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Economic Inequality and Intergenerational Transfers: Evidence from Mexico

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Abstract

Recent evidence of the National Transfer Accounts (NTA) of Mexico reveals that asset-based reallocations play a significant role in the financing of the expenditures by elderly Mexicans, whereas private and public transfers are used to support most of the expenditures for children. What that evidence does not consider, however, is the fact that differences in socioeconomic status (SES) may seriously distort the reallocation of intergenerational flows. Mexico has long been a country permeated by high levels of inequality, it is then necessary to include its effects in the analysis of intergenerational transfers. Furthermore, age reallocations of economic flows do change over time and such changes might also involve greater economic inequality. In this paper, I assess the effects of SES inequality on the reallocation of intergenerational flows using NTA estimates for two particular years, 1994 and 2004. I show that the reallocation of economic resources, mainly to children and the elderly, by SES changed substantially within this period. The main intergenerational effects associated with SES inequality are: a) equalizing effects of labor income and remittances, b) higher progressivity of public cash and educational transfers, and c) crowding-out effects between private and public transfers among the elderly.

1. Introduction

Recent studies of the National Transfer Accounts (NTA) reveal, among other findings, that asset income plays a significant role in the financing of the expenditures by elderly Mexicans, whereas private and public transfers are used to support practically the whole expenditures for children in Mexico (e.g., Mason and Lee, 2011a). Further, Tung (2011) compares the lifecycle deficit of 23 NTA country members from an international perspective, showing Mexico as the country with the lowest ratio of consumption to labor income. Similarly, Mason and Lee (2011a) report that Mexico is an outlier within the Latin American region in terms of how the lifecycle deficit of the elderly is funded, with asset-based reallocations playing a significant role. Although these striking results are representative of an average Mexican, they ignore important characteristics of the Mexican population, where salient socioeconomic status (SES) inequalities are most prominent and, therefore, having the potential to distort the reallocation of intergenerational flows.

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This paper aims to analyze the effects of SES inequality, measured by education, on the reallocation of economic flows by age, looking at the main factors that may explain differences over time. I use the NTA methodology developed by Mason and Lee (2011b) to allocate economic flows by age, extending the analysis for groups defined by SES. NTA accounts are estimated for two particular years, 1994 and 2004, in order to explore changes in the reallocation by age of economic flows, and the potential effects of SES inequality. The population groups are defined by SES using survey data and considering the maximum level of education reached by the household head.

This article is organized as follows: section 2 provides some background about the NTA framework and recent evidence about economic inequality in Mexico; Section 3 shows the methods used in the estimation of national transfer accounts by age and SES; section 4 presents the main results; and section 5 presents the discussion and conclusions.

2. Intergenerational Transfers and Inequality

2.1 National Transfer Accounts

Under the NTA framework, the economic lifecycle deficit (LCD) is defined as the difference between total consumption and labor income by age: LCD indicates the excess of consumption (C) to labor income (YL) for each specific age group. Specifically, since the youngest and oldest people in a society are least likely to generate income (mainly because of physical and/or mental impediments), their level of consumption exceeds their labor income; conversely, the YL of people of productive ages (generally between 20 to 64 years old) usually exceeds their C, which compensates for the deficit generated by economically dependent groups. Notwithstanding this, in real life, the excess labor income generated by the productive groups does not compensate for the deficit produced by the dependent groups and this shortfall has to be financed by other means. NTA offers the theoretical explanation that societies compensate for the deficits generated by economically dependent groups through a system of economic reallocations operating across generations, defined by private and public transfers (T) and the reallocation of assets (ABR). Details about the theoretical background of the NTA system, as well as empirical results for several countries, are reported by Lee and Mason (2011), with specific results for Mexico presented in chapter 13 (Mejía-Guevara, 2011).

2.2 Inequality in Mexico

Mexico is a highly unequal country situated in the most unequal region of the world (Gasparini et al., 2011), but recent trends reveal a reduction in inequality that started after 1996. According to Esquivel et al. (2010), the most important contributor factor was the reduction in the inequality of labor income per working adult. The authors argue that this reduction has been possible as a result of two main factors: increase in educational expenditures and the expansion of targeted programs to the poor. In the latter case, it is worth emphasizing that *Progres a/Oportunidades*, the leading anti-poverty program of the Mexican government (SEDESOL, 2014), provides economic incentives to increase the access to and use of health and educational services for the poor. This intrinsic characteristic

of the program may have significant effects in reducing inequality (World Bank, 2006), and modifying the intergenerational reallocation of economic flows over time and by SES.

Figure 1 illustrates the trends of two indicators, the Gini coefficient and the *Income Ratio* between deciles 10 to 1, which measure the distribution of household per capita income. This figure shows that inequality declined in Mexico after the increase observed from 1989 to 1996. The Gini coefficient, for example, increased between 1984 and 1994 mainly because changes in the levels and returns to education and other demographic changes that took place during that decade (Bouillon et al., 2003; Campos-Vazquez et al., 2014), it reached its top in 1996 but it started to moderately decline at first but more rapidly after 2000, changing from 0.543 in 1996 to 0.472 in 2010. The *Income Ratio* between deciles 10 and 1 also illustrates the declining trend in inequality. Other empirical studies argue that this reduction in income inequality has been possible due to several factors: changes in the demand and supply of labor by skill; better social programs aimed at combating poverty; a reduction in labor income inequality associated with improvements in educational levels; and the growing flows of remittances from abroad (Campos-Vazquez et al., 2014; Esquivel et al., 2010; Scott, 2014; López-Calva et al., 2012).

3. Data and Methods

3.1 Socioeconomic Status

Socioeconomic status is commonly measured as a combination of income, education, and occupation. Composite measures have been proposed in the past that use these and/or other variables (Duncan, 1961; Green, 1970; Rossi et al., 1974; Hollingshead, 1975; Oakes and Rossi, 2003). However, other authors argue that composite measures may not explain significantly more than a *single, well-chosen parameter*; hence, their use is not worth the extra effort and time invested in their construction (Winkleby et al., 1992). Recent evidence suggests that income and/or education are very strong proxies for SES (Oakes, 2012). However, selecting one of these measures over the other to define SES groups presents advantages and disadvantages.

On the one hand, income may reflect changes in individual characteristics of household members over time, but at the same time, its use imposes challenges to the analysis performed in this article because the sources of income are diverse in the NTA framework, so that the use of income –or any composite measure that includes it– may lead to problems of endogeneity and, therefore, to biased classifications. For example, individuals could adjust their labor supply or saving behavior when they expect to receive transfers. Moreover, income reports are usually less reliable than reports on education, particularly in a country like Mexico with persistent high levels of informality (Mejía-Guevara et al., 2010).

On the other hand, *availability*, *reliability*, and *validity* are probably the characteristics that best describe education as a sole indicator of SES (Winkleby et al., 1992). Education shapes income, work, and economic conditions; it determines the likelihood of being employed, the job position and income associated, so the less educated are more likely to experience economic hardship (Ross and Wu, 1995). Furthermore, education has been the most common indicator for SES in epidemiological studies (Liberatos et al., 1988).

Because of the afore-mentioned arguments, I selected education as a proxy variable to define population subgroups by SES as described in what follows.

Data for the construction of age profiles and SES groups comes from the Income and Expenditure Survey (ENIGH¹) of 1994 and 2004 conducted by the National Office of Statistics (INEGI²) (INEGI, 1994, 2004) of Mexico and data for macroeconomic adjustment from the System of National Accounts of Mexico for the same years (SCNM³, 1994, 2004). Details for the construction of age profiles and their macro-adjustment are described elsewhere (Mejía-Guevara, 2011, 2014). With regard to SES, I use the highest level of education self-reported by household heads in ENIGH 1994 and 2004 to define the four socioeconomic groups represented in Table 1. Specifically, family members whose household head reported having no education, kindergarten, or incomplete primary education, and those with 0 to 5 completed years of education, constitute Group I; Group II corresponds to those with primary or incomplete lower secondary education (6 to 8 years of education); Group III is comprised of households whose heads reported completed high-school or incomplete college education (between 9 and 15 years of education); and Group IV consists of households whose head claimed to have 16 or more years of education.

3.2 National Transfer Accounts by Subgroup

The analysis by socioeconomic status studied in this paper is governed by the modified version of the flow identity (Mason and Lee, 2011b):

$$C_{x,s} - Y_{x,s}^l = \tau_{x,s}^+ - \tau_{x,s}^- + Y_{x,s}^A - S_{x,s} \quad (1)$$

In the standard NTA framework, the life-cycle deficit ($C_x - Y_x^l$) equals net transfers ($\tau_x^+ - \tau_x^-$) plus asset-based reallocations ($Y_x^A - S_x$) at each age x . The subscript s in expression (1) adds a new dimension to the analysis, assuming that the identity holds not only at the national level but also among subpopulations defined by x and s . With this assumption in mind, the methodology can be extended to any subpopulation group; for example, Mejía-Guevara and Vega (2012) propose a method to assess the impact of emigration on the demographic dividend of Mexico by constructing a counterfactual scenario where components of the lifecycle deficit are defined for different emigrant population subgroups. In this paper, however, s represents the population groups defined by SES shown in Table 1.

4. Results

4.1 Distribution of the Mexican Population by Socioeconomic Status

Table 2 displays the weighted sample distribution of the Mexican population stratified by SES groups as defined in Table 1. We can see that the proportion of people in Group I declined from about half (49.5%) to a third (35.7%), which is an outstanding reduction

¹The acronym in Spanish for *Encuesta Nacional de Ingreso y Gasto de los Hogares*.

²The acronym in Spanish for *Instituto Nacional de Estadística y Geografía*.

³The acronym in Spanish for *Sistema de Cuentas Nacionales de México*.

indicating that the number of people living in households with non-educated heads diminished substantially in ten years. As a consequence of that reduction, Group III increased its proportion from about one-fifth (18.7%) to a third (31.4%) during the same period, while the other two groups experienced only small changes. Indeed, the increase in the proportion of people in Group III, as well as evidence from favorable socioeconomic indicators published by De la Calle and Rubio (2010), ignited public discussions as to whether Mexico was becoming a middle class country or not.

However, the use of education as a proxy for SES does not exactly reflect the actual change in SES. For instance, a person living in a low SES household in 1994 who become highly educated, would be classified as low SES again in 2004 if she still lives in that household and the household head does not improve her level of education during that period. The same may occur if other adult household members increased their income during the same period.

Although these effects can be analyzed thoughtfully only with panel data, our cross-sectional data reveals important changes in the household composition that shed some light about the potential magnitude –if any– of SES misclassification. Table 3 shows that the household composition by SES between 1994 and 2004 changed substantially. First, the number of households at the national level increased during the period. Practically no change was observed in Group I, so most of the new households were distributed among the other SES groups (for instance, it almost doubled in Group III – from 4210 to 8227). Second, the average household size decreased at the national level, but mainly in low SES groups. Third, the composition by sex also changed, not only at the national level but also by SES, where the percentage of female headship increased substantially, particularly in medium SES groups.

In summary, indicators in Table 3 show that the methodology to classify SES groups is robust. Compared to 1994, new households in 2004 are more likely to be smaller in size, classified in higher SES groups, headed by females, and younger and better-educated individuals became household heads in 2004. That is, the dynamics of household characteristics seem to be well-captured by education. There is still the possibility that adults with lower/higher income in 2004, living in multifamily households, would remain in the same SES group they were classified in 1994. However, the fact that the size of households has decreased in that period, particularly in lower SES groups, indicates that this potential error may not be significant.

4.2 Intergenerational Reallocations by Socioeconomic Status

The lifecycle deficit results by SES (Panel (a)) and the sources of support of the consumption for the young and the elderly (Panel (b)) are shown in Figure 2. National averages by age correspond to those published by Mejía-Guevara (2011, 2014), with a surplus span (period of the life-cycle where labor income is bigger or equal to consumption) of 18 years (from ages 31 through 49), a pattern of consumption that is flat for those in their productive years, and a slightly declining pattern of consumption for the elderly. The mean consumption reported for individuals living in households whose household heads have little or no education (Group I) is equivalent to half of the national average for the entire lifecycle

span. The labor income of this group is also half of the national average for middle-aged groups, but practically equal to that for children and the elderly. The corresponding patterns for individuals living in households with the most educated heads differ substantially: labor income is about 2.5 times higher than the national average for middle-aged and elderly groups while consumption is even greater for the young (up to 3 times) and the oldest groups (almost 4 times).

Results of the reallocation of resources by age are displayed in Panel (b) of the same Figure. At the national level, almost all of the consumption for children is funded by private (71.2%) and public (19.8%) transfers, whereas the consumption of the elderly is funded by a combination of asset-based reallocations (65.9%), public transfers (26.8%), labor income (26%), and negative private transfers (-18.6%). On average, therefore, the elderly provide support for younger age groups in Mexico (their children or grand-children) rather than the other way around.

Age reallocations also differ substantially when the analysis is conducted by SES groups. On the one hand, while the consumption of children is funded through labor income (11.9%), private (39.8%), and public (48.0) transfers in Group I, it is funded almost entirely through private transfers (96.7%) in Group IV. On the other hand, while consumption of the elderly in the lowest SES group is funded by labor income (33.2%), public transfers (37.9%), and asset-based reallocations (36.4%); it is funded entirely by asset-based reallocations (108.2%) in the highest socioeconomic group. These results reveal that the elderly in the upper SES group rely on their assets, and that they transfer a substantial amount of resources to their children and grandchildren in the form of private transfers. It is worth mentioning that the phenomenon of negative transfers by the elderly is also observed in both socioeconomic groups, but the magnitude of their contributions is entirely different at levels of -7.5% in Group I and -44.2% in Group IV. Additionally, although one-third of the support for the elderly in the lowermost SES group comes from asset-based reallocations, it represents only 5% of the total aggregate, whereas in Group IV it represents 41%.

To look at possible differences along time associated with SES, I replicated the analysis for an additional year, 1994. Results displayed in Panel (a) of Figure 3 show differences by age between the life-cycle deficit in 1994 (solid lines) and 2004 (dashed lines). The comparison is made using values expressed as a share of the average labor income of those aged 30 to 49 for each of these years. Compared to 2004, labor income started earlier in 1994 and was on average higher until age 30, diminishing in growth rate until it reached its peak around age 40 and declining thereafter, but at a slower pace, until age 60. With regard to consumption, the most important differences between 1994 and 2004 are found among the young and old, where the average consumption for these age groups in 2004 is substantially higher than in 1994. As a result of these differences, a higher deficit is observed for both the young and the elderly in 2004, and the surplus span is wider in 1994, starting at age 32 and ending at age 58 (a span of 27 years). This result raises the question: what were the sources of support for children and the elderly in 1994? Panel (b) in the same figure shows that children's consumption was funded as follows: 16.4% by labor income, 76.9% from private transfers, 16% by public transfers, and -9.4% through asset-based reallocations. For the elderly,

consumption was funded 31.1% from labor income, -12% from private transfers, 19.3% from public transfers, and 61.6% from asset-based reallocations. Compared to 2004, the most important differences observed in the funding of children's consumption in 1994 are less reliance on labor income (6.6%), and more reliance on public transfers (19.8%). Meanwhile, in the case of elderly, the most important differences are observed in the reduction of the share of labor income (to 26%), and in the increase of public support (26.6%) and negative private transfers (-18.6%). That is, these results provide evidence of crowding-out effects since in 2004 the elderly not only received a higher proportion of public transfers, but also they transferred a higher proportion of net private transfers to younger groups. This result is consistent with well-established theoretical models (Barro, 1974; Becker, 1974), as well as with empirical evidence showing crowding-out effects between redistributive public programs and private transfers in Mexico; in the particular case of Progresa/Oportunidades (Albarran and Attanasio, 2002) and for a demogrant in Mexico City (Juárez, 2009).

Accordingly, the components with more variation during the period under analysis are labor income and public transfers. The next section of the paper explores in detail the roles of labor income and non-labor income components that may have contributed to the reduction in inequality that started in the mid-1990s, as well as differences in the intergenerational reallocation of resources between 1994 and 2004.

4.2 Labor and non-labor income inequality

Although there was a substantial reduction in labor income inequality in Mexico between 1994 and 2004 (Figure 4), labor income levels did not change at the national level for working-age groups, but the age distribution and -most importantly- the gap between the lowest and highest socio-economic groups experienced an outstanding reduction. Relative to the average labor income of people in their productive years, the peak labor income of the highest SES group declined by a factor of 4 to 4.5 in 1994 to at most 2.5 in 2004. The shape of the distribution for those in the 30 to 55 age groups changed as well, becoming practically flat in 2004, and the distribution in the third SES group also changed during this period, becoming very similar to the national average in 2004. The distribution in Groups I and II practically did not change, remaining flat during the productive years, but the labor income level of the lowermost SES group increased, reducing the gap with respect to the national average and to the other socioeconomic groups.

Figure 5 illustrates reductions in inequality of educational expenditures between 1994 and 2004 that were obtained by the application of the NTA methodology. The left-hand side of Panel (a) shows that, relative to total consumption, expenditures in education increased from 10.8% to 12.3%, and most importantly, it illustrates that the share of such expenditures were higher in the lowest SES groups in 2004 (16.5%), than they were in 1994 (8.2%). The right-hand side of the panel shows outstanding changes in the age distribution in the various SES groups during the period (1994-2004): while the peak of the uppermost SES group remains constant, its distribution varied substantially, changing the concentration of resources to basic education in 2004 as opposed to tertiary groups in 1994. A similar change in distribution is observed at the national level in the other SES groups, but their levels also

changed dramatically. The lowermost SES group, for example, reached its peak in 1994 at around 10% of the labor income of productive groups, but it was 25% in 2004, having the same level and distribution as the national average, which also increased its peak from 20% to 25%.

Panels (b) and (c) show how different these expenditures were and why it is important to distinguish the relative effects of the private and public sectors with regard to education. On the one hand (left-hand side of panel (b)), private expenditures were higher for uppermost SES groups in 1994 and became even higher for those groups in 2004; the age distribution (right-hand side) became more concentrated on age groups at the basic educational levels in 2004; and the gap in the distribution in the lowermost SES groups (I and II) increased relative to the national distribution. On the other hand (left-hand side of panel (c)), public educational expenditures experienced substantial variations during this period, not only increasing at the national level (from 4.6% in 1994 to 5.7% in 2004) but becoming substantially more progressive in 2004 after being slightly regressive in 1994. The share of educational expenditures for the lowermost SES group enjoyed a three-fold increase during this period (from 4.3 to 13.2%), for the second group there was a small increase (5.3 to 7.0%), and there was a corresponding decline in the participation of the two uppermost SES groups (III and IV) with those differences being clearly reflected in the age distribution of public expenditures by SES shown in the right-hand panel. The average expenditure of Groups I and IV were practically reversed between 1994 and 2004, while the average expenditure by age for Group IV went –on average- from three times to less than half of the national distribution. The corresponding change for Group I shows that it went from half to about twice the national average.

With regard to non-labor income sources, remittances (a key component of private interhousehold transfers in Mexico), and cash and in-kind public transfers are important equalizing factors, but public pensions and asset-based reallocations are unequalizing (Figure 6). Panel (a) shows that the share of remittances increased from 1.2 to 3.4 of total consumption between 1994 and 2004 and with higher shares observed in lower SES groups in both years. In 1994, the maximum share to consumption was observed in the lowermost SES group (3.6), while it was null for other SES groups. Meanwhile, in 2004, the contribution of remittances increased in all groups, with Groups II and III demonstrating the most important increases when compared to their respective shares in 1994. These variations have a clear impact on the age distribution of remittances between 1994 and 2004. Panel (b) illustrates the redistributive effects of public cash transfers between 1994 and 2004; these are perhaps the most important equalizing factors because their share to consumption ratio at the national level increased almost 90% (from 2.2% to 4.1%), and the share of Groups I and II more than doubled, from 5.0% to 10.6%, and 2.1% to 4.5%, respectively. Public pensions, illustrated in Panel (c), became slightly more regressive in 2004 than they were in 1994; and asset-based reallocations were substantially bigger for the higher SES groups, as shown in Panel (d).

5. Discussion and Conclusions

This paper shows that SES plays an important role in the intergenerational allocation of economic flows. When the analysis is focused on national averages by age, as it is typically done in the standard NTA framework, it is not possible to assess important reallocations that take place among economically unbalanced SES groups. When SES differences are significant, as is the case in countries with high levels of inequality such as Mexico, population subgroups that concentrate economic resources may distort the distribution of economic flows, not only at the national level but also for specific age groups.

Two years of evidence indicate that the distribution by age of labor income and consumption differ substantially among groups defined by SES. Labor income and consumption by age is half of national averages in the lowermost SES group, whereas they are substantially higher in the uppermost SES group. A salient result is represented by the fact that consumption by the uppermost SES group increased among the elderly, a pattern commonly seen in developed countries such as Germany (Kluge, 2011) and Sweden (Hallberg et al., 2011). However, the pattern of labor income age distribution for this group differs from that observed in developed countries in that labor income declines abruptly around the age of retirement (Lee and Ogawa, 2011), while it continues to be substantial in Mexico among the elderly.

Moreover, labor income decreased for children at the national level between 1994 and 2004, whereas consumption increased at all ages, but more markedly for children and the elderly. The net effect for all ages defines the lifecycle deficit, which increases for children and the elderly during that period. In the case of children, the increase is due to the combination of lower labor income and higher consumption in 2004, whereas in the case of elderly the increase in consumption dominates the correspondent increase in labor income. Public consumption was an important contributor factor for the relative increase of total consumption in 2004, where expenditures in education and health (not shown) played an outstanding role. Compared to 1994, public transfers became an important source to financing the life-cycle deficit of children and adults in 2004, where in-kind and cash transfers played the most important role. The change in the government's strategy to combat poverty, started in the mid-90s, had a significant impact not only in terms of reducing poverty, as has been widely documented (Levy, 2006), but also in terms of redistribution. It is worth mentioning that the most important program to combat poverty in Mexico, the conditional cash transfer program *Progres-a-Oportunidades*, contains a major educational component that forces beneficiary children to stay in school, contributing to the expansion of basic education and reducing their participation in the labor force, as is evident in the age distribution of labor income in 2004.

Overwhelming evidence suggests that inequality was reduced in Mexico between the 1990s and the 2000s. For instance, Esquivel et al. (2010) consider the reduction of the labor income inequality as the most important contributor factor to the reduction of inequality, attributing such changes to the systematic narrowing of the gap between more educated workers and workers with little or no education (or premium to skills) that started at the mid-1990 and asserting that education was the equalizing factor. Results from this paper

further inform previous evidence as they indicate that labor income became an important equalizing factor between 1994 and 2004, which is clearly reflected in its allocation by age.

This article also reveals that expenditures in education, an important component of the lifecycle consumption, remained practically constant in relative terms between 1994 and 2004, but their composition by age and SES changed dramatically. More resources were devoted to primary and secondary education in 2004 for every SES group, and the participation of the lowermost SES group improved slightly. However, when the effect is disaggregated by public and private sectors, we observe that public expenditures in education had outstanding equalizing effects that dominate unequalizing effects of private educational expenditures. These results are consistent with those from Esquivel et al. (2010) and Lustig et al. (2013). In particular, Lustig et al. (2013) asserted that one of the main causes of the reduced income inequality in Mexico was a significant expansion of basic education –which is mainly provided by the public sector-, a factor that is behind the change in labor composition by skill, and being probably associated with conscious government efforts of previous administrations.

Regarding non-labor income sources, remittances and public cash transfers also had important equalizing effects although the age allocation did not entirely favored lower SES age groups in the case of remittances in 2004, despite being the case in 1994. Furthermore, unequalizing effects were found for public pensions and asset-based reallocations either in 1994 and 2004, although the interpretation in the case of pensions should take into account two important aspects: the reform of the Mexican pension system and the persistent informality in Mexico's labor markets. The first aspect refers to the reform of the pension system that took place in 1997, replacing the pay-as-you-go (PAYG) system by a fully-funded plan that was based on individual accounts administered by the financial sector. This reform only affected workers in the private sector, and it had the option to compliance with specific conditions for them to stay in the old system and enjoy the benefits stipulated therein. This fact is relevant to this paper because in 2004 only those workers in the public sector and those who had decided to stay in the old system (probably after having contributed to the system for many years) were the people receiving a pension and those who were more likely to be stratified in Group IV. This is also relevant to the second consideration because the workers who benefited went into retirement after several years of working in the formal sector, and then they were more likely to belong to higher socioeconomic strata.

A limitation of this analysis is its definition of SES groups, where the highest educational level reached by the household head was the main criterion, a choice that centers the analysis at the household level and ignores specific SES characteristics of individuals within the household. Another limitation is that the wealthiest individuals were left out of the analysis because income and expenditure surveys, although nationally representative, do not capture information for these subgroups. A further limitation is that the effects of the business cycle are not considered in the comparisons between the two years of study. Recent evidence, however, suggests that after 1996 Mexico has lowered the volatility of its business cycle, attributable to exchange reserves no longer having much predictive power (Miles and Vijverberg, 2011), partly to more trade, but mostly to better domestic macroeconomic

management (Sosa, 2008). The effects of those policy changes over the whole intergenerational framework of the two years discussed is matter of further research.

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Figure 1.
Trends of income inequality in Mexico: 1989 to 2012.
Source: CEDLAS and the World Bank (2014).

Figure 2.

Life-cycle deficit* (a) and intergenerational reallocations (b) by SES: Mexico 2004

Source: Author's estimates with information from SHCP (1994, 2004) and INEGI (1994, 2004).

* Dashed lines represent national averages.

Figure 3.

Lifecycle deficit (a) and sources of finance (b) of consumption by SES: Mexico 1994

Source: Author's estimates with information from SHCP (1994, 2004) and INEGI (1994, 2004).

* Dashed lines correspond to 2004.

Figure 4.

Labor income inequality: Mexico 1994 and 2004.

Source: Author's estimates with information from INEGI (1994, 2004).

Figure 5.
Educational expenditure by SES: Mexico 1994 and 2004.

Source: Author's estimates with information from SHCP (1994, 2004) and INEGI (1994, 2004).

Figure 6.

Non-labor income inequality (remittances (a), cash public transfers (b), public (c), and asset-based reallocations (d)): Mexico 1994 and 2004.

Source: Author's estimates with information from SHCP (1994, 2004) and INEGI (1994, 2004).

Table 1

Levels of education and corresponding years in the Mexican system.

Group	Level of education	Years of education (completed)
I	None, kindergarten, or incomplete primary	[0-6)
II	Primary or incomplete lower secondary	[6-9)
III	Lower secondary or incomplete upper secondary	[9-16)
IV	Undergraduate, Master or PhD	16 or more

Source: Author with data from INEGI (1994, 2004).

Table 2

Weighted sample size and share by SES (1994 vs. 2004).

Group	1994		2004	
	N	%	N	%
I	44,657	49.5	36,879	35.7
II	21,880	24.2	24,059	23.3
III	16,861	18.7	32,371	31.4
IV	6,899	7.6	9,933	9.6
Total	90,296	100.0	103,241	100.0

Source: Author with data from INEGI (1994, 2004).

Table 3
Distribution and Demographic Characteristics of Households by SES (Mexico 1994 vs. 2004).

Group	Total		Mean Size		% Female ^I		Mean Age ^I	
	1994	2004	1994	2004	1994	2004	1994	2004
I	8,815	8,867	5.1	4.2	17.8	28.2	51	56
II	4,693	5,719	4.7	4.2	12.7	22.8	42	45
III	4,210	8,227	4.0	3.9	12.6	21.1	36	39
IV	1,722	2,748	4.0	3.6	9.8	15.4	40	43
Total	19,440	25,561	4.6	4.0	14.8	23.3	45	47

^I Household head.

Source: Author with data from INEGI (1994, 2004).