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Mexico and the Millennium Development Goals at the Subnational Level

RICARDO FUENTES and ANDRES MONTES

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Development in Mexico; and*

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Abstract This paper reviews Mexico's mixed track record in pursuing the Millennium Development Goals, with progress in health and education but a seemingly entrenched problem of poverty. Given that the country is one of the most equal in Latin America, the paper goes on to disaggregate the data and analysis to subgroups or regions. Regional disparities are stark in terms of education and infrastructure, as well as in poverty, with a North-South divide in the country and indigenous groups worst off in terms of poverty, illiteracy levels, gender equity and basic infrastructure. Nevertheless, there are positive trends based on an assessment that shows slow but steady convergence across three variables, life expectancy, education enrollment and literacy rates. The paper recommends focus on vulnerable subgroups and regions learning from successful national programs.

Key words: Poverty, Vulnerability, Regional development, Basic services, Education, Health, Economic development, Mexico

Introduction

The gross disparities of wealth distribution in today's world order, the miserable conditions in which well over a billion people live, the prevalence of conflict in some regions and the rapid degradation of the natural environment all combine to make the present development model clearly unsustainable. (Annan, 2000)

The current development model will not be changed unless world leaders establish thorough common agreements and undertake deep remedial measures with a full sense of commitment. The Millennium Summit offered world leaders a unique opportunity to renew their sense of mission and reflect upon their common future at a time when countries find themselves interconnected as never before.

The Summit resulted in a declaration consisting of a set of eight specific social, economic, political and environmental goals to be attained by each

country, as well as forty-eight explicit indicators to measure either advances or full execution of the goals. These goals encompass poverty and hunger eradication, education improvements, gender equity, environmental sustainability, health issues and matters pertaining to international institutions.

This study offers a brief assessment of Mexico's performance in pursuing the Millennium Development Goals (MDGs). It begins with an overview of Mexico's track record on a sample of the most important goals, providing an idea of Mexico's overall progress in fulfilling the broader objectives. The third section will disaggregate the different development indicators, focusing on a set of five classified subgroups covering the eight objectives selected in the Millennium Declaration. The following section will observe the convergence between the different regions of Mexico towards the achievement of the MDGs in order to assess whether the states are moving in the same direction, and the final section pulls together the analysis in conclusions and recommendations.

Millennium Development Goals — An Overview

Mexico is among the most unequal countries in Latin America and its poverty levels reached high numbers during the 1990s, especially after the Tequila crisis. According to official poverty measures, 53.7% (around 52 million people) of the population was living in poverty conditions in the year 2000. During the aforementioned decade, the percentage of the population living on less than \$1 per day remained constant at around 13–14%, aside from a big jump during the economic crisis of 1994–1995 when it reached 17.9% of the total population. The poverty gap displays more volatility during this decade, reaching its highest level of 6.1 in 1995. There was, however, a sharp decrease only 1 year later when it went down to 3.5 in 1996. In 1998 it increased again to 5.2, meaning that those living in poverty were worse off than in 1996.¹

Advancements in education have been modest, since in 1995 there was already an attendance rate of 94.1%.² In 1990, the percentage of students completing primary education was 70.1%, rising to 87.7% in 2001, and it is estimated that this number rose another percentage point in 2002.³ Also, the national illiteracy rate among those 15 and older dropped by 4 percentage points from 12.5% in 1990 to an estimated 8.8% in 2002.

On the other hand, the country reduced by one-half the percentage of underweight children over the course of the decade. In addition, child mortality rates have shown significant decreases among children under 5 years old; dropping from 44.7 in 1990 to 25.2 out of every 1000 live newborns in 2000. The infant mortality rate has also shown an impressive decline. In 1990, 27.4 children aged under 1 died for every 1000 born alive; by the year 2001, this was as low as 16.6%. In terms of conducting vaccination campaigns, there is an increase from 81.1% in 1990 to 95% in 2001⁴ among children younger than 1 year of age, and considering the whole vaccination series.

Maternal health has also shown improvements, most of them taking the form of significant reductions in the maternal mortality rate. This rate was of 6.2 deaths per every 10 000 in 1990, dropping to 5.8 in 2001, and is estimated to drop to 5.7 by the end of 2002.⁵

Female educational participation in Mexico has enjoyed significant advancements in recent decades. To date, the percentage of girls attending primary and secondary schools comprises nearly 49% of the total number of enrolled students, a figure slightly lower than that of boys. Also, the education gap has been reduced at all levels, showing particularly strong gains in higher education, with the 2001 ratio of 0.98 girls per boys compared with the 1990 figure of 0.74.

Ensuring environmental sustainability is also one of the Millennium Objectives. Sustainability implies having access to a broad base of services and infrastructure including land, potable water and sanitary services. In 1990, the proportion of the population having access to potable water was 77.7%. Since then, this number has been rising steadily to reach 88.5% by the year 2000, and in 2002 it was estimated to hit 89.3%, representing around 88.7 million Mexicans.⁶

Constant improvements are also being made regarding sanitary services. The proportion of the population having access to sanitary services amounted to 61.3% in the year 1990. For 2000, the overall figure rose to 76.5%, and it was estimated to reach 77.1% by 2002.

With regard to information technology, the number of telephone lines rose considerably in the past decade. In 1990 there were 63.9 lines for every 1000 people, while in 2000 this number reached 123.8, an increase of more than 93%. With respect to computers, in 1996 only 3.1% of the total households owned one, while in 2000 11.9% did.⁷ Although these data portray a significant increase, Mexico is still far below other similarly middle-income level countries.

As mentioned at the beginning of this section, Mexico is a country where stark contrasts and inequalities pervade, for subgroups and at the regional level. The country is advancing at different speeds regarding the different MDGs, a subject that will be explored in detail in the next section.

Achievement of MDGs: a subgroup and regional analysis

Although international standards classify Mexico as a middle-income country, the existing poverty and inequality in the country are deeply and historically rooted aspects on the country's social life.

These disparities are present across ethnic, social or regional groups. The most notable difference appears between the northern and southern regions, the latter being indigenous, rural and mostly agricultural, while the former is primarily urban and highly industrialized. This North-South regional trend has become more evident since the past decade, when Mexico underwent significant trade liberalization with the signature of the NAFTA agreement. Therefore, despite the country's growth, the Mexican economy is increasingly dual in nature, with an even more acute North-South divide.

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TABLE 1. Per-capita income share by income deciles

	1992	1994	1996	1998	2000
1	0.0130	0.0131	0.0138	0.0118	0.0123
2	0.0232	0.0230	0.0249	0.0224	0.0231
3	0.0317	0.0318	0.0338	0.0325	0.0323
4	0.0408	0.0410	0.0432	0.0429	0.0419
5	0.0511	0.0513	0.0542	0.0540	0.0531
6	0.0635	0.0644	0.0672	0.0677	0.0665
7	0.0803	0.0814	0.0838	0.0848	0.0834
8	0.1073	0.1070	0.1095	0.1109	0.1079
9	0.1591	0.1557	0.1576	0.1597	0.1554
10	0.4300	0.4313	0.4120	0.4134	0.4241

Source: Organization for Economic Cooperation and Development (2002).

Patterns of income distribution across population up to 2000 are equally worrisome. Table 1 portrays the degree of inequality by showing the share of total income each population decile holds. Inequality is far from diminishing; rather, the distribution of income shows that the poorest decile's position deteriorated relative to all the remaining deciles.

We employ the marginalization index created by the National Population Council (*CONAPO*) to describe non-monetary poverty measurements. This index portrays the intensity of the marginalization phenomenon by considering the following variables: the percentage of illiterate individuals over 15 years of age; the percentage of individuals with no drainage service, drinking water and electricity; the percentage of private houses that are overcrowded; the percentage of individuals living in private houses with dirt floors; and the percentage of the working population earning less than two minimum wages.

As shown in Figure 1, the southern states portray the highest marginality indices where infrastructure services such as sewage, water, garbage collection, highways and electricity are inadequate or scarce and the populations' schooling attainments are low. The industrialized Northern states again show the lowest indices of marginality. These regional inequalities suggest that advancements done at a national level towards the attainment of the Millennium Development Goals are not necessarily mirrored by even progress at the regional level.

With the objective of undertaking a more detailed analysis regarding the status of the Mexican track record with respect to the MDGs, the remainder of this section takes a closer look at selected key development indicators taken from the Declaration to show which segments of Mexican society are struggling to meet the MDGs.

Poverty subgroup

Objective one of the Millennium Declaration is eradication of extreme poverty and hunger. This is, by all means, the most important as well as the

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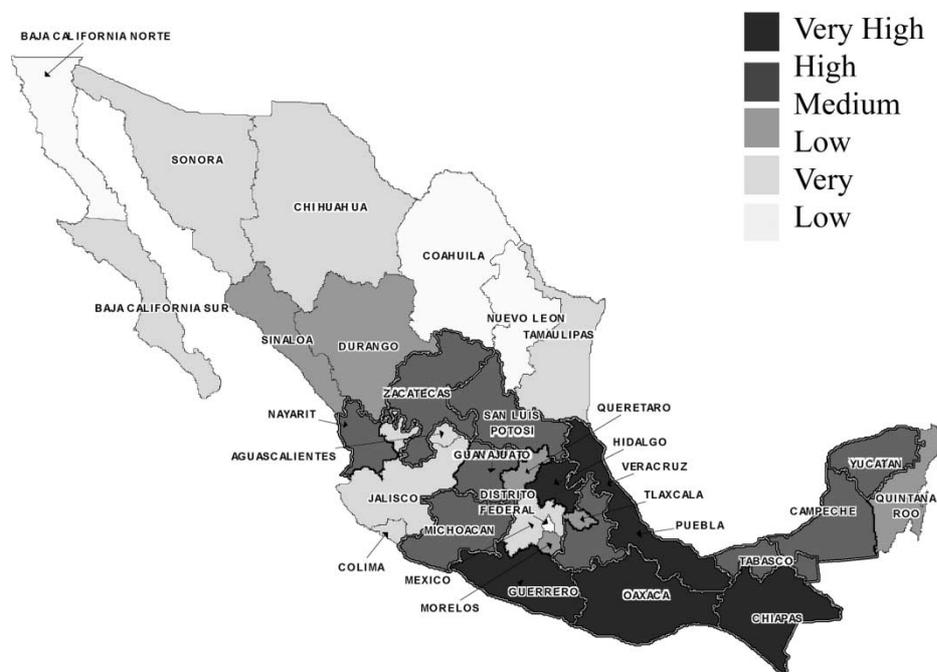


FIGURE 1. Marginality degrees by states.

most difficult goal pursued by Mexico. Even though the MDGs consider the \$1 Purchasing Power Parity poverty line in their analysis, from this section and forward the poverty group will be defined according to a different criteria recommended by the Ministry of Social Development of Mexico (SEDESOL). Mexico does not typically use the international \$1 per day poverty line because it does not portray an accurate picture of the Mexican economic landscape.

As presented in Table 2, which includes the three poverty lines adopted by the Mexican government, poverty trend data present a conflicting picture. In the case of urban areas, poverty decreased in all its levels — the most significant decrease was for *food poverty* — whereas for rural areas it reported an increase at all levels. The worst period was during the Tequila Crisis from 1994 to 1996, where poverty at national and subgroup levels increased dramatically. From 1996 and forward it is clear that for both rural area and urban area poverty has been following a steadily decreasing pattern. However, given the dramatic increase this indicator portrayed during the 1995 Crisis, poverty levels only returned to their 1992 levels very recently.

Regarding educational attainment, it is no coincidence that poor individuals are those with the lowest school achievement. Of the population aged 20 and older more than 6 million have no schooling, of which more

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TABLE 2. Proportion of poor population, urban and rural areas 1992 (%)

Poverty definition	1992	1994	1996	1998	2000
<i>Total</i>					
Food poverty	22.5	21.1	37.1	33.9	24.2
Skills poverty	28.0	29.4	45.3	40.7	31.9
Patrimonial poverty	52.6	55.6	69.6	63.9	53.7
<i>Urban areas</i>					
Food poverty	13.5	9.7	26.5	21.3	12.6
Skills poverty	18.4	17.1	35.0	29.0	20.2
Patrimonial poverty	44.0	43.6	61.9	55.8	43.8
<i>Rural areas</i>					
Food poverty	35.6	36.8	52.4	52.1	42.4
Skills poverty	41.8	46.2	60.2	57.6	50.0
Patrimonial poverty	65.0	72.0	80.8	74.9	69.3

Source: Cortes *et al.* (2002).

than 4.5 million of them live in poverty. The poverty trend diminishes in tandem with schooling advancements. For those having secondary schooling we find that 38.2% live in poverty conditions, whereas 61.8% with the same schooling are not poor.

As noted earlier, poor individuals also suffer from inadequate access to infrastructure and services. Regarding potable water, 97.25% of the non-poor have access to this service, while only 83.33% of the poor do. With respect to sewage services the differential is greater, with 79.19% of the non-poor having access to this service and only 46.36% of the poor population, a gap of 33.83%. Regarding telephone lines the differential is by far greater: for every 1000 non-poor people there are 160 fixed telephone lines, in stark contrast with the poor, of whom only 35 have a telephone line, a difference of more than four times between one subgroup and the other.

Geographical subgroup

The advancement of rural areas in Mexico has fallen considerably behind that of urban areas. While poverty is slowly becoming an urban phenomenon, perhaps to a great extent because of rural-urban migration, it is fairly well known that poverty and extreme poverty in Mexico are, to date, mostly rural. Despite the recent re-distributional and decentralizing trend followed by Mexico, patterns of territorial distribution in the country remain polarized. There is both a high concentration of population in select large cities and a great dispersion of people in thousands of small localities, many of them difficult to reach by regular transportation means.

According to the National Institute of Statistics, Geography and Informatics, one-quarter of the Mexican population lives in 196 000 localities, each with less than 2500 inhabitants.

As presented in Table 2, 42.4% of the population lived under *food poverty* in rural areas by the year 2000 versus 12.6% for urban areas, a sharp

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contrast of 29.8%. The same applies for *skills* and *patrimonial poverty*, for which the differentials amount to 29.8 and 25.5, respectively.

In addition, child malnutrition pervades more in rural than in urban areas. According to the National Nutritional Survey 1999, the percentage of children in rural areas 5 years and younger presenting low weight was 12.3%, in contrast with the 5.7% for children living in urban areas.

In terms of educational issues, the differences between urban and rural are not as remarkable as they were just a few years ago. For the population aged 20 years and older, 68.1% of those that have primary schooling live in urban areas, as opposed to 31.9% in rural areas. Furthermore, 89.9% of those 20 years old and above who have attained secondary level schooling live in urban areas, while only 10.1% live in rural areas. In the case of higher education, 97.1% live in urban areas compared with 2.9% in rural areas.

Poverty is markedly higher for those living in rural areas with low educational levels. In urban areas we find that 66.5% people without education are poor, whereas in rural areas this percentage rises to 82.5%. For urban areas we find that 52.1% of the population with primary schooling is poor, a severe contrast with 73.6% for rural areas. Furthermore, individuals living in urban areas and having achieved secondary schooling are less likely to be poor than those in rural areas. Only 35.9% of the urban population with secondary schooling are poor, while for the rural areas we find that the situation is harsher, with 58.5% of the individuals having studied secondary school still finding themselves in poverty.

The most significant differentials appear when examining access to public infrastructure and services. There is a 20% gap between rural and urban areas with access to potable water. The service coverage percentage for the urban areas amounts to 95.38%, while in rural areas it only reaches 73.65%. Regarding sanitation services there is a 70% difference between one area and the other. While only 9.02% of the rural population has access to this service, 79.57% of the population in urban areas is covered by this service. The access to telephone service is also scarce in rural areas. Out of 1000 people living in rural areas, only nineteen have a telephone line, while in urban areas the ratio is 118 lines per 1000 inhabitants. This is mainly due to the high dispersion of the population, which makes the provision of public infrastructure more difficult.

The regional polarization is clearly illustrated in Figure 2. It is a fact that the northern states are those endowed with better infrastructure services, in bold contrast with those states in the south. The states with the best water service are Aguascalientes with 90.5% coverage, followed by Nuevo Leon, Jalisco, Colima, Mexico City and Coahuila, which range from 83% to 75% coverage. At the other end, those states with the worst potable water availability are Oaxaca, Guerrero, Chiapas, Veracruz, Hidalgo and Campeche, all of them located either in the center or south of the country and accounting for coverage ranging from 23% (the lowest) to 37%.

The situation regarding sewage availability is similar (Figure 3). Mexico City has the best coverage, reaching 92.3%, followed by Aguascalientes, Nuevo Leon, Jalisco, Tlaxcala and Chihuahua. At the other end of the

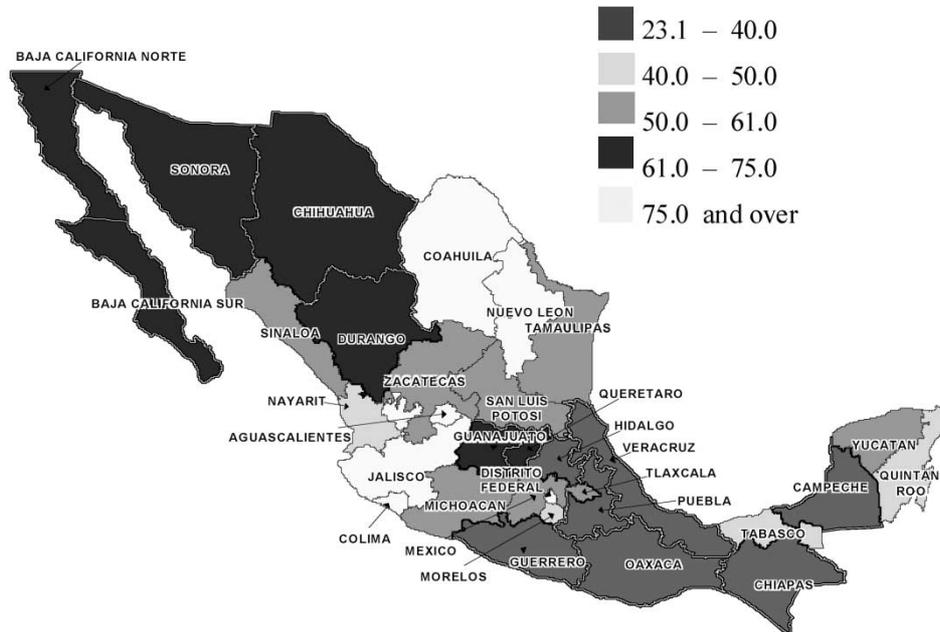


FIGURE 2. Water service availability per entity.

spectrum, the states lagging coverage are once again located in the southern region. These are Yucatan, Campeche, Oaxaca, Quintana Roo, Guerrero and Chiapas with percentages ranging from 19% to 36.5%.

Regarding access to technological services, we observe that in the Northern states the telephone density ranges between 80 lines and 105 or above per every 1000 inhabitants, while for the southern states, the range goes from 25 to 50 at the highest (Figure 4). The better endowed states (over 105 lines) are Mexico City with 170 lines, followed by Baja California (both North and South), Nuevo Leon, Jalisco and Chihuahua. At the bottom we find Chiapas with only 25 lines per 1000 inhabitants, Oaxaca, Tabasco, Guerrero and Zacatecas.

Ethnic subgroup

Indigenous peoples represent between 8.5% and 12% (Organization for Economic Cooperation and Development, 2001) of the Mexican population (depending on whether the calculating institution is the National Indigenous Institute or the National Institute for Statistics, Geography and Informatics). Estimates from the National Indigenous Institute sustain that there are more than 12 million indigenous people and that about 33% of them live in extreme poverty conditions.

Poverty and marginality in Mexico are concentrated, to a great extent, among those living in rural communities and considering themselves as belonging to an indigenous group.

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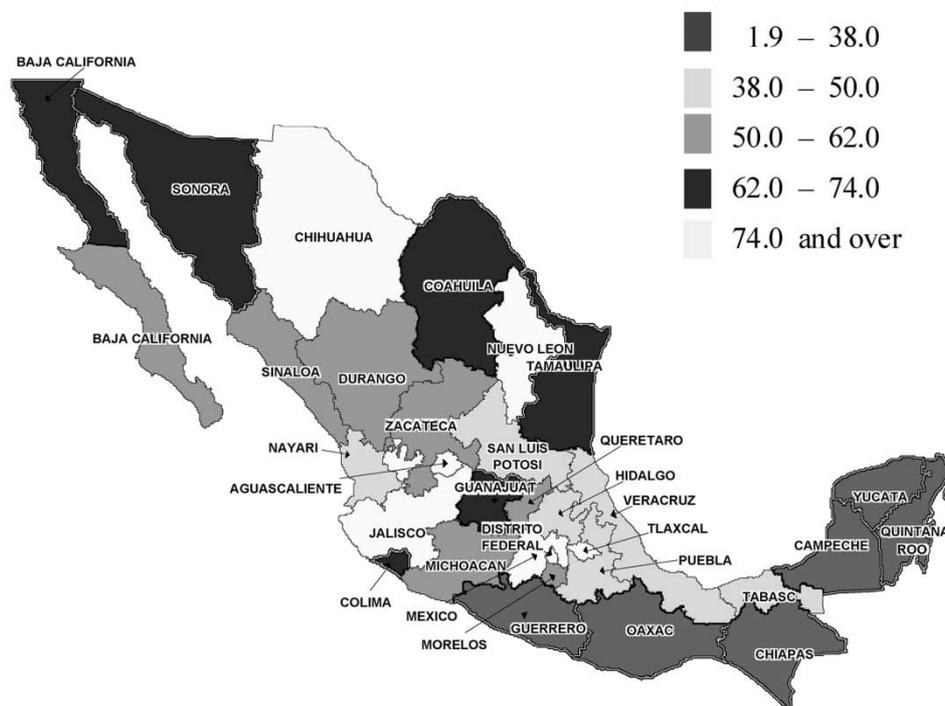


FIGURE 3. Drainage service availability.

As evident, the majority of the Mexican indigenous groups are gathered in the Southern-Central region of Mexico (Figure 5). Sixty percent of the indigenous live in rural regions, while only 22% of the non-indigenous do. Indigenous people primarily populate areas with high or very high marginalization levels. The entity with the highest percentage of indigenous population living in rural areas is Guerrero with 75%, followed by Chiapas with 73%, Veracruz with 71.6%, and Oaxaca with 69.6%. With respect to those states where most of the indigenous live in cities we find Nuevo Leon, Coahuila and Aguascalientes.

Just as there is a strong correlation between marginality and indigenous status, the same holds true for education. People belonging to indigenous groups usually have fewer educational opportunities than their non-indigenous counterparts. Literacy rates are also worrying, as between these two groups there is a differential of more than 10%. A total of 97.31% of the non-indigenous population is literate, compared with only 85.93% of those in the indigenous category.

The indigenous groups' educational attainment is clearly low compared with their non-indigenous counterparts. For instance, in Yucatan, out of 428,090 indigenous individuals 20 years of age and older, more than 19%

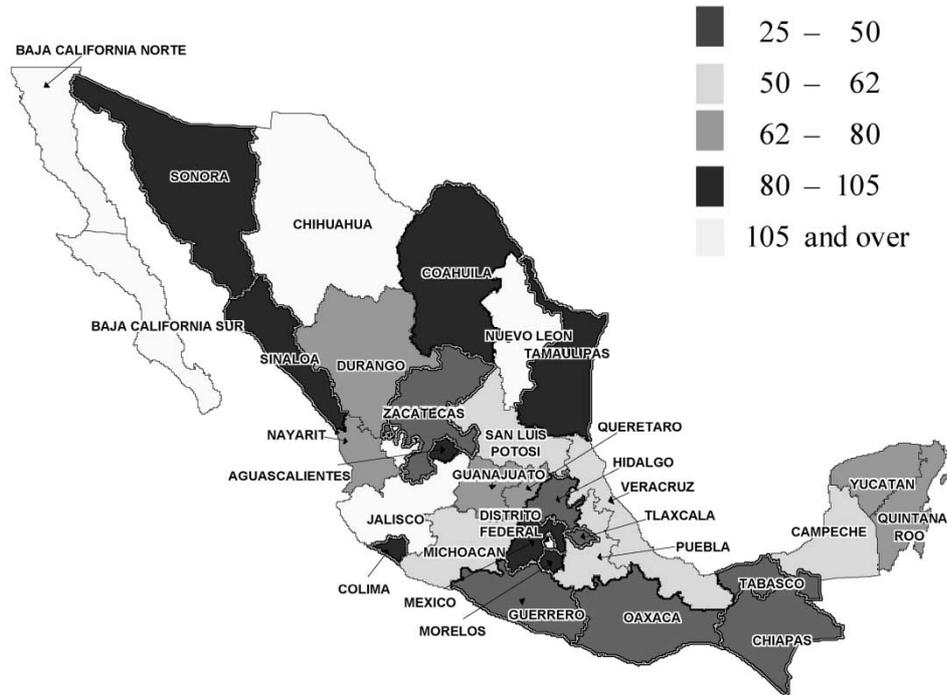


FIGURE 4. Telephone lines per every 1000 inhabitants.

have no schooling, 57% have only primary schooling, 12% have secondary education and only 7% have higher education. On the other hand, in the case of non-indigenous individuals, only 3.7% have no schooling, 39.8% have primary schooling, 49% have secondary schooling and 16.21% have higher education. The situation is similar for other states such as Chiapas or Oaxaca. This allows us to infer that viable educational opportunities for the indigenous are clearly lacking after primary school.

The situation of the indigenous groups regarding access to services does not differ markedly from that of poor or rural people. While among the non-indigenous groups 60.3% have access to potable water, 35.3% to sewage and 73.4% to garbage collection, only 16.8%, 14.0% and 19.5% of indigenous people can access these services, respectively. Also, as seen on the previous maps, it is in those states having the greatest indigenous population, such as Chiapas, Oaxaca or Quintana Roo, that the worst infrastructure exists. The picture remains largely the same regarding telephone lines. Only thirty out of 1000 indigenous persons have a telephone line while for the non-indigenous the ratio is 101 out of 1000.

Gender subgroup

As observed in the second section, the gap between men and women has been presenting a steadily diminishing trend since the beginning of the last

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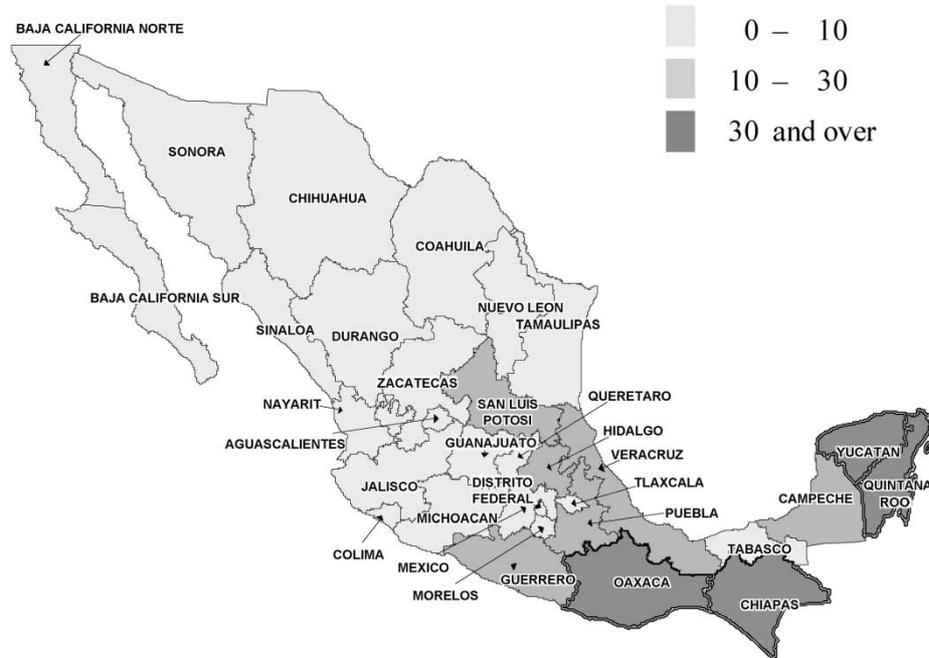


FIGURE 5. Percentage of the population over 5 years of age residing in a household in which the head of the household speaks an indigenous language.

decade. However, there are still many issues of concern to policy-makers. Poverty among women is one of those matters. Of the 98 million people registered by the 2000 National Household Income and Expenditures Survey, there are almost 53 million poor individuals, out of whom 27 million are women (51.8%) and 25 million are men (48.2%).

Regarding gender and health issues we find that Mexico is enjoying a solid performance. In terms of health, the prospects seem promising since mortality rates for boys and girls under 5 years of age have been reduced significantly throughout recent years. Still, more boys than girls die during their first 5 years. In 1990, 2.26 girls and 2.53 boys out of 1000 born alive died before reaching the age of 5; for 1999 this trend was reduced to 0.8 and 0.96, respectively.

On the subject of education we find that out of the total population without schooling 58.9% are women while 41.1% are men, a 17.8% differential. For the total population aged 20 and older, for any level of primary schooling, we find there are more women than men — namely, 55.4% and 44.6% correspondingly. For secondary schooling, the figures resemble the former: 52.4% are women and 47.6% are men. For higher education we obtain the opposite; of the total enrollment in higher education, only 42.1% are women while 57.9% are men (15% differential).

Figure 6 portrays the balance between girls and boys attending primary

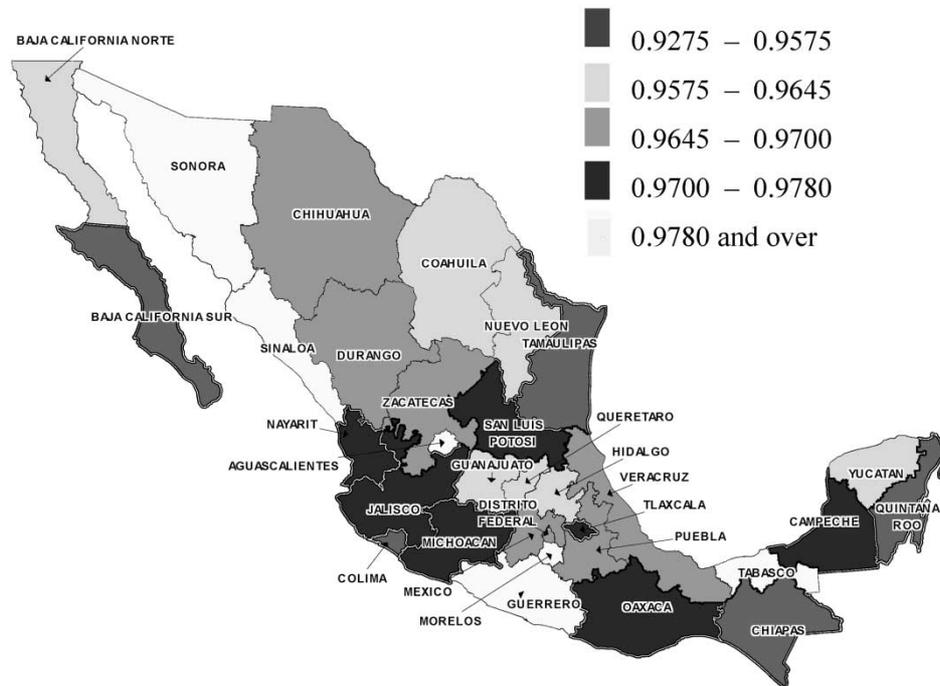


FIGURE 6. Ratio of girls to boys attending primary school by entity.

school. The states with the lowest numbers of girls per boy attending primary are Baja California Sur, Colima, Quintana Roo, Chiapas and Tamaulipas. At the opposite end we find the states with the greatest number of girls attending primary school: Tabasco, Sinaloa, Guerrero, Aguascalientes and Morelos. In this case, there is no clear regional trend for identifying possible reasons why individuals of one gender reach this schooling level more than the others.

Education subgroup

The unequal distribution of education is another important source of poverty and inequality. As with other assets, the distribution of education is highly polarized in Mexico. The country's distribution of education was at the beginning of the 1990s among the most unequal in Latin America, surpassed only by the levels attained by El Salvador and Brazil (Organization for Economic Cooperation and Development, 2002, p. 36). It is often said that educational disparities — measured as educational attainment — make a great contribution to income inequality. In other words, poverty is, to a great extent, a problem directly related to educational opportunities. It is also argued that poor people are usually uneducated and data confirms this statement.

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TABLE 3. Average schooling years of the EAP by deciles

	1992	1994	1996	1998	2000
1	3.12	3.20	3.60	3.70	3.88
2	3.92	3.87	4.66	4.55	4.61
3	4.73	4.59	5.36	5.22	5.63
4	5.05	5.31	5.87	6.12	6.61
5	5.91	6.03	6.52	6.58	7.04
6	6.49	6.71	7.30	7.29	8.06
7	7.71	7.65	7.88	7.86	8.58
8	8.20	8.48	9.01	8.97	9.56
9	9.77	9.84	10.37	10.50	10.58
10	12.91	13.10	13.46	13.25	14.32

Source: Organization for Economic Cooperation and Development (2002).

Table 3 presents the average years of schooling of the economically active population (EAP) by deciles. As illustrated, the lowest income deciles are occupied by those individuals with the lowest educational attainments; low education levels increasingly characterize the poor. On the other hand, individuals in the highest deciles of the income ladder are the ones accounting for higher educational levels. In the year 2000, the people in the highest income decile had 14.32 years of education. It is remarkable that people in the fifth decile had only 7 years of education; namely, completed primary school but had incomplete secondary studies. It is also clear that only the last two quintiles include individuals having upper secondary levels of education, which provides us with valuable insight into the population's education and income along their life cycle.

Furthermore, according to the Organization for Economic Cooperation and Development, the range of educational attainment of the EAP between entities again illustrates that there are several Mexicos. On average, the EAP in Oaxaca, one of the poorest states, has 5.5 years of education, similar to the national average of Nicaragua, one of the lowest in Latin America. In contrast, the Federal District has 10.5 years of schooling on average, which is practically the national average of Argentina (the Latin American country with the highest level of schooling). Another noteworthy trend is that while at the national level, the average years of schooling of the lowest decile of the EAP have increased by only 0.6 years between 1992 and 2000, they have increased by almost 1.5 years in the highest income decile (Table 3).

Additionally, literacy rates along Mexico also portray the strong North-South disparities. The states located in the south southeast regions portray the highest illiteracy rates while the states up north portray the lowest levels on this indicator. As observed in Figure 7, Chiapas has the largest illiterate population with 11.6%, while Mexico City has the smallest with 0.9%. Above Chiapas are Guerrero, Oaxaca, Veracruz and Puebla, with 8.3%, 6.8%, 6.4% and 5.4%, respectively. Below Mexico City are the states of Nuevo Leon, Baja California Sur, and Coahuila with 1%, 1.2% and 1.3%.

Regarding education attainments, this is the percentage of people 15

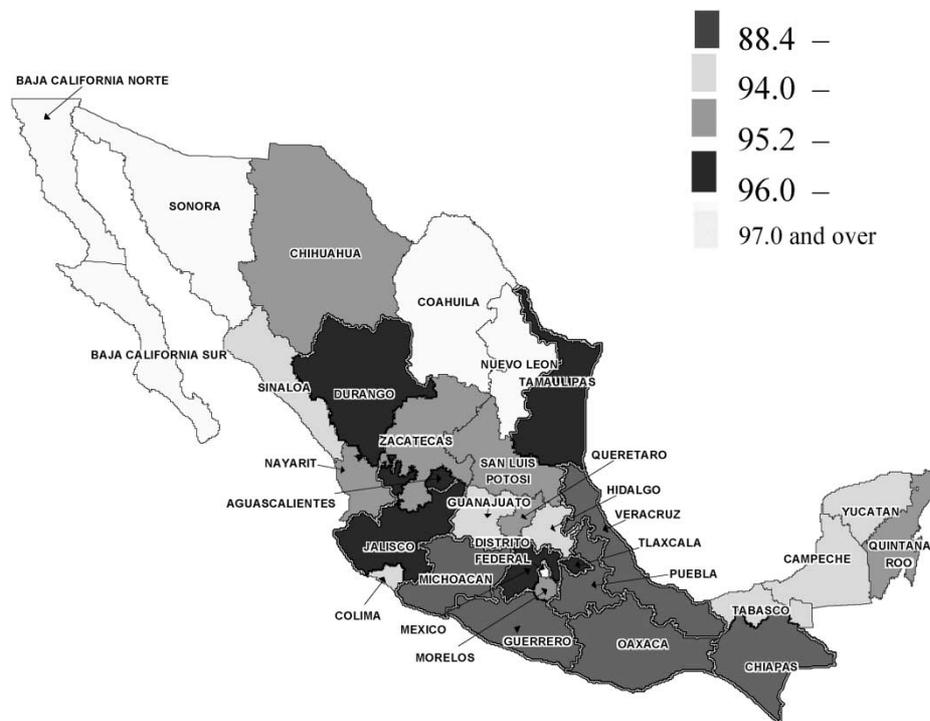


FIGURE 7. Literacy rate by entity.

years of age and older that have no schooling, primary, secondary or higher schooling, it is interesting to notice that differences experienced across regions follow exactly the same trend as already mentioned. Table 4 presents the different education levels attained by each state comparing them within the state. For example, in the case of Chiapas we observe that most of its population aged 15 years and older have no schooling (22.89%) or incomplete primary (26.96); that is, from 2 281 622 individuals 15 years of age and older, almost one-half or 1 137 389 have not finished primary or have not even attended school at all. These numbers are astonishing if compared with states like Nuevo Leon or the Federal District, where only 4.2% and 3.57%, respectively, of those 15 years and older have not attended school.

As presented in Table 4, the states with greater no schooling numbers are the southern states that also performed poorly in earlier indicators. Chiapas appears at the top of the list with 22.8% of its population with no education, closely followed by Guerrero and Oaxaca. Five percentage points below with 15% are states like Michoacan, Veracruz and Guanajuato. At the opposite end we find those states portraying the lowest rates of no schooling, which are Mexico City with only a 3.5%, followed by Nuevo Leon, Coahuila and Chihuahua with 4.22%, 4.85% and 5.77%, respectively.

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TABLE 4. Distribution of the population 15 years of age and older by educational attainment and entity (%)

State	Total	No schooling	Incomplete primary	Complete primary	Secondary	Upper secondary	Higher education
Total	62 842 638	10.22	17.98	19.13	24.21	16.65	10.92
Aguascalientes	595 497	5.91	16.93	21.25	25.60	17.62	11.87
Baja California	1 523 780	6.31	13.14	17.91	30.02	20.18	11.75
Baja California Sur	284 984	6.36	14.48	17.31	26.16	23.66	11.44
Campeche	443 363	12.21	21.77	18.07	21.02	15.86	10.37
Coahuila de Zaragoza	1 526 166	4.85	13.71	20.29	27.95	18.25	13.75
Colima	343 190	8.65	18.32	18.03	25.33	17.50	11.35
Chiapas	2 281 622	22.89	26.96	17.33	15.86	10.22	5.83
Chihuahua	1 972 457	5.77	17.21	23.87	25.82	15.33	10.66
Distrito Federal	6 231 277	3.57	8.48	15.36	26.69	25.21	19.84
Durango	914 584	6.50	21.96	22.80	23.63	14.45	9.68
Guanajuato	2 907 596	14.72	20.69	23.26	22.18	11.60	6.62
Guerrero	1 840 111	21.45	20.06	17.18	18.78	13.34	8.20
Hidalgo	1 424 760	13.98	19.88	20.21	23.89	13.89	7.49
Jalisco	4 112 397	8.11	18.37	21.62	24.68	15.32	11.06
Mexico	8 286 915	7.15	13.50	19.15	29.30	19.57	10.45
Michoacan de							
Ocampo	2 488 588	15.87	23.95	20.02	19.86	11.95	7.44
Morelos	995 301	10.25	15.24	17.14	26.79	18.61	10.98
Nayarit	600 032	10.50	21.27	16.33	24.77	16.28	10.22
Nuevo Leon	2 651 060	4.22	12.04	16.90	28.59	20.92	15.98
Oaxaca	2 116 722	20.27	24.80	20.66	17.36	9.80	6.11
Puebla	3 112 993	13.95	20.96	21.26	20.69	13.01	9.31
Queretaro de Arteago	885 463	11.51	14.37	20.68	25.29	16.09	11.10
Quintana Roo	559 713	8.06	16.86	17.01	28.03	19.17	9.83
San Luis Potosi	1 442 368	11.91	21.92	18.95	23.83	13.42	9.17
Sinaloa	1 665 153	9.44	20.51	17.18	20.89	18.93	12.72
Sonora	1 482 068	6.09	16.18	16.41	28.40	19.97	12.38
Tabasco	1 206 897	9.02	23.00	19.03	23.27	15.58	9.33
Tamaulipas	1 862 448	6.21	16.88	19.14	25.15	18.49	13.00
Tlaxcala	620 464	7.75	15.51	23.09	27.03	16.47	9.46
Veracruz-Llave	4 508 106	15.03	23.82	18.46	19.86	13.35	8.67
Yucatan	1 103 497	11.01	25.58	16.52	21.20	15.83	8.94
Zacatecas	853 116	9.11	28.09	23.04	20.90	10.62	7.46

Source: Census 2000, National Institute for Geography, Statistics and Informatics (INEGI).

^a Includes those individuals that did not specify their schooling level and those declaring having gone to primary but not specifying whether they concluded it. Secondary, upper secondary and higher education levels include the population declaring enrolment but without specifying the level they were in.

Mexico's unequal development

What drives the regional disparities in Mexico? What lies behind all the inequalities within the country? To answer this question would amount to solving the greatest of development puzzles and acres of pages have been devoted to this task. Our aim is a more modest one. In this section, we will provide our vision of the current problems that limit universal prosperity in this country by explaining the causes that have forged such inequality.

Mexico's history has been plagued by different types of exclusion of

diverse groups of the population. This exclusion has been reproduced through the years in many cases because of unsound policies and political upheavals. In particular, three factors have determined the course of Mexico's development path: (a) government centralism has affected social program design, as homogeneous or one-size-fits-all programs were established to support heterogeneous groups; (b) centralism not only affected the aim of social programs, but also development policy since decision-making, especially expenditure provision, was determined at the center of the country and based on political choices rather than the needs of the population; and (c) although in the past couple of years decentralization has been taking place, giving states and municipalities more room to maneuver on social spending, accountability is still a big issue at those levels, and most of the advancements in that area have been conducted at the federal level.

In recent years, political modernization and institutionalized democracy paved the way to an expected change. More inclusive democracy was sought in the 2000 presidential election in the name of those segments of the population that had been previously left out. This process was expected to foster egalitarian development on all fronts in a short time period. However, stark differences are about to remain since the changes Mexico needs cannot be implemented in the short term.

The twentieth century in Mexico gave birth to a regime that took control and centralized many aspects of economic, social and political life in the country. Social expenditure was assigned (and most of it still is) by the federal government to the states, which in turn would channel the resources to the municipal level. Centralization posed significant disadvantages, since it was extremely difficult for the center to identify the several needs of the population and the Ministries at the national level obtained the lion's share of the social expenditure budget. A common feature of these years was the creation of a set of homogeneous programs for a vastly heterogeneous population. For instance, as mentioned earlier, the proportion of indigenous population varies wildly across Mexico, as well as educational attainment, access to services, and so on. Hence these groups had little political weight and influence, and their situation did not improve along these years, for which it is evident that no efficient allocation of resources was achieved under this framework.

Until the 1980s, no process was launched to reform social policy and make it conform to economic market reforms as well as decentralization. It was not until the creation of a federal fund, *Ramo 26*, aimed at reducing poverty via transfers from the federal government to the different regions, that this process initiated in Mexico. However, its resources were still granted on a subjective basis, opening the door for biased benefits within the federation.

Later on, the government that took office in 1988 headed by President Carlos Salinas De Gortari established the rules of what would constitute a new social policy framework. This new model converted *Ramo 26* assets into the *Programa Nacional de Solidaridad* (National Solidarity Program [*Pronasol*]). *Pronasol* allocated resources to municipalities according to the

communities' and municipal authorities' requests, focusing on improving health, education, nutrition, housing, employment and infrastructure, and aimed at benefiting those living in extreme poverty.

Pronasol, although successful in its early stages due to the marketing strategy followed by the federal government, was clearly being politically manipulated and linked to partisanship of the municipalities. The allocation of resources relied heavily on the President, no clear allocation mechanism was established and, as a consequence, the distribution of resources became highly discretionary and aimed at goals other than fighting poverty. Additionally, given the discretionality in resources allocation, *Pronasol* did not target the poorest or most unequal states.

When the government of Ernesto Zedillo took office in 1994, the tarnished image *Pronasol* had received through the years led to its disappearance, while the new administration put forward a stronger effort for decentralization. In December 1997 *Ramo 33* (Branch 33) was created. *Ramo 33* embodies a set of funds (including formerly *Ramo 26*) transferred from the federal government to the states and municipalities, according to well-established, although sometimes cumbersome, formulas. This transfer comprised various funds, namely the Fund for Basic Education, the Fund for Health Services, the Fund for Social Infrastructure and the Fund for Municipal Empowerment, and is targeted to the poorest states according to its distributive formula.

Furthermore, in August 1997 the *Programa de Educación, Salud y Alimentación* (Education, Health and Nutrition Program [*Progres-Oportunidades*]) entered into force. This program focused in its early stages on the poorest rural populations, and sought to improve the health and educational attainments of the extreme poor, the indigenous and other vulnerable groups, by providing economic incentives. This program has been one of the most important accomplishments of the Mexican government in its fight against poverty and inequality, and has had some encouraging results.⁸

Notwithstanding an important change in resource allocation in the past couple of years to make the budget distribution less discretionary, as well as rolling back the process of centralization, Mexico now faces a problem of accountability.

This problem can be observed among others, in representatives and local congresses. Politicians are not required to inform the public of their decisions, nor does the average citizen demand this information. Thus, lawmakers and executive administrators do not have any incentive to identify the needs of their constituency, but only to promote their own political careers.

Undoubtedly, there is still a long way to go to achieve sound and sustainable regional development, and the aforementioned subjects form just a fraction of the constraints present in the economic, social and political structure in Mexico. However, decentralization is taking place and the progressiveness of social expenditure is certainly improving, strengthening programs focused on specific vulnerable groups. Ultimately, these steps will

allow for a more positive outlook on Mexico's future development. This progress will be further explored in the next section.

Convergence in Mexico

Thus far, the discussion has focused on the recent performance in several development indicators across regions and subgroups in Mexico. However, what should be asked is: Is Mexico moving in the right direction? Can positive change be brought with state programs? In order to respond to these questions, we need to go further: we need to observe the dynamics of social development in Mexico.

One of the main findings in the growth literature in the past half-century is convergence analysis. Assuming a production function with decreasing returns to labor and capital and constant returns to scale, it can be concluded that the income growth rates of the different countries of the world will converge. Sala-i-Martin (2002) explains how the argument developed from absolute to conditional convergence. From the neoclassical model one can derive an empirical formulation of the type:

$$\gamma_{i,t,t+T} = \beta_0 - \beta \times \ln y_{it} + \beta \times \ln y_i^* + \varepsilon_{it} \quad (1)$$

where $\gamma_{i,t,t+T}$ is the growth rate of per-capita Gross Domestic Product (GDP) for country i between time t and time $t+T$, y_{it} is per-capita GDP for country i at time t , and y_i^* is the steady-state value of per-capita GDP for country i . This equation can be easily tested. If β is positive, then convergence is present; if we cannot statistically reject β being different from 0, then we are facing something other than convergence.

The distinction between absolute and conditional convergence arises from Equation (1). The actual growth rate depends on the initial income and the steady state. Absolute convergence assumes this steady state to be the same for every country, whereas conditional convergence allows for different steady states. If the steady state is not the same across countries or regions, a common misspecification problem will be faced because, in econometrics, the error term is correlated with an explanatory variable. If that is not the case, however, then it can be assumed that the steady state follows the constant part of the equation, and hence it can be estimated this way.

$$\gamma_{i,t,t+T} = \hat{b} - \hat{b} \times \ln y_{it} = \omega_{it} \quad (2)$$

If $\hat{b} > 0$, then poor countries grow faster than rich ones so that there is convergence across countries. On the other hand, if $\hat{b} = 0$, then there is no relation between the growth rate and the level of income.

Using this helpful tool, we can attempt to determine whether there is convergence across regions using the Human Development Index (HDI), as defined by the United Nations Development Programme,⁹ or other human development indicators, rather than using income as dependent variable. If so, we can also determine what is driving the trend followed by the index. In the case of Mexico, Esquivel *et al.* (2002) have estimated some parameters to test the convergence hypothesis, using several time spans and different

definitions of the HDI with data collected every 10 years in the national census. To do so, the authors run a regression similar to that of the absolute convergence equation. This specification is the correct one, since the steady state for the different states is the same given that the index is upper-bounded. In all the cases (1950, 1960, 1970) a clear downward trend is visible, which suggests that absolute convergence is present in the case of Mexico.

The HDI, however, is an aggregate index of welfare measurements, and it specifically measures income, health and education. The aim of this section is to identify the path of several specific indicators concerning the MDGs. It is clear that the construction of a time series of the MDG indicators is a difficult task given data constraints. Instead, the variables used will be analyzed, namely enrollment, literacy rates and life expectancy, in order to test the convergence hypothesis between regions.

Following the same methodology as Esquivel *et al.* (2002), we estimate a model with the average annual growth rate of our development indicators by state, as dependent variables, against its own initial values. The information used for enrollment rates, life expectancy at birth and literacy rates are obtained from the census and other sources. From this data, a long-term speed of convergence can be analyzed, using the average annual rate of growth of a given indicator to estimate the speed of convergence for different time periods.

The exercise on β convergence points in the direction of decreasing regional differences in development. That is, as mentioned earlier, an expected result. Nevertheless what seems more interesting is the change in the rate at which this convergence is taking place. Evidently, in the past decade the pace accelerated, although we would have expected this rate to diminish given the proximity of the upper limit.

If we look at the results in the 10-year period graphs, we observe some intriguing findings (Figure 8). It seems that some periods are more fruitful than others in terms of the development indicators performance. Given space constraints, we limit our discussion to the enrollment rate path.

The parameter of enrollment rate in the 1980s is close to 2.5%, but in the next decade it increased to nearly 7%. The former evidence suggests that regional disparities are disappearing faster than ever. This, however, raises the question: Are impoverished states faring better, or are advanced regions lagging behind? This is a relevant topic for future research.

Concluding remarks

Mexico's track record in pursuing the MDGs has been mixed. Regardless of the significant progress attained to this day in health and education topics, there are still some considerable problems in nutrition and especially overall poverty. As shown throughout this analysis, the 1990s did not allow for any significant reversal of poverty levels, but, on the contrary, the decreasing poverty trend at the beginning of the decade was interrupted and reversed by the economic crisis of 1995. Poverty levels have slowly slid back down

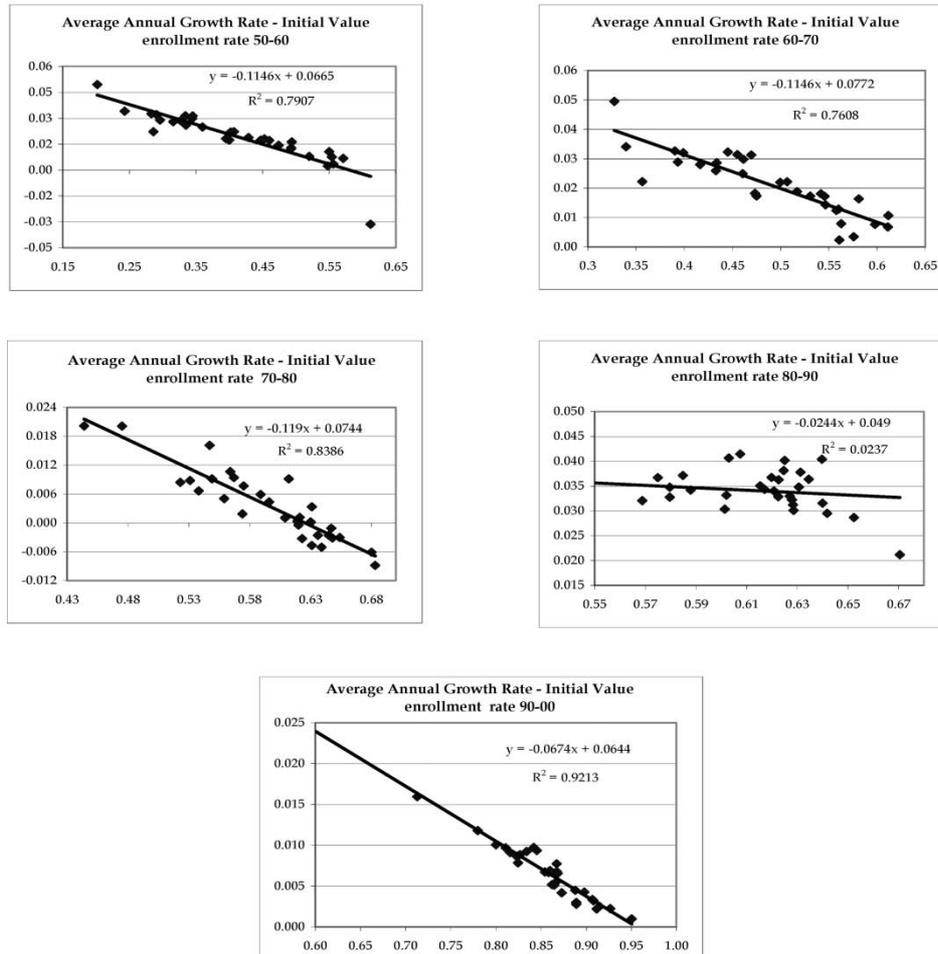


FIGURE 8. Ten-year convergence rates.

to the levels registered in 1992. In addition, even though the situation appears positive at the national level, a less optimistic picture emerges when analyzing subgroups or regions.

As discussed throughout the third section, regional disparities appear quite stark in terms of education and infrastructure. The North-South division also pervades the discussion of poverty levels. States such as Chiapas, Oaxaca and Guerrero are those living under the worst marginality conditions, straggling behind in the most basic services such as water or sewage, as well as educational opportunities. At the opposite end, the northern states such as Nuevo Leon or Coahuila boast the greatest numbers in terms of education, access to services and the largest number of industries. It is no coincidence that those states with the greatest percentage of indigenous groups are also those recording the highest poverty and illiteracy levels, the worst gender equity, and the lowest levels of basic infrastructure

Notwithstanding the wide disparities, the future prospects are not so grim. The convergence assessment developed in the previous section seems optimistic in the sense that the three variables, life expectancy, education enrollment and literacy rates, observe convergence within the different Mexican entities. Even if this convergence process has moved slowly during the most recent decades, it has also been following a steady pace, keeping Mexico moving in the right direction. Programs such as *Oportunidades*, a means-tested program with several rewarding results, exemplify this to a great extent; by targeting the population in the greatest need, supporting them in an integral way through providing educational opportunities, health services and food, and evaluating the impact of these resources to ensure through this scheme, the improvement of their living conditions, as well as the attainment of the objectives established in the Millennium Summit.

In closing, amid the clear evidence that Mexico is headed in the right direction with respect to the MDGs, it is crucial to ensure that the bulk of attention and resources are focused on the poverty and nutrition areas, with special emphasis on meeting, as soon as possible, the needs of the southern states and helping them in the process of converging towards the national levels. There is still a long way to go, and it is of the utmost importance to focus efforts towards these vulnerable subgroups and regions.

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Notes

- 1 Refer to the Appendix for sources of all the figures presented in this section.
- 2 Ministry of Public Education (SEP) (2002) document elaborated for the State of the Nation Report 2002.
- 3 *Ibid.*
- 4 *Ibid.*
- 5 *Ibid.*
- 6 National Water Commission (CONAGUA) (2002) document elaborated for the State of the Nation Report 2002.
- 7 INEGI, National Income and Expenditure Survey (various years).
- 8 See, for instance, Skouffias and McClafferty (2001).
- 9 The HDI is a summary measure of human development. It measures the average achievements in a country in three basic dimensions of human development:
 - A long and healthy life, as measured by life expectancy at birth.
 - Knowledge, as measured by the adult literacy rate (with two-thirds weight) and the combined primary, secondary and tertiary gross enrollment ratio (with one-third weight).
 - A decent standard of living, as measured by GDP per capita (PPP US\$).

References

- Annan, K. (2000) *We the Peoples: The Role of the United Nations in the 21st Century: Executive Summary Millennium Report of the Secretary General of the United Nations*, <http://www.un.org/millennium/sg/report/>
- Cordera, R. and Lomelí, L. (1999) *Informe sobre el Programa Nacional de Solidaridad de México, para la Oficina Regional de la FAO para América Latina*, Estudios para el Seminario Latinoamericano de Experiencias Exitosas de Combate a la Pobreza Rural: Lecciones para una reorientación de las políticas, RIMISP, Santiago de Chile.
- Cortes, F., Hernandez, D., Hernandez, E., Szekey, M. and Vera, H. (2002) 'Evolución y características de la pobreza en México en la última década del siglo XX', *Research paper No. 2*, SEDESOL, Mexico, August.
- Dasgupta, P. (1993) *An Inquiry into Well-Being and Destitution*, Oxford University Press, New York.
- Economic Commission for Latin America and the Caribbean (ECLAC) (2002) *Social Panorama of Latin America, 2001-2002*, ECLAC, Santiago de Chile.
- Esquivel, H.G., Lopez-Calva, L.F. and Velez, G.R. (2002) *Convergence in Human Development and its Relationship with Economic Growth for Mexico*, El Colegio de Mexico, UDLA and PNUD, November.
- Lopez-Calva, L.F. and Velez, G.R. (2002) *The Human Development Concept, Its Importance and Application for Mexico*, Mexico, August.
- Ministry for Health (SSA), National System for the Family's Integral Development (DIF), Ministry for Public Education (SEP) and National Water Commission (CONAGUA) (1990-2000) *Programa Nacional de Acción a favor de la Infancia: 1999-2000 Evaluación* (National Program to Benefit Infants).
- Ministry of Health (SSA), National Institute of Public Health (INSP) and National Institute of Statistics, Geography and Informatics (INEGI) (2001) *National Nutrition Survey 1999: Nutritious State of Women and Children in Mexico*, Mexico.
- Ministry of Public Education (SEP) (2002) Document elaborated for the *State of the Nation Report 2002*.
- Ministry of Social Development (SEDESOL) (2002) *Medición de la Pobreza: Variantes Metodológicas y Estimación Preliminar*, Technical Committee for Poverty Measurement, serie: documentos de investigación no. 1, México.
- National Institute of Statistics, Geography and Informatics (INEGI) (2000a) *XII General Census of Housing and Population*.
- National Institute of Statistics, Geography and Informatics (INEGI) (2000b) *National Income and Expenditure Household Survey* (ENIGH).
- National Institute of Statistics, Geography and Informatics (INEGI) (2001) *Mujeres y Hombres en México* (Women and Men in Mexico).
- National Water Commission (CONAGUA) (2002) Document elaborated for the *State of the Nation Report 2002*.
- Organization for Economic Cooperation and Development (2002) *Territorial Reviews: Mexico 2002*, OECD Publications, Paris.
- Presidency of the Republic (2001) *Mexico State of the Nation Report 2001*.
- Ranis, G., Stewart, F. and Ramirez, A. (2000) *Economic Growth and Human Development*, Yale University, New Haven, CT, University of Oxford, UK and United Nations Development Programme, New York.
- Sala-i-Martin, X. (2002) *15 Years of New Growth Economics: What Have We Learnt?*, Columbia University, New York, April.
- Skoufias, E. and McClafferty, B. (2001) *Is PROGRESA working? Summary of the results of and evaluation by IFPRI*, International Food Policy Research Institute, Washington, DC, July.

Appendix: Millennium Development Goals: indicators for the Mexican case

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
1 Percentage of the population whose income is below US\$ per day			14.9			17.9			15.9		13.2		
2 Poverty gap coefficient (poverty incidence multiplied by poverty severity)			3.8			6.1	3.5		5.2				
3 National consumption ratio corresponding to the poorest one-fifth of the population			5.64			5.59	6.26		5.76		5.32		
4 National of underweight children under 5 years of age (moderate malnutrition)	11.3 ⁽¹⁹⁸⁸⁾									6.3			
5 National Illiteracy Index (percentage)	12.5	12.1	11.8	11.5	11.2	10.9	10.6	10.4	10.4	10.2	10.0	9.0	8.8e
6 Percentage of the population attending primary school with regards to the population aged between 6 and 12 years.						94.1	93.8	93.5	93.7	94.2	94.4	94.9	95.4
7 Percentage of students that start first grade and complete primary education (terminal efficiency)	70.1	71.6	72.9	74.2	77.7	80.0	82.8	84.9	85.8	84.7	86.3	87.7	88.7
Ratio of girls to boys attending primary school	0.942	0.942	0.941	0.936	0.939	0.938	0.940	0.943	0.946		0.952	0.953	
8 Ratio of girls to boys attending secondary school	0.950	0.954	0.952	0.948	0.944	0.937	0.934	0.935	0.943		0.964	0.970	
Ratio of women to men in higher education	0.749	0.756	0.858	0.858	0.876	0.901	0.913	0.925	0.934		0.979	0.988	
9 Ratio of women among non-agrarian sector, paid workers (% with respect to economically active population)	18.84										24.44		
10 Mortality rate among children of younger than 5 years of age, adjusted by under registry (per every one 1000 expected to be born alive)	44.7	37.0	33.5	32.3	31.8	31.1	30.1	29.1	28.0	26.2	25.2		
11 Observed Infant Mortality Rate (per every 1000 born alive)	27.4	23.9	22.1	21	21.1	20.8	20	19.6	19	18.4	17.9	16.6	16e

Appendix: Continued

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	
12 Percentage of children aged one vaccinated against measles	75.3	89.2	88.2	79.0	90.0	89.9	93.0	90.5	95.7	94.0	95.5	95.3		
<i>Registered measles cases</i>	68 782	5 007	846	172	128	12	2	0	0	0	30	0	0e	
<i>Basic scheme vaccination coverage</i>		81.1	84.1	75.3	87.4	87.9	91.8	89.6	93.5	92	94.4	93.6	94.5e	
13 Observed maternal mortality rate (per every 1000 born alive)	6.2	5.9	5.9	5.4	6.0	6.3	5.7	5.6	6.4	6.4	6.1	5.8	5.7	
Active users of family planning systems (thousands)	6264	6588	6610	6965	7471	7995	8339	8527	8815	9170	9536	9812	9998	
14 Malaria morbidity rates (per 100 000)	51.9	30.4	18.6	17.9	14.3	8.0	6.7	5.0	15.0	6.5	7.3	4.9	3.5e	
15 Registered and estimated deaths due to tuberculosis in all its forms 15–64 years of age	3723	3214	3112	2981	2833	2771	2643	2469	2369	2111	1985	1909	1717e	
16 Proportion of the population with access to potable water (total)	77.7	79	80.4	81.3	82.2	84.2	85	85.7	86.4	87.4	88.5	89p	89.3	
17 Proportion of the population with access to sewage services (total)	61.3	62.4	63.8	64.6	65.7	72.1	72.4	72.4	72.4	73.1	76.5	76.8	77.1e	
18 Unemployment rate of the population aged between 15 and 24 years														
<i>12–19 years</i>								11.4	8.4	6.9	5.8	5.3	5.6	8.3
<i>20–24 years</i>								8.8	6.5	5.7	4.4	4.1	4.6	5.9
19 Number of telephone lines (per 1000)	63.9	70.5	77.5	85.9	94.0	95.7	94.3	97.3	102.7	111.3	123.8	136.4	146.8	

Sources: 1. *World Bank Development Indicators*, 1992, 1995, 1996, 1998, 2000, World Bank Publications, Washington, DC; 2. Economic Commission for Latin America and the Caribbean (2002, p. 33); 3. National Institute for Geography, Statistics and Informatics (INEGI), *National Survey of Households Incomes and Expenditures*, 1992, 1994, 1996, 1998, 2000 (www.inegi.gob.mx); 4. National Children's Commission, 1990–2000 Evaluation, *Technical Documents #6*, National Children's Commission Publications; 5. For the years 1990–2000, Presidency of the Republic, *6th State of the Nation Report*, p. 243. For the following years: Presidency of the Republic, *2nd State of the Nation Report*, p. 18; 6. Authors' own calculations based on data provided by the Ministry of Public Education and the National Population Council; 7. Presidency of the Republic, *2nd State of the Nation Report*, p. 39; 8. For the years 1990–2000, National Institute for Geography, Statistics and Informatics (INEGI), *Education Statistics, Notebook #6*. For further years, authors' own calculations based on data.