “Moving to Opportunity”, *Australian Quarterly: Journal of Contemporary Analysis*, September.
- Lemieux, T. (2006). “Increasing Residual Wage Inequality: Composition Effects, Noisy Data, or Rising Demand for Skill?” *American Economic Review*, 96(3): 461–98.
- Lopez-Calva, L. F., N. Lustig, J. Scott and A. Castañeda (2014), “Gasto Social, Redistribución del Ingreso y Reducción de la Pobreza en México: Evolución y Comparación con Argentina, Brasil y Uruguay”, *CEQ Working Paper* No. 17.
- Lundborg, P., P. Nystedt and D-O. Rooth (2014), “Body Size, Skills, and Income: Evidence From 150,000 Teenage Siblings.” *Demography*, 2014; DOI: 10.1007/s13524-014-0325-6
- Lustig, N. (2007). "Salud y desarrollo económico. El caso de México," *El Trimestre Económico*, Fondo de Cultura Económica, Vol. 0(296), pp. 793-822.
- Lustig, N., Lopez-Calva, L. F. and Ortiz-Juarez, E. (2013). "Declining Inequality in Latin America in the 2000s: The Cases of Argentina, Brazil, and Mexico," *World Development*, Elsevier, vol. 44(C), pages 129-141.
- Lustig, N., C. Pessino and J. Scott (2014), “The Impact of Taxes and Social Spending on Inequality and Poverty in Argentina, Bolivia, Brazil, Mexico, Peru, and Uruguay: Introduction to the Special Issue,” *Public Finance Review*, 42, 287–303.
- McKenzie, D. and H. Rapoport (2006), “Can migration reduce educational attainment? Evidence from Mexico” *World Bank Policy Research Working Paper* 3952, June .

- Mayer-Foulkes, D. (2008). "The Human Development Trap in Mexico," *World Development*, Elsevier, vol. 36(5), pages 775-796, May.
- Mayer-Serra, Carlos Elizondo (2009). "Perverse Equilibria: Unsuitable but Durable Institutions." in *No Growth without Equity? Inequality, Interests, and Competition in Mexico*. S. Levy and M. Walton, eds. Washington, DC, The World Bank: 157-202.
- Medina C., S. Barquera and I. Janssen (2012), "Resultados de actividad física y sedentarismo en personas de 10 a 69 años. Evidencia para la política pública en salud. Encuesta Nacional de Salud y Nutrición 2012". Instituto Nacional de Salud Pública: Cuernavaca, Mexico.
- Monteiro, J.C.M. and J.J. Assunção (2006), "Outgoing the shadows: Estimating the impact of bureaucracy simplification and tax cut on formality and investment", PUC-Rio, mimeo.
- Moreno MA, Furtner F, Rivara FP (2011). "Breastfeeding as Obesity Prevention. *Arch Pediatr Adolesc Med*. 2011;165(8):772. doi:10.1001/archpediatrics.2011.140.
- Neumark, D., I. Salas, and W. Wascher (2013). Revisiting the Minimum Wage-Employment Debate: Throwing out the Baby with the Bathwater?" NBER Working Paper 18681, forthcoming on *Industrial and Labor Relations Review*
- OECD (2007), *Babies and Bosses, Reconciling work and family life*, OECD Publishing, Paris.
- OECD (2011a), *How's Life?: Measuring well-being*, OECD Publishing.
- OECD (2011b), "Doing Better for Families", OECD Publishing, Paris.
- OECD (2013a), "How's Life" 2013", OECD Publishing, Paris.
- OECD (2013b), *Getting it Right: A Strategic Agenda for Reform in Mexico*, OECD Publishing, Paris.
- OECD (2014a), *Education at a Glance 2014: OECD Indicators*, OECD Publishing.
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- OECD (2015), *OECD Urban Policy Reviews: Mexico 2015: Transforming Urban Policy and Housing Finance*, OECD Publishing, Paris. DOI: <http://dx.doi.org/10.1787/9789264227293-en>
- Oishi, S., Ishii, K., and Lun, J. (2009), "Residential mobility and conditionality of group identification". *Journal of Experimental Social Psychology*, Vol. 45, pp. 913-919.
- Olaberria, E. and N. Fernandez-Vazquez (2014), "Like father, like son: social mobility in Mexico versus other OECD countries", forthcoming.
- Ostry, J. D., A. Berg, and C. G. Tsangarides (2014), "Redistribution, Inequality, and Growth", *IMF Staff Discussion Note*, SDN/14/02

- Rtveladze K, Marsh T, Barquera S, Sanchez L, Levy D. and Melendez M. (2013), “Obesity prevalence in Mexico: impact on health and economic burden.” *Public Health Nutr* 2013; 1: 1–7.
- Rivera J, Barquera S, Campos-Nonato I. and González T. (2012), “Obesidad. Una perspectiva epidemiológica.” In Ríos S (ed.). *La obesidad como pandemia del siglo XXI*. Real Academia Nacional de Medicina: España, 2012, pp. 219–231.
- Sánchez Peña, L.L. (2012), “Cambios en la segregación residencial socioeconómica en México”, *Revista Internacional De Estadística Y Geografía*, Vol. 3, No. 2
- Scott, J. (2009), “Redistributive Constraints under High Inequality: The Case of Mexico”, *Research for Public Policy Inclusive Development* ID-07-2009
- Scott, J. (2014), “Redistributive Impact and Efficiency of Mexico's Fiscal System,” *Public Finance Review*, Vol. 42, pp. 368–390.
- SEDESOL (2010), “Programa de Desarrollo Humano Oportunidades,” Secretaría de Desarrollo Social, <http://evaluacion.oportunidades.gob.mx> (March 3rd, 2010).
- Székely, M. (2005). “Pobreza y desigualdad en Mexico entre 1950 y 2004”. *SEDESOL Serie de documentos de investigación*.
- Stevenson, B. and Wolfers, J. (2013), Subjective Well-Being and Income: Is There Any Evidence of Satiation?, *American Economic Review, Papers and Proceedings*, May 2013.
- Stiglitz, J. E, A. Sen and J-P. Fitoussi (2009), “Report by the Commission on the Measurement of Economic Performance and Social Progress”, <http://www.stiglitz-sen-fitoussi.fr/>
- Thévenon, O., N. Ali, W. Adema and A. Salvi del Pero (2012). "Effects of Reducing Gender Gaps in Education and Labour Force Participation on Economic Growth in the OECD," *OECD Social, Employment and Migration Working Papers* 138, OECD Publishing.
- Thévenon, O. and A. Solaz (2013), “Labour Market Effects of Parental Leave Policies in OECD Countries”, *OECD Social, Employment and Migration Working Papers*, No. 141, OECD Publishing
- Tornarolli, T., D. Battistón, L. Gasparini and Pablo Gluzmann (2014). "Exploring Trends in Labor Informality in Latin America, 1990-2010," *CEDLAS, Working Papers* 0159, CEDLAS, Universidad Nacional de La Plata
- Ulyssea, G. (2008), “Instituições e a informalidade no mercado de trabalho”, *Estudos Econômicos*, Vol. 38/3, pp. 525-556.
- Wolfson, P. and D. Belman (2013). *What Does the Minimum Wage Do?* Kalamazoo, MI: Upjohn Institute for Employment Research.
- Weissbourd, R. (2009). “The quiet troubles of low-income children.” *Education Digest*, January.

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