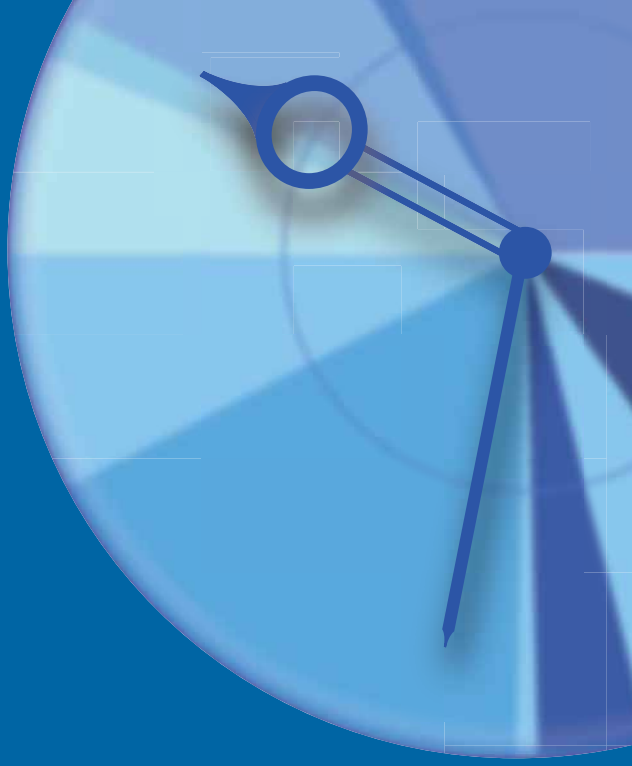

WHY TIME DEFICITS MATTER: IMPLICATIONS FOR THE MEASUREMENT OF POVERTY

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Preface

This report presents findings from a research project undertaken by the *Gender Equality and the Economy* and the *Distribution of Income and Wealth* programmes of the Levy Economics Institute. The project's objective is to propose an alternative to official income poverty measures that takes into account household production (unpaid work) requirements. Based on this new analytical framework, empirical estimates of poverty are presented and compared with those calculated according to the official income poverty lines for Argentina, Chile and Mexico.

The undertaking of this work was initiated as a result of joint discussions and collaboration between the Levy Economics Institute and United Nations Development Programme (UNDP) Regional Service Centre for Latin America and the Caribbean (RSCLAC), particularly, the Gender Practice, Poverty, and Millennium Development Goals (MDGs) areas. It addresses an identified need to expand the knowledge base on the links between (official) income poverty and the time allocation of households between paid and unpaid work, conceptually, analytically, and empirically.

Our point of departure rests with the idea that economic and social policies that focus on combating poverty and promoting equality require a deeper and more detailed understanding of the linkages between labour markets (and earnings), unpaid household production, and existing arrangements of social provisioning—including social care provisioning. In all countries, this nexus creates distinct binding constraints for different types of households and individuals, and especially for men and women. For the segments of the population that have insufficient access to income, and hence face deficits in meeting basic necessities, a host of interventions are enacted to ameliorate their deprivations. While it is acknowledged that 'one shoe does not fit all sizes,' we believe that much insight can be gained when the nexus of earnings and household production is considered.

Customarily, income poverty incidence is judged by the ability of individuals and households to gain access to some level of minimum income based on the premise that such access ensures the fulfilment of basic material needs. However, this approach neglects to take into account the necessary (unpaid) household production requirements, without which basic needs cannot be fulfilled. In fact, the two are interdependent and evaluation of standards of living ought to consider both dimensions. This is of

particular importance as the size and composition of different households necessitate very different levels of household production, and it should not be assumed that *all* households are able to meet these requirements. In order to also promote gender equality, it is imperative to understand how labour force participation (and earned income) interacts with household production responsibilities, as it is already well established that women contribute their time disproportionately to unpaid work, particularly unpaid care activities.

We wish to express our gratitude to UNDP-RSCLAC for their financial and intellectual support, and in particular to Carmen de la Cruz, Gender Practice Leader, Regional Service Centre for Latin America and the Caribbean, without whom this undertaking would not have been possible. In addition, we are grateful to the International Labour Organization (ILO) for the support provided for the case study in Chile. Last but not least, we are indebted to our colleagues for their research contributions and background documents for the case studies—for Argentina, Valeria Esquivel, Instituto de Ciencias, Universidad Nacional de General Sarmiento; for Chile, María Elena Valenzuela and Sarah Gammage, International Labour Organization; and, for Mexico, Monica E. Orozco Corona, Instituto National de las Mujeres, Government of Mexico, and Armando Sanchez Vargas, Universidad Nacional Autónoma de México. They provided valuable inputs and worked alongside the Levy team members: Ajit Zacharias and Rania Antonopoulos, who served as the co-directors of this project; Thomas Masterson who was primarily responsible for the development of the synthetic data files and microsimulations used in the study; and Kijong Kim who provided support in earlier stages of the write-up of this report. The results reported here were generated within a short span of time (under a year), and further exploration of the rich source of information assembled for the project is envisioned over the next year.

In what follows, we introduce the topic in chapter 1. In chapter 2, we present the analytical framework of the study. We present summary statistics for households and individuals, respectively, in chapters 3 and 4 for Argentina, Chile, and Mexico. The results of a microsimulation exercise that allows us to gauge the poverty transformation—from the standpoint of the nexus of income and household production—stemming from a hypothetical scenario of full-time employment for all adults are presented in chapter 5. By way of conclusion, in chapter 6, we draw on the principal findings of the study and put forward some thoughts on the existing policies regarding poverty reduction, employment generation, and

inclusive growth. The methodology used for the statistical matching and the simulations undertaken are described in the two technical appendices.

Ultimately, our aim is to contribute to on-going efforts and dialogues whose focus is on the improvement of living conditions for all, especially those still living in poverty. We hope this report serves the purpose.

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Rania Antonopoulos

1 Introduction

1.1 Context

Despite the progress made in poverty reduction and gender equality, many challenges are still with us. In the last decades, a substantial amount of research has been undertaken to better understand their persistence, especially in the context of human development. By now, it is widely recognized that 'economic growth' is not synonymous with 'development.' It is well understood that a coherent set of policies must be put in place for growth to become more inclusive of poor and marginalized segments of our societies because growth on its own does not always reduce poverty and inequalities, including gender-based ones, nor does it automatically bring about improvements in human well-being. For many groups of citizens, work opportunities in higher productivity sectors of the economy remains elusive; overall decent job creation has been lacklustre; and underemployment, nonemployment, and 'out of the labour force' status for many adults of working age is worrisome. For many women in particular, although there is improvement, the trend of low levels of labour force participation, low wages, and disproportionate time allocation, *vis-à-vis* men, to unpaid household production activities is changing, but only very slowly.

Since the 1980s a host of poverty reduction social policies and social assistance programmes have been introduced. Yet, poverty and inequalities remain key developmental challenges. It is important to remind ourselves that poverty reduction strategies are designed according to the particular lens that policy making adopts. In this regard, the very understanding of poverty and its underlying interpretation matter a lot. Structural causes (i.e., sectoral allocation of investment; employment elasticities of growth; segmentation of labour markets and wage structures; productivity changes in agriculture, etc.), and binding individual constraints (educational attainment; access to vital productive resources; location, size, and demographic characteristics of households; intrahousehold division of labour, etc.), despite prevailing social redistributive policies (entailing fiscal space constraints and prioritization of spending objectives), ultimately combine to entangle some groups of people in a web of disadvantages.

Against this background, inclusive growth and poverty reduction are most effective *and* sustainable when (re-)mediating policy interventions are successful in transforming the disabling and inequitable socioeconomic positions that 'lock-in' segments of the population in poverty, both women and men. From a women's economic empowerment point of view, to address the reasons that prohibit them from participating in and benefiting from economic growth, it is important that the overall approach and

precise choices of poverty reduction programmes redress women's disadvantages, many of which are based on social roles and responsibilities. More specifically, if unpaid work is seen as 'natural,' if the need to reduce it is not taken into account when interventions are chosen, and if there is unawareness on how unpaid and paid work are interconnected, women's strategic interests will not be well served.

Time use surveys point us in the right direction in this regard. They provide sufficient information regarding time allocation between paid and unpaid work to help us make progress in terms of redressing inequitable gender-ascriptive roles and processes within but also, and *equally important,* beyond the household. The Committee on the Elimination of Discrimination against Women (CEDAW) and the Fourth World Conference on Women held in Beijing in 1995 have been instrumental in this regard: incorporation of a gender perspective when producing, analysing, and disseminating national statistics has gradually gained visibility. A good example of this goes back to 1989, when CEDAW issued General Recommendation No. 9, stating that 'statistical information is absolutely necessary to understand the real situation of women in each of the States Parties to the Convention.' Thus came the great push forward that led to data collection methodologies that made transparent and allowed tracking of inequities, including gender gaps in health, education, political participation, earned income opportunities, labour force participation, etc., at the national and international levels. They have proven to be imperative for monitoring trends and advocacy for sound economic analysis and policy formulation. Measurement of (unpaid) time-adjusted income poverty, the subject matter of this report, can allow for further progress in this direction.

Key to these developments has been the data collection on time use through time use surveys. Research has documented that women spend disproportionate amounts of time on unpaid household production, care, and maintenance activities while men allocate more of their time to paid work. In most instances when paid and unpaid work is combined, women work longer hours. Overall, their earnings are lower than men's with gender differentials in wages stubbornly persisting, despite women's increased educational attainment.

The unpaid workload women carry adversely affects their own economic and financial autonomy; it also affects the potential income of their households. In Latin America, in recent years, the focus on the unpaid work burdens of women has contributed to a rethinking of work, family, and care responsibility reconciliation policies, as exemplified in the 2009 report, 'Work and Family: A new call for public policies of reconciliation and social co-responsibility,' prepared by the ILO and UNDP, and is informing debates

within the public agenda. In tandem, the need for time use data is clearly on the agenda as indicated by on-going discussions and research on refining methodologies of time use data collection, new national level initiatives underway to collect time use data (eighteen countries have undertaken initiatives to measure time use through their National Institutes of Statistics), and very importantly, the inclusion of 'total work hours,' paid and unpaid, as one of the indicators of economic autonomy of women by the Observatory of Gender Equality in Latin America and the Caribbean.

The links between the information collected in surveys of time use and public policy is crucial. Unpaid work burdens are particularly worrisome for adult women living in poverty; reinforcing other inequalities, it traps them even deeper into socioeconomic exclusion and marginalization. So far, by pointing out gender disparities, the policy discussion has focused on two main themes: first, inclusion of unpaid work—via satellite accounts—as part of GDP with the aim to make women's contributions to the economy and to well-being visible; and second, as mentioned above, advocacy for work-family reconciliation policies. On-going discussions also include the consideration of polices that can reduce unpaid work via the further development of public infrastructure (water, sanitation, etc.) and prioritization of public spending in care provisioning (childcare, eldercare, health services for the ill and disabled, etc.).

In what follows, we provide an analytical and empirical framework that argues for the inclusion of unpaid household production work in the very conceptualization and calculations of poverty. Empirical analysis, according to this framework can shed light on poverty differences among households, female-headed households versus other types of households, and between men and women within households. One of the contributions of this approach is that it shows *that awareness of gender differences (in this instance, unpaid work) can bring to the forefront a 'missing' but KEY analytical category* that allows for an improved measurement of poverty and a deeper and more precise poverty classification of households and individuals. Furthermore, correcting for the long standing omission of household production creates space for recalibrating and informing 'impact analyses of economic growth, which should incorporate labour market changes in tandem with changes in household production. This deeper view into the nature of time and income poverty allows for more effective policy options to be directed towards poverty reduction. In this sense, the methodology presented is useful for gender 'impact' analysis, but goes a step further. It shows that if unpaid work is not made visible, our estimates of poverty are misleading. Furthermore, it provides the

groundwork to evaluate whether a variety of social and economic policies can potentially contribute to poverty reduction in a way that is meaningful and transformative to the lives of women and men alike.

1.2 The conceptual concern with existing income poverty measures

Official income poverty measures provide estimates of a ***minimum necessary level of money-income*** that must be secured by households so as to gain access to a basic basket of necessities. This datum is utilized to establish the prevalence (headcount) and severity (depth/gap) of poverty. Much attention and research has focused on the calculation of this threshold and for good reason, indeed: it allows for tracking of trends—nationally and internationally—and supports adjudication of the efficacy of poverty reduction policies.

In spite of differences—both conceptual and methodological—in the specification of the level of poverty thresholds currently used (US$1.25 or US$2 a day, absolute levels or relative poverty, etc.) and notwithstanding the heated debates regarding the appropriate threshold to use, there are two *implicit* and shared assumptions about household production behind these calculations. First, that in achieving any given level of standard of living, households *de facto* dedicate a certain ***minimum necessary amount of time on household production,*** which is combined with the household's money-income (or consumption expenditures); second, that the requisite household production time is always available in *all* households.

While several unpaid household production activities are mandated to be included and measured by the System of National Accounts (SNA 1993) as constitutive parts that contribute to household well-being and GDP, household (re)production activities remain outside the production boundary. To give just a few examples of the latter, to ensure a household's reproduction, time must be dedicated to caring for the very young, the elderly, and those in ill health; transforming purchased raw ingredients into consumable meals; using cleaning materials so that sanitary and healthy environments are maintained, etc. The merits of excluding such activities are debatable, but when the concern is measuring poverty, not taking explicit account of them is highly misleading. If time spent on unpaid household (re)production work contributes to well-being, then lack of time must impact households and individuals negatively.

As in the case of establishing minimum income requirements, the size, composition, geographic location, and other characteristics of a household and its members influence decisively the *minimum requirements* of time that must be dedicated to achieve the necessary level of unpaid household

production of goods and services, so as to fulfil adequate levels of provisioning of household maintenance and reproduction needs. Similar to income deficits, not all households have sufficient time for (unpaid) household production requirements and therefore, when not made explicit and accounted for, inequalities of access to minimum necessities across and *within* households—emerging due to time deficits for required household production—are hidden and, in fact, assumed away.

1.3 A brief introduction to the analytical framework

The proposed framework examines these questions by integrating paid employment and unpaid household production work. Simply put, access to the necessities and conveniences of life is gained not solely through purchased goods and services (which require earned income) but also through unpaid household production activities (which requires that someone allocates time to unpaid work). Accordingly, as mentioned above, **the first key idea** behind our methodology is that, similar to a *minimum necessary income* that secures access to a basic 'basket' of goods and services available in markets, a *minimum necessary amount of household production time* must be identified. Because the size of households and presence of children matters, we identify distinct levels of required time for different types of households.

While a certain minimum amount of time is imperative and must be spent on household production, individuals within households do not supply this required time in a uniform and equally shared manner. **The second key idea** behind our methodology is that each individual's time contribution needs to be identified and taken into account in poverty assessments. At the outset, it is important to note that for the household's well-being it makes no difference *who* provides these time inputs. Any household member or in-sourcing/out-sourcing (by hiring in or purchasing from the market) can fulfil this requirement. In other words, this time is substitutable. Yet, the revealed modality of provisioning these hours (or the equivalent goods and services) impacts individuals within the household and differentiates them according to their actual allocation and use of time.

Some households—that is, individual household members—may not be able to meet their household production requirements because they devote too much time (relative to the time required for household production) to employment. Not having enough time suggests they face a time deficit. **The third key idea** behind our methodology is that such time deficits must be monetized and added to the standard income poverty line. The rationale behind adjusting the poverty income threshold by adding on the monetized time deficits can be seen by considering the following question: Can households that

face time deficits (in their ability to engage in household production) cover them via market purchases? If they can, but *without danger of depleting their income to such a degree that they would fall below the poverty line*, they (or at least some members in these households) face time deficits—but such deficits do not translate into an immediate risk of falling into income poverty. They are socioeconomically in a position to make up for their time deficit by in-sourcing services (a domestic worker, a child care worker, a cook, etc.) or by out-sourcing them (to restaurants, private day-care providers, laundry service facilities, etc.). In other words, some households can 'buy' themselves out of their household production time deficits comfortably because there is sufficient income to allow for the replacement of what would have otherwise been provided via unpaid household production hours. Such households are income-nonpoor, despite their time deficit.

Other households may not be resilient to time deficits. This type of vulnerability, after monetizing their time deficits, will result in some already income-poor individuals and households being in even deeper poverty, revealing their added deprivations through larger income gaps, over and above what official income poverty measures allow us to capture. An even more telling picture emerges for the 'hidden poor', those above and around the standard income poverty line whose deprivations become visible only when we augment their poverty line by the monetized value of what cannot be provided through unpaid household production work due to lack of time. Official measures classify them as income-nonpoor. But, in fact, their household structures demand that a certain amount of household production is performed (if basic needs are to be met) which they neither possess nor can purchase substitutes for. They are poor, but invisible to the existing measures.

1.4 Objectives of the research project

The principal goal of this project is to provide an alternative conceptual and analytical framework to official income poverty thresholds. By integrating household production time requirements with income requirements, **LIMTIP**, the Levy Institute Measure of Time-Income Poverty, provides a four-way classification of households according to their income and time poverty status. On this basis, calculations that capture previously hidden poverty (headcount and poverty gaps) become possible.

The second objective rests with the identification of the *differentiated* hardships time poverty imposes (especially when coupled with or translated to income poverty) on individuals within households. Adults are liable to experience poverty differently, along gender and other socioeconomic and demographic characteristics such as age, location, headship of household, worker status, marital status, etc. The

feminization of poverty, for instance, is greatly informed by this perspective.

The third goal of our project is to provide a microsimulation methodology that is useful for evaluating the potential impact of policy interventions or market-based changes on households' and individuals' ability to *transition out* of poverty.

1.5 Information content of the LIMTIP and potential uses

The two-dimensional measure provides additional information about deprivation that is not available from the standard income poverty measure:

1. A four-way classification of the households and individuals at the aggregate level (for the whole population) and for important population subgroups such as women, single female-headed households, informal workers, etc.

1. Income poor, with time deficit
2. Income poor, without time deficit
3. Income non-poor, with time deficit
4. Income non-poor, without time deficit

2. Poverty rates (headcount) now include the 'hidden' income-poor, namely those with income above the standard income poverty threshold but who fall below the adjusted income poverty threshold that take into account the (monetized) replacement cost of their time deficit. Poverty gaps now also reflect the degree to which a household's income deprivations are exacerbated due to incomplete access to minimum household production requirements.

3. A richer framework for thinking about the impacts of a variety of policy scenarios that can potentially reduce poverty, so as to examine with more clarity the complex relationship between employment, income poverty and time poverty. For example, we may wish to ask: who might be able to transition out of poverty through newly created employment due to increased growth, assuming there are no fundamental structural, sectoral, or labour market changes? For those that do not escape poverty, what might be the binding constraints and underlying reasons, and what other additional interventions might be needed? Would an employment guarantee or conditional cash transfers fill in

income gaps, when household production responsibilities are taken into account, and for whom? And in this regard, how should sub-population prioritization of budgetary allocations inform current work-family co-responsibility agendas?

2 Model and Empirical Methodology

As stated in the Introduction, we develop alternatives to the official income poverty thresholds in Argentina, Chile, and Mexico. To reiterate what was stated in the previous section, our rationale for constructing the alternative thresholds is the inequitable nature of the official thresholds. Specifically, the latter involve the implicit assumption that households must combine a certain minimum amount of time on household production and income if they are to attain the poverty level standard of living. But, some households may not have enough time to meet the poverty level time requirement because the individuals in the household devote too much time (relative to the requirement) to employment. As a result, two households with income equal to the poverty threshold will have the same poverty ranking, even though one of them might not have the minimum amount of time required for household production or the resources to purchase the requisite market substitutes.[1]

Our alternative measure is a two-dimensional measure of income and time poverty, which we refer to as the Levy Institute Measure of Time and Income Poverty (LIMTIP). Time poverty, especially when coupled with income poverty, imposes hardships on the adults who are time-poor as well as their dependents, particularly the children, elderly, and sick. Income poverty alone does not convey enough useful information about their deprivation. Our measure can shed light on this phenomenon.

We also investigate whether employment (under the existing pattern of earnings and hours of employment) offers a way out of income poverty. This is especially relevant because much of the policy debate centres around the growth-employment-poverty alleviation nexus. To address this issue, we simulate a situation in which every employable adult who is currently nonemployed or employed part-time is employed full-time. This is, in some sense, a best-case scenario as far as the amount of employment available in the economy is concerned. However, our findings suggest that even in this best-case scenario, there will be a substantial number of people who would still be income-poor and time-poor; the overwhelming proportion of new entrants into full-time employment would end up being time-poor.

[1] Our criticism of the official thresholds is especially relevant for low-income working families. Workers in such families may not have the time to perform the essential tasks of household production—cooking, cleaning, taking care of children, etc.—that need to be undertaken to reproduce themselves, nor may they have enough money to replace their time deficits with market substitutes, such as, for example, buying ready-made meals. That is, some low-income working families who are classified as income-nonpoor may actually be income-poor if their time deficits are taken into account.

2.1 A model of time and income poverty

We begin with a model that explicitly incorporates time constraints into the concept and measurement of poverty. The key differences between our approach and the original approach set out by Claire Vickery (Vickery 1977) are that we explicitly take into account intrahousehold disparities in time allocation and do not rely on the standard neoclassical model of time allocation.[2] The starting point of the model is the basic accounting identity of time allocation which states that the physically fixed number of total hours equals the sum of time spent on income-generation, household production, personal care, and everything else which we denote as 'leisure/free-time.' Assuming the unit of time to be a week, we can write:

$$168 \equiv L_i + U_i + C_i + V_i \qquad (1)$$

In the equation above, L_i denotes the time spent on income-generation (wage or own-account employment) by individual i, U_i the time spent on household production, C_i the time spent on personal care, and V_i the time available as 'free time.' The time deficit equation is derived from the identity by replacing the variables with the threshold values for personal care and household production, and taking into account commuting time:

$$X_{ij} = 168 - M - \alpha_{ij} R_j - L_{ij} \qquad (2)$$

The time deficit faced by the working-age individual i in household j is represented by X_{ij}. The principle behind the threshold values for personal care and household production is similar to the principle behind the thresholds of minimum consumption requirements for income poverty. That is, a person may actually only spend five hours a day sleeping, but we assume that they need, say, for example, 8 hours of sleep**.** The minimum required time for personal care and nonsubstitutable household activities is represented by M. Personal care includes activities such as sleeping, eating and drinking, personal hygiene, some minimum rest, etc. The idea behind nonsubstitutable household activities is that there is

[2] For a detailed presentation and comparison to other major approaches, see Zacharias (2011).

some minimum amount of time that the household members need to spend in the household and/or with other members of the household if the household is to reproduce itself as a unit.[3]

The amount of *substitutable household production time that is required* to subsist with the poverty level of income is denoted by R. If the household is at the poverty level income, then, in order to attain the poverty level consumption, it has to spend a certain number of hours in household production activities, conditional on its characteristics.[4] In general, income poverty thresholds used in poverty assessments rest on the implicit assumption that households around or below the poverty line possess the required number of hours to spend on household production. A central goal of our study is to do away with the assumption that *all* households possess these hours and make the household production needs of low-income households integral to the assessment of the nature and extent of poverty.

Numerous studies based on time use surveys have documented that there are well-entrenched disparities in the division of household production tasks among the members of the household, especially between the sexes. Women tend to spend far more time in household production relative to men. The parameter α_{ij} is meant to capture these disparities. It is the share of an individual in the total time that their household needs to spend in household production to survive with the poverty level of income.

The difference between the total hours in a week and the sum of the minimum required time that the individual has to spend on personal care and household production is the notional time available to them for income-generation and 'leisure.' We have defined time deficit/surplus accruing to the individual as the excess or deficiency of hours of income-generating activity compared to the notional available time. To derive the time deficit at the household-level, we add up the time deficits of the n individuals in the household:

[3] Vickery (1977, p.46) defined this as the minimum amount of time that the adult member of the household is required to spend on "managing the household and interacting with its members if the household is to function as a unit." She assumed that this amounted to 2 hours per day or 14 hours per week. Harvey and Mukhopadhyay (2007) made no allowance for this. Burchardt (2008, p.57) included a minimal amount of parental time for children that cannot be substituted. It is arguable that the inclusion of activities of "managing the household" in this category might be double-counting, if we include household management activities in the definition of household production. However, it can also be argued that most of the nonsubstitutable time consists of the time that the household members spent with each other and that the poverty level household production (discussed in the next paragraph in the text) does not include a "realistic" amount of time for household management. In practice, this is a relatively small amount of time and, therefore, either methodological choice would have no appreciable effect on the substantive findings.

[4] The characteristics that we take into account in our empirical work are the number of children, number of adults and, in the case of Mexico, location (rural versus urban).

$$X_j = \sum_{i=1}^{n} \min(0, X_{ij}) \qquad (3)$$

Now, if the household has a time deficit, i.e., $X_j < 0$, then it is reasonable to consider that as shortfall in time with respect to R_j; that is, we assume that the household does not have enough time to perform the amount of substitutable household production.

A crucial point to note in this expression is that we are not allowing the time deficit of an individual in the household to be compensated by the time surplus of another individual of the same household. This is a sharp contrast to the usual assumption of 'unitary' household found in the mainstream literature. The significance of the difference can perhaps be illustrated by considering the time allocation of the husband and wife in a hypothetical family where both are employed. Suppose that the wife suffers from a time deficit because she has a full-time job and also performs the major share of housework; and, suppose that the husband has a time surplus because after returning home from work he does very little housework. Adding up the husband's time surplus and the wife's time deficit to derive the total time deficit for the household would be equivalent to assuming that the husband automatically changes his behaviour to relieve the time deficit faced by the wife. In contrast, we assume that no such automatic substitution takes places within the household.

If the minimal assumptions behind the equations set out above are accepted as reasonable, then it follows that there is a fundamental problem of inequity that is inherent in the poverty thresholds if the deficits in the necessary amounts of household production are not taken into account. Consider two households that are identical in all respects that also happen to have an identical amount of money income. Suppose that one household does not have enough time available to devote to the necessary amount of household production while the other household has the necessary available time. To assign identical poverty ranking, that is, to treat the two households as equally income-poor or income-nonpoor would be inequitable towards the household with the time deficit.

The problem of inequity can be resolved by revising the income thresholds. If we assume that the time deficit in question can be compensated by market substitutes, the natural route is to assess the replacement cost. The latter can then be added to the income poverty threshold to generate a new threshold that is adjusted by time deficit:

$$y_j^o = \bar{y} - min(0, X_j)\, p, \tag{4}$$

where y_j^o denotes the adjusted threshold, $\bar{y}$ the standard threshold, and p the unit replacement cost of household production. Obviously, the standard and modified thresholds would coincide if the household has no time deficit.

The thresholds for time allocation and modified income threshold together constitute a two-dimensional measure of time and income poverty. We designate the measure as the Levy Institute Measure of Time and Income Poverty (LIMTIP). **We consider the household to be income-poor if its income, y_j, is less than its adjusted threshold, and we term the household as time-poor if any of its members has a time deficit**:

$$y_j < y_j^o \Rightarrow \text{income-poor household}; X_i < 0 \Rightarrow \text{time-poor household} \tag{5}$$

For the individual in the household, **we deem them to be income-poor if the income of the household that they belong to is less than the adjusted threshold, and we designate them as time-poor if they have a time deficit**:

$$y_j < y_i^o \Rightarrow \text{income-poor person; or } X_{ij} < 0 \Rightarrow \text{time-poor person} \tag{6}$$

The LIMTIP allows us to identify the 'hidden' income-poor—households with income above the standard threshold but below the modified threshold—who would be neglected by official poverty measures and therefore by poverty alleviation initiatives based on the standard income thresholds. By combining time and income poverty, the LIMTIP generates a four-way classification of households and individuals: (a) income-poor and time-poor; (b) income-poor and time-nonpoor; (c) income-nonpoor and time-poor; and (d) income-nonpoor and time-nonpoor.

This classification offers a richer framework for thinking about the impacts of employment and income growth on poverty. The standard income poverty measure is, in this respect, a two-state variable: any source of new income growth can make the household nonpoor or keep it poor. To illustrate the difference, consider the income-poor and time-nonpoor group. This group can include households that, if they tried to work their way out of poverty by allocating more time towards employment, might end up facing time deficits. For some households, then, it may not be possible to escape income poverty via employment because they will not earn enough to offset the monetized value of their time deficit. Likewise, in the income-nonpoor and time-poor group, there may be households that might fall into income poverty if they reduce their time deficit on their own, i.e., by cutting down on the time that they

allocate towards employment. These concerns point to the importance of considering not just the actually observed situation of the household but also potential scenarios—an issue we address below via our simulation of a situation in which every employable adult of working age is employed full-time. Such exercises should be central to our thinking about whether the expectations of inclusive growth would translate into tangible improvements in well-being. What this analysis highlights is that social policies to combat time deficits must be considered in a consistent and coherent manner jointly with economic policies intended to address income poverty.

2.2 Empirical methodology and data

2.2.1 Statistical matching

The empirical implementation of the approach sketched above requires microdata on individuals and households with information on time spent on household production, time spent on employment, income from employment, and household income. Given the importance of intrahousehold division of labour in our model, it is necessary to have information on the time spent on household production by all persons[5] in multi-person households. Good data on all the relevant information required for the LIMTIP is not available in a single survey for Argentina, Chile, and Mexico. But, good information on household production was available in the time use surveys, and good information regarding time spent on employment, income from employment, and household income was available in the income surveys in all three countries. Our strategy was to statistically match the time use and income surveys to create a synthetic data file. The surveys used in the study are shown in Table 2-1.

[5] Our basic concern is that we should have information regarding household production by both spouses (partners) in married-couple (cohabitating) households, and information on older children, relatives (e.g. aunt), and older adults (e.g. grandmother) in multi-person households.

Table 2-1 Surveys used in constructing the Levy Institute Measure of Time and Income Poverty

Country	Income Survey	Time use Survey
Argentina[1]	Encuesto Annual de Hogares (EAH), 2005	Encuesta de Uso del Tiempo de la Ciudad de Buenos Aires (UT), 2005
Chile[2]	Encuesta Caracteristización Socioeconómica Nacional (CASEN), 2006	Encuesta Experimental sobre Uso del Tiempo en el Gran Santiago (EUT), 2007
Mexico[3]	Encuesta Nacional de Ingresos y Gastos de los Hogares (ENIGH), 2008	Encuesta Nacional sobre Uso del Tiempo (ENUT), 2009

Notes: [1]The UT collected information only from one individual (aged 15 to 74 years old) per household and was restricted to the city of Buenos Aires. Our results for Argentina, therefore, pertain to the city of Buenos Aires.
[2]The EUT covered only individuals (aged 12 to 98 years old) that lived in Gran Santiago. Our results for Chile are, therefore, valid only for Gran Santiago.
[3]The ENUT is a nationally representative survey of all individuals (aged 12 years and older) and our results are valid for the whole country, unlike the case with Argentina and Chile.

The surveys are combined to create the synthetic file using constrained statistical matching (Kum and Masterson 2010). The basic idea behind the technique is to transfer information from one survey ('donor file') to another ('recipient file'). Such information is missing in the recipient file but necessary for research purposes. Each individual record in the recipient file is matched with a record in the donor file, where a match represents a similar record, based on several common variables in both files. The variables are hierarchically organized to create the matching cells for matching procedure. Some of these variables are considered as strata variables, i.e., categorical variables that we consider to be of the greatest importance in designing the match. For example, if we use sex and employment status as strata variables, this would mean that we would match only individuals of the same sex and employment status. Within the strata, we use a number of variables of secondary importance as match variables. The matching progresses by rounds in which strata variables are dropped from matching cell creation in reverse order of importance.

The matching is performed on the basis of the estimated propensity scores derived from the strata and match variables. For every recipient in the recipient file, an observation in the donor file is matched with the same or nearest neighbour based on the rank of their propensity scores. In this match, a penalty weight is assigned to the propensity score according to the size and ranking of the coefficients of strata variables not used in a particular matching round. The quality of match is evaluated by comparing the marginal and joint distributions of the variable of interest in the donor file and the statistically matched file (see Appendix A for a detailed description of the statistical matches).

2.2.2 Estimating time deficits

We estimated time deficits (see equation (2) above) for individuals aged 18 to 74 years. The minimum required weekly hours of personal care were estimated as the sum of minimum necessary leisure (assumed to be equal to 14 hours per week)[6] and the weekly averages (for all individuals aged 18 to 74 years) estimated directly from the time use surveys for the following activities: sleep; eating and drinking; hygiene and dressing; and rest.[7] We assumed that weekly hours of nonsubstitutable household activities were equal to 7 hours per week. The resulting estimates are shown below in Table 2-2. The line labelled 'Total' is our estimate of the parameter M in equation (2) above.

Table 2-2 Thresholds of personal care and nonsubstitutable household activities (weekly hours, persons aged 18 to 74 years)

	Mexico		Chile	Argentina
	Urban	Rural		
Personal maintenance	86	92	93	87
Sleep	56	62	62	57
Eating and drinking	8	8	10	11
Hygiene and dressing	6	6	3	4
Rest	1	2	4	1
Necessary minimum leisure	14	14	14	14
Nonsubstitutable household activities	7	7	7	7
Total	93	99	100	94

In order to estimate time deficits, we also had to construct thresholds for the time spent on household production (R_j in equation (2)). The thresholds are defined for the household and, in principle, they represent the average amount of household production that is required to subsist at the poverty level of income. The reference group in constructing the thresholds consists of households with at least one nonemployed adult and income around the official income poverty line. Our definition of the reference group is motivated by the need to estimate the amount of household production implicit in the official poverty line. Since poor households in which all adults are employed may not be able to spend the

[6] It should be noted that 14 hours per week was 20 hours less than the median value of the time spent on leisure (use of media plus free time) in Argentina and Chile. For Mexico, the median value of the time spent on leisure was 21 hours per week. We preferred to set the threshold at a substantially lower level than the observed value for the average person in order to ensure that we do not end up "overestimating" time deficits due to "high" thresholds for minimum leisure.

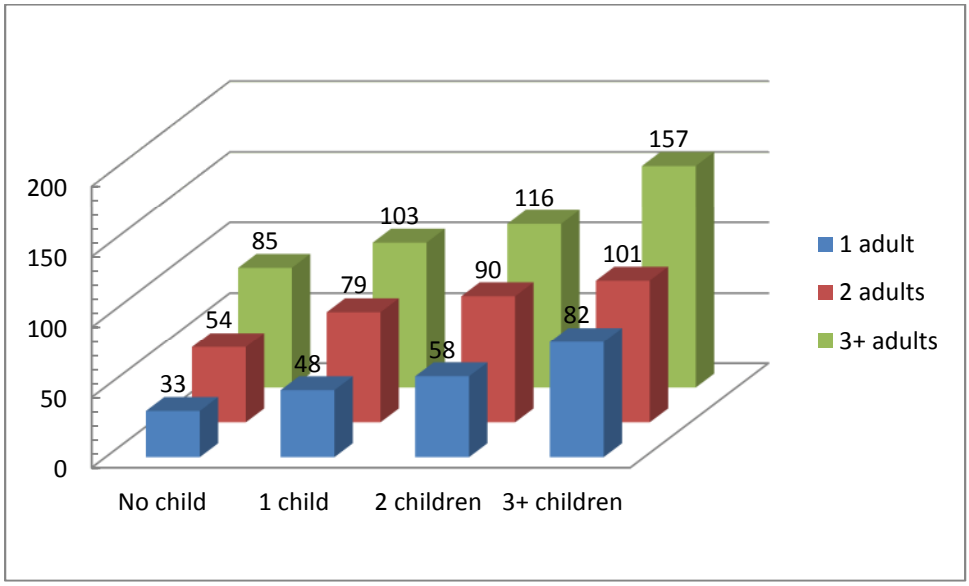
[7] For Mexico, we estimated the averages for urban and rural areas separately.

amount of household production implicit in the official poverty line, we excluded such households from our definition of the reference group.[8]

We divided the reference group into 12 subgroups based on the number of children (0, 1, 2, and 3 or more) and number of adults (1, 2, and 3 or more) for calculating the thresholds. The thresholds were calculated as the average values of the time spent on household production by households in the reference group, differentiated by the number of adults and children. In the case of Mexico, we estimated the thresholds directly from the time use survey because the survey contained enough information (time use for all individuals in the households and reasonably good information on income for households in the reference group). The estimates were obtained separately for the urban and rural areas (Figure 2-1 below).

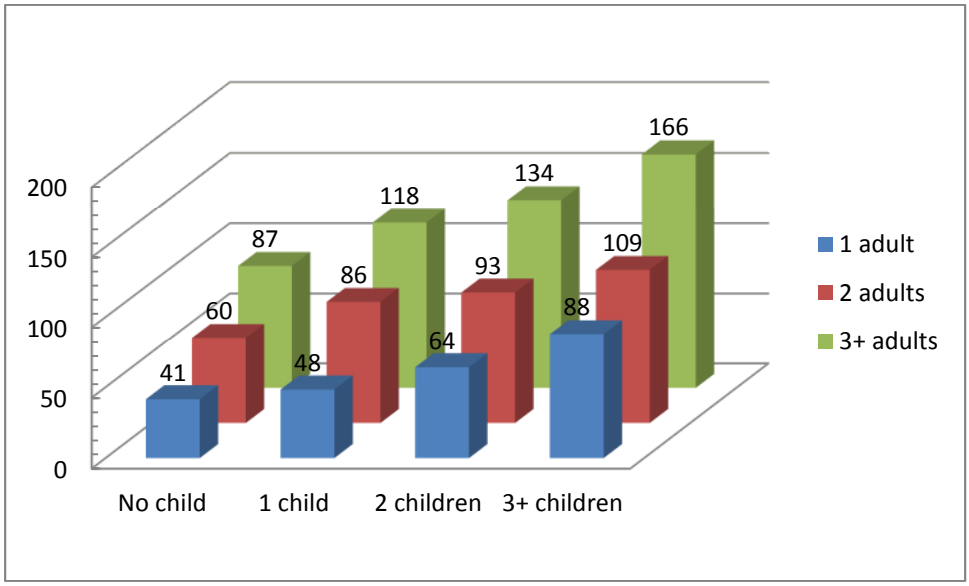
Figure 2-1 Threshold hours of household production (weekly hours per household), Mexico

A. Urban



[8] For a discussion of the danger of "circularity" in the construction of thresholds of household production, see Burchardt (2008, p.59).

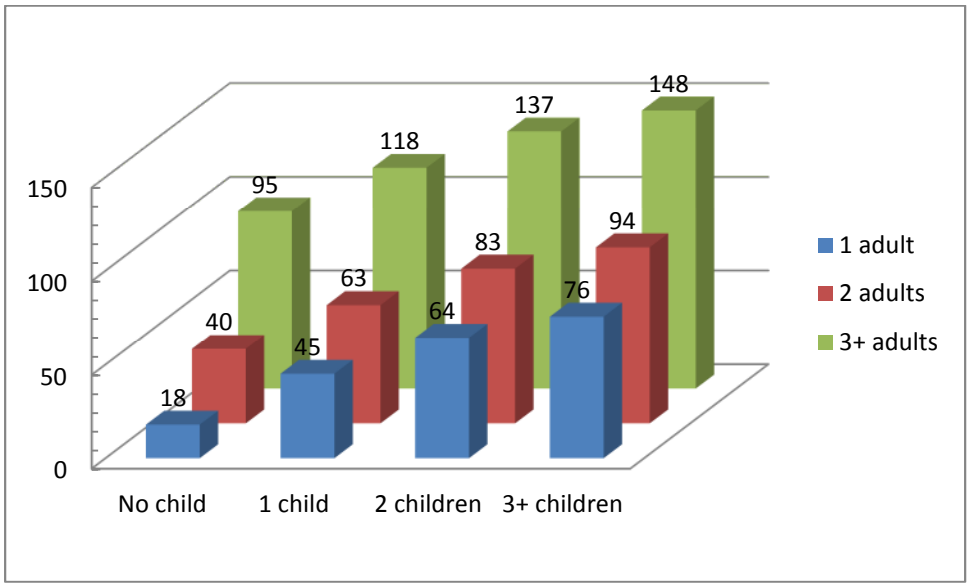
B. Rural



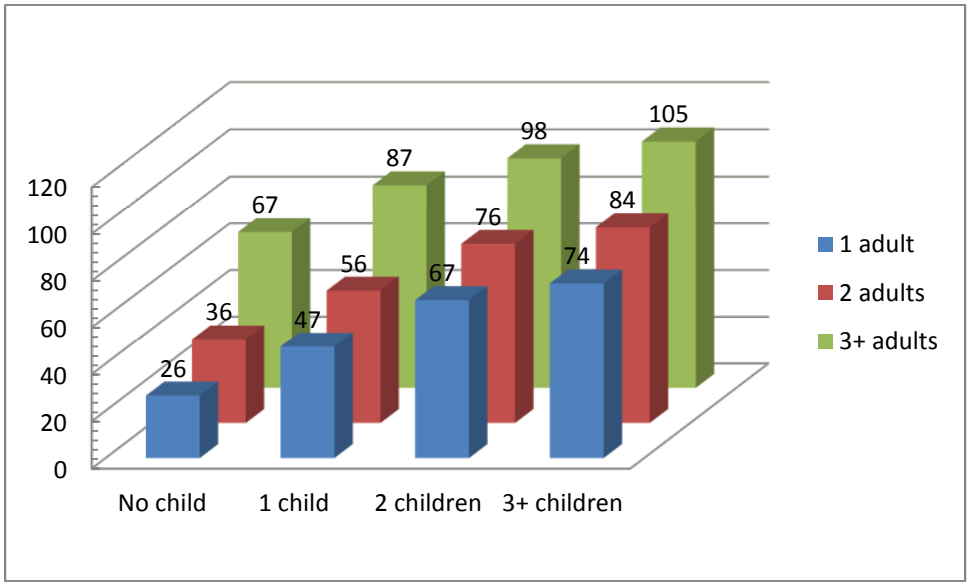
Unlike Mexico, we estimated the required hours for Argentina and Chile from the synthetic file (i.e. matched data) because of the limitations of the time use surveys. While the absence of appropriate income data was the obstacle for Chile, the collection of information from only one individual (15 to 74 years old) from the household was our motivation behind using the synthetic data for Argentina. The estimates that we developed are shown in Figure 2-2.

Figure 2-2 Threshold hours of household production (weekly hours per household), Argentina and Chile

A. Argentina



B. Chile



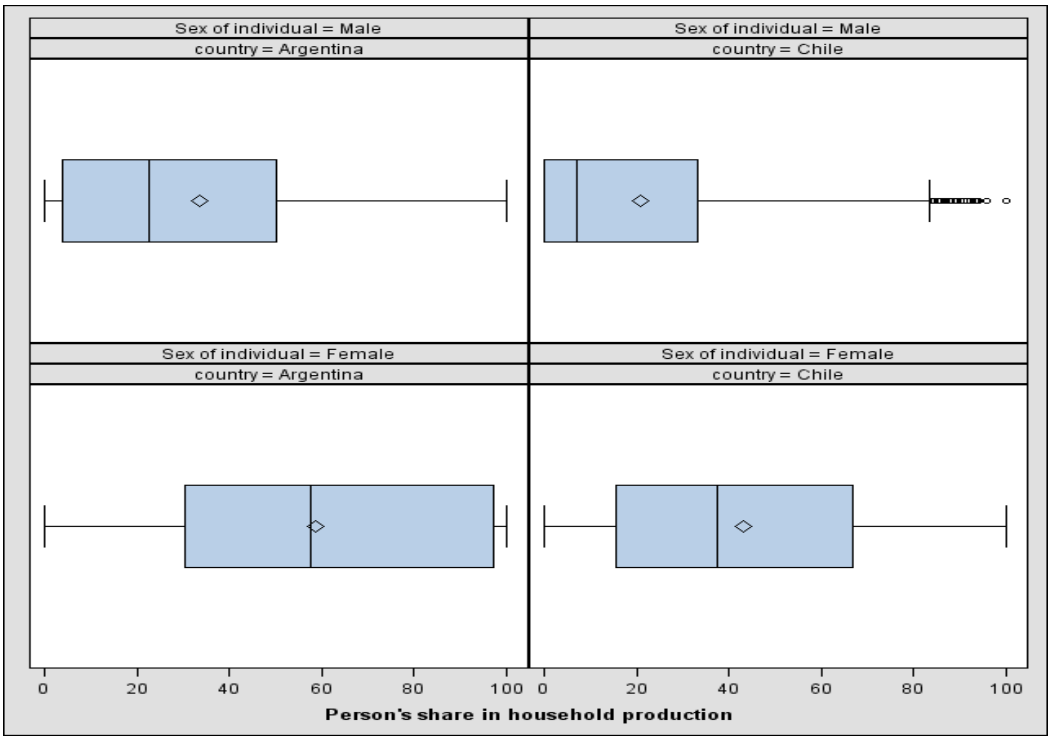
Our assumption is that the required hours would show a positive gradient with respect to adults and a positive gradient with respect to children. That is, the required hours of household production for the household as a whole should increase when there are more adults in the household, and when there are more children in the household. We think that this is a reasonable assumption.[9]

After we estimated the threshold hours of household production, we determined the share of each individual in the household in household production (represented by in equation (2)). This was done using the matched data. We assumed that the share of an individual in the threshold hours would be equal to the share of that individual in the observed total hours of household production in their household. Consider the hypothetical example of a household with only a husband and wife in urban Mexico. If the synthetic data showed that spouses spent an equal amount of time in household production, we divided the threshold value of 54 hours equally between them. However, the equal sharing of housework between the sexes is the exception rather than the norm, as indicated in the figures below (Figure 2-3).

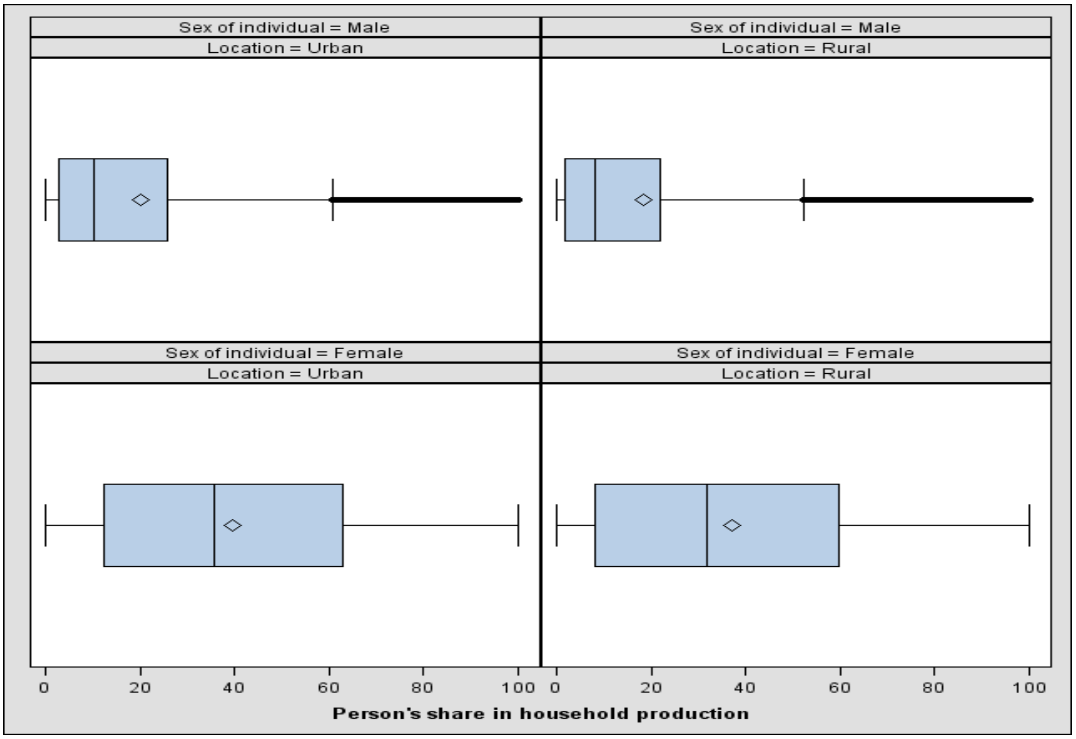
[9] Now, actual hours estimated from sample data need not necessarily satisfy our assumption, due to a variety of reasons. In our study, the estimates for Mexico directly satisfied our assumption regarding the gradient with respect to children and number of adults. For Argentina and Chile, some adjustments were required for some of the 12 subgroups in the reference group.

Figure 2-3 Person's share in the total hours of household production (percent), persons 18 to 74 years

A. Argentina and Chile



B. Mexico (urban and rural)



The left and right edges of the box indicate the intra-quartile range (IQR), i.e., the range of values between the 25th and 75th percentiles. The marker inside the box indicates the mean value. The line inside the box indicates the median value. The picture clearly shows that most of the distribution for men lies to the left of the distribution for women.

The final step in calculating the time deficits for individuals, according to equation (2) above, consists of obtaining the actual weekly hours of employment. We used the hours reported by individuals in the income surveys. Further, we took commuting time into account by adding 'threshold' values of commuting to hours of employment. The latter were estimated from the time use surveys for employed individuals, aged 18 to 74 years, differentiated by their full-time/part-time status. For Mexico, the estimates were obtained separately for urban and rural areas (see Table 2-3 below).

Table 2-3 Commuting time of employed individuals (weekly hours per adult, 18 to 74 years)

	Mexico		Chile	Argentina
	Urban	Rural		
Part-time	2.8	3.0	2.4	1.4
Full-time	5.8	6.1	4.7	3.8

The steps described above yielded information sufficient to estimate the time deficits for all individuals aged 18 to 74 years. The household-level value of time deficits could then be obtained in a straightforward manner by summing the time deficits of individuals in the household (see 25 above).

2.2.3 Adjusted poverty thresholds

The conventional approach to income poverty evaluation in Mexico and Argentina is to adjust the number of persons in the households according to the age and sex of its members. Household income is then divided by the adjusted household size to obtain (adjusted) per capita income. This amount of income is compared to the poverty threshold to evaluate whether the individual/household is poor. We followed a different approach here because we wanted to show how much the income poverty thresholds change when time deficits are monetized. For this purpose, instead of adjusting the household's size according to the age and sex of its members, we adjust the income poverty threshold for the household. The adjustment is made by multiplying the income poverty threshold by the adjusted household size.

In contrast to Mexico and Argentina, no adjustment is made for age or sex of household members in the official poverty estimates in Chile. Household income is divided by the number of persons in the household and the resulting per capita income is compared to the poverty threshold to assess the poverty status of the individual/household. We obtained the income poverty threshold for the household by multiplying the official income poverty threshold by household size.

The official income poverty threshold (specified in monthly per capita terms) used in our study for Argentina and Chile were, respectively 268.17 pesos (national currency) and 47,099 pesos (national currency). For Mexico, we used the official 'economic well-being' definition of poverty, which is different from the concept of income poverty used by the National Council for Evaluation of Social Development Policy (CONEVAL). In 2008, the poverty line for persons in urban areas was about 1,900 pesos (national currency) and about 1,200 pesos in rural areas.

Apart from the official poverty thresholds, we also needed information on the unit replacement cost of household production in order to obtain our adjusted thresholds. We employed the standard assumption of setting the unit replacement cost equal to the average hourly wage of domestic workers. For Mexico, we estimated the average wage from the labour force survey (ENOE). It was roughly 19 pesos in urban areas and 14 pesos in rural areas. For Argentina and Chile, the estimates were obtained from the income surveys and equalled, respectively, 3.54 pesos and 988.9 pesos.

Time deficit of the household (measured in weekly hours) was multiplied by 4 to convert them into monthly hours. The monthly value of time deficit was monetized using the hourly wage of domestic workers and then added to the official poverty threshold for the household to derive the adjusted income poverty thresholds.

2.2.4 Accounting for hired domestic help in Mexico

Households can meet their household production needs via their own labour and hiring domestic help. Methodologically, it is important to address the issue of hired domestic help in a time-income poverty measure such as ours. However, there was no information on hired domestic help in either the Argentinian or Chilean data that we used. In Mexico, the time-use survey did contain useful information in this regard. The data indicated that about 7 percent of all households in Mexico used hired domestic help. We were, therefore, able to account for hired domestic help in our estimates of LIMTIP for Mexico.

In our measure, we need to account for both the time and income effect of hiring domestic servants. We included the hours of domestic help in deriving the threshold hours of household production.

Domestic servants, of course, cost money, and therefore represent a drain on the income available to the household for other expenditures. This needs to be taken into account in gauging the income poverty status of households.

While alternative approaches are possible here, we employed an intuitive and simple method that is based on an assessment of how much hired help contributes to meeting the threshold hours of household production. Obviously, if the household did not hire any domestic help, the contribution is zero and no adjustment needs to be made to its income. This is also the case if the total hours spent by the household members equal or exceed the threshold hours of household production. In households where hired help did contribute toward meeting its threshold hours of household production, we took as the amount of contribution the *minimum* of (a) the difference between the threshold hours and the household's own hours and (b) the hired hours. Denoting R_j^* as the contribution, R_j^o as the 'own' hours of household production and R_j^h as the hired hours of domestic help, we can write:

$$\begin{aligned} R_j^* &= 0 \text{ if } R_j^o \geq \bar{R}_j \text{or } R_j^h = 0 \\ &= \min\left(\bar{R}_j - R_j^o, R_j^h\right) \text{ otherwise} \end{aligned}$$

We used the hourly wage of domestic workers in the urban and rural areas (see below), depending on the household's location, to calculate the expenditures for R_j^* and deducted the expenditures from the household's income. In the LIMTIP, the adjusted measure of household income was employed to determine the household's income poverty status.

2.2.5 Simulations of employment and household work

In order to assess the complex relationship between employment, income poverty, and time poverty, we conducted a microsimulation exercise. The purpose of the simulation was to address the following question: what will be the picture of income and time poverty if every employable adult who is currently nonemployed or working part-time were to work full-time under the existing pattern of full-time employment and earnings? In particular, we are interested in the outcomes for individuals who are currently income-poor according to the LIMTIP definition (see equation(2) above).

Some caveats are in order in terms of evaluating the results of the simulation exercise. In reality, any movement towards full-time employment for every employable adult who is currently nonemployed or underemployed is bound to be accompanied by significant structural changes in the economy in terms of the composition of output and employment. It is also hard to imagine such a change occurring

without a whole host of changes in institutional structures—changes that would either precede or occur in tandem with the movement towards full employment—including that of the family and gender norms regarding time allocation. Our simulation exercise is not meant to capture the effects that the whole gamut of these changes will have on income and time poverty. Instead, it can be viewed as conveying useful information regarding the likely first-order effects of poor, employable adults finding full-time employment in the absence of a well-thought out jobs programme or development strategy that incorporates consideration of time poverty. With these caveats in mind, let us proceed to a brief description of the simulation procedure. The full details can be found in Appendix B.

The scenario that we are simulating is one in which all eligible adults[10] not working full-time[11] receive full-time employment. From a modelling standpoint, assessing the impact of such a scenario on the standard income poverty measure is far less complex than on LIMTIP. The effect that full-time work will have on the standard income poverty measure is entirely via the income channel: People who were previously only working part-time or not employed are now assumed to be working full-time and receiving earnings. This leads to an increase in their household income, relative to what is observed in the data. The effect of full-time work on the LIMTIP is more complex because in addition to the income channel, time allocation patterns are also assumed to change. We assumed that becoming employed full-time would change the hours of household production of the person and that of the other persons who belong to their household. In other words, the intrahousehold division of labour, captured in the parameter α_{ij} in equation (2), would change. As a result, the time deficit of the individuals of the household and the LIMTIP classification of the individual and household would also change. We ascertained the revised hours of household production for individuals who 'received' full-time employment in the simulation and their household members by matching them to similar individuals.

Accordingly, the simulation is a two-step procedure. The first step is imputing the industry, occupation, earnings and the hours of work of those to be assigned jobs ('recipients'). The second step is to impute the new shares of household production in households affected by job assignments. We defined a pool of individuals who were eligible to 'donate' their earnings and hours in the hot-decking procedure

[10] In these simulations, eligible adults are defined as all individuals between the ages of 18 and 74 who are not disabled, retired, in school, or in the military. These restrictions, other than age, could not all be applied for each country. The age restriction is simply the broadest age categorization for which all three countries had time use data.

[11] Full-time is defined as working twenty-five hours per week or more.

described below. This donor pool contained adults aged 18 to 74 who were working full-time as defined above.

We determined the likeliest industry and occupation for each of the recipients using a multinomial logit procedure. Both industry and occupation are regressed on age, sex, marital status, education, and relationship to household head in the donor pool. The likelihood for each industry and occupation is then predicted in the recipient pool, using the results of the multinomial logit. Then each recipient, except those actually working part-time, is assigned the likeliest industry and occupation using those predicted likelihoods.

In order to assign earnings and hours, we first employed a Multistage Heckit procedure. The entire procedure was done separately for each combination of six age categories and sex (and in Mexico, urban/rural status). The first stage is a probit estimate of being employed full-time with the following explanatory variables: indicators for the presence of male and female children aged less than one, one to two, three to five, six to twelve, and thirteen to seventeen in the household, number of children in the household, education, marital status, and spouse's age and education.

We use the results of the regression to generate the Mills ratio, which, in turn, we use to control for bias when we estimate wages and hours of work in the following stages. We first regress the log of hourly wages of donors on age, education, marital status, and industry and occupation as well as the Mills ratio obtained in the prior step. Using the results of this set of regressions, we predict the wage for the recipients and donors. The predicted wages are then used, along with the same set of regressors used in the wages regressions, to estimate regressions for the usual weekly hours of employment of donors. Using the results of this set of regressions, we predict hours of employment for the recipients and donors. The imputed wages and hours are used in the hot-decking procedure, described below, to assign earnings and usual hours of work.

In the third and final stage of the earnings and hours assignment process, we use a multiple imputation with hot-decking procedure. In this type of process, missing values (in this case the earnings and hours of jobs that we have assigned in the first stage) are replaced with those from individual records that are 'most like' the individual with the missing values. We use a weighted affinity score to assess 'likeness.' We weight industry and occupation most heavily, followed by imputed wages and hours. We also use individual and household characteristics (household type, marital status, spouse's labour force status, indicators for the presence of male and female children aged less than one, one to two, three to five, six

to twelve, and thirteen to seventeen in the household, and, number of children) though these are weighted less heavily. We run this procedure within the age-sex cells used throughout this process. Donors are picked randomly from the subset of individuals most like each recipient record, until all recipients have been assigned hours and earnings. The new monthly earnings of individuals were used in calculating the new amounts of household income, based on the assumption that the income sources other than earnings remain unchanged.

As we indicated before, we assume that the time use pattern of each individual in the households that contain one or more job recipients would change. We use a second round of hot-decking to assign new weekly hours of household production to each of these individuals, based on updated labour force participation variables for the recipients of jobs in the first stage. The donors in this round were all full-time workers who were included in the assignment of hours and income, plus the members of their household. The method of hot-decking used in this round is the same as in the previous round, with the exception of the matching variables used and their relative weighting in the procedure. In this round, the variables used to assess nearness of match are household type, marital status, spouse's labour force status, indicators for the presence of male and female children aged less than one, one to two, three to five, six to twelve, and thirteen to seventeen in the household, number of children in the household, number of adults in the household, household income, the income share of each individual,[12] and the two imputed variables from the first stage: earned income and usual weekly hours worked. Household income and labour force status are updated to reflect the increased earnings and the new job assignments received in the previous stage. The number of children and number of adults in the household, household income, and income share are the most heavily weighted variables. Next are household type, updated earned income, usual weekly hours of work, and labour force status, followed by marital status and spouse's labour force status, then the variables relating to children in the household. Once we ascertained the weekly hours of household production of the individuals in the households that contain one or more job recipients, we could then readily calculate each individual's share in the total household production performed by their household.

The revised hours of household production (for individuals who are now assumed to be employed full-time and their household members) and hours of employment (for individuals who are now assumed to be employed full-time) would result in a change in the amount of time deficit faced by the individuals

[12] This is included to reflect changes in bargaining power within the household and its impact on the distribution of household production work.

and households affected in the simulation. In some cases, this would result in an upward revision in their modified income poverty threshold. The effect of the changes in household income, time deficit and modified income poverty threshold is reflected in the changes in the LIMTIP of affected households. These patterns are analysed in the next chapter.

3 Income and Time Poverty of Households

In this chapter, we present selected findings from the study for households (Section 3.1). We first discuss the results for all households. The subsequent discussion focuses on households differentiated by the employment status of head and/or spouse (Section 3.2) and households differentiated by the type of family (Section 3.3). Within each section, we analyse: (a) the difference between official and LIMTIP income poverty rate; (b) the distribution of households by income and time poverty status (LIMTIP classification); and (c) time-poor households. The final section summarizes our findings for income and time poverty of households in Argentina, Chile, and Mexico.

A few remarks are in order about the cross national comparison of the estimates presented here. As explained earlier, due to limited geographic coverage of the time use surveys for Argentina and Chile, the reference group for the study is drawn from, respectively, the city of Buenos Aires and Greater Santiago. On the other hand, our results for Mexico are nationally representative. The differences in the geographical coverage of the samples make the cross national comparison of the results rather difficult. Additionally, the use of separate (absolute) poverty lines across countries also introduces its own set of limitations on direct comparisons between the countries, well-known in the literature on international comparisons of income poverty. These limitations should be borne in mind while considering the estimates reported here. **More importantly, the main objective of our study is to ascertain the effects of incorporating time deficits on the picture of poverty within each country rather than to provide directly comparable international estimates.**

3.1 All households

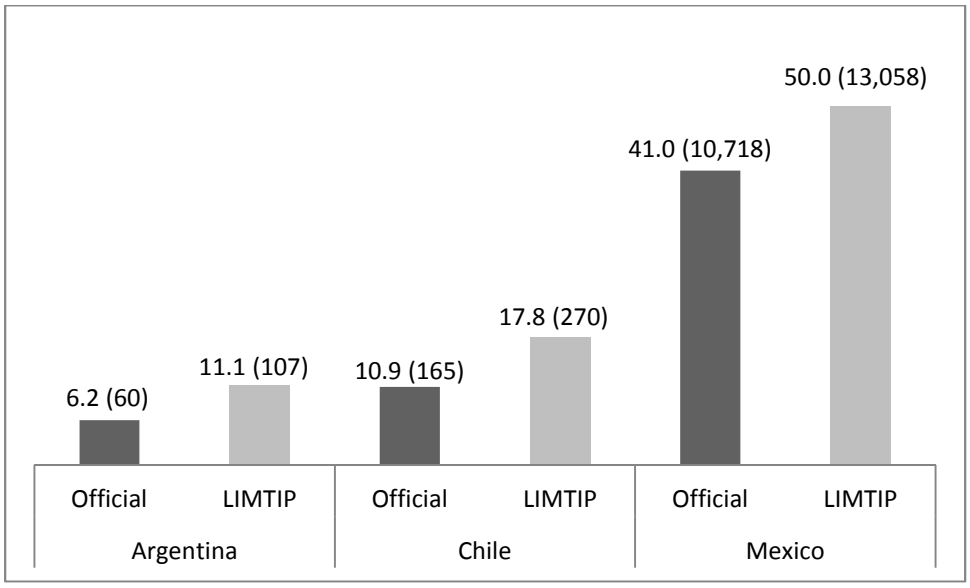
3.1.1 Official versus LIMTIP income poverty

We begin by contrasting the picture of income poverty among households according to the official threshold and our preferred threshold—the official threshold adjusted by the monetized value of the time deficit. (The official thresholds and the method by which we adjusted them for time deficit in each country were described in Section 2.2.3.) When such time deficits exist in household production, households could cope with this vulnerability in a variety of different ways. Purchasing market substitutes is one option, but in some instances it may simply not be feasible because of missing and incomplete markets. To give an example, time deficits in a household with young children headed by a single female may call for a hard choice of leaving young children unattended when going to work; making do with emptier food baskets if paid child care is sought; working part-time, despite income

pressures; sleep deprivation; and withdrawal from leisure and life enriching activities, etc. What our measure reveals is precisely the need of *some* households to face this reality and the need to mitigate against such vulnerability. Irrespective of what income bracket they belong to, respond they must, and for some households this implies hardships that in effect impoverish them. It is this additional aspect of deprivation—hidden in the official measures of income poverty—that becomes visible through the LIMTIP measure of income poverty.

The comparisons shown in Figure 3-1 reveal the 'hidden' income-poor. For Mexico, based on the standard poverty line, there were 10.7 million income poor households representing 41 percent of all households in Mexico. However, using the modified poverty line (LIMTIP), we find that there were actually 13 million income poor families; this implies that almost 50 percent of all households in Mexico were income poor. Thus, the official poverty figures underestimate poor households by 2.3 million or 9 percentage points. For the case of Buenos Aires, official poverty rate was 6.2 percent, whereas LIMTIP income poverty rate stood at 11.1 percent with 45,000 additional households found in poverty, a net difference of 4.9 percentage points. In Greater Santiago de Chile, 106,000 households entered the ranks of poor households, representing an increase in household poverty incidence by 6.9 percentage points to 17.8 percent compared to the official rate of 10.9 percent. Despite the lower prevalence of poverty in the city than in the country as a whole, in both cases the rate of change involved is staggering: 78 percent for Argentina, 64 percent for Chile. Naturally, we would expect the income poverty rate according to LIMTIP to be higher than the official rate because at least some low-income households can be expected to incur time deficits. However, our estimates of the extent of the gap suggest that ignoring time deficits in household production has led to a major underestimation of the incidence of income poverty in all three countries.

Figure 3-1 Incidence of income poverty: official vs. LIMTIP (percent of all households and number of poor households in thousands shown in parentheses)



The difference between the official and LIMTIP rate of income poverty depends on the proportion of households that are classified as income-nonpoor according to the official poverty line but face some level of time deficits in the total number of households. Obviously, if there are no time-poor households among the officially income-nonpoor population then the official and LIMTIP poverty lines would be identical (see equation (4) in Section 2.1). The difference between the official and LIMTIP rate is also a function of the proportion of households with income below the LIMTIP poverty line (which includes the monetized value of the time deficit) in the total number of time-poor households that are officially classified as income-nonpoor. Clearly, if everyone in the latter group (time-poor and officially income-nonpoor) had high enough income to compensate for the monetized value of their time deficits, then the official and LIMTIP rate of income poverty would be identical.[13] The excess of LIMTIP poverty rate over the official poverty rate represents the hidden poverty rate, or the proportion of hidden poor households in the total population.

The estimates shown in Table 3-1 indicate that the percentage of households that are time-poor and officially income-nonpoor in the total number of households was quite substantial in all three countries, with Chile leading the pack at 55 percent, followed by Argentina (49 percent) and Mexico (40 percent). However, the rankings of the three countries are different in the percentage of households with income

[13] Let N be the total number of households, H the total number of "hidden poor" households and S the total number of officially income-nonpoor households who are time-poor. Further, let P and P^* represent, respectively, the official and LIMTIP income poverty rates. Then: $P^* - P = (S/N)(H/S)$.

below the LIMTIP poverty line in the total number of time-poor households that are officially classified as income-nonpoor. Over a fifth (22.4 percent) of such households did not have income high enough to compensate for their time deficit in Mexico. Indeed, this is why the gap between the official and LIMTIP income poverty rate is the highest in Mexico. In Argentina, only about 10 percent of households that were officially income-nonpoor and time-poor did not have enough income to overcome the monetized value of time deficit, while in Chile it was higher, at 12.6 percent.

Table 3-1 Factors affecting the hidden poverty rate (LIMTIP minus official poverty rate): All households

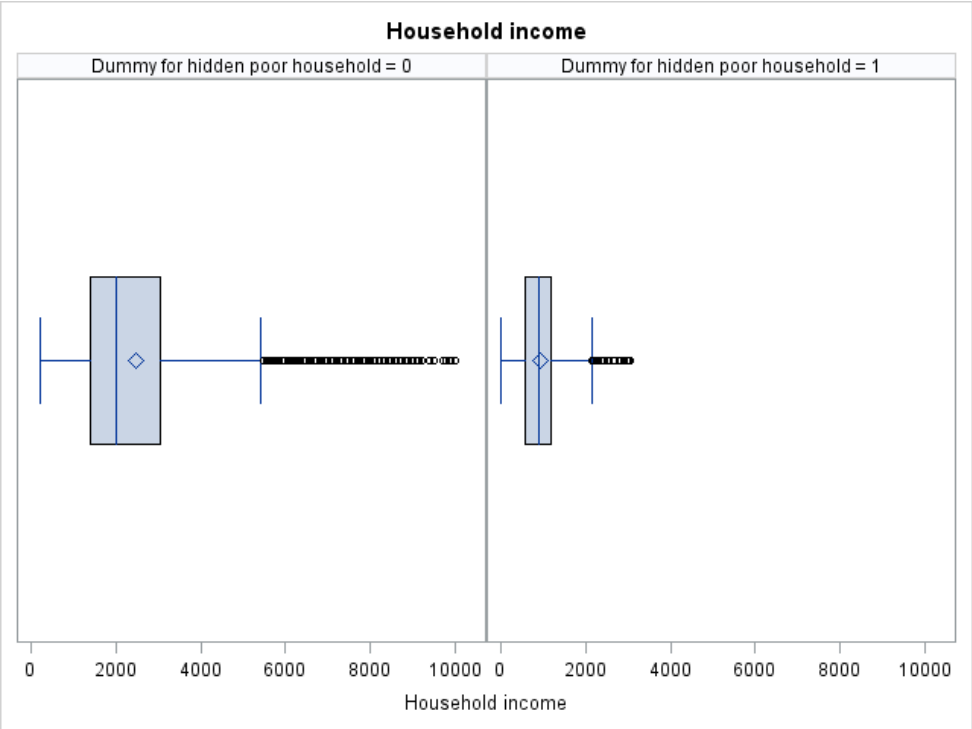
	Argentina	Chile	Mexico
LIMTIP minus official poverty rate (percentage points)	4.8	7.0	9.0
Time-poor and officially income-nonpoor/All (percent)	48.6	55.2	40.0
Hidden poor/Time-poor and officially income-nonpoor (percent)	9.9	12.6	22.4

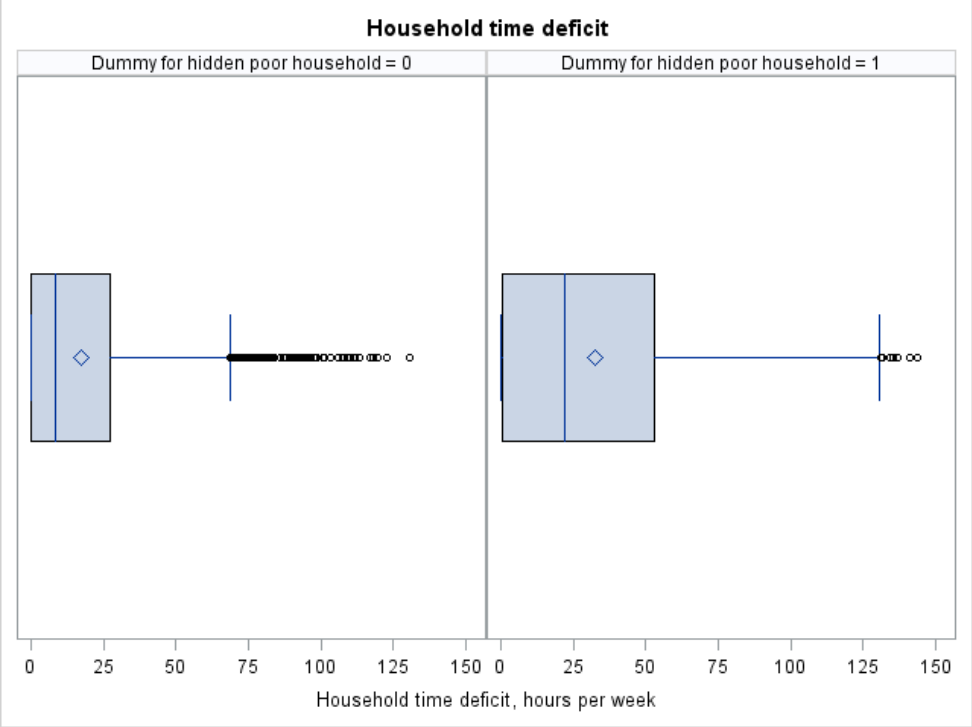
In principle, a household could become a member of the 'hidden poor' as a result of different circumstances. For some, it could be a combination of relatively (relative, that is, to their official poverty line) low income and low time deficit. For others, their relatively higher income may not be sufficient to offset their relatively high values of monetized time deficit. Still others might face a combination of relatively low income and high time deficit. Therefore, to identify the dominant pattern in a given country, we must examine the joint distribution of time deficit and household income. We have summarized the information regarding the joint distribution for the countries in our study in a series of box plots below (Figure 3-2).[14] They suggest that the majority of households that were classified as the hidden poor had higher time deficits and lower income than the rest of the time-poor population that were officially income-nonpoor. Thus, the overwhelming bulk of the hidden poor in all countries consisted of households that suffer from the twin disadvantage of relatively low income and high time deficits.

[14] The left and right edges of the box indicate the intra-quartile range (IQR), i.e., the range of values between the 25th and 75th percentiles (intra-quartile range). The marker inside the box indicates the mean value. The line inside the box indicates the median value. The whiskers to the left (where present) and right that extend from each box indicate the range of values that are outside of the intra-quartile range, but not outliers. The values beyond the whiskers (shown by markers) may be considered as outliers.

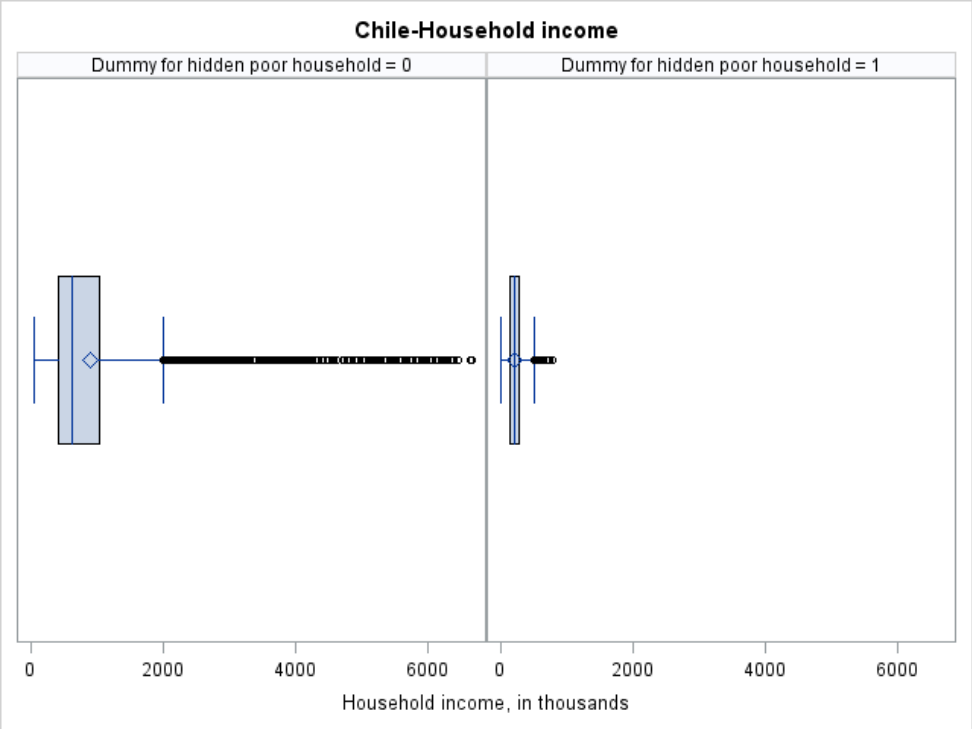
Figure 3-2 Distribution of household income and time deficit among time-poor and officially income-nonpoor households by hidden poverty status (dummy=1 means that the household is hidden poor and dummy=0 means that the household is nonpoor)

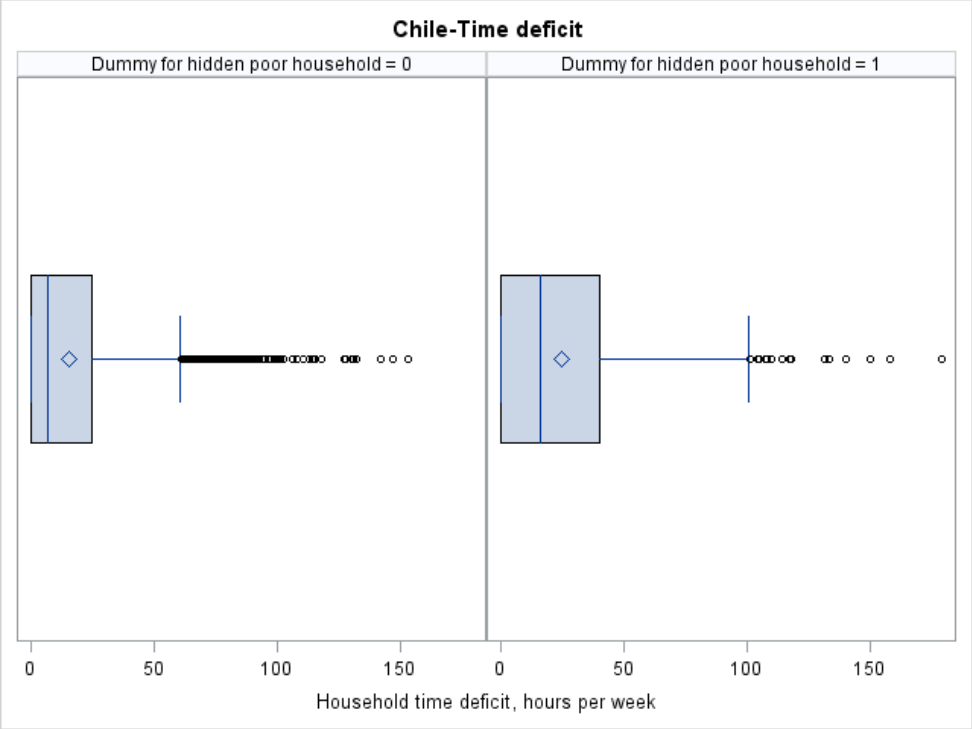
A. Argentina



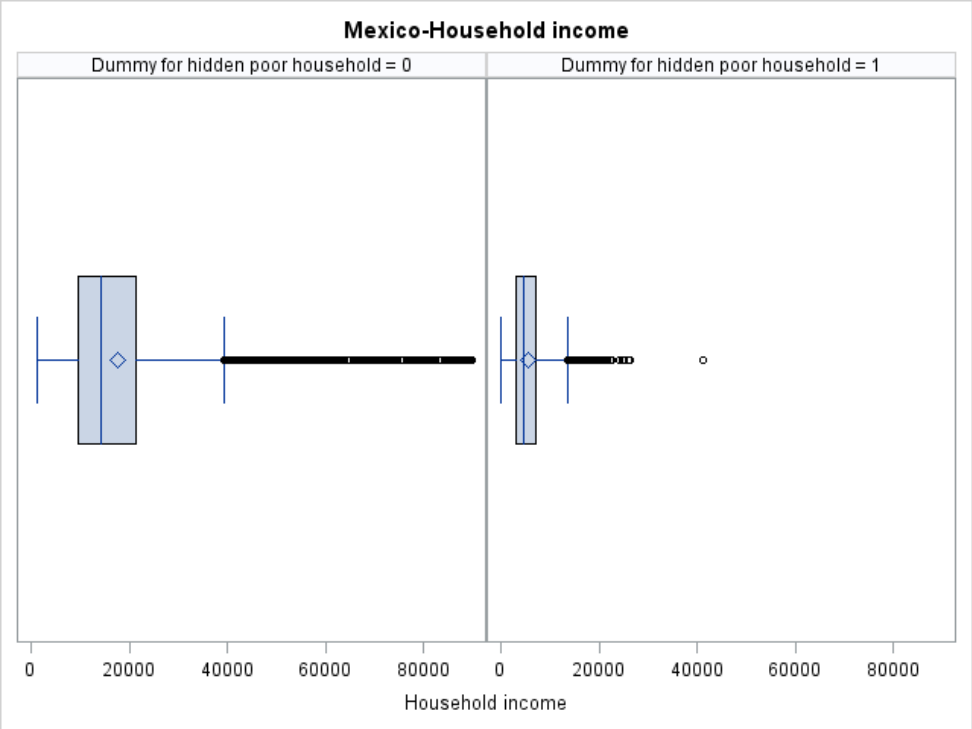


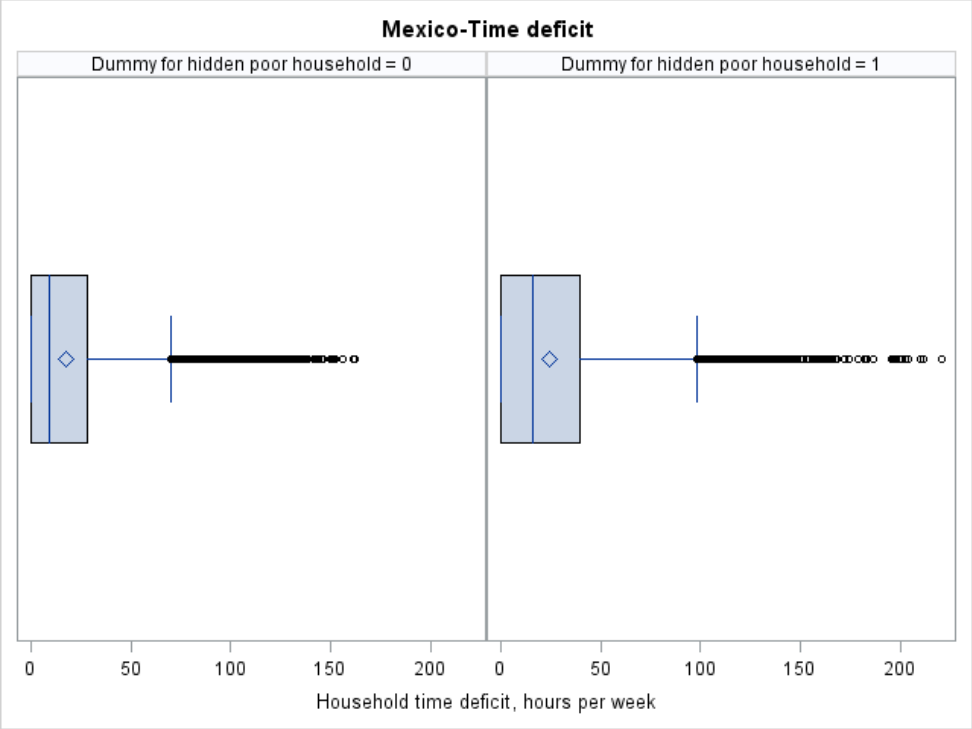
B. Chile


Chile-Household income
Dummy for hidden poor household = 0
Dummy for hidden poor household = 1
0
2000
4000
6000
0
2000
4000
6000
Household income, in thousands


Chile-Time deficit
Dummy for hidden poor household = 0
Dummy for hidden poor household = 1
0
50
100
150
0
50
100
150
Household time deficit, hours per week

C. Mexico


Mexico-Household income
Dummy for hidden poor household = 0
Dummy for hidden poor household = 1
0
20000
40000
60000
80000
Household income


Mexico-Time deficit
Dummy for hidden poor household = 0
Dummy for hidden poor household = 1
0
50
100
150
200
Household time deficit, hours per week

Taking time deficits into account affects not only the measured rate of income poverty (as we saw above in our discussion of the hidden poor) but also the depth and severity of income poverty. For the officially income-poor households with time deficits, the addition of the monetized value of time deficit to their poverty line increases their income deficit (the difference between the poverty line and income). This has the effect of increasing the average income deficit of all poor households under the LIMTIP definition relative to the official definition. The average deficit is also affected by the addition of the hidden-poor added to the ranks of the income-poor, though its effect on the overall average deficit is hard to predict a priori. Needless to say, the officially income-poor households without time deficits would experience no change in their deficit because their poverty lines are not affected by the monetization of time deficits. The average deficit of all poor households would thus be the weighted average of the average deficits of the three groups, where the weights are their respective shares in the income-poor population.

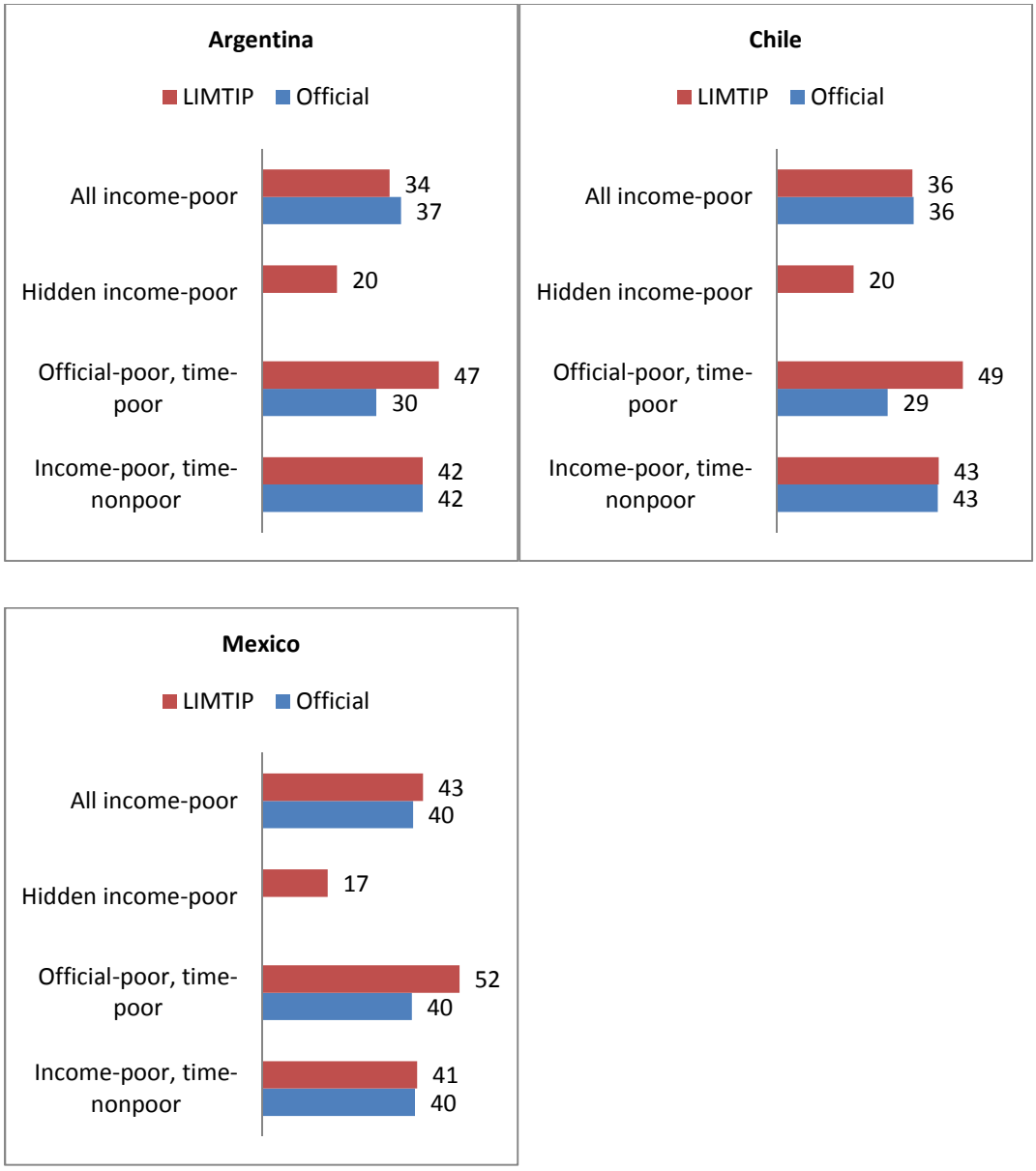
Table 3-2 Average income deficit (nominal values in national currency) and share (in the total number of income-poor households) of income-poor households by subgroup

	Official		LIMTIP	
	Share (percent)	Deficit	Share (percent)	Deficit
Argentina				
Income-poor, time-nonpoor	53	236	30	236
Official-poor, time-poor	47	326	26	718
Hidden income-poor			44	341
All income-poor	100	278	100	409
Chile				
Income-poor, time-nonpoor	51	69,287	31	69,287
Official-poor, time-poor	49	63,115	29	162,087
Hidden income-poor			39	78,599
All income-poor	100	66,289	100	100,279
Mexico				
Income-poor, time-nonpoor	37	2,612	30	2,647
Official-poor, time-poor	63	2,868	52	4,853
Hidden income-poor			18	1,646
All income-poor	100	2,773	100	3,608

Note: For Mexico, the income deficit of the official-poor, time-poor households are different under the LIMTIP and official definitions. The source of this difference is the adjustment made to account for hired domestic help (see Section 2.2.4)—a type of expenditure that was incurred by about 7 percent of all households. We subtracted the cost of contribution made by hired domestic help toward meeting the threshold hours of household production from the official measure of household income to derive our estimate of LIMTIP income poverty.

Our estimates showed that the average LIMTIP income deficit for the poor households was 1.5 times higher than the official income deficit in Argentina and Chile, while in Mexico it was 1.3 times higher (Table 3-2). Thus, the official measure grossly understates the unmet income needs of the poor population in the countries under study. From a practical standpoint, this suggests that taking time deficits into account while formulating poverty alleviation programs will alter the focus of both the coverage (including the 'hidden poor' in the target population) and the benefit levels (including the time-adjusted income deficits where appropriate). As expected, the sharp increase in the deficits of the officially poor, time-poor households contributed to the wedge between the LIMTIP and official deficit. The LIMTIP deficit of this group was 2.2 times higher than the official deficit in Argentina, 2.6 times in Chile, and 1.7 times in Mexico. They were also quite large in terms of their share in the officially income-poor population. In Argentina and Chile, nearly 50 percent of the officially poor households also suffered from time poverty, while in Mexico they constituted the majority at 63 percent. In Argentina and Chile, the addition of the hidden poor to the ranks of the income-poor appears to have contributed to the widening of the LIMTIP deficit relative to the official deficit because the average deficit of the hidden poor was higher than the official deficit of the time-poor and time-nonpoor households. On the other hand, in Mexico, the opposite was the case.

Figure 3-3 Average income deficit (percent of poverty line) of income-poor households by subgroup



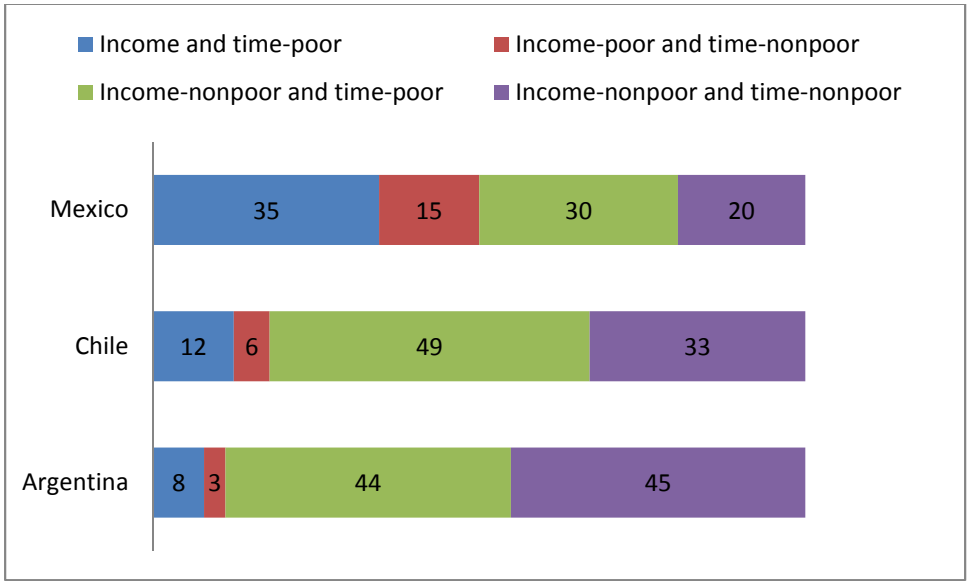
The average income deficit of each subgroup of the income-poor is shown as a percentage of their average poverty line in Figure 3-3. For the income-poor as a whole, the official percent shortfall was higher than the LIMTIP in Argentina (37 versus 34 percent), identical in Chile (both 36 percent) and lower in Mexico (40 versus 43 percent). The different outcomes for individual countries is a function of the relative size of the subgroups, the deficit of the hidden poor and the change in the deficit of the officially poor, time-poor households. In all three countries, the LIMTIP deficit of the hidden poor, expressed as a percentage of their (LIMTIP) poverty line, was lower than the other two subgroups, reflecting the fact that their incomes were above the official poverty line unlike the other two

subgroups. The officially poor, time-poor households in Argentina and Chile fared better than their Mexican counterparts in terms their percent deficit as per the official measure; however, according to our measure their advantage turned out to be much smaller, indicative of the relatively greater impact of the monetization of time deficits on this subgroup in the former two countries.

3.1.2 The LIMTIP classification of households

Turning now to the distribution of households across the LIMTIP groups, we found that there were a sizeable proportion of households with no time deficits and incomes above the poverty line (Figure 3-4). Argentina had the highest incidence of such households (45 percent), followed by Chile (33 percent), and Mexico (20 percent). However, the majority of households in all three countries faced time deficits. The proportion of households with time deficits was 52, 61, and 65 percent, respectively, in Argentina, Chile, and Mexico. We also found that the incidence of time deficits was higher among the income-poor than the income-nonpoor households in all three countries. The gap was the widest in Argentina (70 versus 49 percent). It was somewhat smaller in Chile (69 versus 60 percent) and Mexico (69 versus 61 percent). We think that this finding undermines the notion that time deficits are somehow a vulnerability faced mostly by the more well-off households with members engaged in skilled professional occupations (such as lawyers and doctors). The higher incidence of time deficits among the income-poor indicates that they are subject to this vulnerability to a greater extent. Given the other types of social and economic disadvantages that tend to accompany income poverty, it is quite likely that the negative effects of time poverty will affect the income-poor disproportionately compared to the income-nonpoor.

Figure 3-4 LIMTIP classification of households by income and time poverty status (percent)

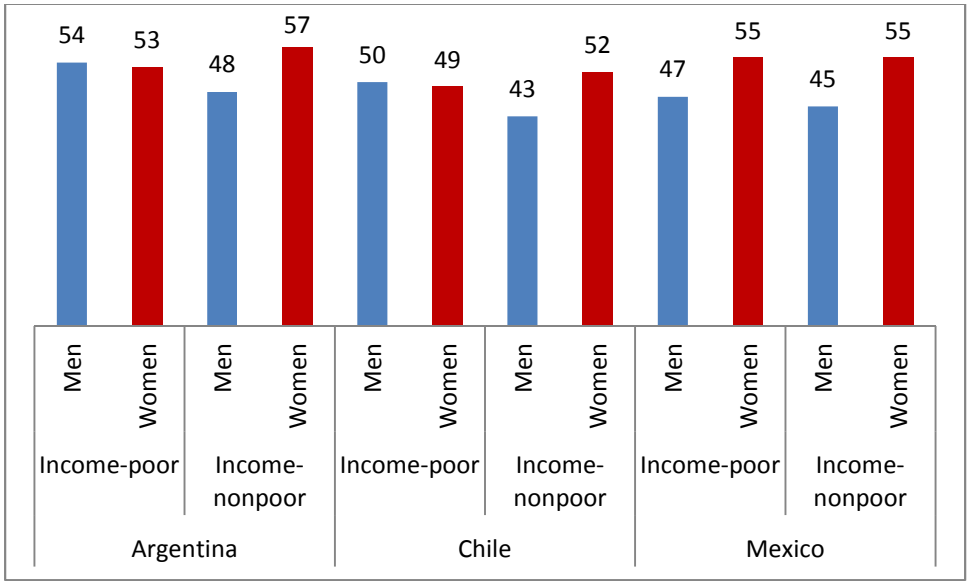


3.1.3 A closer look at time-poor households: effects of poverty status and gender

We designated a household as time-poor if it has at least one time-poor adult (between the ages of 18 and 74 years). Accordingly, time-poor households can include adults with no time deficits.[15] This allows us to examine the variations in the incidence of time poverty between men and women in these households. Given our policy concerns, it is important to examine whether such variations are dependent on the income poverty status of households (Figure 3-5).

[15] The same definition also implies that a time-nonpoor household has no time-poor adults.

Figure 3-5 Time poverty rate of adults in time-poor households by sex and income poverty status



In Argentina, among adults who lived in households that are both income and time-poor, the incidence of time poverty was virtually identical for men and women (54 and 53 percent, respectively). However, a marked gender disparity in the rate of time poverty was visible among adults who lived in households that were income-nonpoor (48 percent for men versus 57 percent for women). This is suggestive of a gender asymmetry in the effect of the household's income poverty status on the time poverty status of adults living in households with time deficits: the time poverty rate for women in income-nonpoor households is higher as compared to income-nonpoor men; but also, among women we can detect a clear intragroup disparity: for income-nonpoor women, time poverty rate was four percentage points *higher* than for women in income-poor households; while the time poverty rate for men in income-nonpoor households was six percentage points *lower* than for men in income-poor households. We will return to an explanation of this pattern shortly.

We found a similar pattern in Chile. For adults living in households that were both income and time-poor, there was gender parity in time poverty rate (50 and 49 percent, respectively, for men and women). In income-nonpoor households, the time poverty rate for women was *higher* (52 percent, or three percentage points higher than their counterparts in income-poor households) while for men it was substantially *lower* (43 percent or seven percentage points lower than that of men in income-poor households), indicating the same pattern of gender asymmetry that we found in Argentina. Mexico showed a different pattern from the other two countries in that there was a marked gender disparity in time poverty rate for adults in income-poor households with time deficits (55 percent for women versus

47 percent for men). The Mexican picture is also different because the gender asymmetry that we observed for the other two countries was only partially present in Mexico: Time poverty rate of women in income-poor and income-nonpoor households was the same (unlike the other two countries) while the time poverty rate of men in income-nonpoor households was lower than men in income-poor households (like the other two countries, although the difference was smaller: two percentage points, compared to six for Chile and seven for Argentina).

It is important to understand the two distinct factors that can lead to time poverty (see equation (2)). The first is that the hours of employment of the individual exceed the time available to them, after setting aside the time needed for personal care and necessary household production from the physically fixed number of hours (say 168 hours per week). The majority of time-poor individuals in our samples, in fact, turned out to be time-poor precisely due to this reason. We characterize this subgroup as facing the time-bind only due to the level of their hours of employment ('employment time-bind'). This group fits the description of the time-poor that is dominant in the literature.

However, within our framework, there is a second factor that can lead to time poverty, which occurs when the time available to the individual, even before taking into account their hours of employment, turns out to be negative.[16] In Argentina and Mexico, such individuals made up roughly 20 percent of all time-poor individuals while, in Chile, they constituted a smaller fraction at 13 percent. The second source of time poverty is the result of the relatively high burden of household production that falls upon individuals due to household size and composition (i.e. number of adults and children); but, equally and perhaps more importantly, it is the result of the intrahousehold division of labour that places much of the burden of household production on women. The latter is reflected in the starkly higher percentage of individuals with negative values of time available in the total number of female time-poor than in the male time-poor: 27 versus 8 percent in Argentina, 21 versus 4 percent in Chile, and 35 versus 4 percent in Mexico. A substantial proportion of individuals with negative time available are also employed and their time-bind stems from both their hours of employment and excess burden of household production ('double time-bind'). On the other hand, nonemployed individuals with negative time available owe their time-bind entirely to the excess burden of household production that falls upon them ('housework time-bind').

[16] Obviously, we are not suggesting that this corresponds to any physical reality since no one can have negative amounts of time. Instead, the negative value of time available indicates the excess demand placed on the individual's time to devote to household production.

Accordingly, in our approach, the time poverty rate of individuals can be usefully decomposed into the contributions made by three distinct types of time poverty: The incidence of time-bind only in household production among the nonemployed (TP_h) and the incidence, respectively, of the double time-bind (TP_{hl}) and employment time-bind among the employed (TP_l). Denoting N as the total number of individuals, L as the total number of employed individuals, and U as the total number of nonemployed individuals, we can write the time poverty rate (P^t) as:

$$P^t = \left[TP_h\left(\frac{U}{N}\right)\right] + \left[(TP_{hl} + TP_l)\frac{L}{N}\right] \quad (7)$$

Table 3-3 Decomposition of time poverty rate of men and women in time-poor households

Income poverty status	Sex	Share in population (percent)		Time poverty rate (percent)			Contribution (percentage point)	
		Non employed	Employed	Non employed	Employed	All	Non employed	Employed
		1	2	3	4	5	6	7
	Argentina							
Poor	Men	25	75	8	69	54	2	52
	Women	42	58	25	74	53	11	43
Nonpoor	Men	11	89	12	53	48	1	47
	Women	26	74	25	68	57	6	50
	Chile							
Poor	Men	23	77	2	64	50	0	49
	Women	52	48	19	81	49	10	39
Nonpoor	Men	13	87	1	49	43	0	43
	Women	34	66	17	70	52	6	47
	Mexico							
Poor	Men	15	85	2	54	47	0	46
	Women	52	48	34	77	55	18	37
Nonpoor	Men	13	87	1	51	45	0	44
	Women	38	62	23	74	55	9	46

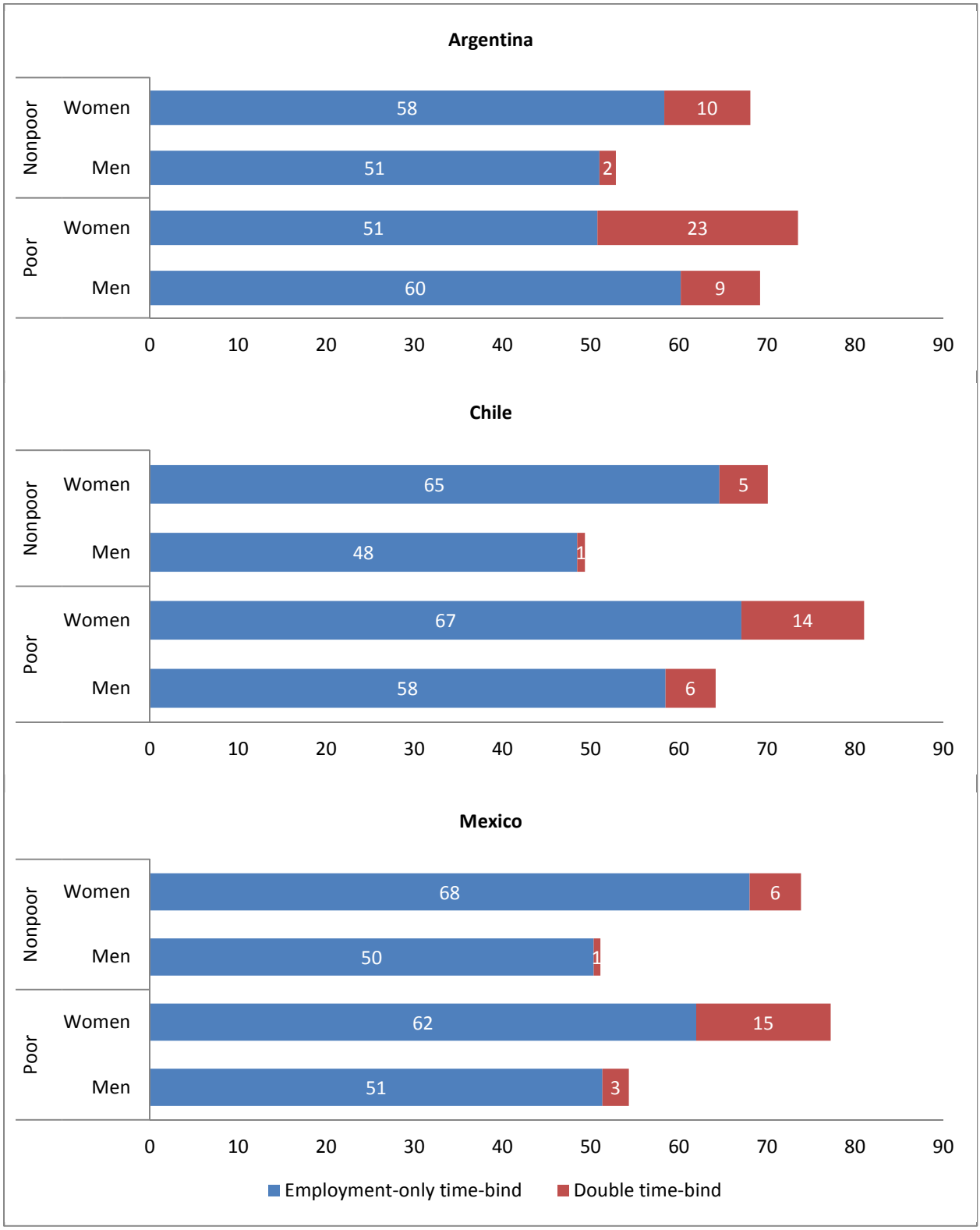
Note: The estimates in columns (6) and (7) represent, respectively, the first and second terms in square brackets in equation (7). Some of the components may not add up to the total due to rounding.

The results of the decomposition (Table 3-3) shed some light on the gender parity in time poverty rates among individuals in income-poor households in Argentina and Chile. In both cases, it was the relatively large contribution to overall female time poverty rate made by nonemployed women (i.e., the incidence of housework time-bind) that served to close the gender gap in poverty rate (column 6). If we were to neglect the housework time-bind, the time poverty rate of income-poor men would have been roughly

10 percentage points higher than income-poor women in both countries (column 7). This would have been the case among individuals in income-poor households in Mexico, too. However, the time poverty rate of nonemployed, income-poor women was much higher in Mexico (34 percent) than in Argentina (25 percent) and Chile (19 percent) (column 3). As a result, the contribution made by nonemployed women to overall time poverty rate of income-poor women was also much higher, thereby pushing their poverty rate higher than that of their male counterparts.

We had also noted a gender asymmetry with respect to the effect of income poverty status on the time poverty rate. The results of the decomposition exercise provide some insight into the proximate causes behind it. It shows that the lower time poverty rate of employed, income-nonpoor men relative to their income-poor counterparts (column 4) was not offset by the higher share of employed among the income-nonpoor relative to the income-poor (column 2). As a result, the time poverty rate of income-nonpoor men was lower than that of income-poor men. In contrast, we have seen (Figure 3-5 or Table 3-3) that the time poverty rate of income-nonpoor women was higher than (or, in the case of Mexico, the same as) that of income-poor women. The decomposition shows that the lower time poverty rate of employed, income-nonpoor women relative to their income-poor counterparts was offset by the higher share of employed among the income-nonpoor than the income-poor. As a result, the contribution of the employed to the overall time poverty rate was higher for income-nonpoor women than for income-poor women. Furthermore, time poverty rates of nonemployed women were roughly similar for the poor and nonpoor, except for in Mexico where the latter had a substantially (9 percentage points) lower rate (column 3). The lower share of the nonemployed in the total number of female income-nonpoor than income-poor helped to make for a smaller contribution of the nonemployed to the overall time poverty rate of nonpoor women. However, this was not large enough to make the time poverty rate of nonpoor women lower than poor women in both Argentina and Chile, while in Mexico, it was just large enough to make the rate identical for the two groups of women.

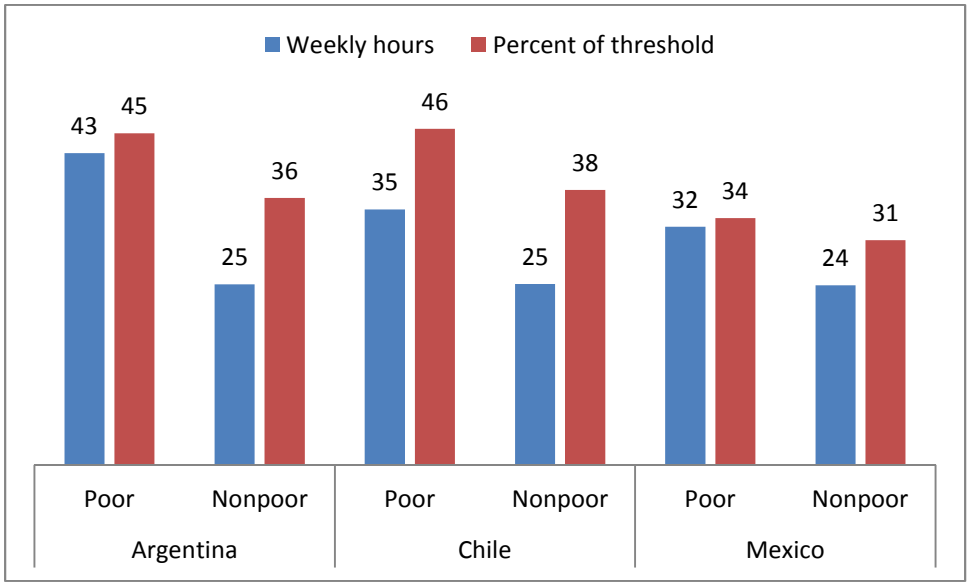
Figure 3-6 Decomposition of time poverty among the employed adults in time-poor households into 'employment-only' and 'double' time-bind



Note: The rate of time poverty (in percent) is the sum of 'double time-bind' and 'employment-only time bind'. See the two terms in parenthesis in the expression inside the second square bracket in equation (7).

Earlier, we made the distinction among the employed time-poor between those facing the *employment-only time-bind* and those facing the *double time-bind* (see the second term in square brackets in equation (7)). Our estimates suggest that the risks of being in the *double time-bind* are unambiguously different by sex and income poverty status. Income-poor women face the highest incidence of *double time-bind*, ranging from 23 percent in Argentina to roughly 15 percent in Chile and Mexico (Figure 3-6). Next were income-nonpoor women with substantially lower rates of 10 percent in Argentina and roughly 5 percent in Chile and Mexico. The percentage of income-poor men facing the *double time-bind* was roughly similar to the rate observed for income-nonpoor women in Argentina and Chile; but, in Mexico, they were only half of the rate for income-nonpoor women. The lowest incidence was for income-nonpoor men with negligible rates of 1 to 2 percent. The policy interventions required to effectively ameliorate the difficulties imposed by the *double time-bind* as well as the *housework time-bind* will have to go beyond the standard labour market interventions.

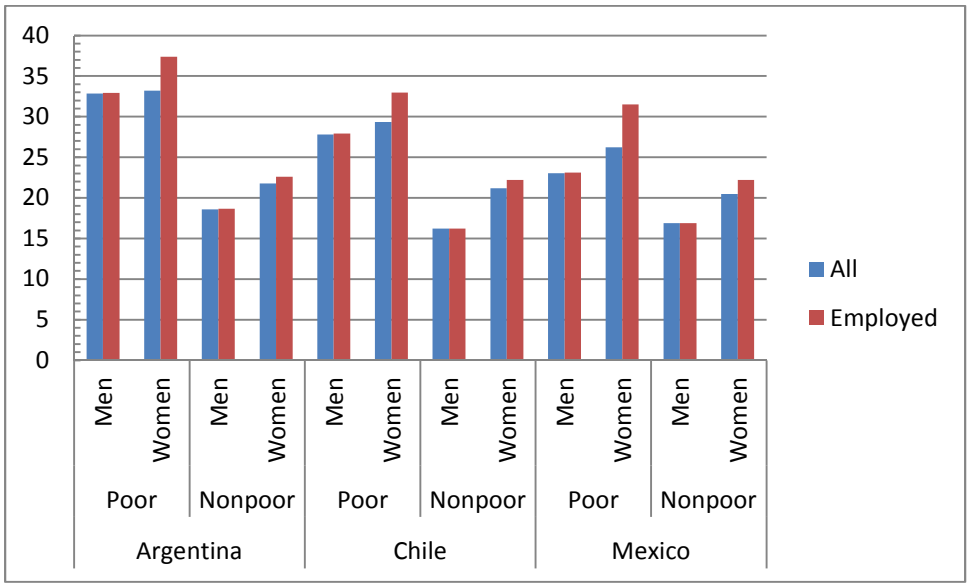
Figure 3-7 Household time deficit of time-poor households by income poverty status



Just as we saw with incidence of time poverty among households, the average time deficit of income-poor households turned out to be higher than income-nonpoor households (Figure 3-7). The latter had an average deficit of roughly 25 hours per week in all three countries. The income-poor in Argentina had the largest deficit (43 hours per week), followed by Chile (35 hours), and Mexico (32 hours). However, when expressed as percent of the average threshold value of household production, the time deficit of the income-poor in Argentina and Chile were roughly similar (about 45 percent), while it was smaller in Mexico (34 percent). Similarly, the deficit of the income-nonpoor in Argentina and Chile were quite close

(36 and 34 percent, respectively). The Mexican income-nonpoor households had a lower value at 31 percent, even though their weekly hours of deficits were identical to that of their cohorts in the other two countries, reflecting the higher value of the average threshold in Mexico.

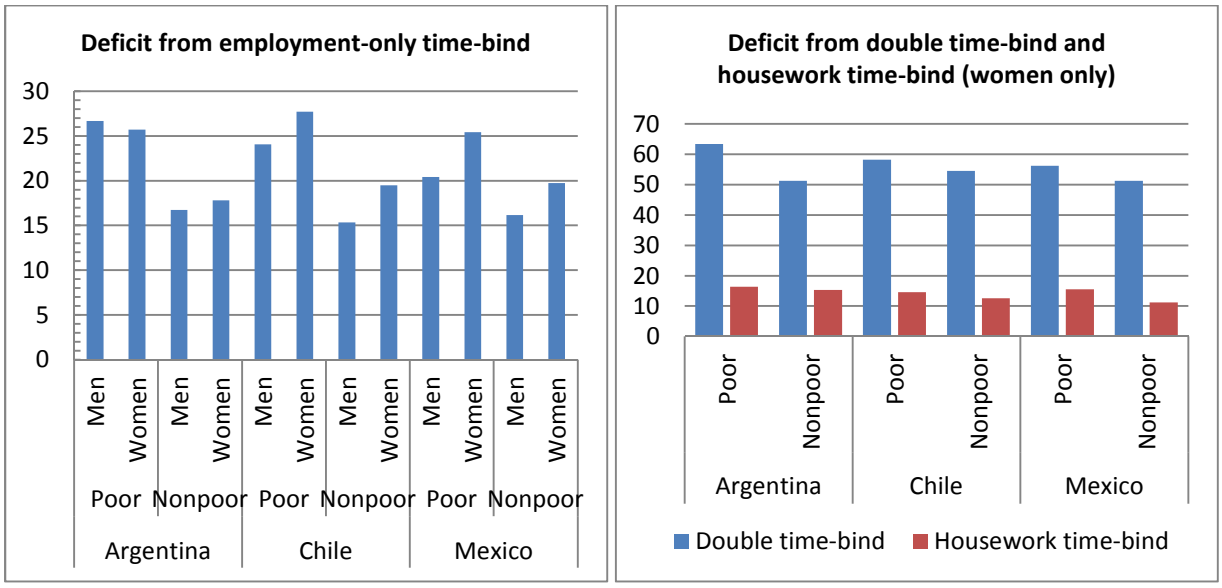
Figure 3-8 Time deficit of time-poor adults by sex and income poverty status (average weekly hours)



The picture of time deficits of time-poor adults[17] appeared (analogous to our findings regarding individual time poverty rates) to be marked by strong gender and income divides (Figure 3-8). In all countries, income-nonpoor adults had lower deficit than income-poor adults, irrespective of their employment status. Women were found to have higher deficit than men in every subgroup shown. Part of the reason why employed women tend to have greater deficit than employed men was that, among those with *employment-only time-bind*, women had higher deficit, on the average, than men (Figure 3-9). Another reason was the incidence of the *double time-bind*, which is disproportionately borne by women, and the high time deficit associated with it. Compared to the deficits faced by time-poor, employed women, the deficits faced by time-poor, nonemployed women (those in the *housework time-bind*) were substantially lower.

[17] All of whom, by definition, live in time-poor households.

Figure 3-9 Time deficit from employment-only time-bind of time-poor, employed adults (by sex) and time deficit from other time-binds faced by time-poor women (weekly hours)



Note: We have shown estimates of the deficit from *double time-bind* and *housework time-bind* for women only. The number of observations available for men in the categories shown in the figure was too few to allow for reliable estimates. See Figure 3-6 for the very low incidence of both these types of time-bind among men.

3.2 Households by employment status

3.2.1 Official versus LIMTIP income poverty

The employment status of the head of household (as well as of the spouse, where present) clearly has an impact on household income. Further, the employment status of the head and spouse exert an influence—in many households in a decisive manner—on the time deficits faced by the household. However, it should be noted that households can have time deficits even if the head and spouse are not employed because some other member(s) of the household (e.g., a son) may be employed. We have already pointed out that some households contain nonemployed individuals with time deficits because the time available to them after setting aside the minimum required allocation toward leisure and household production from the physically fixed number of hours (say 168 hours per week) turned out to be negative. As defined above, we classify a household as time-poor if it has at least one time-poor person (between the age of 18 and 74). On the other hand, income poverty is defined at the household-level (i.e., all persons in a household with total household income below the poverty line is considered as poor). Therefore, time deficits of employed individuals in the household can, depending on the size of

the deficit, earnings, and nonlabour income of the members of the household, push the household into income poverty as defined by the LIMTIP.

We begin by noting that in all three samples under study, the vast majority of households (about 80 percent) consisted of households in which the head, spouse, or both are employed (hereafter referred to as 'employed households'). The remainder were households in which neither the head nor spouse (where present) was employed ('nonemployed households').[18] Households in which both the head and spouse (i.e., husband and wife) were employed made up 24 percent of all households in Mexico and 29 percent in both Argentina and Chile. We refer to such households as 'dual-earners'[19] below for convenience. Households with employed head and nonemployed spouse (i.e., employed husband and nonemployed wife) constituted only 16 percent of all households in Buenos Aires. Their frequency was notably higher in Chile (27 percent) and still higher in Mexico (36 percent). Households with employed head and no spouse (i.e., single employed head) were nearly one-third of all households in Argentina, while in both Chile and Mexico they were a smaller proportion, about one-fifth. The final subgroup of employed households that we used in our schema was households with nonemployed head and employed spouse (i.e., nonemployed husband and employed wife). Such households were a small fraction of the total number of households in all countries (about 3 to 4 percent).

As shown in Table 3-4, the share of employed households in the officially poor population was much lower in Argentina and Chile (67 and 62 percent respectively) than in Mexico (80 percent). Taking time deficits into account modified this picture substantially: Employed households made up 77 and 72 percent, respectively, of the Argentinian and Chilean households that were income-poor by the LIMTIP poverty line. The adjustment also makes the composition of the income-poor and income-nonpoor population in terms of employment status more similar in these two countries. However, no such shift in the composition of the poor could be observed in Mexico, where even with the official measure, the proportion of employed in the total number of households was roughly identical for the income-poor and income-nonpoor population: The proportion of employed households went up only by 2 percentage points to 82 percent.[20] The roughly similar proportionate increase in the hidden poor in both groups of

[18] The usage of the terms 'employed' and 'nonemployed' households are deployed purely for the sake of avoiding unnecessarily cumbersome sentences. As we already noted, there may be employed individuals (other than the head of household) in nonemployed households and, similarly, nonemployed individuals in employed households.
[19] It should be noted that such households might include other employed individuals (e.g., daughter or cousin).
[20] The high incidence of income poverty in Mexico has the statistical effect of rendering the demographic composition of the poor and overall population more similar than in countries with relatively low incidence of poverty.

households might be a reflection of the fact that household members other than the head and spouse were more likely to be employed in Mexico (relative to the other two countries) and thus end up facing time deficits. Alternatively, this could also be the result of the higher incidence of time deficits among the nonemployed households in Mexico relative to the other two countries. We will return to this question later in this section.

Table 3-4 Number (in thousands) and composition (in percent) of income-poor households by employment status of household: Official versus LIMTIP

	Argentina				Chile			
	Official		LIMTIP		Official		LIMTIP	
	Number	Share	Number	Share	Number	Share	Number	Share
All households	60	100.0	107	100.0	165	100.0	271	100.0
Employed household	41	67.4	82	76.5	103	62.2	196	72.3
Employed head of household, with employed spouse	8	12.8	25	23.7	13	7.8	43	15.8
Employed head of household, with nonemployed spouse	17	28.7	28	26.1	53	31.9	86	31.6
Employed head of household without spouse	12	20.7	23	21.6	26	15.5	49	18.3
Nonemployed head of household, with employed spouse	3	5.1	5	5.1	12	7.0	18	6.6
Neither head nor spouse employed	20	32.6	25	23.5	62	37.8	75	27.7
Addendum:								
Employed household with children under 18	37	60.6	74	69.1	98	59.3	185	68.4
Employed household with children under 6	14	22.6	30	28.0	53	32.3	94	34.6
Nonemployed household with children under 18	9	15.2	14	12.7	44	26.9	55	20.3

	Mexico			
	Official		LIMTIP	
	Number	Share	Number	Share
All households	10,712	100.0	13,043	100.0
Employed household	8,536	79.7	10,706	82.1
Employed head of household, with employed spouse	1,904	17.8	2,835	21.7
Employed head of household, with nonemployed spouse	4,915	45.9	5,499	42.2
Employed head of household without spouse	1,288	12.0	1,830	14.0
Nonemployed head of household, with employed spouse	429	4.0	542	4.2
Neither head nor spouse employed	2,176	20.3	2,337	17.9
Addendum:				
Employed household with children under 18	7,688	71.8	9,496	72.8
Employed household with children under 6	4,022	37.5	4,899	37.6
Nonemployed household with children under 18	1,630	15.2	1,778	13.6

Note: 'Employed household' is a household in which the head, spouse, or both are employed. 'Nonemployed household' is a household in which neither the head nor spouse (if present) is employed.

Among the employed households, the subgroup that showed the most striking increase in their share in the income-poor population when we account for time deficits were dual-earner (households in which both the husband and wife were employed). This is not surprising, given that they would tend to have lower amounts of time available for allocating to the required amount of household production, which, in turn, would tend to be higher relative to other households because of the relatively high number of children and adults in married couple households. In Argentina and Chile, employed households with children turned out to be another subgroup that had a higher share of the income-poor population under LIMTIP compared to the official poverty line. This is a reflection of both the higher time deficits that households with children are likely to incur when the adults in the household are employed (given the size and composition of such households) and the low incomes of many working parents. In sum, accounting for time deficits in assessing poverty rendered the composition of the income-poor population more similar, in terms of the employment status of the head and/or spouse of the household, to the overall population.

The higher share of employed households in the LIMTIP income-poor population compared to the official income-poor population translated into a higher poverty rate for employed households (Table 3-5). In fact, the effectiveness of employment in facilitating avoidance of poverty appears to be considerably weaker when time deficits are taken into account. We would expect the gap in the poverty rate between employed and nonemployed households to shrink when time deficits are accounted for because time deficits are likely to be smaller for the latter group; however, the *size* of the shrinkage that we found in the data was quite remarkable. The official poverty rate of nonemployed households in Argentina was 5.1 percentage points higher than the employed households; but, with the LIMTIP poverty line, the gap between the employed and nonemployed dropped to 2.6 percentage points. Chile also witnessed a decline in the gap between the two groups from 11.7 (under the official poverty line) to 8.1 percentage points (as per LIMTIP). However, the most dramatic case is that of Mexico where the LIMTIP poverty rate of employed households turned out to be actually 2.9 percentage points *higher* than the nonemployed households—a complete turnaround from the picture suggested by the official poverty line that indicated that the poverty rate of employed households was 4 percentage points *lower* than the nonemployed households (Figure 3-10). However, it should be noted that poverty rate of nonemployed households also increased in all three countries when time deficits were taken into

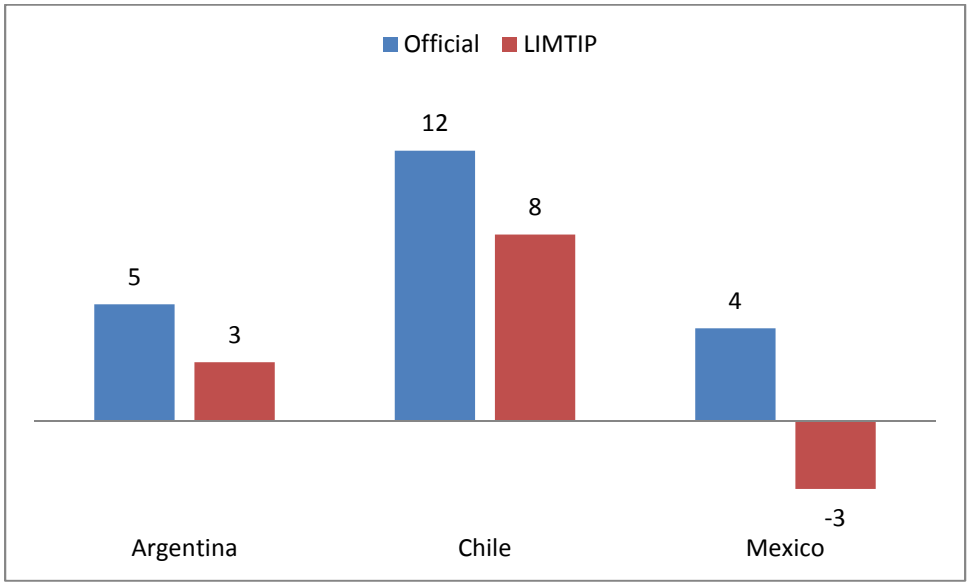
account because such households include employed time-poor individuals [21] and nonemployed time-poor individuals, an issue that we investigate later in this section.

Table 3-5 Poverty rates of households by employment status: Official vs. LIMTIP

	Argentina		Chile		Mexico	
	Official	**LIMTIP**	**Official**	**LIMTIP**	**Official**	**LIMTIP**
All households	6.2	11.1	10.9	17.8	41.1	50.0
Employed household	5.2	10.5	8.5	16.2	40.3	50.5
Employed head of household, with employed spouse	2.7	9.0	3.0	9.8	30.7	45.8
Employed head of household, with nonemployed spouse	11.1	18.0	12.8	20.7	52.3	58.5
Employed head of household without spouse	4.0	7.4	8.7	16.8	27.7	39.4
Nonemployed head of household, with employed spouse	12.6	22.5	17.6	27.2	45.8	57.9
Nonemployed household	10.3	13.1	20.2	24.3	44.3	47.6
Addendum:						
Employed household with children under 18	8.5	17.1	10.0	19.0	44.4	54.8
Employed household with children under 6	9.9	21.8	15.6	27.3	54.2	66.0
Nonemployed household with children under 18	14.4	21.3	21.7	26.8	47.5	51.9

Note: 'Employed household' is a household in which the head, spouse, or both are employed.

Figure 3-10 Difference between the poverty rate of nonemployed and employed households (in percentage points) by official and LIMTIP poverty lines



Note: 'Employed household' is a household in which the head, spouse, or both are employed. 'Nonemployed household' is a household in which neither the head nor spouse (if present) is employed.

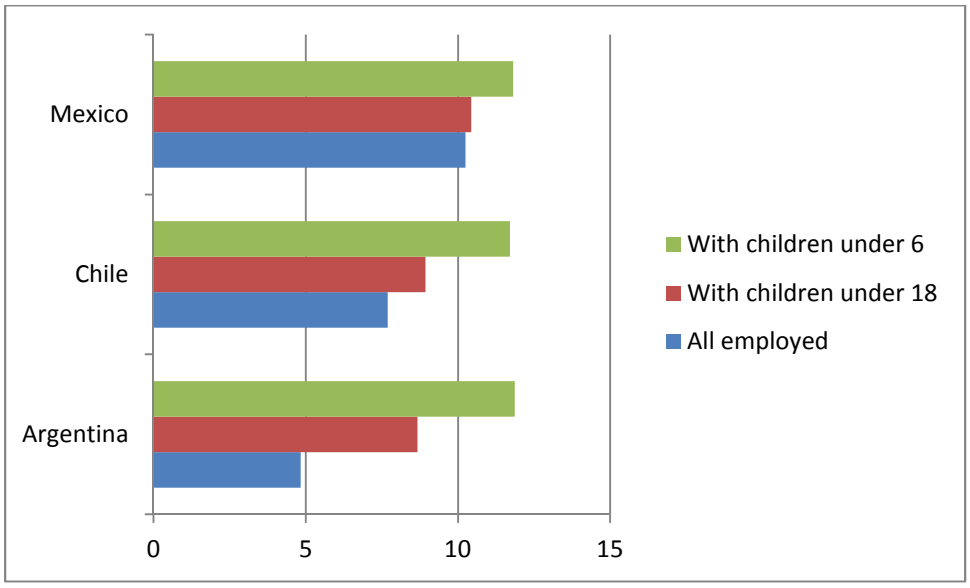
[21] As we noted above, households are classified as 'nonemployed' based on the employment status of the head and spouse, which allows for the possibility that there may be other employed individuals in the household.

The highest incidence of poverty in the three major subgroups of employed households was found among households with employed head and nonemployed spouse for all countries.[22] When time deficits were taken into account, the poverty rate of this group increased from 11 to 18 percent in Argentina, from 13 to 21 percent in Chile, and from 53 to 59 percent in Mexico. In Argentina, we found a ranking reversal between the 'dual-earner' households (both head and spouse employed) and households with single (i.e., without spouse) employed head. The former group saw a tripling of their poverty rate when time deficits were taken into account (from 3 to 9 percent) whereas the latter group experienced a lower, though still considerable, increase (from 4 to 7 percent). In Chile, we found that the poverty rate of dual-earner households increased by more than three-fold from 3 to 10 percent, while the increase for the single employed heads was from 9 to 17 percent. Dual-earner households in Mexico also displayed substantially higher poverty rates (46 versus 31 percent) when time deficits were monetized and incorporated into the poverty line. This was also the case for households headed by a single employed person as their LIMTIP poverty rate was 39 percent—over 11 percentage points higher than their official poverty rate.

The poverty rate of employed households with children was higher than that of employed households in general, according to the official measure in all three countries. This is especially so among employed households with very young (under 6 years of age) children. Accounting for time deficits worsens the poverty picture of employed households with children to a larger degree than that of all employed households (Figure 3-11). As mentioned above, households with children are likely to incur higher time deficits because the threshold hours of household production are higher for them, for a given number of adults in the household. Another factor behind the higher increase in the poverty rate might be that a greater fraction of them have household incomes that were barely above the poverty line. In turn, the low household incomes are partly a reflection of the lower labour market participation rates by household members (women, in particular) to meet the greater needs of household production in households with children.

[22] We are ignoring here in our description the households with nonemployed head and employed spouse because they constitute a relatively small fraction of the income-poor population.

Figure 3-11 Difference between LIMTIP and official poverty rates for employed households with children (LIMTIP minus official rate, percentage points)



Note: 'Employed household' is a household in which the head, spouse, or both are employed.

In our data, we found that households with employed head and nonemployed spouse (i.e., male earner with a nonearning wife) made up 35 percent of all poor (by LIMTIP definition) employed households in Argentina, 45 percent in Chile, and 54 percent in Mexico (estimates not shown). Households with employed heads and no spouse (i.e., single employed head) constituted about 25 percent of all employed LIMTIP income-poor households in Argentina and Chile whereas their share was roughly 10 points lower (14 percent) in Mexico. The dual-earner couple were thus a minority, though a sizeable one, among the poor employed households. In Argentina, their share in the latter (using the LIMTIP definition) was less than a third (32 percent) while in Chile and Mexico it was 22 and 28 percent respectively.

We now turn to take a closer look at the sharp divergence between the official and LIMTIP poverty rates for the employed households and its three principal subgroups in Argentina and Chile. As before (see Section 3.1.1), we focus on two factors affecting the difference between the official and LIMTIP income poverty rate, the difference that we described as the hidden poverty rate (Table 3-6).[23] Among the three principal subgroups of employed households, dual-earner households (both head and spouse employed) had a lower proportion of hidden poor than households with employed head and nonemployed spouse (male earner, nonearner wife) in Argentina and Chile. The first factor, namely, the proportion of

[23] We have also included the estimates for Mexico in the table for the sake of completeness.

households that are time-poor and officially income-nonpoor in the total number of households, was considerably higher for dual-earner households than for families with employed head and nonemployed spouse (78 versus 48 percent in Argentina and 78 versus 46 percent in Chile). However, the proportion of time-poor households with income above the LIMTIP poverty line, the second factor determining the gap between the official and LIMTIP poverty rate, was much lower for dual-earner households (8 versus 14 percent in Argentina and 9 versus 17 percent in Chile). This suggests that time deficits may be concentrated in different portions of the income distribution of each group: among the better-off in the group of dual-earner households and among the lower-income in the group of households with employed head and nonemployed spouse (male earner, stay-at-home wife). The latter type of family did not, despite the presence of a stay-at-home wife, have an advantage in mitigating the impoverishing effects of time deficits in Argentina and Chile.

Table 3-6 Factors affecting the difference between LIMTIP and official poverty rate (hidden poverty rate): Employed households

	LIMTIP minus official income poverty rate	Time-poor and income-nonpoor(official)/All	Hidden poor/Time-poor and income-nonpoor (official)
Argentina			
All households	4.8	48.6	9.9
Employed head and/or spouse	5.3	55.8	9.5
Employed head of household, with employed spouse	6.2	77.8	8.0
Employed head of household, with nonemployed spouse	6.9	48.4	14.2
Employed head of household without spouse	3.4	40.3	8.4
Chile			
All households	7.0	55.2	12.6
Employed head and/or spouse	7.7	62.5	12.3
Employed head of household, with employed spouse	6.8	77.6	8.8
Employed head of household, with nonemployed spouse	8.0	46.0	17.3
Employed head of household without spouse	8.1	65.4	12.4
Mexico			
All households	8.9	39.9	22.4
Employed head and/or spouse	10.2	45.0	22.8
Employed head of household, with employed spouse	15.0	61.7	24.4
Employed head of household, with nonemployed spouse	6.2	28.7	21.6
Employed head of household without spouse	11.7	57.1	20.4

Note: 'Employed household' is a household in which the head, spouse, or both are employed.

Mexico offers an interesting contrast in this respect. The hidden poverty rate in Mexico was lower for the households with employed head and nonemployed spouse than for dual-earner households. Both factors behind the difference between the LIMTIP and official poverty rates were smaller for the former group. The share of time-poor and officially income-nonpoor in the total population and share of households with income below the LIMTIP poverty line in the total number of time-poor and officially

income-nonpoor was, respectively, 29 and 22 percent for the households with employed head and nonemployed spouse; the corresponding estimates for the dual-earner households were 62 and 24 percent. An additional member in employment did not offer a way out of poverty for a substantial number of working couples because of the impoverishing effects of time deficits.

Both in Argentina and Chile, we had observed a much higher incidence of hidden poverty for the subgroup of employed households with children. The estimates presented in Table 3-7 shed some light on this phenomenon.[24] In Argentina, when we compared households with children under 18 to all employed households, we found that the percentage of time-poor and officially income-nonpoor in both groups were roughly similar (around 56 percent). The difference between the groups was in the percentage of households with income below the LIMTIP poverty line in the total number of time-poor and officially income-nonpoor in each group. Such households were more preponderant among households with children under 18 (15 versus 10 percent). On the other hand, a comparison of households with very young children (under six years of age) to all employed households showed that they fared worse in both factors, thus resulting in a greater hidden poverty rate for them. In contrast, the same comparison in Chile showed that the proportion of time-poor and officially income-nonpoor in both groups were roughly similar (around 63 percent). Here it was the larger percentage of households with income below the LIMTIP poverty line in the total number of time-poor and officially income-nonpoor households with very young children compared to the same percentage for all employed households (19 versus 12 percent) that led to the higher hidden poverty rate for the former group.

[24] We have also included the estimates for Mexico in the table for the sake of completeness.

Table 3-7 Factors affecting the hidden poverty rate (LIMTIP minus official poverty rate): Employed households with children

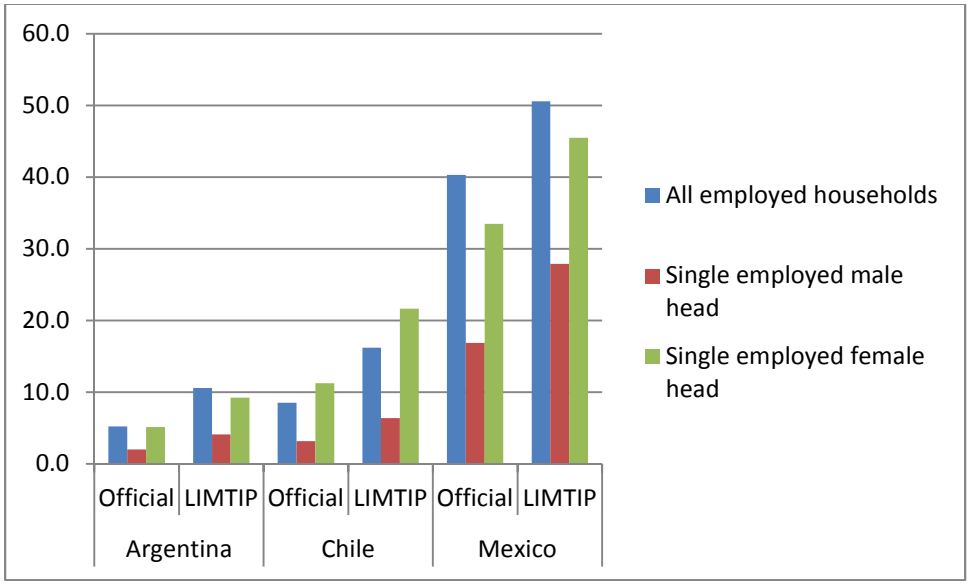
	LIMTIP minus official income poverty rate	Time-poor and income-nonpoor(official)/All	Hidden poor/Time-poor and income-nonpoor (official)
Argentina			
All households	4.8	48.6	9.9
Employed head, spouse or both	5.3	55.8	9.5
Employed head, spouse or both, with children under 18	8.7	57.2	15.2
Employed head, spouse or both, with children under 6	11.9	74.2	16.0
Chile			
All households	7.0	55.2	12.6
Employed head, spouse or both	7.7	62.5	12.3
Employed head, spouse or both, with children under 18	8.9	54.4	16.4
Employed head, spouse or both, with children under 6	11.7	63.4	18.5
Mexico			
All households	8.9	39.9	22.4
Employed head, spouse or both	10.2	45.0	22.8
Employed head, spouse or both, with children under 18	10.4	39.4	26.5
Employed head, spouse or both, with children under 6	11.8	39.1	30.2

Note: 'Employed household' is a household in which the head, spouse, or both are employed.

Some observations are warranted on the differences in poverty among households headed by a single employed person based on the sex of the head. The overwhelming bulk of such households in poverty consist of female-headed households in all countries under the official and LIMTIP poverty lines.[25] A common feature across all three countries was the systematically higher poverty rates of single female heads compared to single male heads. The gender gap—consistent with the pattern for all single headed households (employed and nonemployed heads) that was reported earlier (Section 3.1.2)—was most pronounced in Chile and Mexico (Figure 3-12). However, except for Chile, it should be noted that the poverty rates for employed single female heads was actually *lower* than all employed households.

[25] Under the LIMTIP definition, the percentage of employed households headed by women in the total number of poor households headed by a single employed individual was 80, 88, and 75 percent, respectively, in Argentina, Chile, and Mexico.

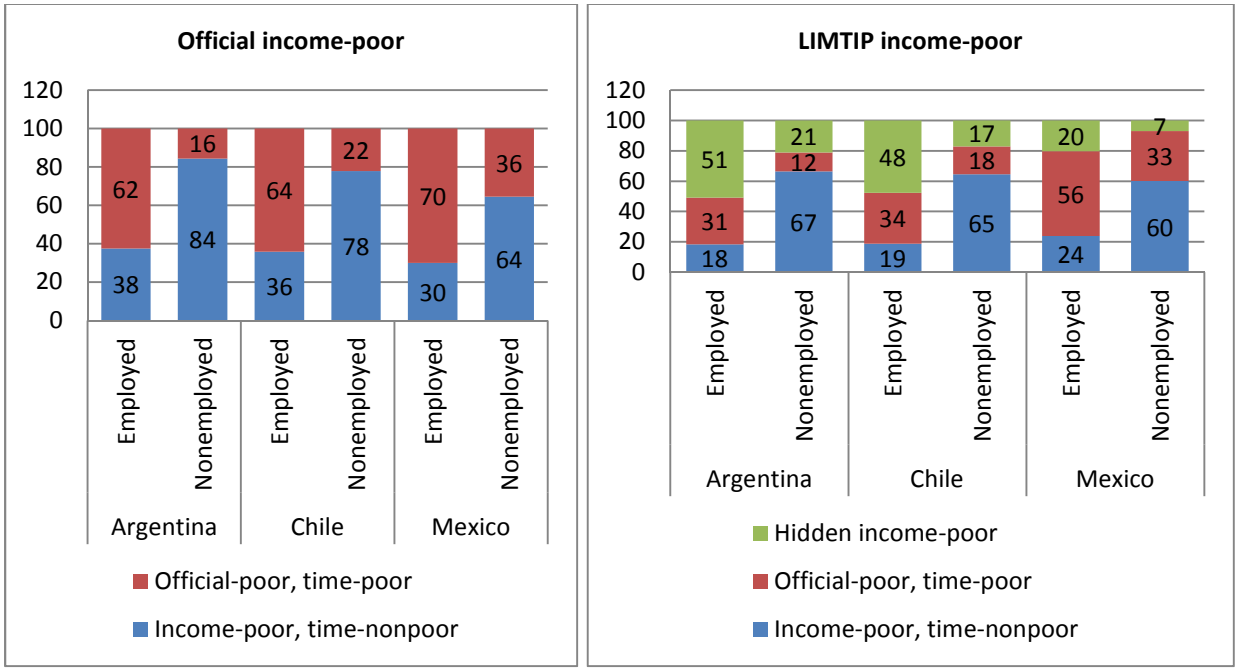
Figure 3-12 Poverty rates of single employed households by sex: Official vs. LIMTIP

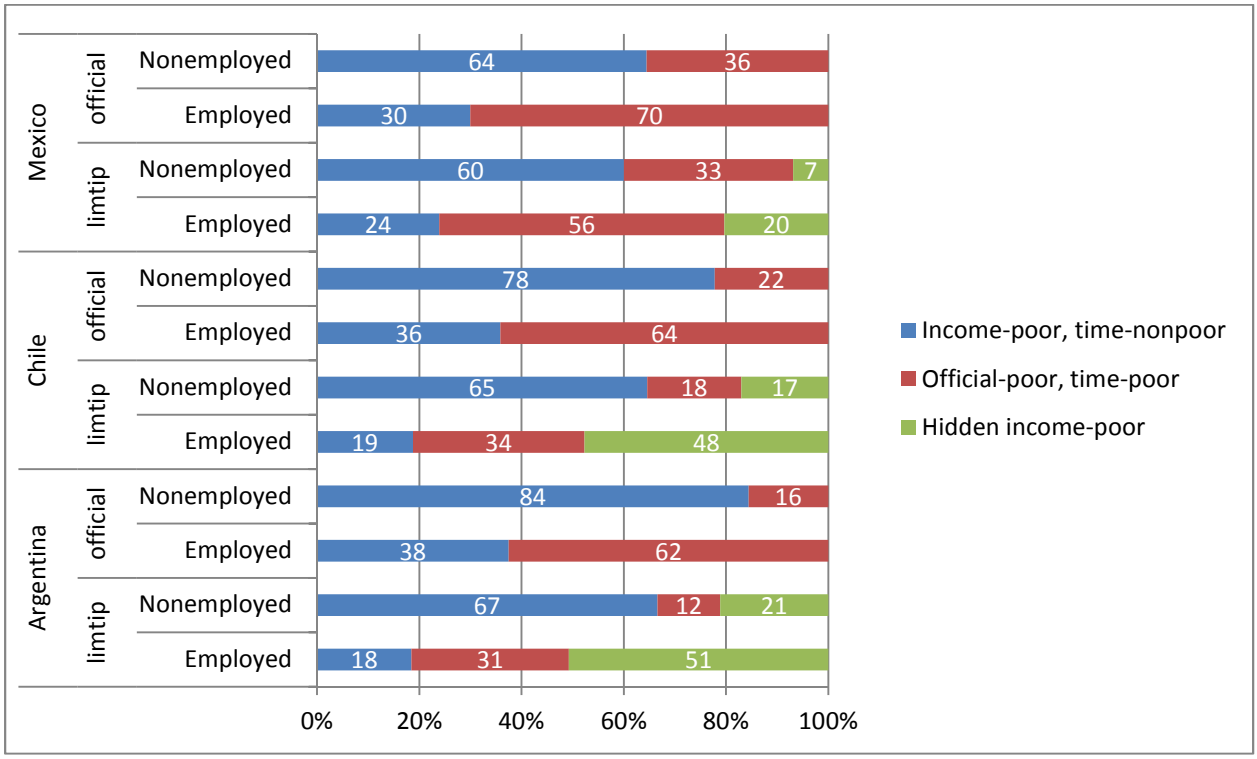


Note: 'Employed household' is a household in which the head, spouse, or both are employed.

As we discussed in connection with the question of income deficits (see Table 3-2 and related discussion), the LIMTIP income-poor population can be classified into three distinct subgroups: households that are officially poor and time-nonpoor; officially poor and time-poor; and the hidden poor (i.e., time-poor households that are officially nonpoor but are poor when time deficits are monetized). Naturally, the official poor do not include the last subgroup. As shown in Figure 3-13 below, the majority (62, 64, and 70 percent, respectively, in Argentina, Chile, and Mexico) of officially poor, employed households suffered from time poverty, suggesting that incorporating time deficits in the analytical framework is important for understanding the economic conditions of the working poor. It is also noteworthy that a substantial proportion (16, 22, and 36 percent, respectively, in Argentina, Chile, and Mexico) of officially poor, nonemployed households also contain at least one time-poor adult. We have already discussed the sharp increase in the measured incidence of poverty for employed households in Argentina and Chile, and to a lesser extent, in Mexico. This is reflected in the composition of the employed, LIMTIP income-poor households with almost half consisting of the hidden poor in the first two countries and a fifth in Mexico. As to be expected, the hidden poor constituted a much smaller fraction of the nonemployed, LIMTIP income-poor.

Figure 3-13 Composition of the official and LIMTIP income-poor households (percent) by employment status



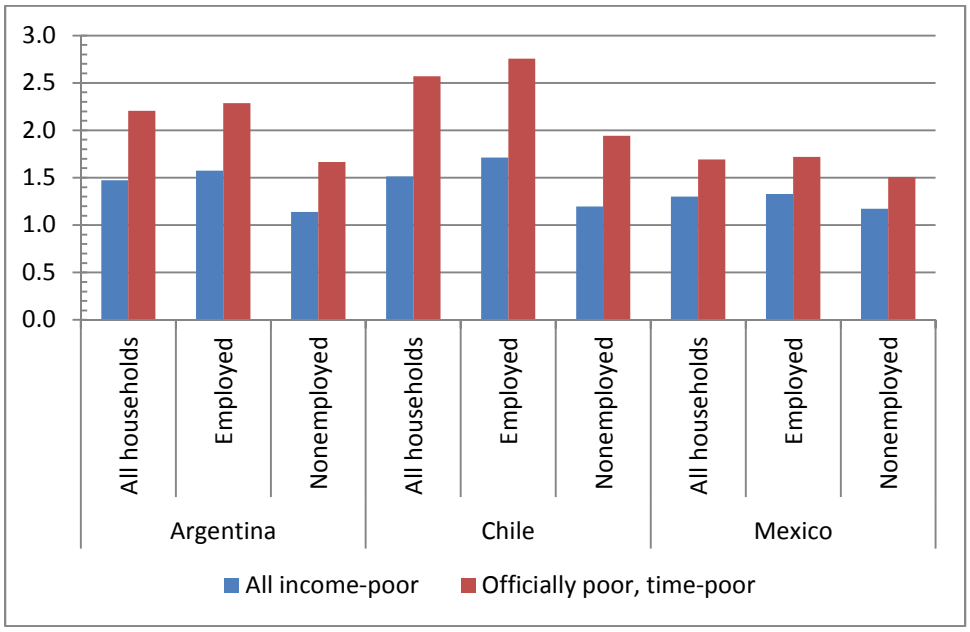


Note: 'Employed household' is a household in which the head, spouse, or both are employed.

The proportionate increase in the average amount of income deficit (expressed in nominal values of national currency) for all income-poor households and all employed income-poor households was quite

similar in Argentina and Mexico, while it was somewhat larger for the latter in Chile (Figure 3-14). As we have noted before, the effect of the monetization of time deficit on the officially income-poor households is to increase the income deficit of those among them who are time-poor. One practical implication is that a cash transfer programme that attempts to close the income deficit on the basis of the same official poverty line for the two subgroups of the officially poor households—time-poor and time-nonpoor—is bound to be only partially successful and inequitable toward the time-poor subgroup. The size of the increase in the average income-deficit for the officially poor, time-poor households shows that the extent of the problem can be quite significant. It is also noteworthy that the proportionate increase in the average income deficit for nonemployed households was also quite large, though smaller than that observed for employed households.

Figure 3-14 Ratio of the LIMTIP income deficit to official income deficit of income-poor households

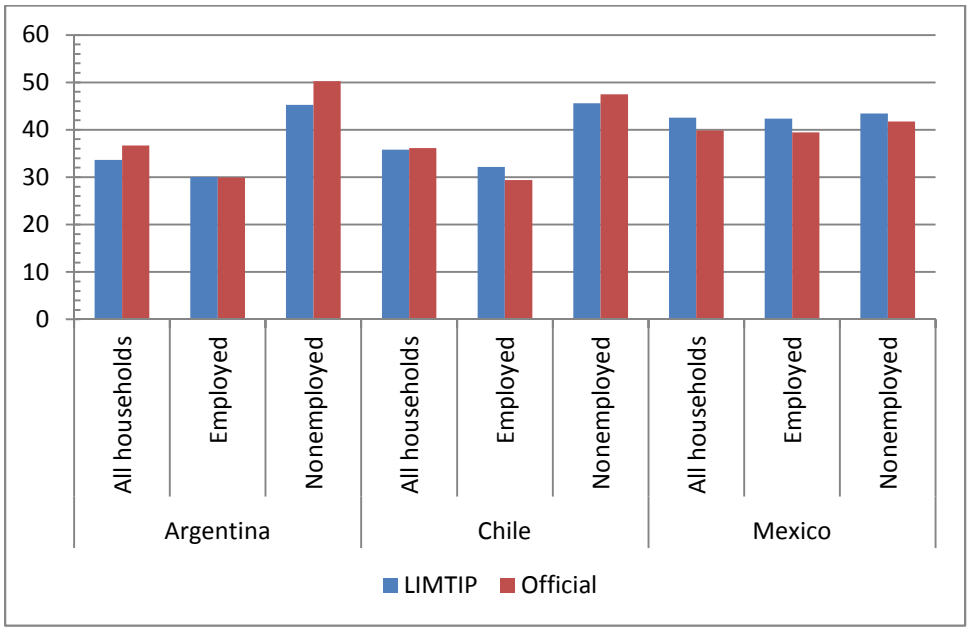


Note: 'Employed household' is a household in which the head, spouse, or both are employed. Income deficit was reckoned in nominal values of national currency for the calculations shown in the figure.

We had already observed that the average income deficit (expressed as a percentage of poverty line) for all households was actually lower with the LIMTIP poverty line than the official line in Argentina (Figure 3-3). We can now see that this decline was restricted to nonemployed households as the percentage deficit for employed was the same under both poverty lines (Figure 3-15). In Chile, the average for all households was the same under both poverty lines. However, for employed households, it was higher under the LIMTIP definition than under the official definition, while the opposite was true for the

nonemployed. Mexico was the only country in our study in which the averages for the employed and nonemployed households was higher under the LIMTIP than under the official poverty line.[26] The change in the composition of the income-poor, namely, the larger share of the employed *vis-à-vis* the nonemployed in the LIMTIP income-poor compared to the official income-poor, also played a role. This was particularly true in Argentina and Chile, where the compositional shift was fairly large (see Table 3-4). Because the deficit faced by the employed was lower than the nonemployed, the larger share of the former exerted a downward pressure on the overall average deficit of the LIMTIP income-poor population.

Figure 3-15 Average income deficit (percent of poverty line) of income-poor households: LIMTIP and official



Note: 'Employed household' is a household in which the head, spouse, or both are employed. Income deficit was reckoned in nominal values of national currency for the calculations shown in the figure.

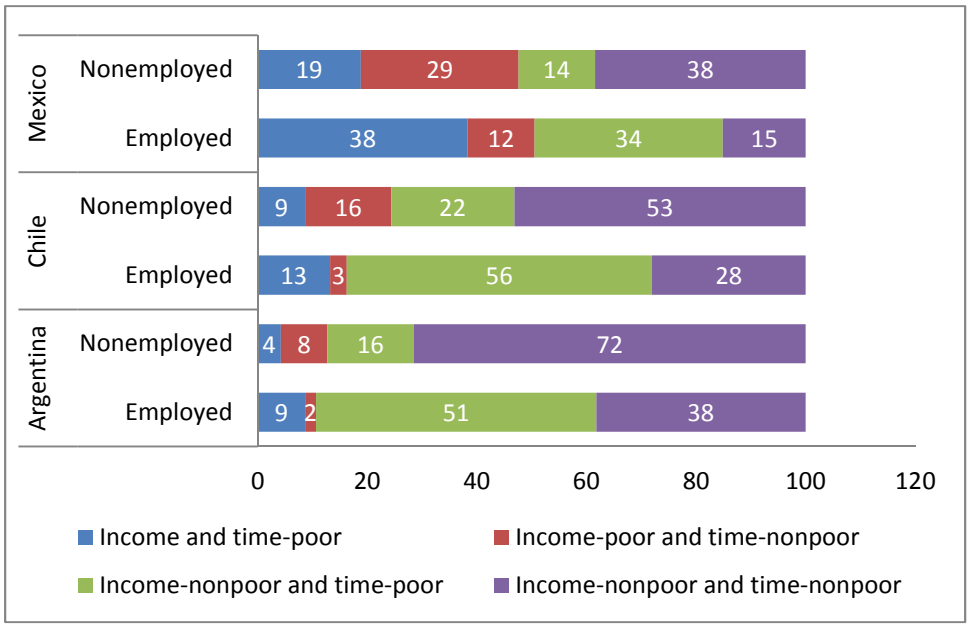
3.2.2 The LIMTIP classification of households

We found a stark difference in the proportion of households with neither time nor income deficit among the employed and nonemployed in all three countries (Figure 3-16). The employed had a much lower proportion than the nonemployed: 38 versus 72 percent in Argentina; 28 versus 53 percent in Chile; and 15 versus 38 percent in Mexico. Almost all of the difference in Argentina and Mexico could be traced to

[26] In both Chile and Mexico, the share of officially poor, time-poor households in the total number of employed, LIMTIP income-poor households was higher than their Argentinian counterparts. So were their average percent deficits as compared to the latter. These factors accounted for why the LIMTIP average deficit was higher than the official deficit for employed households in Chile and Mexico.

the differential incidence of time poverty among the income-nonpoor according to employment status. As we have already noted (Table 3-5), there was only a small difference in the income poverty rate of the employed and nonemployed in these two countries. In Chile, on the other hand, both the difference in the income poverty rate and time poverty rate (among the income-nonpoor) played roles in shaping the gap between the nonemployed and employed in the proportion of households with neither time nor income deficits.

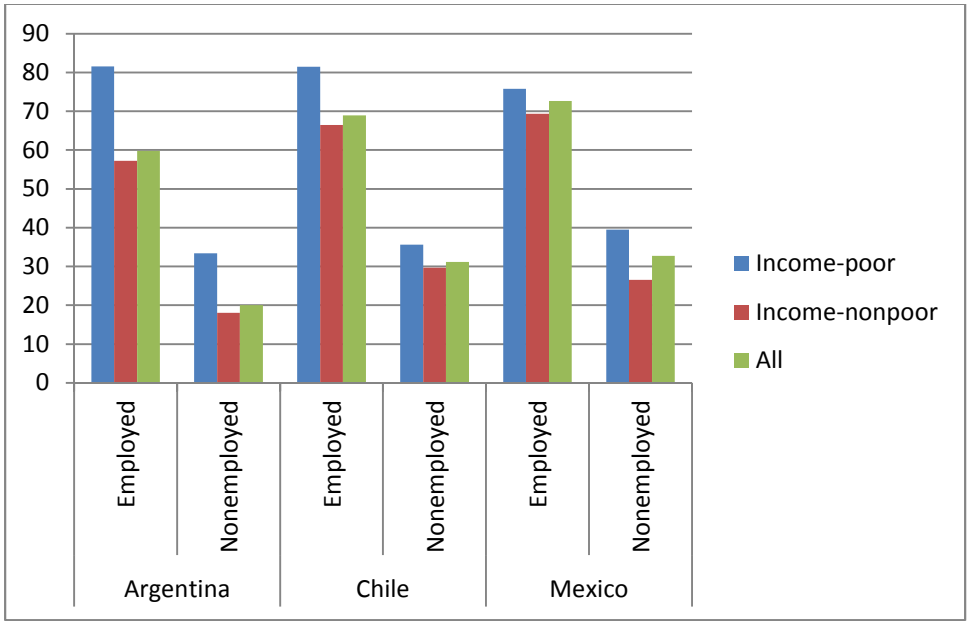
Figure 3-16 LIMTIP classification of households by income and time poverty status (percent): employed and nonemployed



Note: 'Employed household' is a household in which the head, spouse, or both are employed.

The majority of employed households in all three countries faced time deficits, and, not surprisingly, the incidence of time poverty was markedly lower among the nonemployed (Figure 3-17). We also found that the incidence of time deficits was higher among the income-poor than the income-nonpoor employed households in all three countries. The gap was the widest in in Argentina (82 versus 57 percent). It was somewhat smaller in Chile (81 versus 66 percent) and still smaller in Mexico (76 versus 69 percent). We think that this finding reinforces the implications of our similar finding for all households (see Section 3.1.2) and our finding that majority of the officially income-poor, employed households are time-poor (Figure 3-13). In essence, time deficits are an essential aspect of understanding the deprivations among the working poor, who face this type of vulnerability to a greater extent than the working nonpoor.

Figure 3-17 Time poverty rate of households by employment and income poverty status (percent)



Note: 'Employed household' is a household in which the head, spouse, or both are employed.

The major subgroups that make up employed households show considerable diversity in terms of their LIMTIP classification (Table 3-8). All subgroups in Argentina had only a relatively small proportion (under 5 percent) of households in the income-poor and time-nonpoor category. The highest incidence of both time and income poverty (14 percent) was found among married couple households where husband was the sole earner (employed head with nonemployed spouse), followed by the dual earner households (9 percent), and the single heads (5 percent). Dual earner couples were the most prone to be in the income-nonpoor, time-poor category (73 percent) and the least likely to face neither time nor income deficits (18 percent). In contrast, income-nonpoor households with only the husband as the earner were divided pretty evenly across the time-poor and time-nonpoor categories (approximately 41 percent each). The highest proportion of households with neither income nor time deficits was found among the single heads (55 percent); next in line was households with only the husband as the earner (41 percent); and dual earner households registered a far lower rate of only 18 percent. We found that the classification of dual earner households and households with only the husband as the earner in Chile to be almost identical to those in Argentina. However, the classification of single heads differed considerably, with much higher proportions in the double bind of income and time poverty, as well as in the income-nonpoor, time-poor category.

Table 3-8 LIMTIP classification of employed households and incidence of time poverty among employed households (percent)

Country	Group	LIMTIP classification				Time poverty rate		
		Income and time-poor	Income-poor and time-nonpoor	Income-nonpoor and time-poor	Income-nonpoor and time-nonpoor	Income-poor	Income-nonpoor	All
Argentina	Employed	9	2	51	38	82	57	60
	Dual earner	9	0	73	18	95	80	82
	Earner husband, nonearning wife	14	4	42	41	80	51	56
	Single head	5	2	38	55	69	41	43
Chile	Employed	13	3	56	28	81	66	69
	Dual earner	9	1	73	17	92	81	82
	Earner husband, nonearning wife	16	5	39	40	76	49	55
	Single head	14	3	57	26	84	69	71
Mexico	Employed	38	12	34	15	76	69	73
	Dual earner	41	5	46	8	89	85	87
	Earner husband, nonearning wife	40	19	22	19	68	54	62
	Single head	31	8	44	16	79	73	75

Note: 'Employed household' is a household in which the head, spouse, or both are employed. We have excluded the relatively small subgroup of households with employed spouse and nonemployed head from our analysis here.

The Mexican picture in terms of the LIMTIP classification is notably different from the other two countries primarily because of the much higher incidence of the double bind of income and time poverty. However, rankings among the subgroups display some similarities. Thus, the lowest incidence of the double bind was observed among single heads (31 percent as compared to approximately 40 percent for the married couple groups). Similarly, the lowest proportion of households with neither income nor time deficits was found among the dual earners (8 percent) as compared to households with only the husband as the earner (19 percent) and single heads (16 percent). There are, nevertheless, marked differences between the subgroups in Mexico and the other two countries. Most notable by their absence are: (a) the substantial difference in the incidence of the double bind between the two subgroups of married couple households; and (b) the substantial difference between dual earners and single heads in the percentage of households in the income-nonpoor, time-poor category.

We have also displayed the rate of time poverty for the subgroups of the employed households in Table 3-8. The highest rate in all countries was found for dual earner households. Particularly notable is the case of income-poor dual earners among whom only a negligible proportion (11 percent in Mexico, 5

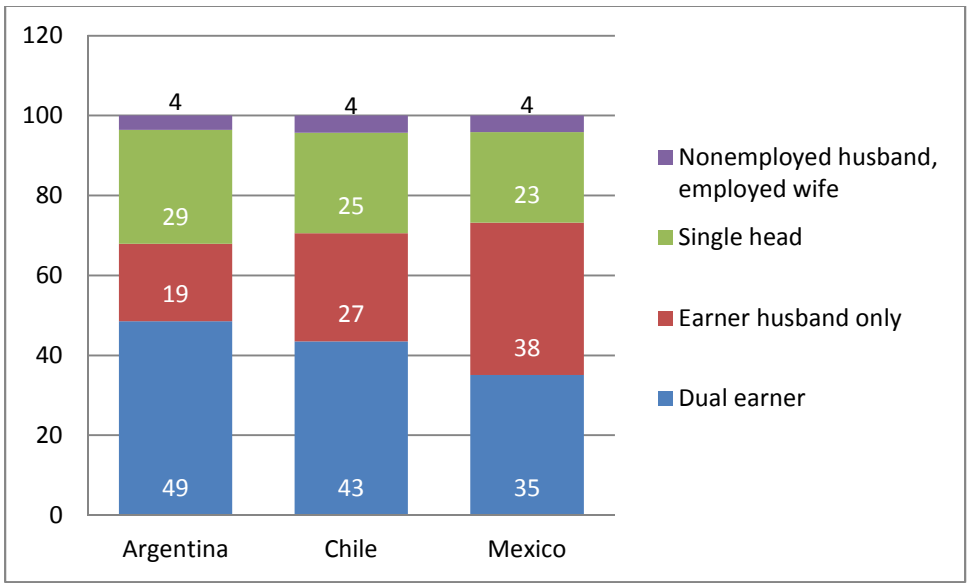
percent in Argentina, and 8 percent in Chile) appeared to be capable of avoiding time poverty. There was a wide gap (almost 30 percentage points) in the time poverty rate of income-poor and nonpoor households with only the husband as the earner in both Argentina and Chile (80 versus 51 percent in Argentina, and 76 versus 49 percent in Chile). While the gap in Mexico was smaller (68 versus 54 percent), it was still considerably larger than that between the income-poor and nonpoor in the other subgroups. With the exception of Argentina, the time poverty rate of single heads was higher than that of households with only the husband as the earner. The lowest incidence of time poverty in Argentina was among the nonpoor single heads (41 percent) while in both Chile and Mexico it was among the nonpoor households with only the husband as the earner. We now turn to take a closer look at the employed time-poor households, paying special attention to the marked schisms based on income poverty status reported above and exploring the gender differentials that we observed earlier with respect to all time-poor households (Section 3.1.3).

3.2.3 Time-poor households

In all three countries, approximately 90 percent of time-poor households are employed households. The broad contours of time poverty in employed time-poor households as a whole are therefore unlikely to be different from that of all time-poor households. We have already provided an analysis of all time-poor households (see Section 3.1.3). Our focus in this section is mainly to take a more detailed look at the subgroups of time-poor employed households.

We begin by presenting the distribution of employed, time-poor households across the major subgroups that we have considered so far (Figure 3-18). It is evident that married couple households constitute about 75 percent of all time-poor households in Mexico and Chile; their share is slightly lower in Argentina (70 percent). Households headed by single individuals constituted the remainder. Argentina had the highest proportion of dual earners (49 percent) among its time-poor households. The proportion of dual earners in Chile was somewhat lower (43 percent), while in Mexico it was considerably less (35 percent). The flip side of this picture is that the proportion of households with husband as the only earner was the largest in Mexico (38 percent), followed by Chile (27 percent), and Argentina (19 percent).

Figure 3-18 Distribution of employed time-poor households among subgroups (percent)



Note: 'Employed household' is a household in which the head, spouse or both are employed.

Time poverty rates of men and women in the major subgroups are shown in Table 3-9.[27] The gender asymmetry with respect to the effect of income poverty status on time poverty rates was quite marked among *dual earner couples*: Time poverty rate was notably lower for income-nonpoor men than income-poor men while there was no such difference for women. Furthermore, time poverty rate for women in dual-earner households was markedly higher for women than for men in both income categories. Among *households with earning husband and nonearning wife*, on the other hand, time poverty rates for women were much lower than for men, as we would expect because the wife of the household is nonemployed. It is remarkable that women in this group still encounter considerable risk of time poverty ranging from a low of 25 percent for income-poor women in Argentina to a high of 43 percent for income-poor women in Mexico. Similar to men in dual earner households, time poverty rates of nonpoor men were lower than poor men by a sizeable margin in Argentina and Chile; the margin in Mexico was much lower. The highest incidence of time poverty was found among *single female heads* among all the subgroups shown here and income poverty status appears to have had no effect on the time poverty rate for them. In this respect, they resemble women in dual-earner households who also experience no reduction in time poverty across the (income) poverty line.

[27] We exclude here the small group of households with nonemployed husband and employed wife.

Table 3-9 Time poverty rate of adults in employed time-poor households by type of household, sex, and income poverty status (percent)

Type of household	Income poverty status	Sex	Argentina	Chile	Mexico
Dual earner	Poor	Men	56	47	50
		Women	60	66	67
	Nonpoor	Men	47	39	42
		Women	60	63	66
Earner husband, nonearner wife	Poor	Men	69	62	53
		Women	25	28	43
	Nonpoor	Men	53	51	48
		Women	31	28	36
Single head	Poor	Men	45	54	43
		Women	72	69	70
	Nonpoor	Men	53	48	60
		Women	71	68	71
All employed	Poor	Men	56	54	49
		Women	52	50	56
	Nonpoor	Men	49	44	47
		Women	57	54	56

Note: 'Employed household' is a household in which the head, spouse, or both are employed. Estimates for single head, poor men in Argentina and Chile should be treated with caution because they are based on relatively small number of observations.

Just as we saw with the case of all time-poor adults (see Figure 3-8), time deficits of time-poor adults within the subgroups dual-earner and single-headed employed households were characterized by marked divisions based on income poverty status and sex. Income-nonpoor adults had lower deficit than income-poor adults and men had lower deficits than women (Table 3-10). Households with earning husband and nonearning wife also displayed the same pattern among men, i.e., income-nonpoor men had lower time deficit than income-poor men. However, income-nonpoor women in this group of households actually had higher time deficit than income-poor women except in Argentina.

Table 3-10 Time deficit of time-poor adults in employed time-poor households by type of household, sex, and income poverty status (weekly hours)

Type of household	Income poverty status	Sex	Argentina	Chile	Mexico
Dual earner	Poor	Men	34	26	24
		Women	41	36	34
	Nonpoor	Men	20	18	17
		Women	23	25	25
Earner husband, nonearner wife	Poor	Men	34	30	23
		Women	18	25	17
	Nonpoor	Men	16	16	17
		Women	19	16	15
Single head	Poor	Men	23	27	24
		Women	35	29	29
	Nonpoor	Men	17	15	17
		Women	20	19	19
All employed	Poor	Men	33	28	23
		Women	34	30	27
	Nonpoor	Men	19	17	17
		Women	22	22	21

Note: 'Employed household' is a household in which the head, spouse, or both are employed. Estimates for single head, poor men in Argentina and Chile should be treated with caution because they are based on relatively small number of observations.

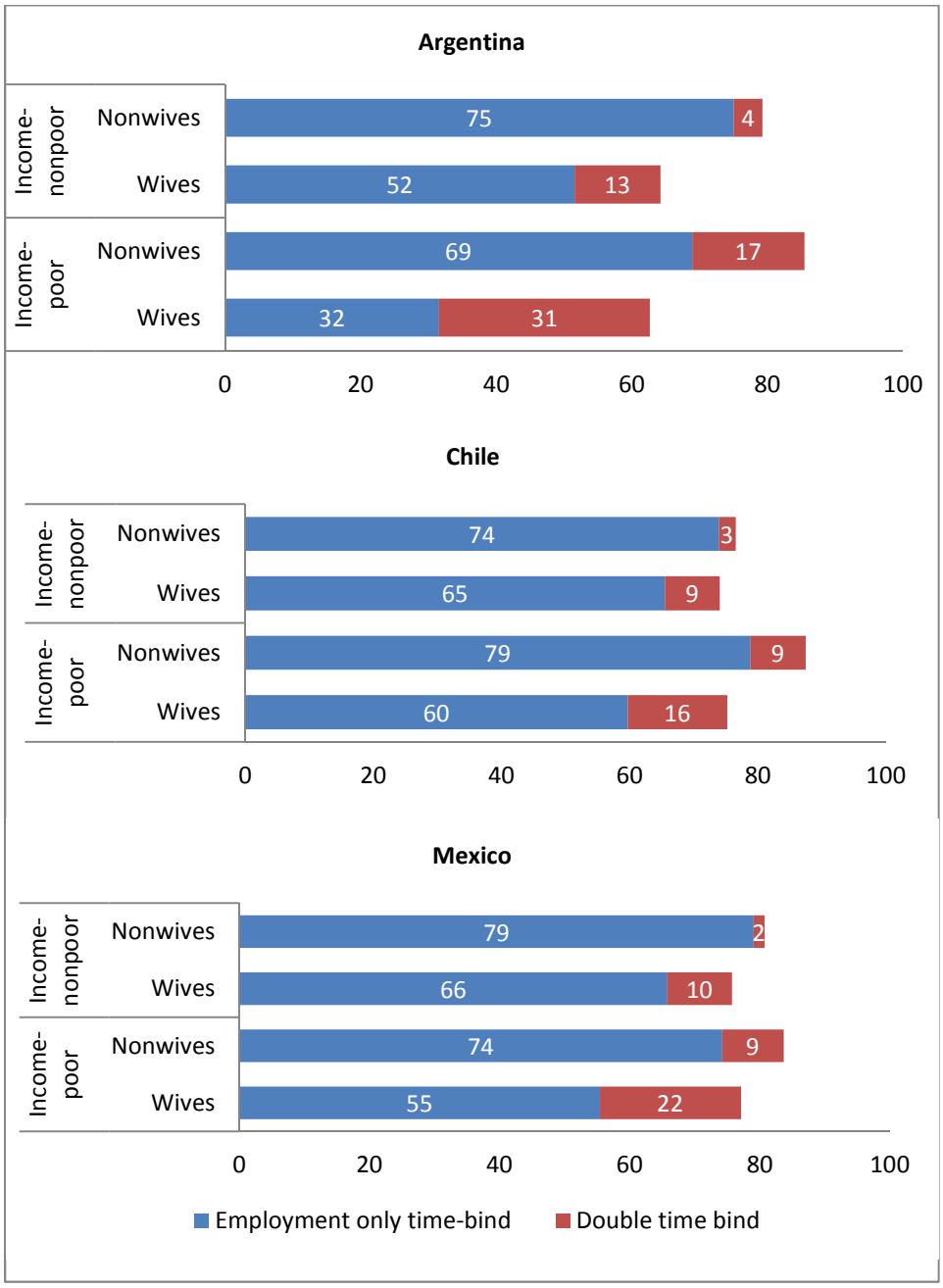
We had discussed earlier the decomposition of the time poverty rate into *employment-only time-bind* and *double time-bind* for all employed women in time-poor households (see Figure 3-6 and related discussion). It may be recalled that we found that the *double time-bind* made a sizeable contribution to the overall time poverty rate of employed women. We can undertake an elaboration of this finding here by considering the two major subgroups of employed women on the basis of their living arrangements: Employed female spouses in dual-earner households ('wives') and employed women in households headed by single, employed women ('nonwives').[28] The latter group had much higher rates of time poverty than the former in income-poor as well as in income-nonpoor groups (Figure 3-19). This finding holds for all three countries. The differences were quite large among poor women. The time poverty

[28] The employed women we are leaving out are: employed women other than wives in married-couple households with employed husband; employed women in married-couple households with nonemployed husband and employed wife; and employed women in nonemployed households. It should be noted that some 'nonwives' may actually be wives; we are only ruling out the possibility that they are not married to the head of their household. It is also possible that some nonwives may be in a same-sex cohabitation arrangement with the head of their household. We are using the term 'nonwives' here for the sake of convenience to distinguish them from wives in dual-earner households.

rate of income-poor wives (nonwives) was 63 (85), 75 (87), and 77 (84) percent in, respectively, Argentina, Chile, and Mexico. In Argentina, the time poverty rate of nonwives was much higher than wives (64 versus 79 percent) among nonpoor households, too, while in Chile and Mexico, the difference was considerably smaller (74 versus 77 percent in Chile, and 76 versus 81 percent in Mexico). The estimates also suggest that the time poverty rate of wives would have been even lower than that of the nonwives, if not for the greater incidence of double-bind among the wives. Just as we observed for all employed women in time-poor households, income-poor wives and nonwives faced a higher rate of double-bind than the income-nonpoor. The lower time poverty of income-nonpoor women (both wives and nonwives) relative to poor women appears to be, at least partly, due to the lower average number of children (under 18 years of age) in the former group.

Poor employed wives in dual-earner households tend to have lower amounts of time available to them (for employment and/or free time) than poor employed nonwives. This is a reflection of the lower average number of children and adults in the latter group of households that results in lower thresholds of household production. On the other hand, the nonwives are employed for longer hours than poor wives in order to eke out an income. The compulsion to engage in long hours of employment is greater for them given the absence of a male earner. The strength of that compulsion is emphasized by the statistic that only 15 percent or less of the poor working nonwives was untouched by time poverty in the three countries.

Figure 3-19 Time poverty rate of wives in dual-earner households versus employed women in single female-headed employed households



Note: 'Employed household' is a household in which the head, spouse, or both are employed. 'Wives' refers to the wives of heads in dual-earner households. 'Nonwives' refers to women in households headed by employed, single-woman.

3.3 Households by type of household

3.3.1 Official versus LIMTIP income poverty

To contextualize the findings regarding households differentiated by type of household, we begin with a brief summary of household structure in each country.

Households with only one person or unrelated persons made up 236,000 units in Buenos Aires (BA), or 24 percent of the total of 968,000 household units. This was higher than in Greater Santiago (GS), where they made up 116,000 units, or 8 percent of the total of 1.5 million household units. The remainder consisted of *family* households, which we define as households with two or more persons where at least one person is related to the head of the household via blood, marriage, or adoption. The proportion of *family households headed by a single person* was much more comparable between the two metropolitan cities: 21 percent in BA, and around 24 percent of all households in GS. Among them, in the case of BA, we find 160,000 *female-headed* households of which 64,000 were living with children (around 7 percent of all households); and 44,000 *single male-headed* households of which 11,000 lived with children (about 1 percent of all households). In GS, *single female-headed family* households accounted for 295,000 household units: among them 171,000 were living with children (11 percent of all households); of all 72,000 *single male-headed family* households, 31,000 lived with children (2 percent of all households). There is also a large difference between the two countries in the prevalence of *married couple households* living with their children. In BA, only 25 percent of all households fit this criterion while in GS the comparable figure is 46 percent. Finally, married couples without children amounted to 29 percent and 22 percent of all households, respectively, in the two cities. All in all, family households with children make up roughly 33 percent of all households in BA, while in GS it was about 60 percent. The bulk of this difference is due to the much lower proportion of married couples with children in BA compared to in GS.

Turning to Mexico, *households with only one person or unrelated persons* made up 2 million units, or 8 percent of the total of roughly 26 million households; *family households headed by a single person* accounted for 21 percent, 4.6 million female-headed (of which 3.1 million, or 12 percent of all households, are living with children) and about a million male-headed (of which 512,000 with children, or 2 percent of all households). The remaining 71 percent were married couples. There were nearly 14 million *married couple households with children* (53 percent of all households). In sum, 67 percent of all households were found to have children present.

Households that were officially income-poor consisted mostly of family households (Table 3-11). The share of family households in income-poor households was the highest in Mexico (97 percent), followed by Chile (94 percent), and the lowest in Argentina (91 percent).[29] We found that the addition of the hidden income-poor increased the proportion of family households in the (LIMTIP) income-poor category notably in Argentina (by 4 percentage points) and moderately in Chile (by 2 percentage points). In Mexico, on the other hand, there was little change in this respect, indicating that the adjustment of poverty thresholds for time deficit affected family and nonfamily households to a similar extent. Among the family households[30] in Argentina and Chile, the increase in the hidden income-poor was most notable for married couples with children: the percentage of such families in the income-poor households increased from 39 percent in the official definition to 48 percent in the LIMTIP definition for Argentina, and from 53 to 56 percent for Chile.

[29] This was indeed true of the whole population, with the exception of the city of Buenos Aires where nonfamily households made up a quarter of all households, as we noted earlier in this section.

[30] We divided family households into three groups based on the marital status and sex of the head of the household: married couple, single female, and single male. The husband in married couple of households is usually designated as the head of the household in the surveys used in the study.

Table 3-11 Number (in thousands) and composition (in percent) of income-poor households by type of household: Official versus LIMTIP

A. Argentina and Chile

	Argentina				Chile			
	Official		LIMTIP		Official		LIMTIP	
	Number	Share	Number	Share	Number	Share	Number	Share
All households	60	100	107	100	165	100	271	100
Nonfamily households	5	9	5	5	9	6	12	4
Family households	55	91	102	95	156	94	259	96
Married couple	36	60	70	65	102	62	175	65
Single female head	15	26	26	24	49	30	76	28
Single male head	3	5	6	6	5	3	8	3
Family households with children under 18	37	61	71	67	131	79	220	81
Married couple	24	39	51	48	87	53	152	56
Single female head	11	18	17	16	41	25	63	23
Single male head	2	3	3	3	3	2	5	2

B. Mexico

	Official		LIMTIP	
	Number	Share	Number	Share
All households	10,718	100	13,059	100
Nonfamily households	301	3	473	4
Family households	10,417	97	12,586	96
Married couple	8,187	76	9,881	76
Single female head	1,896	18	2,287	18
Single male head	334	3	417	3
Family households with children under 18	8,530	80	10,316	79
Married couple	6,793	63	8,228	63
Single female head	1,525	14	1,822	14
Single male head	212	2	266	2

Note: Nonfamily households consist of one-person households and households with unrelated individuals.

Similar to what we observed for all households, the LIMTIP income poverty rate was much higher than the official income poverty rate for all types of households shown in Table 3-12.[31] Focusing on ***married couples*** and ***single female-headed households***, the types of households that constitute the vast majority of the income-poor, we found that in Buenos Aires, the official income poverty rate was 6.9 percent for married couples and 9.7 percent for single female-headed households; the LIMTIP income poverty rates were much higher at 13.2 and 16.2 percent, respectively. In Greater Santiago, the incidence of LIMTIP

[31] We have shown the estimates for single male-headed households with children for the sake of completeness. It should be noted that the number of observations available in the surveys (especially for Buenos Aires and Greater Santiago) were relatively small and hence the estimates presented here should be treated with caution.

income poverty was 16.9 and 25.6 percent, respectively, for married couples and single female-headed households; in contrast, the official income poverty was 9.8 and 16.7 percent, respectively. In a similar vein, the poverty picture for the two groups also worsened in Mexico when time deficits were taken into account: the LIMTIP income poverty rate was 53.4 percent for married couples and 50.2 percent for single female-headed households, both roughly 9 percentage points higher than their official counterparts.

Table 3-12 Rates of income poverty of households by type of household: Official versus LIMTIP

	Argentina		Chile		Mexico	
	Official	**LIMTIP**	**Official**	**LIMTIP**	**Official**	**LIMTIP**
All households	6.2	11.1	10.9	17.8	41.1	50.0
Nonfamily households	2.2	2.3	8.1	10.4	14.7	23.1
Family households	7.5	13.9	11.1	18.5	43.3	52.3
Married couple	6.9	13.2	9.8	16.9	44.3	53.4
Single female head	9.7	16.2	16.7	25.6	41.6	50.2
Single male head	7.2	14.2	6.6	11.1	32.6	40.7
Family households with children under 18	11.6	22.6	15.0	25.0	48.9	59.1
Married couple	9.7	20.8	12.7	22.1	48.9	59.2
Single female head	17.2	27.0	25.3	38.5	50.1	59.8
Single male head	19.7	35.6	10.0	16.9	41.3	52.0

Note: Nonfamily households consist of one-person households and households with unrelated individuals.

The poverty situation was much bleaker for families with children under 18 years of age in all three countries. According to the LIMTIP, 20.8 percent of married couples with children and 27 percent of single female-headed households with children were income-poor in Buenos Aires; the official poverty rates for these groups were lower by about 10 percentage points. In Chile, the LIMTIP income poverty rate for married couples with children was similar to that in Argentina at 22.1 percent; however, the rate for single female-headed households with children was much higher at 38.5 percent. The official income poverty rates for the two groups were lower by about 9 percentage points for married couples and a striking 13 percentage points for single female-headed households. The LIMTIP income poverty rate in Mexico for both types of households was much higher at about 60 percent, which was 10 percentage points more than the official rate. The Mexican situation offers an interesting contrast with the other two countries because instead of single female-headed households facing a much greater poverty rate than married couples, the poverty rates for the two types of households were virtually identical.

The contrast in both Argentina and Chile between the households headed by married persons and single females in terms of the gap between the official and LIMTIP rates of income poverty deserve further scrutiny. As before (see Section 3.1.1), we focus on two factors affecting the difference between the official and LIMTIP income poverty rates (Table 3-13). [32] The first factor, namely, the proportion of households that are officially income-nonpoor but face time deficits in the total number of households was lower for married couples than for single female-headed families in Argentina (71 versus 61 percent). We also found that a higher proportion of time-poor households that are officially income-nonpoor had income below the LIMTIP poverty line in the total number of single female-headed families than did married couples (16 versus 10 percent). Both these factors contributed to driving a larger wedge between the official and LIMTIP income poverty rate for single female-headed families relative to married couples. However, when we compared the two types of families with children, we found that the percentage difference between the official and LIMTIP poverty rate was slightly higher for married couples (about one percentage point) because the proportion of households that were time-poor and officially income-nonpoor was notably higher for married couples (the share of the hidden poor in the total number of households that were time-poor and officially income-nonpoor were almost the same for both groups).

In contrast to Argentina, the proportion of households that were time-poor and officially income-nonpoor in the total number of households was higher for married couples than for single female-headed families in Chile (57 versus 51 percent). However, this was offset by the higher percentage of hidden poor in the total number of time-poor and officially income-nonpoor single female-headed families compared to married couples (18 versus 12 percent), thus leading to a higher gap between the official and LIMTIP poverty rates for the single female heads. Again, as distinct from Argentina, the comparison of the two groups with children showed that the share of the hidden poor in the total number of households that were time-poor and officially income-nonpoor was considerably larger for single female heads than for married couples (24 versus 15 percent). In fact, the higher share of the hidden poor was responsible for the bigger gap between the official and LIMTIP poverty rates for female heads relative to married couples, in spite of the lower proportion of time-poor and officially income-nonpoor in the total number of family households headed by single females (54 versus 62 percent).

[32] We have also included the estimates for Mexico for the sake of completeness.

Table 3-13 Factors affecting the hidden poverty rate (difference between LIMTIP and official poverty rate): Married couple and single female-headed households

	LIMTIP minus official income poverty rate	Time-poor and income-nonpoor(official)/All	Hidden poor/Time-poor and income-nonpoor (official)
Argentina			
All households	4.8	48.6	9.9
Married couple	6.3	60.7	10.3
With children under 18	11.1	74.2	15.0
Single female head	11.0	70.8	15.5
With children under 18	9.8	62.1	15.8
Chile			
All households	7.0	55.2	12.6
Married couple	7.1	57.1	12.4
With children under 18	9.4	61.5	15.3
Single female head	8.9	51.0	17.5
With children under 18	13.2	54.4	24.3
Mexico			
All households	8.9	39.9	22.4
Married couple	9.1	39.1	23.3
With children under 18	10.3	40.0	25.8
Single female head	8.6	36.6	23.4
With children under 18	9.7	34.4	28.3

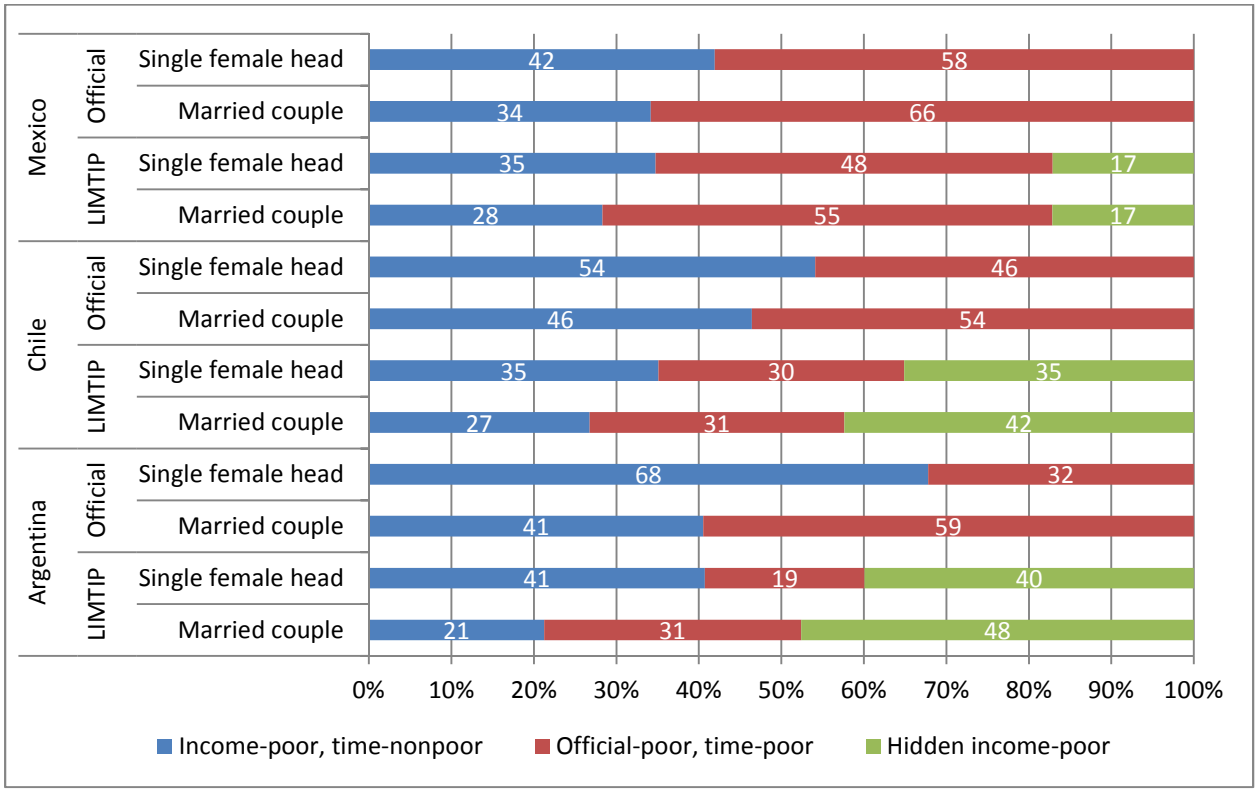
It was pointed out in our discussion of income deficits (see Table 3-2 and related discussion) that the LIMTIP income-poor population can be classified into three distinct subgroups: households that are officially poor and time-nonpoor; officially poor and time-poor; and the hidden poor (i.e., time-poor households that are officially nonpoor but are poor when time deficits are monetized). Naturally, the official poor do not include the last subgroup. As shown in Figure 3-20 below, the majority (59, 54, and 66 percent, respectively, in Argentina, Chile, and Mexico) of officially poor, married couple households suffered from time poverty. The incidence of time poverty among officially poor, single female-headed households was lower (32, 46, and 58 percent, respectively, in Argentina, Chile, and Mexico), reflecting their lower average household production requirements (due to smaller household size) and lower average hours of employment. However, the rates of time poverty among both married couples and single females who are officially poor are quite substantial enough to raise questions about the adequacy of existing income transfer programs. The rates for both types of families were found to be

even higher when we confined to the subgroups with children (Figure 3-20, panel B), suggesting that concerns regarding the adequacy of programs apply with additional force to them.

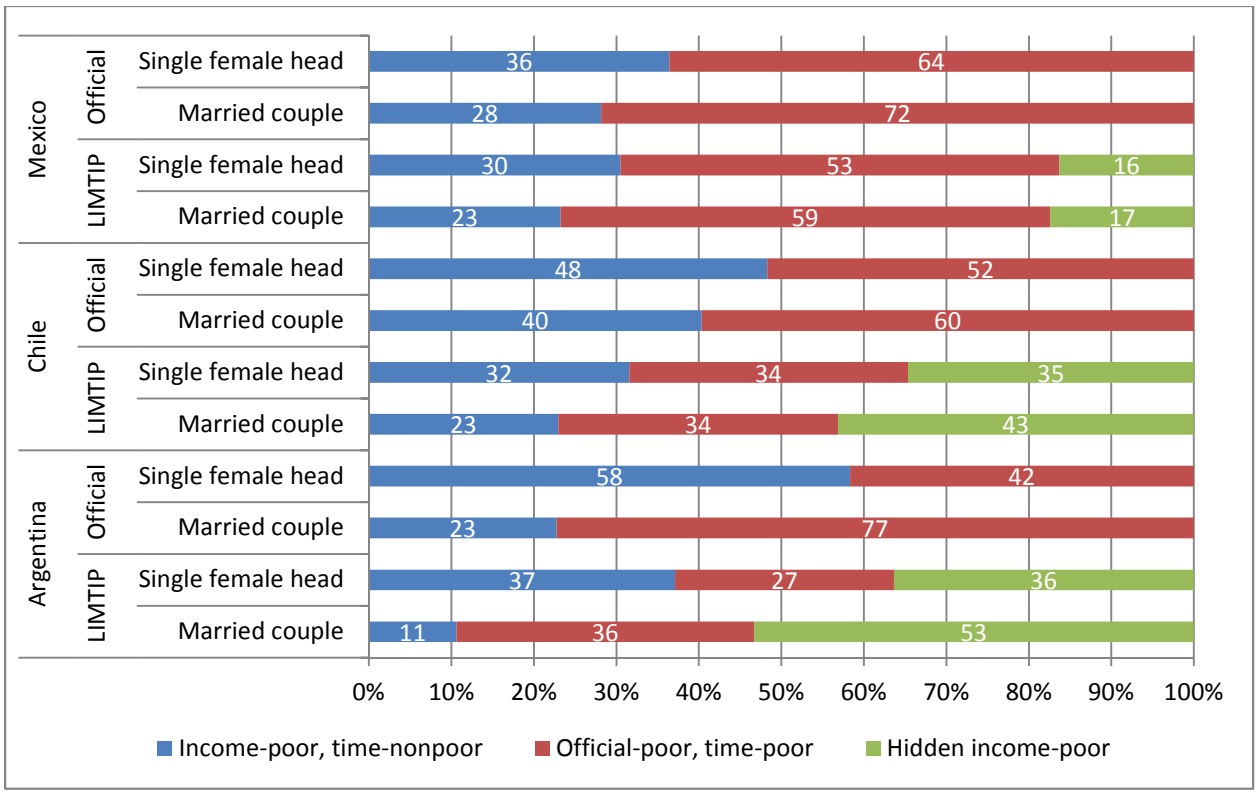
We have already discussed the sharp increase in the measured incidence of poverty for all households in Argentina as a result of the monetization of time deficit. This was reflected in the fact that 44 percent of the LIMTIP income-poor households were the hidden poor. In fact, the share of the hidden poor among married couple households was even higher at 48 percent. However, single female-headed households had a lower than average share at 40 percent. The higher share of hidden poor among married couples compared to single females is a reflection of the fact that the size of the hidden poor relative to officially poor was higher for the former group. Similar patterns regarding the share of hidden poor in the total LIMTIP income-poor households among married couples and single females were found in Chile.

Figure 3-20 Composition of the official and LIMTIP income-poor family households (percent) by type of family

A. All households



B. Households with children



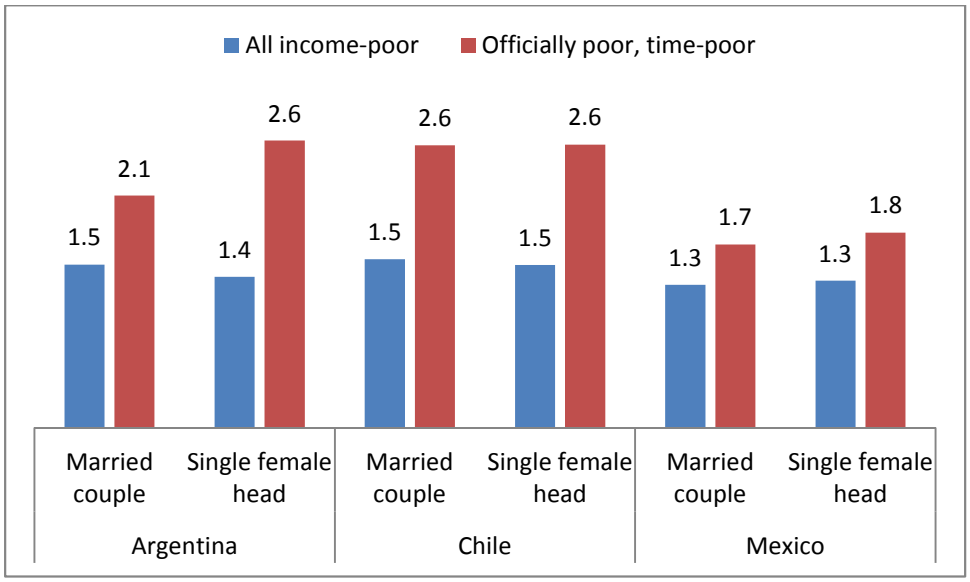
Note: 'Family household' is a household with two or more persons who are related to each other by blood, marriage, or adoption.

In Mexico, we found that the share of the hidden poor in LIMTIP income-poor households among married couples and single females were alike (17 percent). This is virtually identical to the share of the hidden poor in LIMTIP income-poor households among all households in Mexico (18 percent). Monetization of time deficit increased the measured poor population in similar proportions in both groups of households in Mexico, unlike in Argentina and Chile, where the proportionate increase was higher for married couples.

The proportionate increase in the average amount of income deficit (expressed in nominal values of national currency) for all income-poor households and income-poor married couples was identical in each country: The ratio of the LIMTIP income deficit to official deficit in both Argentina and Chile was 1.5 and 1.3 in Mexico (Figure 3-21).[33] This was also true of poor households headed by single females in each country. As we have noted before, the effect of the monetization of time deficit on the officially income-poor households is to increase the income deficit of those among them who are time-poor. Here again, the proportionate increase for all income-poor households and income-poor married couples was practically the same in each country. The LIMTIP income deficit was 2.1 times higher than the official deficit in Argentina, 2.6 in Chile, and 1.7 in Mexico. In this respect too, single female-headed households experienced a similar effect as married couples in Chile and Mexico; however, in Argentina, the proportionate increase was 2.6 times for the time-poor single females who were officially poor, an increase that was much higher than that of their married couple counterparts. This suggests that a cash transfer programme in Argentina that attempts to close the income deficit on the basis of the official poverty line is likely to be far more deficient for single females than for married couples.

[33] The estimates for the subgroups with children were similar to the overall subgroup for both types of families and hence they are not shown separately.

Figure 3-21 Ratio of the LIMTIP income deficit to official income deficit of income-poor family households by type of household

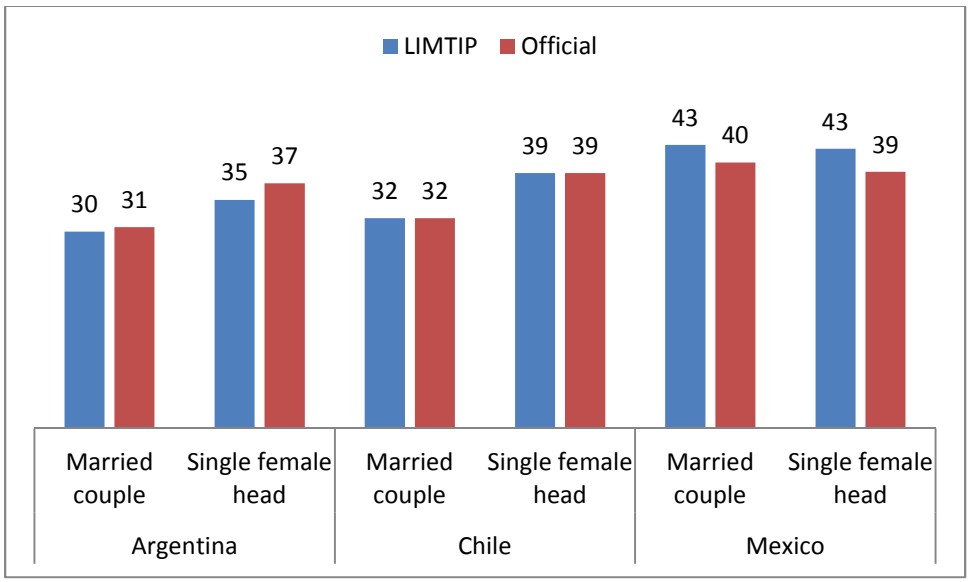


Note: 'Family household' is a household with two or more persons who are related to each other by blood, marriage, or adoption.

We had already observed that the average income deficit (expressed as a percentage of poverty line) for all households was actually lower with respect to the LIMTIP than the official poverty line in Argentina (Figure 3-3). The same conclusion also held for the two types of families that we considered in Argentina (Figure 3-22), though the difference was smaller. In Chile, the average for all households was the same under both poverty lines; the same was also true for the two types of families. Mexico was the only country in our study in which the average was higher under the LIMTIP than the official poverty line. Again, the estimates for the two types of families also showed the same result. In both Argentina and Chile, single females had a higher average than married couples under each poverty line. However, this was due to different reasons. In Argentina, the monetary amount of deficit was lower for single females than for married couples; therefore, the higher percent deficit for the former reflects their relatively lower poverty line. The average monetary deficit for single females in Chile, on the other hand, was slightly higher than for married couples; hence, the higher deficit in percentage terms for them reflects both their relatively lower poverty line and higher amount of deficit. Mexico presented a contrast with the other two countries in that there was virtually no difference between the two types of families.[34]

[34] Single male-headed households in Argentina and Mexico had deficits (as a percent of the poverty line) that were similar to single female-headed households. In Chile, their deficits were notably lower (28 versus 39 percent for the LIMTIP poverty line, and 31 versus 39 percent for the official poverty line).

Figure 3-22 Average income deficit (percent of poverty line) of income-poor households by type of family: LIMTIP and official



Note: 'Family household' is a household with two or more persons who are related to each other by blood, marriage, or adoption.

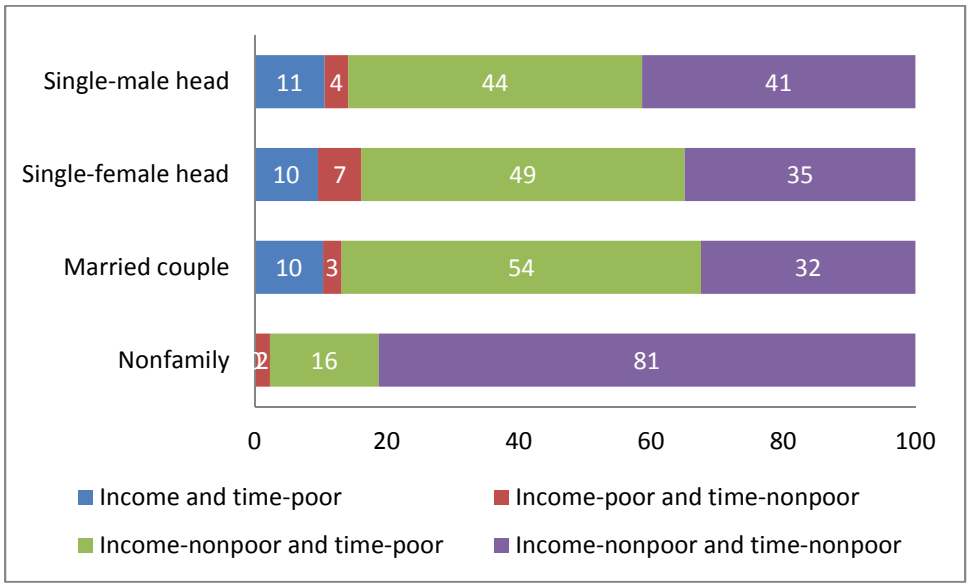
3.3.2 The LIMTIP classification of households

The proportion of households that were in the double bind of income and time poverty was similar across types of family households in Argentina (about 10 percent). By contrast, only a negligible share of nonfamily households endured the double-bind (Figure 3-23). Among married couples and single females with children, the incidence of the double-bind was substantially higher (19 and 17 percent, respectively).[35] Naturally, within each type of family household, we expect the subgroup of those with children to display higher rates of poverty because of their higher threshold values of household production. The interesting questions pertain to the size of the difference as well as the variations in the size of the difference across demographic groups. As we reported before, among all households in Argentina, about 8 percent experienced the double-bind (Figure 3-4). We can now see that this is due to the moderating effect of the virtual nonexistence of the double-bind among the nonfamily households and their relatively large size (nearly a quarter of all households, as we noted in the beginning of Section 3.1.3). The largest chunk of family households fell in the category of time-poor and income-nonpoor: 54 percent for married couples, 49 percent for single females, and 44 percent for single males. And, among family households, the highest proportion of households with neither time nor income deficit was found among single males (41 percent), followed by single females (35 percent), and married couples (31

[35] The number of observations available for single male-headed and nonfamily households with children was too few to generate reliable estimates.

percent). The great bulk of nonfamily households fell in this category (81 percent) and, coupled with their relatively large weight in the overall population, had the effect of raising the proportion of all households that belonged to this category (45 percent).

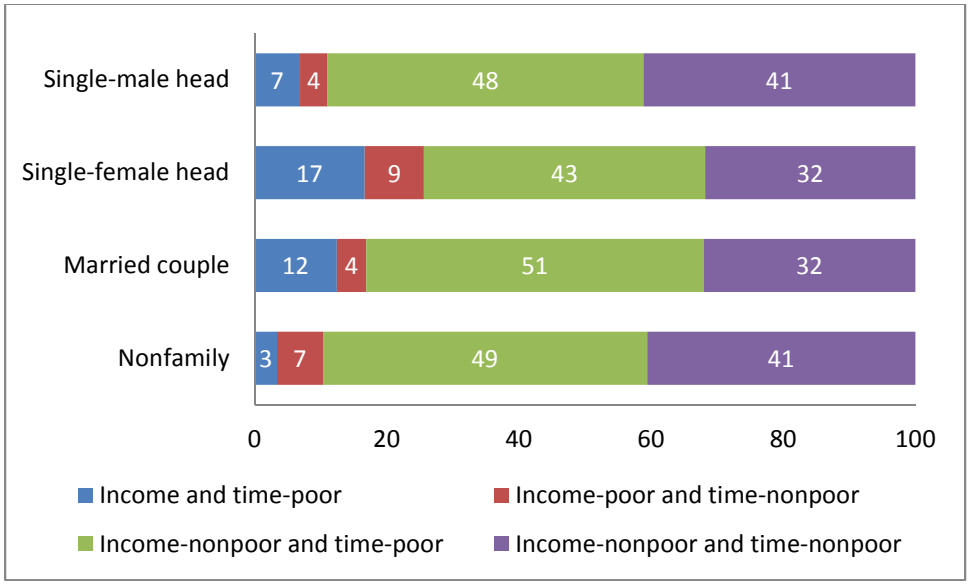
Figure 3-23 LIMTIP classification of households by income and time poverty status (percent): Argentina



Note: Married couple, single female, and single male households are family households, households with two or more persons who are related to each other by blood, marriage, or adoption. Other households are classified as nonfamily households.

Unlike in Argentina, we found a clear differentiation among Chilean family households in the incidence of the double-bind of income and time poverty. The highest incidence was among single females (17 percent), followed by married couples (12 percent) and single males (7 percent). Again, unlike in Argentina, there was some incidence of the double-bind among nonfamily households (3 percent), though it was quite small compared to family households (Figure 3-24). As we reported before, among all households in Chile, about 12 percent experienced the double-bind (Figure 3-4). Among married couples and single females with children, the incidence of the double-bind was substantially higher than their counterparts without children. Further, the incidence among single females with children was much higher than among married couples with children (26 versus 17 percent). Just as we found for Argentina, in Chile, too, the largest portion of family households belonged to the category of time-poor and income-nonpoor: 51 percent for married couples; 43 percent for single females; and 48 percent for single males. And, among all households, the highest proportion of households with neither time nor income deficit was found among single males and nonfamily households (41 percent). Single females and married couples had practically the same proportion (32 percent).

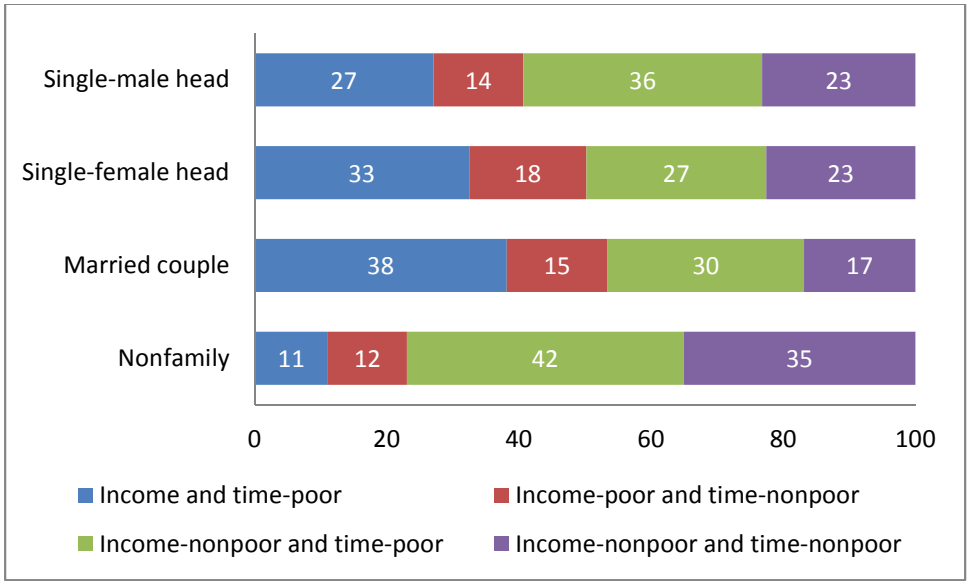
Figure 3-24 LIMTIP classification of households by income and time poverty status (percent): Chile



Note: Married couple, single female, and single male households are family households, households with two or more persons who are related to each other by blood, marriage, or adoption. Other households are classified as nonfamily households.

Mexico, like Chile and unlike Argentina, showed marked differences among households in the occurrence of the double-bind of time and income poverty (Figure 3-25). However, unlike Chile, single female households had a lower incidence of the double-bind than married couple households (33 versus 38 percent). Single males in Mexico, like Chile, experienced a considerably lower rate of the double-bind (27 percent) than did the other types of family households, while the lowest incidence (like both Argentina and Chile), was among the nonfamily households (11 percent). As we reported before, about 35 percent among all households in Mexico experienced the double-bind (Figure 3-4). Indeed, the largest proportion of single female and married couple households belonged to the category of time- and income-poor in Mexico unlike the other two countries where their largest proportion was found in the category of time-poor and income-nonpoor. Among married couples and single females with children, the incidence of the double-bind was even higher at, respectively, 45 and 41 percent. However, just as we found for Argentina and Chile, the largest portion of single male and nonfamily households belonged to the category of time-poor and income-nonpoor (36 and 41 percent, respectively). The lowest proportion of households with neither time nor income deficits was found among married couples (17 percent), while single females and single males had identical proportions (23 percent). Nonfamily households had the highest proportion (35 percent).

Figure 3-25 LIMTIP classification of households by income and time poverty status (percent): Mexico



Note: Married couple, single female, and single male households are family households, households with two or more persons who are related to each other by blood, marriage, or adoption. Other households are classified as nonfamily households.

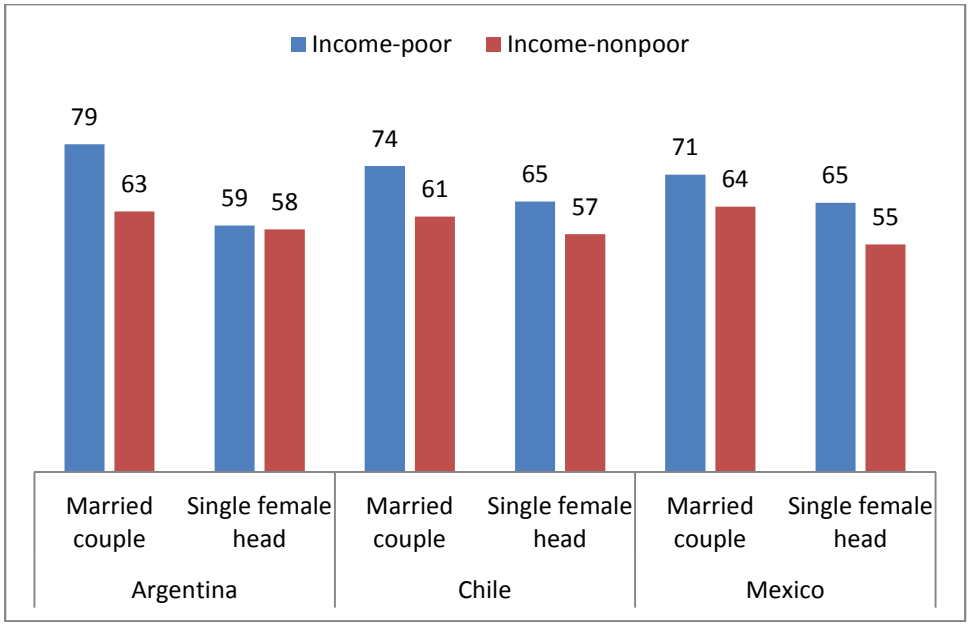
Among all households, 52, 61, and 65 percent experienced time deficits, respectively, in Argentina, Chile, and Mexico, as we noted before (see Section 3.1.2). The incidence of time deficits was higher for married couples in all countries (Figure 3-26). Single females had lower rates of time poverty than married couples in all three countries (roughly 60 percent in each). Single males also had lower rates of time poverty than married couples (55 percent each in Argentina and Chile, and 63 percent in Mexico).

Time poverty rates were higher, as we would expect, for married couples with children than for all married couples (estimates for subgroups with children are not shown separately in the figure). The difference was particularly large in Argentina and less marked in the other two countries. In Argentina, married couples as a whole had a time poverty rate of 65 percent, while it was 82 percent for the subgroup with children. In Chile, the comparison showed that married couples with children had a rate of 70 percent compared to 63 percent for all married couples, and in Mexico, it was 75 and 68 percent, respectively, for married couples with children and all married couples. The higher divergence in Argentina between the time poverty rate of all married couples and the subgroup with children is partly a reflection of the higher share of married couples without children in all married couple households there compared to in Chile and Mexico.

A similar divergence could be observed within the single female-headed family households, too, between the group as a whole and the subgroup of those with children. In Argentina and Chile, the rate

of time poverty among the latter was approximately 10 percentage points higher; while, in Mexico, the difference was 5 percentage points.

Figure 3-26 Time poverty rate of married couple and single female-headed family households by income poverty status



Note: 'Family households' are households with two or more persons who are related to each other by blood, marriage, or adoption. Other households are classified as nonfamily households.

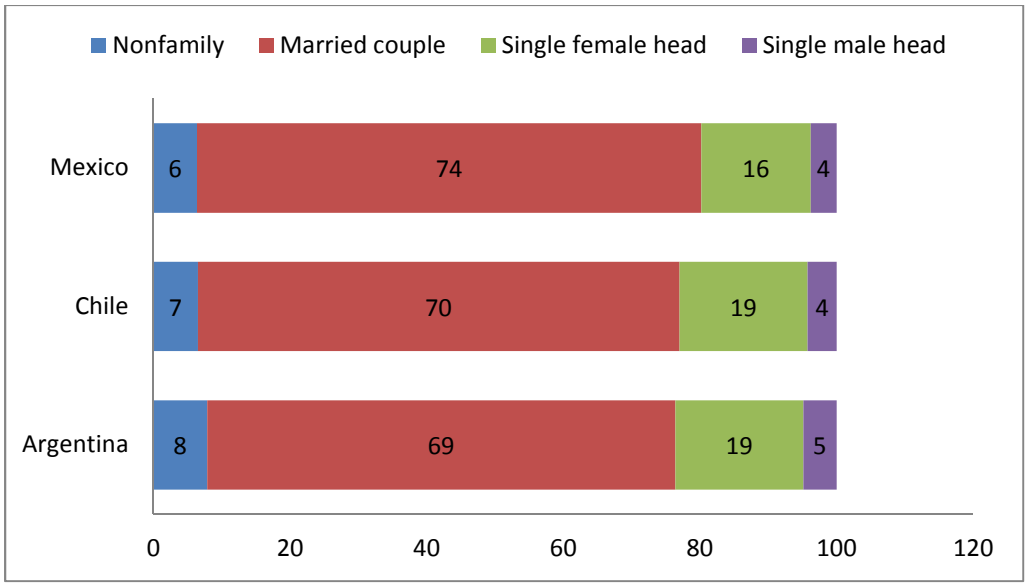
We had also found that (see Section 3.1.2) the incidence of time deficits was higher among the income-poor than the income-nonpoor households in all three countries. The gap was the widest in Argentina (70 versus 49 percent). It was somewhat smaller in Chile (69 versus 60 percent) and Mexico (69 versus 61 percent). Similar gaps were also found for the subgroup of married couple households (79 versus 63 percent in Argentina, 74 versus 61 percent in Chile, and 71 versus 64 percent in Mexico). A higher incidence of time poverty could also be found among the income-poor of single female households, except in Argentina, where both income-poor and income-nonpoor households appeared to have similar incidence.

We now turn to take a closer look at the time-poor households differentiated by type of family, paying special attention to the discernible divisions based on income poverty status reported above and exploring the gender differentials that we observed earlier with respect to all time-poor households (Section 3.1.3).

3.3.3 Time-poor households

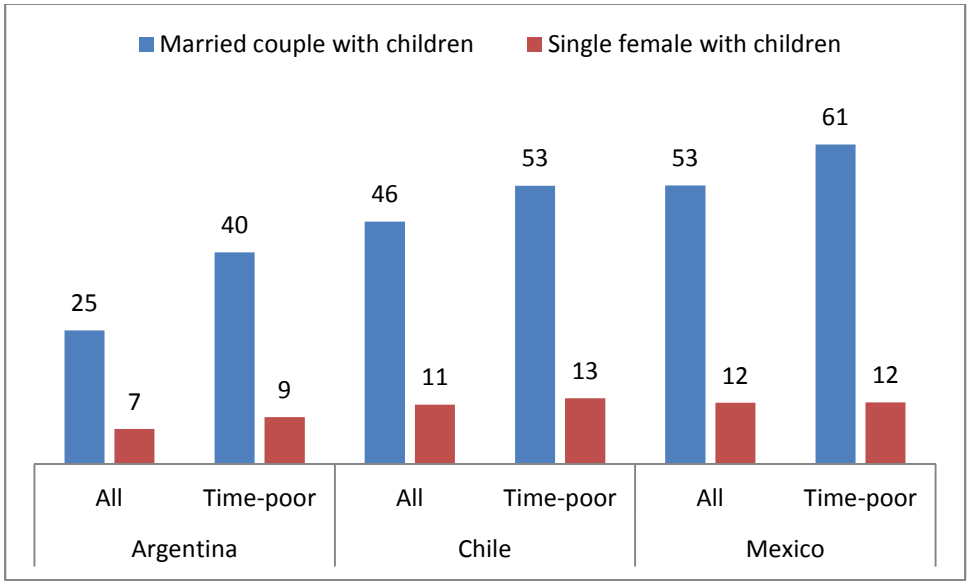
In all three countries, the majority of time-poor households were married couple households (Figure 3-27). Married couples were overrepresented among time-poor households relative to their share in the total number of households in Argentina (69 versus 55 percent). In Chile and Mexico, their share in time-poor households (70 and 74 percent, respectively) was only slightly higher than their share in the total number of households. The second major group among time-poor households was family households headed by single women. However, their share in time-poor households (19 and 16 percent) was almost identical to their share in the total number of households in Chile and Mexico; however, in Argentina, it was slightly higher (19 versus 16 percent). Family, households headed by single men were represented evenly in both the total and time-poor population. Finally, nonfamily households were underrepresented by a large margin in the time-poor population in Argentina, while their shares in the number of total and time-poor households were quite similar in Chile and Argentina.

Figure 3-27 Composition of time-poor households by type of family (percent)



The most notable difference, however, between the composition of the overall and time-poor households was the much larger share of married couples with children in the latter (Figure 3-28). Almost all of the increase in the share of married couples in the time-poor population relative to the overall population could be explained by the increase in the subgroup of households with children. Notably, the share of female-headed family households with children showed no such difference in the overall and time-poor number of households.

Figure 3-28 Share of each type of family in the number of total and time-poor households (percent)



The overrepresentation of married couples with children among the time-poor households was partly due to their household size and composition. Our thresholds for household production are larger for households with more adults, and an additional child adds more to the threshold than an additional adult. Intrahousehold division of domestic labour, particularly the disparity in the allocation of time toward household production between husbands and wives, exerts a downward pressure on the time available to wives in married couple households, thus putting them more at risk of the incidence of time poverty stemming from household production. Furthermore, the compulsion to provide for a family as well as the labour market characteristics of married couples (higher education, larger proportions employed in professional occupations, etc.)[36] tends to lock them into hours of employment that can lead to conflict with the required time for household production.

As we discussed before (Section 3.1.3), among adults who lived in households that are both income and time-poor, the rate of time poverty was nearly identical for men and women in Argentina (54 and 53 percent, respectively). However, we can now see that the parity was largely the result of averaging the relatively high rate of time poverty among women in single female-headed households with the relatively low rate of time poverty among women in married couple households (Table 3-14).[37] In fact,

[36] The labour market characteristics of the time-poor population are discussed in detail in the next chapter.
[37] We have left out single male-headed family households and nonfamily households because the number of observations available was not large enough to produce separate estimates by income poverty status (except for Mexico). Individuals living in these types of households constitute only about 10 percent of all time-poor

among married couple households that were in both income and time poverty, men suffered from a higher degree of time poverty than women (57 versus 46 percent). However, the time poverty rate for women in income-nonpoor households was six percentage points *higher* than for women in income-poor households, while the time poverty rate for men in income-nonpoor households was 10 percentage points *lower* than for men in income-poor households. The gender asymmetry in the effect of household's income poverty status on the time poverty status of adults in this group of households echoes our finding about all time-poor households discussed earlier (Section 3.1.3). Women living in single female-headed family households had higher time poverty rates than women in married couple households among the income-poor and income-nonpoor. Unlike women in married couple households, women in single female households experienced lower time poverty rates if they were income-nonpoor as against being income-poor (67 versus 70 percent).

The Chilean estimates are qualitatively similar to Argentina. Here, too, the time poverty rate for men was higher than women for those living in married couple households that were both income- and time-poor (51 versus 43 percent). Similarly, the gender asymmetry with respect to the effect of income poverty status was also evident in married couple households: the time poverty rate for women in income-nonpoor households was seven percentage points *higher* than for women in income-poor households, while the time poverty rate for men in income-nonpoor households was nine percentage points *lower* than for men in income-poor households. Once again, women in family households headed by a single female had higher time poverty rates than women in married couple households among the income-poor and income-nonpoor. And, just as in Argentina, women in single female households experienced lower time poverty rates if they were income-nonpoor as against being income-poor (55 versus 60 percent).

individuals and hence their omission would not, we believe, affect the results reported here. We have also left out of our analysis a small number of men who live in households headed by single females.

Table 3-14 Time poverty rate of adults in time-poor households by type of family household, sex, and income poverty status

Type of household	Income poverty status	Sex	Argentina	Chile	Mexico
Married couple	Poor	Men	57	51	48
		Women	46	43	53
	Nonpoor	Men	47	42	42
		Women	52	50	52
Single female head	Poor	Women	70	60	62
	Nonpoor	Women	67	55	60
All households	Poor	Men	54	50	47
		Women	53	49	55
	Nonpoor	Men	48	43	45
		Women	57	52	55

Mexico showed a different pattern from the other two countries in that there was a marked gender disparity in time poverty rate for all adults in income-poor households with time deficits (55 percent for women versus 47 percent for men). The same pattern was also found for adults in married couple income-poor households with time deficits (53 percent for women versus 48 percent for men). As with the results for all adults that we discussed earlier, the gender asymmetry that we observed for the other two countries was only partly seen in Mexico: the time poverty rate of women in income-poor and income-nonpoor married couple households was the same (unlike the other two countries) while the time poverty rate of men in income-nonpoor married couple households was lower than men in income-poor households (like the other two countries). As in Argentina and Chile, the time poverty rate of women in single female-headed households was notably higher (roughly by 10 percentage points) than that of women in married couple households in both the income-poor and income-nonpoor groups.

To aid the understanding of the factors shaping the time poverty rates of men and women, we decomposed the rate of time poverty into the contributions made by three distinct types of time poverty: the incidence of the time-bind only in household production among the nonemployed, and the incidence, respectively, of the *double time-bind* and *employment time-bind* among the employed (see equation (7)). We pointed out that individuals facing the time-bind only in household production (‘*housework time-bind*’), constituted roughly 20 percent of all time-poor individuals in Argentina and Mexico while, in Chile, they constituted a smaller fraction at 13 percent. The composition of this group

by type of family and sex are shown below in Table 3-15. We have also shown the proportion of adults in each group that fall below the LIMTIP income poverty line.

Table 3-15 Distribution of individuals in housework time-bind by sex and family type

	Share in the total number of individuals (percent)			Income poverty rate (percent)		
	Argentina	**Chile**	**Mexico**	**Argentina**	**Chile**	**Mexico**
Women- MC, no children	34	0	4	10	-	46
Women- MC, with children	35	81	82	38	29	72
Women-SF, no children	8	0	1	10	-	43
Women- SF, with children	4	12	8	38	43	76
Women-Other	3	4	2	18	10	66
Men	16	3	2	22	34	66
All	100	100	100	23	30	71

Key: MC= Married couple household; SF=Single female-headed family household

Women in married couple households with children constituted the vast majority (a little over 80 percent) of those in the housework time-bind in both Chile and Mexico. The next largest group (12 percent in Chile and 8 percent in Mexico) was women in single female-headed households with children. Altogether, almost all of those in the housework time-bind were women in both countries. It also appears that the income poverty rate among those facing the housework time-bind was markedly higher than the income poverty rate of all time-poor adults. In Mexico, 72 percent of women in married households with children and 76 percent of women in single female-headed households were income-poor, as compared to an overall income poverty rate of 54 percent among all time-poor women. Similarly in Chile, the income poverty rate of women in married couple households with children (29 percent) and women in single female-headed households with children (43 percent) were considerably above the overall income poverty rate of time-poor women (20 percent) in Chile.

In Argentina, too, about 85 percent of those in the housework time-bind were women, but this proportion was considerably lower than in the other two countries.[38] There were also an equal number of women facing the housework time-bind among married couples with and without children in Argentina; in contrast, in the other two countries, there were very few (virtually none in Chile) in the group without children. Yet another contrast is the low incidence of income poverty among women in married couple households without children and women in single female-headed households without children (10 percent each) compared to the income poverty rate of all time-poor women (16 percent).

[38] The bulk of the men facing housework time-bind belonged to married couple households.

The difference between Argentina and the other two countries in this respect is quite noteworthy and demands greater scrutiny, a task that we hope to address in later work.

We now turn to examine the respective contributions made by the time poverty of the employed and nonemployed to the overall time poverty of adults in two types of time-poor households: married couples and family households headed by single females. In the first type of household, we discuss the time poverty of husbands and wives, making comparisons between the income-poor and income-nonpoor households. For single female-headed households, we focus on the time poverty of women, differentiated by the income poverty status of their household.

Beginning with the results of the decomposition for Argentina, we found that, similar to what we saw for all women and men in income-poor married couple households, the time poverty rate of husbands was about 20 percentage points higher than wives in households in income poverty (Table 3-16, column 5). The results from the decomposition showed that much of this disparity was due to the far higher employment rates of husbands compared to wives (90 versus 50 percent, column 2) in income-poor households. To a lesser extent, the higher time poverty rate of employed husbands relative to employed wives also contributed (column 4) to the disparity. Indeed, the disparity would have appeared to be even higher if we had ignored the housework time-bind faced by income-poor nonemployed wives. We found that over a quarter of all nonemployed wives in income-poor households suffered from time poverty (column 3). Our estimates showed that this type of time poverty contributed to narrowing the overall difference in the husband-wife time poverty rate by about 12 percentage points (the difference between the entries for income-poor men and women in column 6).

Table 3-16 Decomposition of the time poverty rate of adults in time-poor households by type of family, income poverty status and sex: Argentina

Type	Income poverty status	Sex	Share in population (percent)		Time poverty rate (percent)			Contribution (percentage point)	
			Non-employed	Employed	Non-employed	Employed	All	Non-employed	Employed
			1	*2*	*3*	*4*	*5*	*6*	*7*
Married couple	Poor	Husband	10	90	7	71	65	1	64
		Wife	50	50	26	65	46	13	32
	Nonpoor	Husband	5	95	17	57	54	1	53
		Wife	28	72	28	65	55	8	47
Single female head	Poor	Women	24	76	23	85	70	5	65
	Nonpoor	Women	18	82	25	76	67	5	62
All	Poor	Men	25	75	8	69	54	2	52
		Women	42	58	25	74	53	11	43
	Nonpoor	Men	11	89	12	53	48	1	47
		Women	26	74	25	68	57	6	50

Turning to the results for income-nonpoor married couples in Argentina, we found that, unlike what we saw for all women and men in income-nonpoor married couple households (Table 3-14), the time poverty rates of husbands and wives were almost identical (column 5). The housework time-bind faced by nonemployed wives played a significant role in bringing about the parity. We estimated that about 28 percent of all nonemployed wives among the income-nonpoor encountered time poverty (column 3), a slightly higher rate than that faced by income-poor wives. Ignoring the housework time-bind would have made it appear that the time poverty rate of husbands was about 7 percentage points higher than wives (the difference between the entries for income-poor men and women in column 6). However, the main factors behind bringing the time poverty rate of income-nonpoor husbands and wives into equality (compared to the lack of it among the income-poor) were related to employment. Income-nonpoor employed husbands had a markedly lower time poverty rate than their income-poor counterparts (71 versus 57 percent, column 4), which was the main factor behind the 17 percentage point decline in the contribution made by the time poverty of the employed to the overall time poverty of nonpoor husbands (the difference between the entries for income-poor men and income-nonpoor men in column 7). In contrast, the much higher contribution of the employed to the time poverty rate of the nonpoor wives relative to poor wives was accounted for by the fact that more of the nonpoor were employed rather than more of them facing the risk of time poverty. The time poverty rate of income-poor and nonpoor employed wives showed no difference (65 percent). However, the employment rate

of nonpoor wives was substantially higher than that of poor wives (72 versus 50 percent, column 2). The gender asymmetry with respect to the effect of income poverty status on time poverty rate of husbands and wives thus seems to be mainly the result of: (a) the fall in the time poverty rate of employed husbands coupled with no such change for employed wives; and (b) the much greater employment rate of nonpoor wives compared to poor wives.

Women in single female-headed family households faced the highest rate of time poverty among the income-poor and income-nonpoor groups shown here for Argentina (column 5). This echoes our earlier finding regarding the time poverty rate of adults in *employed* time-poor households, which showed that women in single-headed households fared the worst (see Table 3-9). Comparing income-poor women in single female-headed households with income-poor husbands (the group with the next highest time poverty rate among the poor) showed that the contribution made by the time poverty of the employed to their respective time poverty rate was almost identical (column 7). What is behind the equality in this dimension is the inequality in the time poverty rate of the employed poor husbands and single employed poor women (column 4): Only 15 percent of the latter were free from time poverty as compared to about 30 percent of the former. This gap more than compensated for the fact that a lower proportion of poor single women were employed than poor husbands (76 versus 90 percent, column 2). However, if we had ignored the housework time-bind faced by 23 percent of nonemployed single poor women—a rate not much different from poor wives—we would have concluded that their time poverty rate was practically identical to poor husbands. But, our estimates showed that this type of time poverty accounted for the higher time poverty of single poor women by contributing 5 percentage points to the difference between the time poverty rates of the two groups (the difference between the entries for single income-poor women and poor husbands in column 6).

Comparing income-nonpoor women in single female-headed households with income-nonpoor wives (the group with the next highest time poverty rate among the nonpoor) showed that the higher time poverty rate of the former group was almost entirely employment-related. Proportionately more of single women were employed than wives (82 versus 72 percent, column 2) and a greater percentage of the employed among them were subject to time poverty (76 versus 65 percent, column 4). Both of these factors contributed to the 15 percentage point difference in the contribution of the time poverty rate of the employed to the overall time poverty rate of the two groups (the difference between the entries for single income-nonpoor women and nonpoor wives in column 7). The difference in the time poverty rate of the two groups was moderated by the higher contribution made by the time poverty of the

nonemployed among nonpoor wives as compared to nonpoor single women (column 6). In turn, the higher contribution of the nonemployed among wives appears to be the result of their higher time poverty (28 versus 25 percent) and higher nonemployment (28 versus 18 percent), with the latter factor having the bigger impact.

Table 3-17 Decomposition of time poverty rate of adults in time-poor households type of family, income poverty status and sex: Chile

Type	Income poverty status	Sex	Share in population (percent)		Time poverty rate (percent)			Contribution (percentage point)	
			Non-employed	Employed	Non-employed	Employed	All	Non-employed	Employed
			1	*2*	*3*	*4*	*5*	*6*	*7*
Married couple	Poor	Husband	12	88	3	61	54	0	54
		Wife	64	36	23	69	40	15	25
	Nonpoor	Husband	5	95	0	55	52	0	52
		Wife	37	63	21	88	63	8	56
Single female head	Poor	Women	37	63	14	87	60	5	54
	Nonpoor	Women	27	73	10	72	55	3	53
All	Poor	Men	23	77	2	64	50	0	49
		Women	52	48	19	81	49	10	39
	Nonpoor	Men	13	87	1	49	43	0	43
		Women	34	66	17	70	52	6	47

Turning to the estimates for Chile (Table 3-17), let us first focus on the income-poor married couple households. Here, the results are similar to Argentina. First, similar to what we saw for all women and men in income-poor married couple households (Table 3-9), the time poverty rate of income-poor husbands was higher than income-poor wives (column 5). Second, much of the disparity was due to the considerably higher employment rate of poor husbands than poor wives (column 2). Third, the disparity between the two would have been greater (by about 14 percentage points) if we had ignored the housework time-bind (the difference between the entries for husband wife in column 6).[39]

As for the income-nonpoor married couple households, the most notable difference with respect to Argentina is the considerably higher rate of time poverty of wives than husbands (63 versus 52 percent, column 5). Indeed, this would have been true even if we had ignored the housework time-bind because the contribution of the employed to the overall time poverty rate was greater for wives than husbands

[39] Unlike in Argentina, employed poor wives had a higher rate of time poverty than employed poor husbands (69 versus 61 percent) in Chile.

by about 4 percentage points (the difference between the entries for nonpoor husband/wife in column 7). In turn, the higher contribution of the employed stems from the very high incidence of time poverty among employed wives compared to employed husbands (88 versus 55 percent, column 4). The gender asymmetry with respect to the effect of income poverty status on time poverty rate was evident in Chile, too. Income-nonpoor employed husbands had a markedly lower time poverty rate than their income-poor counterparts (61 versus 55 percent, column 4), which was the main factor behind the decline in the contribution made by the time poverty of the employed to the overall time poverty of nonpoor husbands (the difference between the entries for income-poor men and income-nonpoor men in column 7). In contrast, the much higher contribution of the employed to the time poverty rate of the nonpoor wives relative to poor wives was accounted for by the fact that more of the nonpoor were employed and that more of the employed faced time poverty. The time poverty rate of income-poor and nonpoor employed wives was markedly different (88 versus 69 percent). As well, the employment rate of nonpoor wives was noticeably higher than that of poor wives (63 versus 36 percent, column 2). The gender asymmetry with respect to the effect of income poverty status on time poverty rate of husbands and wives in Chile thus seems to be mainly the result of: (a) the fall in the time poverty rate of employed husbands; and (b) the much greater employment rate of nonpoor wives compared poor wives and the much higher time poverty rates of employed nonpoor wives compared to employed poor wives. It may be noted that the difference with respect to Argentina consists chiefly of the jump in time poverty rate across the income poverty line for women in Chile as compared to its stability in Argentina.

Poor women in single female-headed households experienced higher rates of time poverty than poor husbands or poor wives. Comparing poor single women with poor husbands in Chile yielded a conclusion similar to the one we reached for Argentina: their rates of time poverty would have been identical if the time-bind imposed by housework was not accounted for. This type of time poverty accounted for the higher time poverty of single poor women by contributing 5 percentage points to the difference between the time poverty rates of the two groups (the difference between the entries for single income-poor women and poor husbands in column 6). Poor employed single women also faced starkly higher rates of time poverty than poor husbands: Only 12 percent of them were capable of avoiding it, as compared to nearly 40 percent of poor husbands (column 4).

Unlike in Argentina, nonpoor single women had lower rates of time poverty than nonpoor wives (55 versus 63 percent, column 5). Both the contributions from the employed and nonemployed to the overall time poverty rate of nonpoor wives were greater than nonpoor single women. The higher

contribution from the employed was chiefly due to the markedly high time poverty rate of employed wives that we already noted (88 versus 72 percent, column 4). In fact, this group fared the worst in terms of time poverty among all the groups considered here. As it turned out, the time poverty rate among nonemployed wives was also double that of nonemployed single women (21 versus 10 percent, column 3). Both these factors were at work behind the higher time poverty rate of wives relative to single women in the nonpoor group.

Table 3-18 Decomposition of time poverty rate of adults in time-poor households type of family, income poverty status and sex: Mexico

Type	Income poverty status	Sex	Share in population (percent)		Time poverty rate (percent)			Contribution (percentage point)	
			Non-employed	Employed	Non-employed	Employed	All	Non-employed	Employed
			1	*2*	*3*	*4*	*5*	*6*	*7*
Married couple	Poor	Husband	8	92	3	58	54	0	54
		Wife	60	40	42	78	56	25	31
	Nonpoor	Husband	7	93	2	53	50	0	49
		Wife	45	55	29	76	55	13	42
Single female head	Poor	Women	35	65	25	82	62	9	54
	Nonpoor	Women	25	75	15	76	60	4	57
All	Poor	Men	15	85	2	54	47	0	46
		Women	52	48	34	77	55	18	37
	Nonpoor	Men	13	87	1	51	45	0	44
		Women	38	62	23	74	55	9	46

We found marked differences in the case of Mexico (Table 3-18). Let us first consider income-poor married couple households. Unlike Argentina and Chile, the time poverty rate of income-poor husbands was lower than income-poor wives (column 5). However, like the other two countries, time poverty among nonemployed poor wives, to which 42 percent of them succumbed, played a substantial role here, too. Indeed, if we had not incorporated this type of time poverty into our measurement framework, poor wives would have shown a time poverty rate that was 23 percentage points lower than poor husbands (the difference between the entries for husband wife in column 7). The employed among the poor wives also faced a much higher rate of time poverty than employed poor husbands (78 versus 58 percent).[40] In spite of such high time poverty rates among the employed wives, the contribution

[40] In this respect, Mexico is similar to Chile, but different from Argentina, where employed husbands were subject to a higher rate of time poverty.

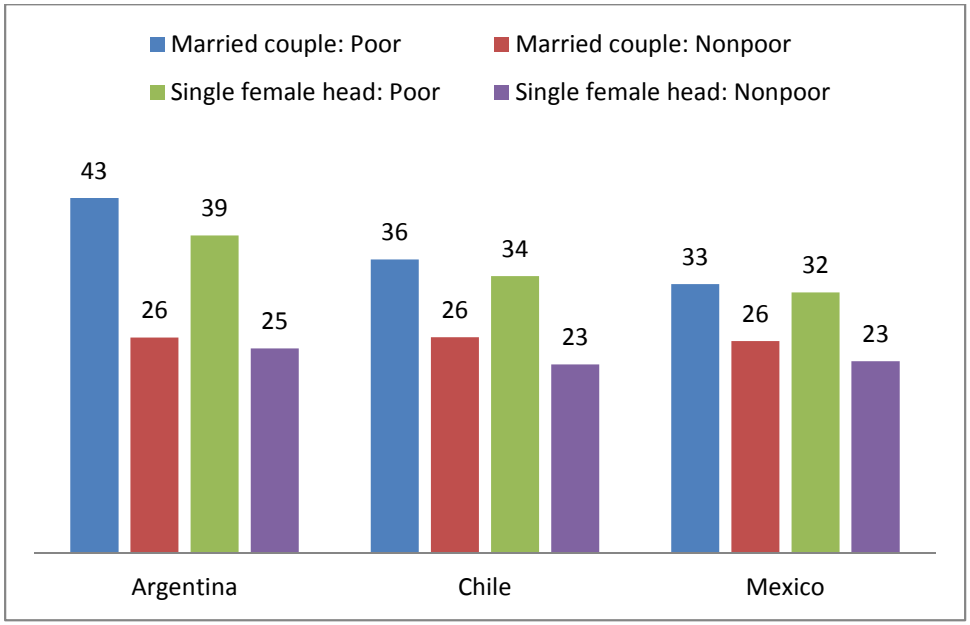
made by the employed to the overall poverty rate of wives was much smaller than the contribution for husbands. This is a reflection of the large difference in the employment rate: 92 percent for husbands versus 40 percent for wives (column 2).

Another notable difference of the Mexican case is that, unlike the other two countries where nonpoor wives had higher rates of time poverty, poor and nonpoor wives had roughly the same rate of poverty. In the other two countries, the increase across the poverty line in the contribution made by the employed to the overall time poverty rate outstripped the reduction in the contribution made by the nonemployed. In Mexico, they tended to offset each other. This is partly due to the fact that the jump across the poverty line in the employment rate of wives was not as dramatic in Mexico (55 versus 40 percent). It is also due to the fact the time poverty rate also does not change much across the poverty line in Mexico, as it did in the case of Chile. Notably, just as in the other two countries, nonpoor husbands had a lower time poverty rate than poor husbands (54 versus 50 percent, column 5); once again, this was driven mostly by the decline in the time poverty rate among the employed (58 versus 53 percent, column 4). Thus, the gender asymmetry of the impact of income poverty status in Mexico rose solely from the decline in the time poverty rate of husbands across the poverty line (a pattern observed in the other two countries, too) and the stability in the time poverty rate of wives (as opposed to the increase observed in the other two countries).

Women in family households headed by single females had a higher time poverty rate than wives or husbands. The forces behind this result are similar for the income-poor and nonpoor. We therefore confine ourselves here to a comparison of poor single women and poor wives. The higher time poverty of the single women is accounted for by the higher contribution made by the employed to the overall time poverty rate of offsetting the lower contribution made by the nonemployed. The contribution made by the employed to the time poverty of poor single women and poor wives was, respectively, 54 and 31 percentage points (column 7). In contrast, the contribution made by the nonemployed to the time poverty of poor single women and poor wives was, respectively, 9 and 15 percentage points (column 6). The higher contribution of the employed for single women's time poverty rate was, in turn, generated by their higher employment rate (65 versus 40 percent, column 2) and the higher time poverty rate among the employed compared to wives (82 versus 78 percent). The lower employment rate of wives implies that the contribution of the nonemployed to the overall poverty rate would be higher, even if the incidence of housework time-bind was similar across the two groups. Our estimates

for Mexico showed that, similar to the pattern found for the other two countries, the incidence was much higher for wives than single women (42 versus 25 percent, column 3).

Figure 3-29 Household time deficit of time-poor households by family type and income poverty status (weekly hours)



We end this section with an overview of the differences in time deficits across family types.[41] The average time deficit of income-poor households turned out to be higher than income-nonpoor households within both types of families across all three countries. The income poverty divide in the size of time deficits that we saw earlier with the case of all households (Figure 3-7), thus also appears to hold within each family type.[42] In Chile and Mexico, the difference in the deficit between income-poor and income-nonpoor married couples was similar at 10 hours per week, while in Argentina the difference across the poverty line within this group was larger at 17 hours per week. The gap across the poverty line within the group of single females was also similar in Chile and Argentina (9 hours). Again, in Argentina, we found a larger gap of 14 hours. The penalty of being income-poor in the size of time deficit thus appears to be steeper in Argentina than in the other two countries.

[41] As before, we were forced to omit nonfamily households and family households headed by single males because we did not have enough observations to provide estimates for the income-poor and nonpoor groups separately (except for Mexico).

[42] The same difference could be observed when we express the deficit as a percent of the threshold values of household production and, hence, they are not reported here separately.

Table 3-19 Time deficit of time-poor adults by family type, income poverty status and sex (weekly hours)

Type of household	Income poverty status	Sex	Argentina	Chile	Mexico
Married couple	Poor	Husband	33	29	24
		Wife	34	28	26
	Nonpoor	Husband	19	17	17
		Wife	23	23	22
Single female head	Poor	Women	33	27	27
	Nonpoor	Women	22	20	20

The picture of time deficits of time-poor adults living in time-poor households appeared to be marked by a strong division across the poverty line within each family type across three countries (Table 3-19). We had noted earlier that poor husbands had a higher rate of time poverty than nonpoor husbands. Our estimates of time deficits showed that the time shortfall suffered by the time-poor in the two groups was also higher for the poor husbands. We had also found earlier that the time poverty rate of nonpoor wives was higher than poor wives. It turned out, however, that the time deficits of the time-poor in the two groups showed an opposite pattern, with nonpoor facing lower time deficits than the poor. The pattern of difference in time deficits matched the difference in time poverty rates among single women since the time-poor among the income-nonpoor enjoyed a lower time deficit than the time-poor among the income-poor. Difference between the spouses in time deficit was not considerable among income-poor married couple households in all three countries. This is in sharp contrast to the much lower rate of time poverty among poor wives in Argentina and Chile. (In Mexico, there was not much difference in the time poverty rate.) On the other hand, differences between time-poor husbands and wives in nonpoor households went very much in favour of husbands, which, in conjunction with their lower time poverty rates in Chile and Mexico, put them at a significant advantage. (In Argentina, time poverty rates were similar for husbands and wives in nonpoor households.)

3.4 Summing up

In this chapter, we have presented selected findings from the study for households. We first discussed the results for all households, and then focused on households differentiated by the employment status of head and/or spouse and households differentiated by the type of family. Within each section, we analysed (a) the difference between official and LIMTIP income poverty rate; (b) the distribution of households by income and time poverty status (LIMTIP classification); and (c) time-poor households. We

now summarize the main findings of our study of time and income poverty for households in Argentina, Chile, and Mexico.

The first important result that comes out of our study of households is uncovering the extent of hidden poverty. The time-adjusted poverty rate for Argentina is 11.1 percent, compared to 6.2 percent for the official poverty line. For Chile, adjusting for time poverty increases the poverty rate to 17.8 percent from 10.9 percent for the official line. And in Mexico, the poverty rate increases to 50 percent from an already high 41 percent. This implies that the households in hidden poverty in Argentina, Chile, and Mexico comprise 5, 7, and 9 percent of all households, respectively, in the three countries. The second important result of our study of households concerns the impact of the consideration of time poverty in illuminating the depth of poverty. Our estimates showed that the average LIMTIP income deficit for the poor households was 1.5 times higher than the official income deficit in Argentina and Chile, and 1.3 times higher in Mexico. Thus, official poverty measures grossly understate the unmet income needs of the poor population in each of the countries under study. From a practical standpoint, this suggests that taking time deficits into account while formulating poverty alleviation programs will significantly shift both the coverage (including the 'hidden poor' in the target population) and the benefit levels (including the time-adjusted income deficits where appropriate).

We find that a minority of households in all three countries are free of both income and time poverty: 45 percent in Argentina, 33 percent in Chile and only 20 percent in Mexico. Time poverty rates for adults in time-poor households average around 50 percent in all three countries, although women are likelier to be time poor than men especially in income-nonpoor households. While the majority of time-poor individuals are time poor because their hours of work exceed the time available to them, after accounting for required household production and personal care (the employment time-bind), a significant number of individuals have time deficits even before employment hours are taken into consideration, because they face an unequal burden of household production hours (the housework time-bind). A majority of the latter group are women, and the time deficits they face are staggering: between 50 and 60 hours a week.

The time poverty rates among nonemployed women in Argentina is 25 percent, identical to that of those in income-poor and income-nonpoor households; in Chile it is 19 percent and 17 percent for women in income-poor and nonpoor households, respectively; and 34 percent and 23 percent in the same types of households in Mexico. The time poverty rates of nonemployed men in both income-poor and income-nonpoor households are much lower: 1 or 2 percent in Chile and Mexico; but in Argentina,

it stands at 8 and 12 percent for men in income-poor and nonpoor households. Among employed adults the double time-bind (employment and housework) is much more prevalent among women than men and much higher in income-poor than income-nonpoor households.

Among employed households (those with either the head, the spouse or both employed), the incidence of poverty increased most for dual-earner households, while accounting for time deficits worsens the poverty picture of employed households with children to an even larger degree than that of all employed households. The incidence of hidden poverty in employed households followed closely that of the population at large in all three countries, while there were variations among different employment profiles in Argentina and Chile. In these two countries, the hidden poor were especially to be found among households with the head working and the spouse not, with 14.2 percent and 17.3 percent of the time-poor and officially income-nonpoor in that category, respectively, compared to 9.5 percent and 12.3 percent of all employed households. In Mexico, there was much less variation in rates of hidden poverty by employment profile. In all three countries employed households with children, especially young children are more likely to be among the hidden poor. Unsurprisingly, the employed had a much lower proportion of households that suffered neither time nor income poverty than the nonemployed: 38 versus 72 percent in Argentina, 28 versus 53 percent in Chile, and 15 versus 38 percent in Mexico. In all three countries, the employed income-poor have the highest rate of time poverty: 82 percent in Argentina, 81 percent in Chile, and 76 percent in Mexico. In all three countries, approximately 90 percent of time-poor households are employed households.

The time deficits of time-poor adults within the subgroups dual-earner and single-headed employed households were characterized by marked divisions based on income poverty status and sex. Income-nonpoor adults had lower deficits than income-poor adults and men had lower deficits than women. These differences were starkest in households in which the woman worked. For example, in income-poor dual-earner households, women's time deficits were seven hours greater in Argentina and ten hours greater in Chile and Mexico.

Considering the time and income poverty characteristics of different family types, we noted that in Argentina and Chile, married couple households had lower rates of income poverty, both the official and LIMTIP definition; while in Mexico, the income poverty rates were slightly higher for married couples. The differences were even greater for households with children, with 20.8 percent of married couple households with children in LIMTIP income poverty compared to 27 percent of single female-headed households with children in Argentina, and 22.1 percent compared to 38.5 percent in Chile. In Mexico,

while the rates were much higher, they were not very different, at 59.2 versus 59.8 percent. This pattern is repeated in terms of the depth of income poverty, as single female-headed households have a larger income deficit as measured against the poverty line that married couples in Argentina and Chile, while in Mexico, the deficit is nearly identical.

In terms of differences in time and income poverty status by family type, by far the starkest difference in Argentina and Mexico was between family and non-family households, with 81 percent of non-family households neither time- nor income-poor in Argentina and 35 percent in Mexico, compared to the proportion of different types of family households in this category, which ranged from 32 to 41 percent in Argentina and 17 to 23 percent in Mexico. In Chile, 41 percent of single male-headed family households and non-family households were in this category, while 32 percent of married couple and single female-headed family households were.

Married couples with children and single female-headed households with children were consistently overrepresented among the time-poor, as compared to the general population in all three countries. Although the time poverty rate for adults living in income and time-poor households was essentially identical for men and women, this masks the much higher rates of time poverty for women in single female-headed households compared to women in married couple households. In Argentina, 46 percent of women in married couple time- and income-poor households were time-poor, while 70 percent of women in single female-headed income- and time-poor households were. The corresponding rates were 43 percent and 60 percent in Chile, and 53 percent and 62 percent in Mexico. Nevertheless, because of the greater prevalence of married couple households, women in married couples made up the bulk of the individuals suffering from the housework time-bind.

In Argentina, the time poverty rate of husbands in married couple households was about 20 percentage points higher than wives in households in income poverty, due to the far higher employment rates of husbands compared to wives. In income-nonpoor married couple households, the time poverty rate of husbands and wives were almost identical, due to the housework time-bind faced by nonemployed wives. Women in single female-headed family households faced the highest rate of time poverty among the income-poor and income-nonpoor groups. Income-poor married couples in Chile displayed similar patterns to those in Argentina, but in income-nonpoor married couple households, women's time poverty rates were significantly higher than men's, owing to employed wives' much higher rate of time poverty (88 percent compared to 55 percent for husbands in nonpoor households and 69 percent for wives in income-poor households). Unlike in Argentina, nonpoor single women had lower rate of time

poverty than nonpoor wives (55 versus 63 percent). In Mexican income-poor married couple households, time poverty rates were quite similar for husbands and wives, but for husbands all the time poverty was employment-related, while for wives almost half was housework-related. Wives in income-nonpoor households had roughly the same time poverty rates as those in poor households, with the increase in the employment rate of wives offset by the reduction in time poverty rates for nonemployed wives. Income poor single female household heads' rate of time poverty was higher than that for husbands or wives due both to their higher employment rate and the higher rate of time poverty among the employed (the results for income-nonpoor single female household heads is similar).

In all three countries, the time deficits of time- and income-poor households were higher than that of the time-poor but income-nonpoor households. The gap was greatest in Argentina (for example for married couple households, the average time deficit for the income poor was 43 hours per week compared to 26 hours for the income-nonpoor) and smallest in Mexico (33 hours per week compared to 26 hours per week for the same groups). These income poverty-related patterns carried over into the time deficits for individuals in time-poor households as well.

In the next chapter we consider the time and income poverty of individuals in Argentina, Chile, and Mexico.

4 Income and Time Poverty of Individuals

In addition to reporting aggregate headcount ratios, it is useful to decompose figures according to a variety of population characteristics, for example, sex, employment status, worker status and type of occupation, education attainment and marital status, ethnicity and age, etc. These group poverty profiles can reveal a number of important issues such as the incidence of poverty among distinct groups, the varying impact of the pattern of growth on the economic well-being of subgroups, the effectiveness of poverty reduction policies, and the positive or adverse effects of labour market changes. They can also assist in establishing a regional, territorial, and group-specific prioritization of public spending. Good 'record–keeping' by subgroup classification is also crucial for evaluating policies aimed at promoting inclusive growth and resilient societies.

One concern that often arises with official income (or consumption) poverty measures is the presumption of equal intrahousehold sharing among household members, and in particular between men and women. In fact, health and educational outcomes and consumption patterns suggest that 'unitary' household behaviour is the exception, not the rule. In this regard, income poverty disaggregation by gender that goes a step beyond estimates of female-headed households is highly desirable. Nevertheless, reluctant as we may be, we follow (for the lack of a better alternative) the standard practice of *defining* the income poverty of individuals based on household income, i.e., a person is considered as income-poor if they live in a household with household income below the poverty line.

But, from a gender point of view, intrahousehold inequality in the time spent on household production ought to be considered and counted. In our framework, the inequality in this domain is reflected in differences in the time that the individuals in the household devote to meeting the minimum necessary amount of household production their household needs (i.e., the household's threshold hours of household production as determined by its size and composition) to reproduce itself as a unit. As we pointed out above (Section 3.1.3), the extent of the burden of necessary household production that falls on the individual can be so heavy at times that it can make them time-poor even if they are not employed (housework time-bind). For employed individuals, the burden can be close to impossible to meet, given their hours of employment (employment time-bind). Finally, some individuals might end up facing both types of time-bind (double time-bind). Irrespective of the type of time poverty that afflicts the individual, what matters (for income poverty) is the translation of this non-income dimension—time

deficit—into a monetary value and its addition to the household's income poverty line. In so far as intrahousehold inequalities in the time spent on household production leads to time deficits, they can potentially affect the income poverty status of households and individuals in our framework.

It may be recalled that our designation of the household as time-poor or time-nonpoor is based on the time poverty status of individuals in the household; i.e., we classified the household as time-poor if there was at least *one* time-poor adult living in the household, and time-nonpoor if no one in the household was time-poor. This approach allowed us to identify the time-nonpoor and time-poor individuals *within* time-poor households with two or more adults, and explore intrahousehold gender differentials in time poverty. Our analysis of time poverty of individuals in time-poor households that was carried out for (a) all time-poor households (Section 3.1.3), (b) time-poor households differentiated by the employment status of head and/or spouse (Section 3.2.3), and (c) time-poor households grouped by the type of family (Section 3.3.3) were conducted on this premise.

In this chapter, however, we focus on adults living in *all* households, rather than exclusively time-poor households. Of course, the change in focus does not affect the number of time-poor adults. But, it does change the total population, as it now includes adults in time-nonpoor households. As a result, time poverty rates of individuals reported in this chapter will necessarily be lower than those reported in the previous chapter. Needless to say, the demographic differentials in time poverty rates (say, between employed men and women) could also change depending on the difference in demographic characteristics between the individuals in the two groups of households (time-poor and time-nonpoor).

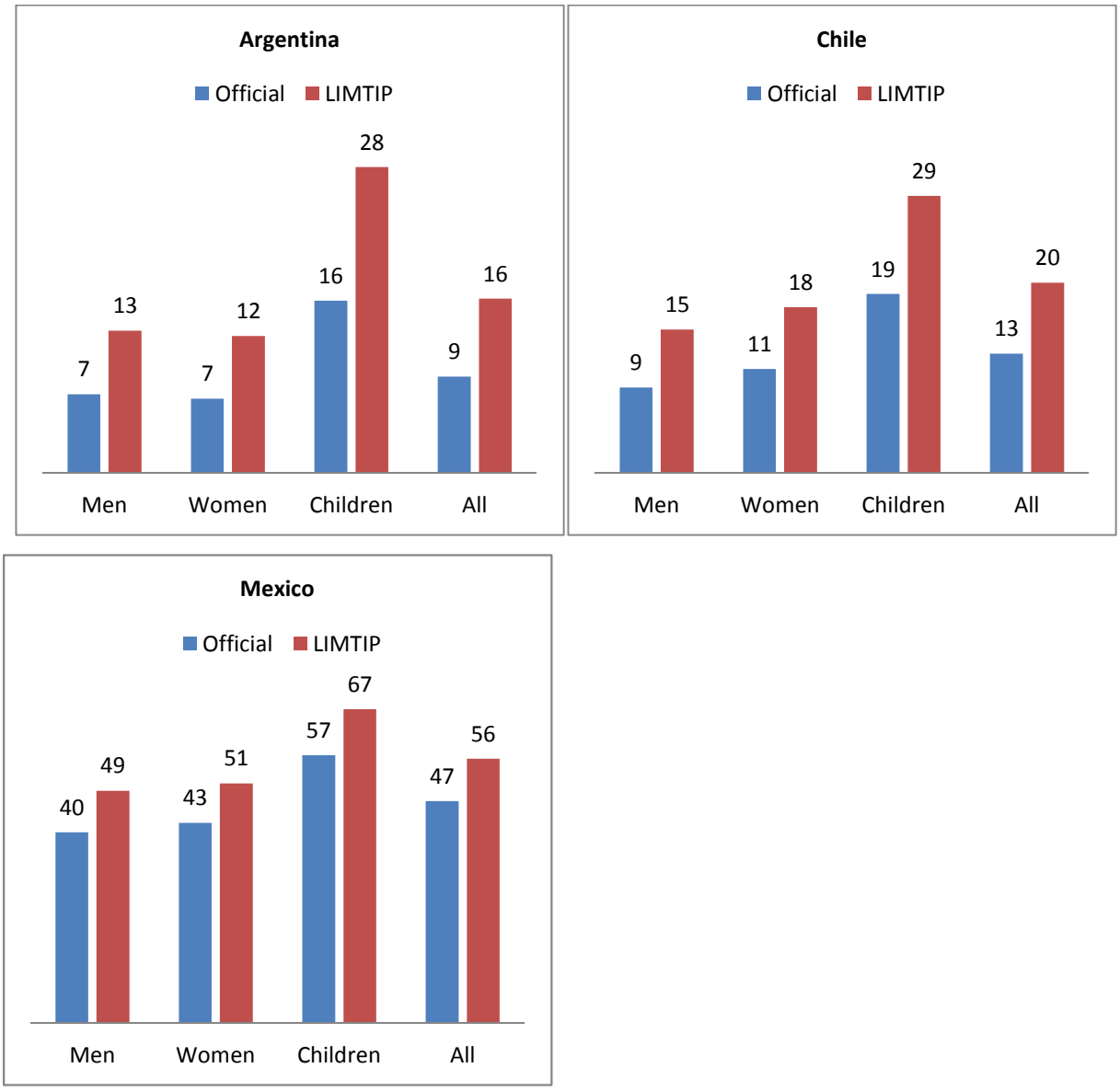
The *unit of analysis* throughout this chapter is the individual (see equations (5) and (6) in Section 2.1). In the first major section, we present the results of our estimation for all individuals (men, women, and children). We also discuss separately the time poverty of men and women in this section. The next major section is devoted to examining the complex relationships between time and income poverty on the one hand, and on the other, in turn, employment status, earnings distribution, and type of employment. The final section summarizes the results of our investigation into individual time and income poverty incidence and depth.

4.1 All individuals

4.1.1 Official versus LIMTIP income poverty

The difference between the income poverty rate of all individuals and all households depends solely on the difference in the average household size between poor and all households. As shown in Figure 4-1, the poverty rate for individuals (the bar labelled 'All') was somewhat higher than the rate for households (Figure 3-1) because, on the average, poor households had more members than nonpoor households in all three countries.

Figure 4-1 Poverty rate of men, women, children, and all individuals (percent): Official versus LIMTIP



To contextualize the findings, let us begin by noting that the total number of individuals was 2.58, 5.75, and 106.1 million in, respectively, Buenos Aires, Greater Santiago, and Mexico. The picture of poverty for individuals was starkly different between the official and LIMTIP income poverty measure, consistent with our findings for households reported earlier in Figure 3-1. For the case of Buenos Aires, 9 percent of all individuals were officially in income poverty, whereas the LIMTIP rate was 16 percent. The modified poverty threshold captured an additional 7 percent of the population, a total of 183,000 individuals, who due to household production time deficits were at a disadvantage. This disadvantage proves to be severe enough to place them below the LIMTIP poverty line (a poverty status that gets revealed should they attempt to make up for their lack of sufficient household production time through market purchases). In Chile (Greater Santiago), the additional 7 percent, by LIMTIP count, represented an additional 432,000 individuals, and in the case of Mexico, at the national level, monetizing time deficits swelled the ranks of the poor by an extra 9 percent, the equivalent of which is 9.5 million persons. The proportionate increase in the number of income-poor in all countries was quite striking as we saw with the results for households: 81, 59, and 19 percent, respectively, in Argentina, Chile, and Mexico.

The discrepancy between men and women in income poverty rate was almost non-existent in Argentina by either the official or LIMTIP measure. In contrast, in Chile and Mexico, women experienced slightly higher rates of income poverty than men by both measures. This difference is dwarfed by the gap between the poverty rate of children (those under 18 years of age) and adults of either sex. The higher poverty rate of children compared to that of adults is consistent with our earlier finding that families with children had a much higher poverty rate than all households (Table 3-12).

The percentage of women in the total population was 43, 38, and 34 percent in, respectively, Buenos Aires, Santiago, and Mexico. Our estimates showed that an additional 5 percent of women were income-poor in Argentina once time deficits were taken into account. This amounts to roughly 63,000 additional income-poor women. Similar calculations revealed the addition of 7 percent or 141,000 women in Chile and 8 percent or roughly 3 million women in Mexico to the ranks of the income-poor.

Men made up 36, 34, and 30 percent of overall population in Argentina, Chile, and Mexico, respectively. The poverty estimates for men were almost identical to those we obtained for women. We found that an additional 6 percentage points or 54,000 men was income-poor under the LIMTIP poverty line in Argentina. For Chile, the increase was 7 percentage points or 118,000 men while Mexico registered an increase of 9 percentage points that amounted to 2.8 million men. The relatively small gender gap in the

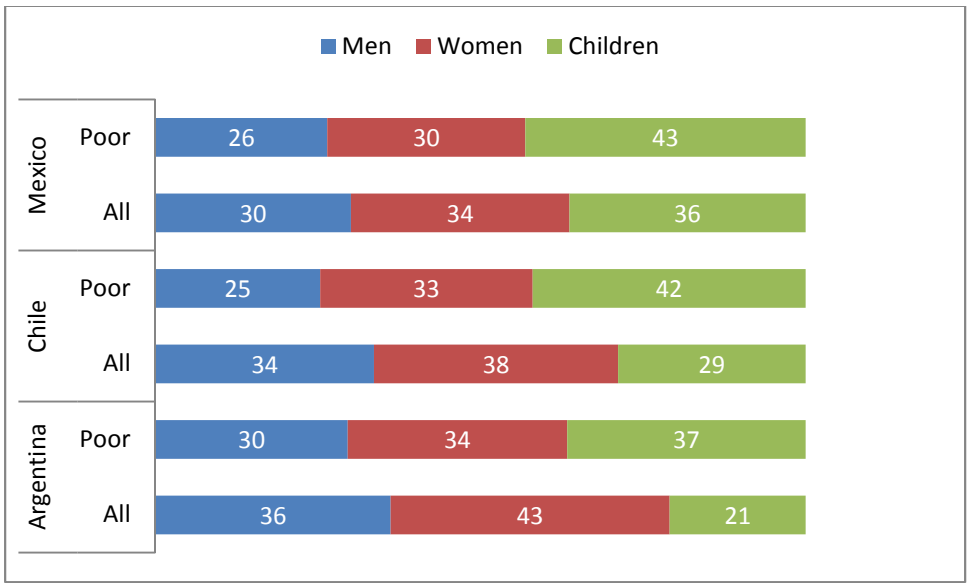
hidden poverty rate suggests that the impoverishing effects of time deficits were felt by both men and women to a roughly equal degree.

As the proportion of women in the population was greater than men in all three countries, the total number of poor women will be greater than poor men, even if both had the same poverty rate. We found that in all three countries, there were in fact more poor women than poor men according to both the LIMTIP and official measures. In Argentina, this was purely due to the demographic effect since the poverty rate (LIMTIP and official) was roughly similar for men than women. However, in Chile and Mexico, the demographic effect was compounded by the higher poverty rates (LIMTIP and official) of women. Thus, the 'face' of poverty is feminized in the sense of poor women outnumbering poor men in all three countries. But, this would not have been the case in Argentina if not for the fact there were more women than men in the adult population.

The income poverty rate for children in Argentina was 16 percent under the official definition and 28 percent under the LIMTIP definition. This represented an increase of 65,000 over officially income-poor children to a total of 150,000 children living in LIMTIP income-poor households. In Chile, the increase in the poverty rate for children was somewhat smaller at 10 percentage points, from 19 to 29 percent. The revised poverty rate reflected a population of nearly half a million, an increase of 172,000 over the number of children officially considered as poor. Mexico, also displayed a similar percentage point increase, but given the already high level of official income poverty rate among children—57 percent—the increase showed that over two-thirds of Mexican children (about 26 million) lived in income-poor households. Our estimates suggest that of the three categories discussed here—men, women, and children—the last group's share in income-poor population was actually higher than in total population, while the opposite was true for men and women (Figure 4-2).[43] This is a reflection of the higher poverty rate among families with children and the higher average number of children in poor families with children compared to nonpoor families with children.

[43] We have shown the composition of the population under the LIMTIP poverty line in the figure. The composition of the population under the official poverty line was largely similar.

Figure 4-2 The composition of total and LIMTIP income-poor population by men, women, and children (percent)



Looking at the factors behind the proportion of hidden poor individuals in the total population (the difference between LIMTIP and official poverty rate, see Section 3.2.1), we found results similar to those for households (Table 3-10). The percentage of individuals that live in households that were time-poor and officially income-nonpoor in the total adult population was sizeable in all three countries, with Chile and Argentina registering similar proportions (59 and 57 percent, respectively), and Mexico showing a much lower 37 percent (numbers along the rows labelled 'All' in Table 4-1). The second factor in determining the hidden poverty rate is the number of individuals in hidden poor households, expressed as a percentage of all individuals who live in time-poor households that are officially income-nonpoor. Mexico had the highest proportion with nearly a quarter (24 percent), while Argentina and Chile had much lower, but quite similar proportions (12 and 14 percent, respectively).

Table 4-1 Factors affecting the hidden poverty rate (LIMTIP minus official poverty rate): Men, women, children, and all individuals

Country	Category	LIMTIP minus official poverty rate (percentage points)	Time-poor and officially income-nonpoor/ All (percent)	Hidden poor/ Time-poor and officially income-nonpoor (percent)
Argentina	Men	6	58	10
	Women	6	54	10
	Children	12	70	17
	All	7	59	12
Chile	Men	6	57	11
	Women	7	56	12
	Children	10	58	19
	All	8	57	14
Mexico	Men	9	41	21
	Women	8	38	22
	Children	10	33	29
	All	9	37	24

Considering the factors behind the hidden poverty rate for men, women, and children in Argentina showed that about 70 percent of all children lived in households that were time-poor and officially income-nonpoor. This was much higher than the similar percentage for women and men. We also found that 17 percent of children who lived in households that were time-poor and officially income-nonpoor actually belonged to the hidden poor; i.e., their household income was above the official poverty line but below the LIMTIP poverty line. Once again, this was a notably higher percentage than the percentage for men and women. Since the time and income poverty status of children is determined by the status of their household, the higher proportions reflect the higher average number of children in households in both groups relative to their reference group (i.e., (a) the group that was time-poor and officially income-nonpoor relative to all households, and (b) hidden poor relative to households that were time-poor and officially income-nonpoor).

In the case of Chile, similar percentages of men, women, and children lived in households that were time-poor and officially income-nonpoor (56 to 58 percent). The respective numbers of men and women living in hidden poor households, expressed as percentages of their respective total numbers in households that were time-poor and officially income-nonpoor, were also similar (11 to 12 percent).

However, 19 percent of children who lived in households that were time-poor and officially income-nonpoor actually belonged to the hidden poor, a reflection of the fact that the hidden poor households in Chile had, on the average, a higher number of children than households that were time-poor and officially income-nonpoor.

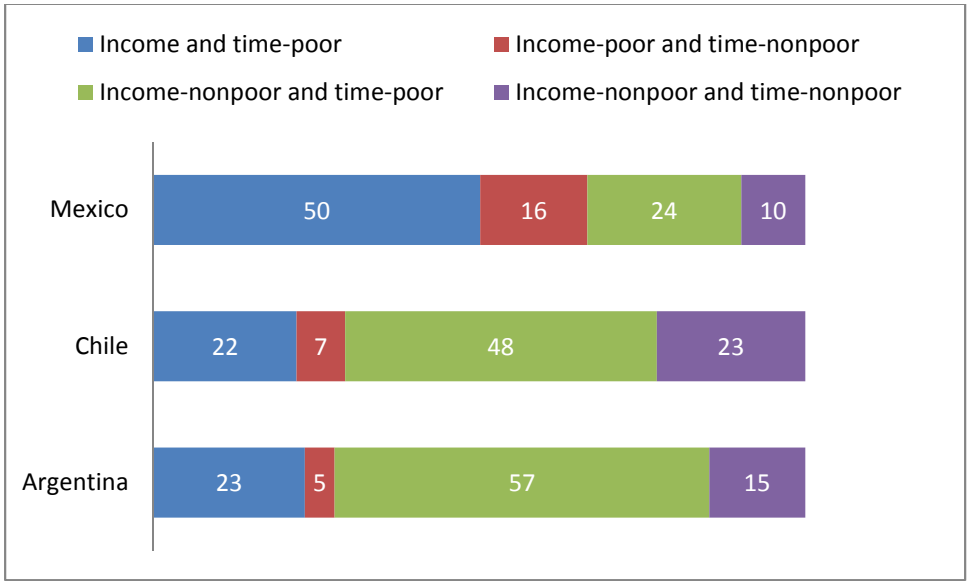
Turning to Mexico, we found that 33 percent of children lived in households that were time-poor and officially income-nonpoor. This was much lower than the corresponding percentages for men and women (41 and 38 percent, respectively). Of course, as we saw before, nearly 57 percent of Mexican children lived in households that were officially income-poor, a notably higher percentage than that for men or women. However, the hidden poor among the officially income-nonpoor and time-poor had, on the average, a higher number of children. This is why the percentage of children in the former category was higher than the percentage of men or women in the same category.

4.1.2 The LIMTIP classification of individuals

A snapshot of the distribution of the population into the four-way LIMTIP classification provides additional information regarding distinct vulnerabilities that individuals face. For men and women in the age group 18 to 74 years old, we classify them as time-poor or time-nonpoor depending on their own time poverty status. Since we do not define time poverty status for children, we classify them as time-poor or time-nonpoor depending on the time poverty status of their household. As may be recalled, the household is considered to be time-poor if there is at least one time-poor adult. For all individuals, their income poverty status is ascertained at the household-level, i.e., if their household income is below the poverty threshold then they are considered to be poor.

As we discussed earlier (Section 3.3.2), incidence of the double-bind of income and time poverty was notably higher among family households with children than households without children. We had also noted, in the course of the same discussion, that the percentage of time-poor households as a whole was also considerably higher for households with children. The implications of that discussion for the distribution of children by the income and time poverty status of their households can now be seen clearly in Figure 4-3.

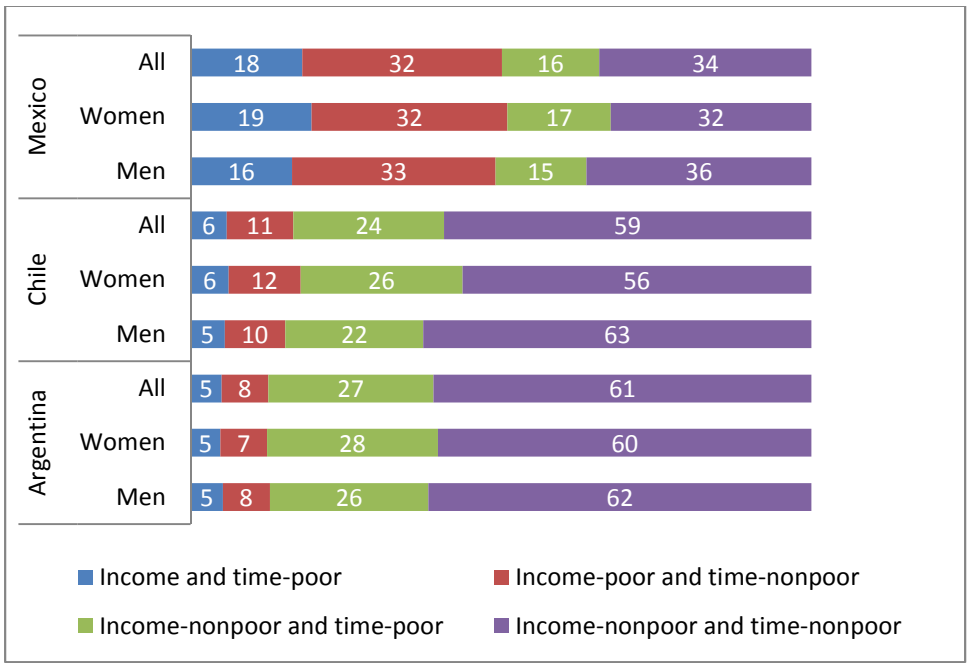
Figure 4-3 Distribution of children by LIMTIP classification of income and time poverty (percent)



Note: Children are defined as persons under 18 years of age. Their income and time poverty status is determined by the status of their household. The child is considered as income-poor if their household income is below the LIMTIP income poverty and considered as time-poor if at least one adult in their household is time-poor.

In all three countries, the vast majority of children live in time-poor households: 80 percent in Argentina, 70 percent in Chile, and 74 percent in Mexico. Roughly the same proportion of children (23 percent) in Chile and Argentina lived in households that were both income- and time-poor. In Mexico, 50 percent of all children belonged to households in the double-bind of income and time poverty. Only a relatively small proportion of income-poor children lived in households that were not time-poor. Almost 84 percent of all income-poor children lived in time-poor households in Argentina. In both Mexico and Chile, the percentage was lower but still around 75 percent. The vast majority of income-nonpoor children also lived in households that were time-poor: 80, 68, and 71 percent, respectively, in Argentina, Chile, and Mexico. We expect the time poverty rates of households with children to be higher than those without children because they tend to have, on the average, higher requirements of household production. Yet, the magnitude of the problem, especially the rather high percentage of children living in households subject to both income and time poverty warrants serious concern because of its potential effects on intergenerational persistence of deprivation.

Figure 4-4 Distribution of adults by LIMTIP classification income and time poverty status (percent)



Note: Adults are defined as individuals 18 to 74 years of age. The adult is considered as income-poor if their household income is below the LIMTIP income poverty and considered as time-poor if they are time-poor.

Turning now to the LIMTIP classification of adults, we begin with the group that is both income- and time-poor. This group consists mostly of the employed poor who are in effect overworked and cannot make ends meet. However, it also includes some nonemployed time-poor individuals. We referred to them in the previous chapter as those facing the 'housework time-bind.' About 5 percent of both men and women in Argentina suffered from the double-bind of time and income poverty (Figure 4-4). Chilean men also encountered the same rate while the women had a slightly higher incidence of 6 percent. However, unlike in Argentina and Chile, there was some gender disparity in the incidence of the double-bind of income and time poverty in Mexico: 19 percent for women versus 16 percent for men.

The next group to consider is the income-poor and time-nonpoor group. The percentages of Argentinian women and men who belonged to this category were, respectively 7 and 8 percent. In Chile, higher proportions of men and women fell into this group. The percentages for women and men were, respectively, 12 and 10 percent. Roughly similar proportions of Mexican men and women (33 and 32 percent, respectively) were found in this category. This group is quite heterogeneous in terms of their demographic characteristics. Some of them may be facing the double burden of low income and joblessness. Some may have voluntarily or involuntarily withdrawn from the labour force due to a variety of reasons (childbirth, sickness, disability, etc.). It should also be noted that a substantial

percentage of the individuals in this group were employed: 40 percent in Argentina, 32 percent in Chile, and 47 percent in Mexico.[44] For the employed individuals, their lack of time deficits could be a reflection of low hours of employment, low required hours of household production (e.g., single person households), or favourable intrahousehold division of the required hours of household production. With regard to the latter, it should be noted that about 30 percent of individuals in the group in both Argentina and Chile lived with a time-poor individual in their household, i.e., they lived in a time-poor household. In Mexico, the proportion of such individuals was much smaller at roughly 10 percent.

Another group of individuals that is of interest in its own right is the income-nonpoor but time-poor. Women had a greater propensity to belong to this group than men in all three countries. In Argentina, where 28 percent of women and 26 percent of men belonged to this group, the gender disparity was evidently rather small. In Mexico, too, the disparity was relatively small as 17 percent of women belonged to this group compared to 15 percent for men. We found the highest disparity in Chile, where over a quarter of women (26 percent) of women fell in this category while for men it was four percentage points lower at 22 percent. Most of the individuals (over 90 percent in all countries) that belong to this group are employed and even though they face time deficits, their household income is sufficiently high to allow them (notionally) to reduce their time burden of household chores via market-based replacements. Yet, much like any other group, intra-group differences may make some individuals to suffer from higher vulnerability to poverty. The closer an individual is to the poverty line, the greater the vulnerability they face to moving into either the income-poor and time-nonpoor group or even into the income-poor and time-poor group depending on the magnitudes of loss of income and the adjustment it implies for increased hours of household production (and greater time deficits).

The income-nonpoor and time-nonpoor segment of the population represented the majority of men and women (62 and 60 percent, respectively) in Argentina. In Chile, too, they constituted the majority, though there was a more noticeable gender gap (63 percent for men and 56 percent for women). Given the high rate of income poverty in Mexico, only a minor but still substantial proportion of men and women suffered neither income nor time deficits (36 percent for men and 32 percent for women). Just as we noted with respect to the group that is income-poor and time-nonpoor, this group also could contain people in different life situations. For example, it can include individuals working part-time because full-time jobs are not available and living in households with incomes barely above the poverty

[44] In fact, in both Chile and Mexico, nearly 65 percent of the employed individuals in the group work 40 hours or more per week. In contrast, in Argentina about 60 percent of the employed work less than 25 hours per week.

line. What distinguishes them from their income-poor counterparts is that joblessness or withdrawal from the labour force (voluntary or involuntary) is not coupled with income poverty. However, this does not exclude them from the risk of slipping into the category of income-poor (either with or without time poverty) as a result, for example, of the loss of a part-time job or gaining more hours of employment at a remuneration that is not sufficient to offset the monetized value of the associated time deficit.

4.1.3 Time poverty rates of men and women

We had discussed the gender disparities in time poverty rates among adults in time-poor households in a detailed fashion in the last chapter (see Sections 3.1.3, 3.2.3, and 3.3.3). We now extend our analysis to include individuals in time-nonpoor households, also. The reason for confining our attention to time-poor households alone in the previous chapter was to gain better insights into the intrahousehold disparities in time allocation and relationship with the patterns of time and income poverty. However, to obtain the picture for the adult population as a whole, we do need to enlarge the scope to include adults in time-nonpoor households.

Time poverty rates for men and women by income poverty status can be inferred from Figure 4-4 itself. We have reported the estimates also in Table 4-2 (column 5). As we would expect, the time poverty rates are lower than those we reported for adults in time-poor households (Table 3-3).

For Argentinian men and women in income-poor households, there was rough parity (41 and 39 percent, respectively), similar to what we found for adults in households that were both income and time-poor. There was rough gender parity in the incidence of time poverty for men and women in income-nonpoor households, too (29 and 31 percent, respectively). This is in contrast to our finding for adults in time-poor households where women had a higher rate of time poverty (by about 9 percentage points). The results also imply that the gender asymmetry that we observed regarding the effect of income poverty could not be observed when we expanded our analysis to include all adults. Both men and women in income-nonpoor households have markedly lower time poverty rates than their income-poor counterparts.[45]

[45] In contrast, the time poverty rate for women in time-poor, income-nonpoor households was four percentage points higher than for women in time-poor, income-poor households while the time poverty rate for men in time-poor, income-nonpoor households was six percentage points lower than for men in time-poor, income-poor households.

Table 4-2 Decomposition of time poverty rate of men and women in all households

Income poverty status	Sex	Share in population (percent)		Time poverty rate (percent)			Contribution (percentage point)	
		Non-employed	Employed	Non-employed	Employed	All	Non-employed	Employed
		1	2	3	4	5	6	7
	Argentina							
Poor	Men	33	67	5	58	41	2	39
	Women	50	50	16	62	39	8	31
Nonpoor	Men	18	82	4	35	29	1	28
	Women	38	62	9	45	31	4	28
	Chile							
Poor	Men	33	67	1	53	36	0	36
	Women	61	39	11	70	34	7	28
Nonpoor	Men	19	81	0	32	26	0	26
	Women	46	54	7	52	32	3	28
	Mexico							
Poor	Men	19	81	1	40	33	0	33
	Women	60	40	21	65	38	13	26
Nonpoor	Men	19	81	1	35	29	0	29
	Women	50	50	11	57	34	5	29

In Chile too, there was approximate gender parity in time poverty rate (36 and 34 percent, respectively, for men and women) among adults in income-poor households. This result is similar to what we had already found for adults in time-poor, income-poor households. In income-nonpoor households, however, men had a lower risk of time poverty than women (26 versus 32 percent). This echoes our earlier finding of a notable gender disparity for adults in time-poor, income-nonpoor households. While both men and women experienced a decline in the time poverty across the income poverty line, the decline was larger for men than women, suggestive of a gender asymmetry in the effect of income poverty status on time poverty rate.[46]

Mexico showed a different pattern from the other two countries in that there was a notable gender disparity in time poverty rate for adults in income-poor households (38 percent for women versus 33

[46] In contrast, among adults in time-poor households we found that the time poverty rate for women in income-nonpoor households was higher (52 percent, or three percentage points higher than their counterparts in income-poor households) while for men it was substantially lower (43 percent or seven percentage points lower than men in income-poor households), indicating the same pattern of gender asymmetry that we found among adults in time-poor households in Argentina.

percent for men). Unlike Argentina, but like Chile, women in income-nonpoor households also faced higher risk of time poverty than men (34 versus 29 percent). The results thus indicate, similar to the other two countries, that there was a decline in the time poverty rate across the income poverty line. This finding is in contrast to our earlier finding for adults in time-poor households. In that case only men experienced a decline in time poverty across the income poverty line.

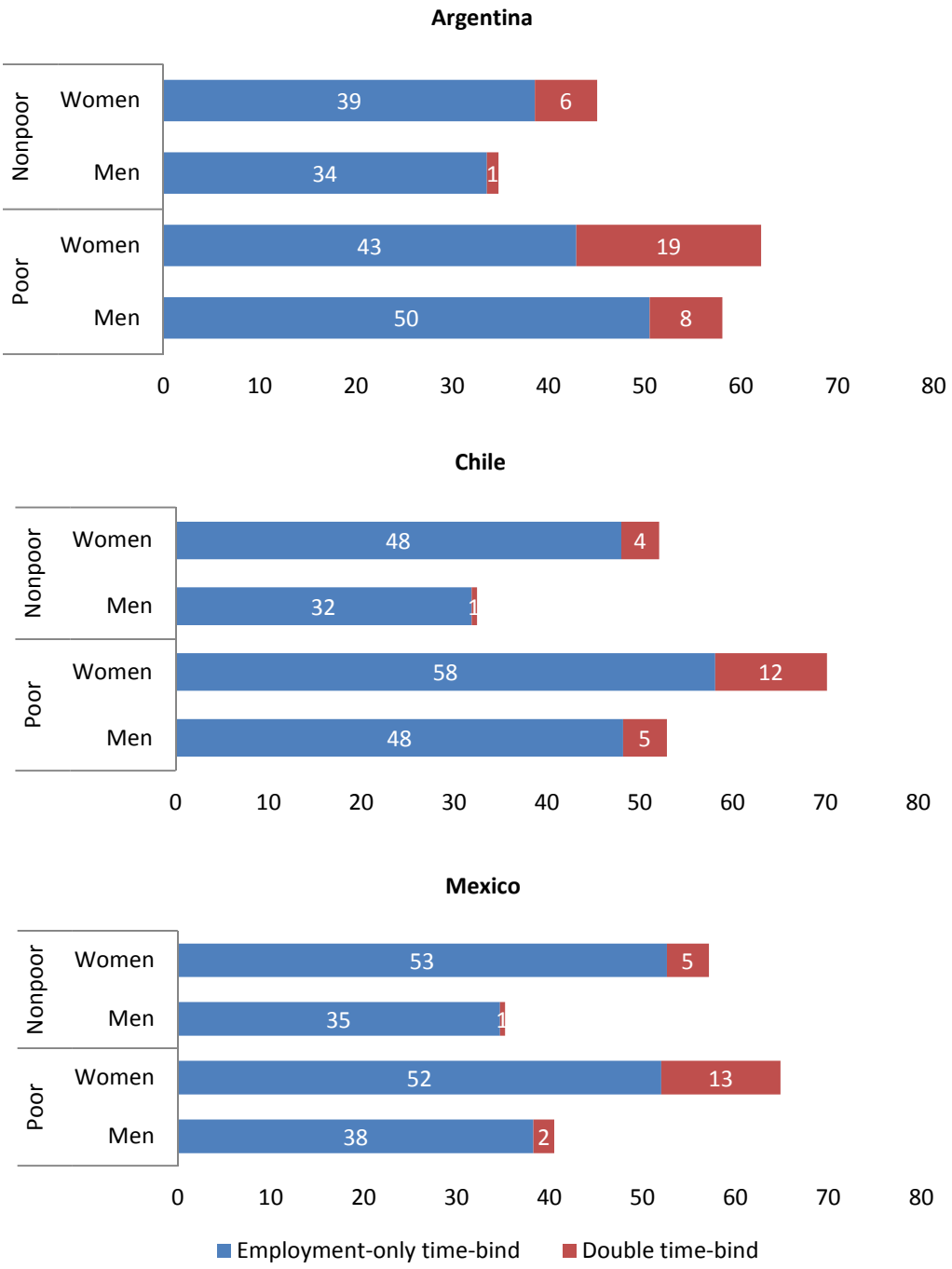
In all three countries, the time poverty rate of employed women was considerably higher than employed men in the income-poor and income-nonpoor group. However, in the income-poor group, the contribution of the employed to the overall time poverty rate (column 7) was lower for women than men because employment rate for women was lower than men by a substantial margin (column 2). If we had ignored the housework time-bind in our measurement of time poverty, we would have concluded that income-poor women faced a lower probability of suffering from time deficits than income-poor men. Taking this type of time poverty altered the picture because a nontrivial proportion of income-poor women (16, 11, and 21 percent, respectively, in Argentina, Chile, and Mexico) faced the housework time-bind. Overworked, nonemployed and being poor becomes a triple-bind for these women. The contribution of the nonemployed to the time poverty rate of income-poor women (column 6) helped bring their overall poverty rate in line with men in Argentina and Chile; in Mexico, in fact, it pushed it above the rate for men.

For adults in the income-nonpoor group, we found approximate gender parity in the contribution of employed to the overall time poverty rate in all three countries. However, the parity in this respect was the result of two separate disparities. On the one hand, among the employed, women had *higher time poverty rates* than men. On the other hand, women had *lower employment rates* than men in both the income categories (column 2). Numerically, these imbalances were sufficient to offset one another to bring about rough parity in the contribution of employed to overall time poverty rate. Women in the income-nonpoor group were also prone to the housework time-bind, though to a much lesser extent than their income-poor counterparts. Incorporating this type of time poverty in our measurement pushed the time poverty rate of income-nonpoor women decisively above that of income-poor men in both Chile and Mexico; in Argentina, its effect was more moderate.

Earlier, we had decomposed the overall time poverty rate of employed adults in time-poor households into the 'employment-only time-bind' and 'double time-bind.' (See the second term in square brackets in equation (7) and Figure 3-6). Our estimates showed that the risks of double time-bind were decidedly different by sex and income poverty status. This finding holds when we extend the scope of analysis to

include employed individuals in time-nonpoor households, too. Income-poor women faced the highest rate of double time-bind, ranging from 19 percent in Argentina to approximately 13 percent in Chile and Mexico. Income-nonpoor women registered substantially lower rates in the range of 4 to 6 percent. The percentage of men in Argentina and Chile facing the double time-bind was generally much lower within each income category; in Mexico, men in both income categories had lower incidence of double-bind than women in either group.

Figure 4-5 Decomposition of time poverty among the employed adults into 'employment-only' and 'double' time-bind



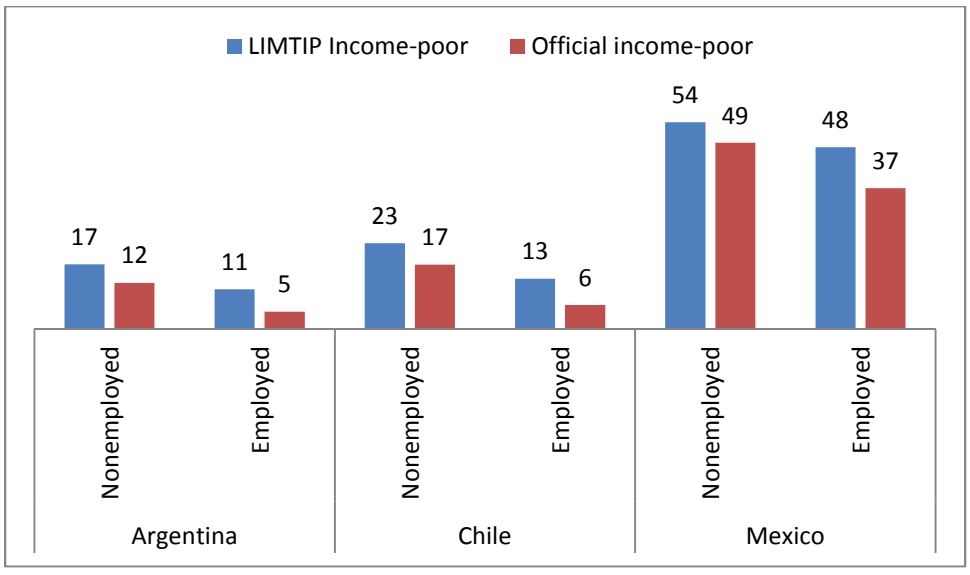
4.2 Individuals by employment characteristics

4.2.1 Employed versus nonemployed

4.2.1.1 Official versus LIMTIP income poverty

The comparison of LIMTIP and official poverty rate for employed and nonemployed adults show the same pattern we have already observed: accounting for time deficits increases measured poverty by a considerable margin (Figure 4-6). We had reported in the previous chapter that a striking point to emerge from the comparison of official and LIMTIP poverty rates was the smaller 'employment advantage.' That is, on the average, the amount (in percentage points) by which the poverty rate of employed households fell below that of nonemployed households appeared to be smaller when we reckon poverty using the LIMTIP rather than the official threshold (Figure 3-10). The reason behind this outcome is that employed households constitute the majority of the hidden poor because most people with time deficits are employed individuals. Thus, monetization of time deficits tends to have a greater effect on the poverty rate of the employed than of the nonemployed. A similar result could also be observed for the poverty rates of adults: Nonemployed adults had a much higher rate of income poverty than employed adults by either measure, but the margin is somewhat smaller when we use the LIMTIP poverty line.

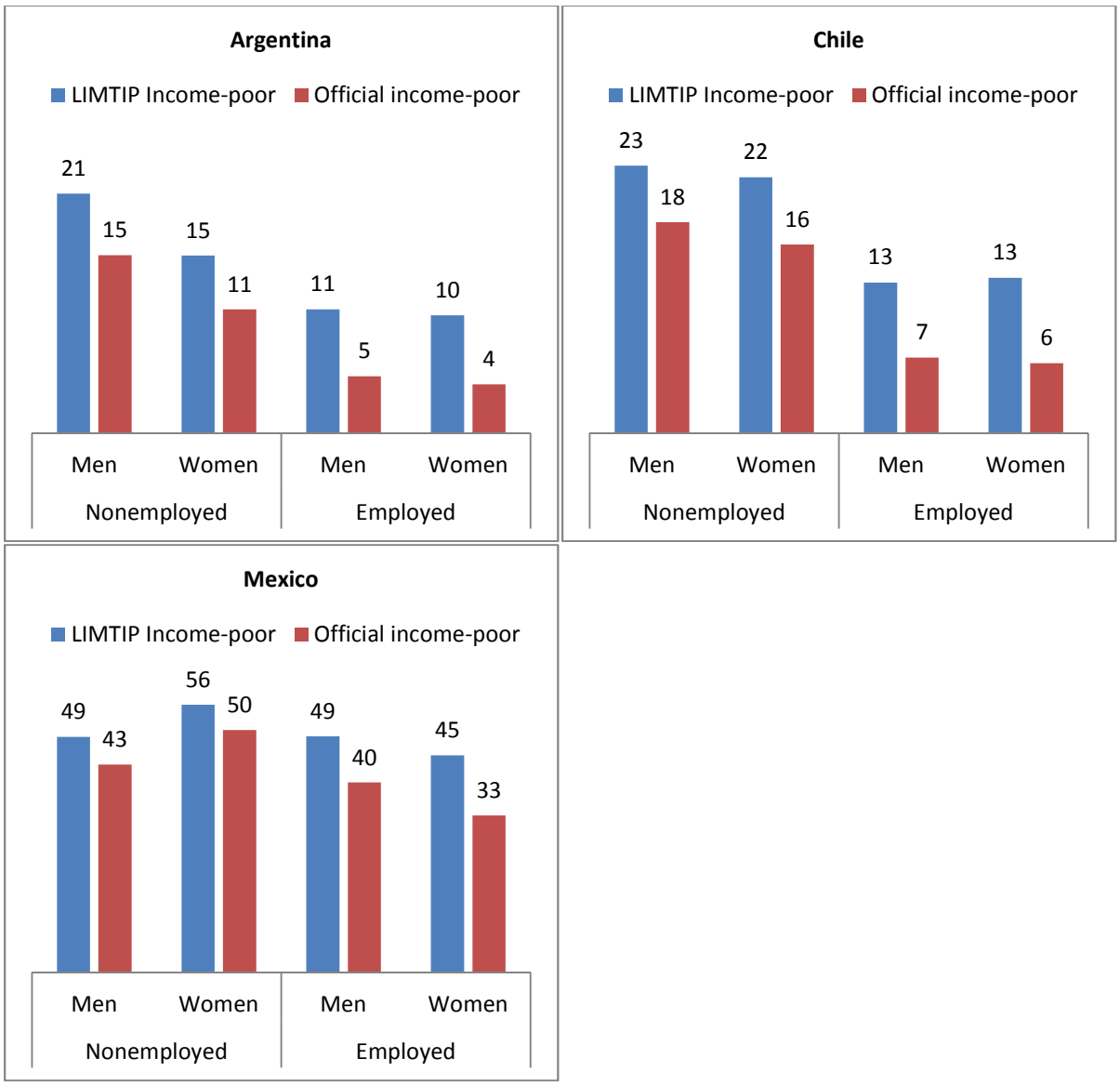
Figure 4-6 Poverty rate of employed and nonemployed adults (percent): Official versus LIMTIP



A rather curious finding that we reported earlier (Figure 3-10) for households in Mexico was that the LIMTIP income poverty rate of employed households turned out to be higher than nonemployed

households. However, the LIMTIP income poverty rate of employed persons was actually lower than nonemployed persons. The reason behind this apparent anomaly lies in the distribution of nonemployed persons across types of households and the ranking of the types of households in terms of poverty rate. As may be recalled, we considered the household as employed if the head, spouse, or both were employed. Roughly 70 percent of all nonemployed persons actually lived in employed households and the majority of them were nonemployed spouses. Further, employed households with nonemployed persons (predominantly married couple households in which only the head or spouse is employed) also tended to be more poor than dual-earner households and households headed by single, employed persons (Table 3-5). Therefore, when we group persons by their individual employment status, the proportion of poor people tends to be lower among employed people than the proportion of poor households among employed households. As a result, the poverty rate of employed persons turned out to be *lower* than employed households. Conversely, the proportion of poor people was higher among nonemployed people than the proportion of poor households among nonemployed households, and therefore, the poverty rate of nonemployed persons was *higher* than nonemployed households. It may be recalled that the official (LIMTIP) poverty rate for employed and nonemployed households was, respectively, 40 (51) and 44 (48) percent, respectively (Table 3-5). On the other hand, the official (LIMTIP) poverty rate for employed and nonemployed persons was 37 (48) and 49 (54) percent respectively (Table 3-5).

Figure 4-7 Poverty rate by sex and employment status (percent): Official versus LIMTIP



The majority of men (81 percent) and women (62 percent) in Argentina were employed. Our estimates of poverty rates showed that, among the employed, there was hardly any gender disparity in poverty rate by either measure (Figure 4-7). Among the employed men and women, LIMTIP poverty rate was roughly *double* the official rate (11 versus 5 percent for men and 4 versus 10 percent for women). Among the nonemployed too, accounting for time deficits increased measured poverty by a considerable extent for both men and women. This suggests that either they as individuals faced housework time-bind or others in their household experienced time deficits. As we found earlier for all adults (Figure 4-6), the nonemployed of both sexes had higher poverty rate than the employed. In contrast to the employed, the poverty rates for men and women were different with men registering

higher poverty rates by either measure (21 versus 15 percent by the LIMTIP and 15 versus 11 percent by the official measure). A possible explanation is that, in Argentina, a nonemployed man is less likely to be married: 57 percent of nonemployed income-poor (by either measure) men were single, while only 41 percent of nonemployed income-poor women were, so that nonemployed women were more likely to be married to a man that was earning enough to lift the household out of poverty. Given the gender difference in employment rate, it should not be surprising that, even with a lower poverty rate, the clear majority (63 percent) of the poor, nonemployed individuals were women.

A sizeable majority (77 percent) of Chilean men were employed while barely half (51 percent) of Chilean women were employed. Just as in Argentina, we found that, in Chile too, there was hardly any disparity in poverty rate by either measure between employed men and women (Figure 4-7). As we would expect, taking time deficits into account worsens the poverty rate for the employed substantially: It roughly doubled for both employed women and men to reach 13 percent. This finding resonates with the doubling of the poverty rate for the employed in Argentina. Accounting for time deficits increased measured poverty substantially for both nonemployed men and women as well, similar to what we saw for Argentina. The nonemployed of both sexes had markedly higher poverty rate than the employed, confirming once again the impoverishing effect of nonemployment. According to the LIMTIP (official) poverty line, the poverty rate for men and women were, respectively, 23 (18) and 22 (16) percent. The finding of rough gender parity in poverty rate among the nonemployed is in contrast to Argentina where nonemployed men had a higher poverty rate. Given the massive difference in employment rate between men and women, even with the roughly similar poverty rate, the great bulk (70 percent) of the nonemployed poor turned out to be women.

In terms of employment status, 81 percent of men were employed while only 44 percent of women were employed in Mexico. Unlike in Argentina and Chile where employed men and women had roughly similar poverty rates, employed men in Mexico experience a notably higher poverty rate than women (Figure 4-7). In terms of the official measure, the poverty rate for men was 40 percent, 7 percentage points higher than for women. The discrepancy was somewhat smaller in terms of LIMTIP, with men displaying a poverty rate of 49 percent, 4 percentage points higher than women. Since the official income poverty rate itself is much higher in Mexico than in the other two cases, we would not expect the proportionate increase in Mexico resulting from accounting for time deficits to be on a similar scale. However, as we have seen before in comparisons of all households and all employed households (Table 3-1 and Table 3-7), the size of hidden poor, measured as a proportion of the population (i.e., the

difference between the LIMTIP and official poverty rates), was higher in Mexico than in the other two countries. The same also holds for employed men and women in Mexico compared to the other two countries. Similar to what we saw for Argentina and Chile, taking time deficits into account also increased measured poverty for both nonemployed men and women. The positive correlation between nonemployment and poverty was starkly evident for women. We found that the official poverty rate for nonemployed women was 50 percent, a full 17 percentage points higher than employed women. In terms of the LIMTIP measure, the gap is somewhat smaller at 11 percentage points (56 versus 45 percent). Also, in contrast to Argentina and Chile, the nonemployed Mexican women faced a higher risk of poverty than nonemployed men. Another important and disturbing contrast with the other two countries is that nonemployed and employed men in Mexico appeared to have the same LIMTIP income poverty rate. This appears to be the result of the rather small gap between the two groups in the official poverty rate itself (only 3 percentage points, as compared to roughly 10 percentage points in Argentina and Chile) and the greater increase in the poverty rate of the employed than nonemployed upon accounting for time deficits. Almost 80 percent of the nonemployed poor were women as a result of their high (compared to men) nonemployment rate and poverty rate. The results are summarized in Table 4-3 in terms of the size and composition of the poor population under the LIMTIP and official poverty lines. We have also reported the estimates of the hidden poor.

Table 4-3 Number (in thousands) and composition of income-poor adults by employment status and sex

			Composition (percent)		Number		Hidden poor		
			1	2	3	4	5	6	7
Country	**Employment status**	**Sex**	**Official poor**	**LIMTIP poor**	**Official poor**	**LIMTIP poor**	**Number**	**Share (percent)**	**Percent of official poor**
Argentina	Nonemployed	Men	21	15	28	37	10	9	35%
		Women	33	26	45	64	19	18	44%
	Employed	Men	26	32	35	77	42	38	118%
		Women	20	27	27	65	38	35	142%
	All		**100**	**100**	**135**	**243**	**109**	**100**	**81%**
Chile	Nonemployed	Men	18	14	73	93	20	8	27%
		Women	41	34	164	222	58	23	36%
	Employed	Men	24	29	96	192	96	38	100%
		Women	16	22	65	144	79	31	122%
	All		**100**	**100**	**398**	**651**	**253**	**100**	**64%**
Mexico	Nonemployed	Men	9	9	2,486	2,817	332	6	13%
		Women	36	32	9,640	10,655	1,015	18	11%
	Employed	Men	37	38	9,934	12,357	2,423	43	24%
		Women	19	21	5,035	6,965	1,930	34	38%
	All		**100**	**100**	**27,095**	**32,795**	**5,700**	**100**	**21%**

The estimates reveal two striking implications of accounting for time deficits in the measurement of poverty. First, employed persons constituted a greater proportion of the poor under the LIMTIP poverty line than the official poverty line. This is clearly indicated by the fact that the percentage increase in the poor from the official definition to the LIMTIP definition (shown in the last column of the table) was far higher for employed individuals than for nonemployed in all three countries. In Argentina, the employed was 46 percent of the official income-poor and 58 percent of the LIMTIP income-poor; in Chile, the percentages were respectively 40 versus 52 percent; and in Mexico, the percentages were 55 and 59 percent. Income poverty thus appears to be not just as a lack of employment alone; it is also equally a question of people working for below-subsistence wages. Indeed, the availability of workers willing to work at below subsistence wages is partly a function of the existence of the poor nonemployed. To be successful, antipoverty policies will have to address both roots of poverty. Second, women account for a larger share of the employed poor when time deficits are taken into account. Our estimates showed that, in all three countries, the proportionate increase in the number of poor (shown in the last column

of the table) was the largest for employed women. The share of employed women in the total number of employed poor increased from 43 to 46 percent in Argentina, 40 to 43 percent in Chile, and 34 to 36 percent in Mexico, once time deficits were taken into account. Men constituted the majority of the employed poor in Argentina and Chile only because, due to their higher employment rate, they were a large proportion of the employed; as we noted, the poverty rates for employed men and women were roughly identical in both these countries. In Mexico, however, the higher poverty rate of employed men also played a role in making them the majority of the employed poor.

4.2.1.2 The LIMTIP classification of employed and nonemployed adults

Nearly three-quarters of all nonemployed men and women were neither time-poor nor income-poor in Argentina (Table 4-4). The bulk of the remaining nonemployed was in the income-poor, time-nonpoor category. As we would expect, only a relatively (relative, that is, to the employed) small proportion (12 percent) of the income-poor nonemployed individuals suffer from time poverty, and, as we have already shown (Table 4-2), these are primarily women subject to the housework time-bind. The household production constraints are clearly stacked against women even when both genders are nonemployed. A little over half of all employed adults did not encounter time or income deficits. This is a lower proportion than among the nonemployed. The difference can be explained by the fact that the employed have a much higher time poverty rate. A lower share of employed women than employed men were in the category with no deficits (58 versus 49 percent) because of their higher time poverty rate. The incidence of the double-bind of income and time poverty was almost the same among men and women (6 percent).

Table 4-4 Distribution of adults by LIMTIP classification of income and time poverty according to employment status and sex (percent)

Country	Employment status	Sex	Income- and time-poor	Income-poor and time-nonpoor	Income-nonpoor and time-poor	Income-nonpoor and time-nonpoor	Total
Argentina	Nonemployed	Men	1	20	3	76	100
		Women	2	13	8	77	100
	All nonemployed		*2*	*15*	*7*	*76*	*100*
	Employed	Men	6	5	31	58	100
		Women	6	4	40	49	100
	All employed		*6*	*4*	*35*	*54*	*100*
Chile	Nonemployed	Men	0	23	0	76	100
		Women	2	20	6	72	100
	All nonemployed		*2*	*21*	*4*	*73*	*100*
	Employed	Men	7	6	28	59	100
		Women	9	4	45	41	100
	All employed		*8*	*5*	*35*	*51*	*100*
Mexico	Nonemployed	Men	1	48	0	51	100
		Women	12	44	5	39	100
	All nonemployed		*9*	*45*	*4*	*42*	*100*
	Employed	Men	20	29	18	33	100
		Women	29	16	31	24	100
	All employed		*23*	*24*	*23*	*29*	*100*

In Chile too, nearly three quarters of all nonemployed men and women did not encounter time or income deficits. Confirming our earlier estimates of almost nonexistent time poverty among nonemployed men (Table 4-2), we found that virtually all of the remaining nonemployed men were in the income-poor and time-nonpoor category. In contrast, about 8 percent of the women fell into the two time-poor categories (6 percent in the income-nonpoor and 2 percent in the income-poor categories). Nearly half of all employed adults were neither income nor time-poor. The higher incidence of time poverty among the employed explains why the share of this category is lower for the employed than the employed. Among the employed, as we have seen before, women were more prone to time poverty than men. This fact accounted for the higher proportion of those with neither time nor income deficits among men than women (59 versus 41 percent). Unlike in Argentina, the proportion of employed women suffering from both income and time deficits was somewhat higher than employed men (9 versus 7 percent).

Compared to the other two countries, the proportion of nonemployed adults in the income-nonpoor, time-nonpoor category was considerably smaller in Mexico (42 percent)—a reflection of the much higher income poverty among the nonemployed in that country. Nonemployed men had a higher share in this category than nonemployed women (51 versus 39 percent). This can be explained by the lower rate of income poverty and practically nonexistent time poverty among men. Consistent with the latter, the remainder (49 percent) of nonemployed men was located almost entirely in the income-poor and time-nonpoor category. The relatively high percentage of nonemployed women in the income-poor, time-poor category indicates that the triple-bind of overwork (in household production), nonemployment, and income poverty hit women in Mexico particularly hard compared to the other two countries. The proportion of employed adults with neither income nor time deficits was also lower in Mexico compared to the other two countries, once again, a reflection of the much higher rate of income poverty among the employed. Employed women had a notably lower share of individuals with no deficits than employed men (24 versus 33 percent). Just as in the other two countries, the higher rate of time poverty among employed women accounted for this disparity. The difference between the sexes in the share of those facing the double disadvantage of income and time poverty (29 percent for women versus 20 percent for men) was much larger than in the other two countries.

4.2.2 Employed persons by earnings quintile

4.2.2.1 Official versus LIMTIP income poverty

The increase in measured poverty that occurs when time deficits are accounted for naturally implies that individuals from relatively higher (relative, that is, to the official poverty line) rungs of the income distribution are considered as poor under the LIMTIP definition. Since earnings are the principal source of household income for the vast majority of employed households, particularly for the income-poor households, the income poverty status of the household is largely a function of its earnings. For the employed population, low earnings and income poverty generally go hand in hand. When the monetized value of time deficits is added to the poverty line, this puts people with time deficits at higher rungs of earnings also susceptible to income poverty. As a result, poor people would be spread across a larger portion of the earnings distribution: The proportion of poor people in the lower rungs of the earnings distribution would decline and the proportion of those in the higher rungs would increase, relative to their proportions in the official income-poor population. The extent of the difference would, obviously, depend on how many additional people, relative to the official-poor population, enter the ranks of the

LIMTIP income-poor, i.e., it depends on the size of the hidden poor, expressed as a percentage of the official-poor.

Table 4-5 Distribution of income-poor employed adults (18 to 74 years) by earnings quintile (percent)

Country	Poverty line	Earnings quintile					Total
		1	2	3	4	5	
Argentina	Official	66	23	10	1	0	100
	LIMTIP	46	28	21	4	0	100
Chile	Official	59	31	10	0	0	100
	LIMTIP	46	35	17	3	0	100
Mexico	Official	31	31	24	13	1	100
	LIMTIP	27	29	25	16	3	100

Note: Quintiles of monthly earnings computed for all employed individuals with nonnegative earnings in the samples (i.e., households with at least one adult 18-74 years).

The estimates reported in Table 4-5 confirm our expectations. Reading across any given row labeled 'Official' in the table shows that the majority of the employed, officially income-poor are drawn from the first two quintiles (i.e., the bottom 40 percent) of the earnings distribution.[47] In Argentina and Chile, roughly 90 percent of all employed poor are in the bottom two quintiles; in Mexico, where poverty is far more rampant, their share was lower at 62 percent. Accounting for time deficits in poverty assessment, i.e., using the LIMTIP poverty line, lowers their share considerably in both Argentina and Chile as they now constitute 74 and 81 percent, respectively. As a corollary, a substantial share of the LIMTIP income-poor in Argentina and Chile consists of persons with 'middle class' wages, i.e., persons from the third (middle) quintile of the earnings distribution. In Mexico, as we noted above, the official measure itself encompassed among the poor a nontrivial number of persons with 'middle class' wages. With the LIMTIP poverty line, the increase took place at the fourth quintile (from 13 to 16 percent) and to a lesser extent, even at the highest quintile (1 to 3 percent). In light of our earlier finding that the hidden poor (expressed as a percentage of official poor, see Table 4-3) was much larger in Argentina and Chile than in Mexico, it is not surprising that the difference in the distribution of the poor across the earnings distribution between the official and LIMTIP measures is less pronounced in Mexico. The difference between the official and LIMTIP poverty lines can thus be seen in the fact that the LIMTIP income-poor population has a higher share of persons from the upper quintiles of the earnings distribution.

[47]We must consider this in light of the well-known inequality in earnings: the share of the bottom 40 percent of earners in aggregate earnings was 12, 11, and 8 percent in, respectively, Argentina, Chile, and Mexico.

Detailed information on the gender composition of the poor and gender differentials in poverty rates by earnings quintile are shown in Table 4-6. We have also reported in the table the proportion of men and women by earnings quintile in the total number of employed persons in each country.

Table 4-6 Poverty rate and composition of the poor by earnings quintile and sex

	Percent of employed	Poverty rate (percent)		Percent of the poor	
		Official	LIMTIP	Official	LIMTIP
Argentina					
Q1-Men	6	25	36	30	19
Q1-Women	11	15	26	36	27
Q2-Men	8	10	22	18	18
Q2-Women	10	2	11	5	11
Q3-Men	13	3	11	8	14
Q3-Women	10	1	7	2	7
Q4-Men	13	0	3	1	4
Q4-Women	9	0	1	0	1
Q5-Men	14	0	0		
Q5-Women	7	0	0		
Chile					
Q1-Men	7	25	36	29	20
Q1-Women	11	17	30	30	25
Q2-Men	12	13	25	23	22
Q2-Women	9	5	18	7	13
Q3-Men	12	4	14	7	13
Q3-Women	8	2	7	3	4
Q4-Men	13	0	2	0	3
Q4-Women	8	0	1	0	2
Q5-Men	14	0	0		
Q5-Women	6	0	0		
Mexico					
Q1-Men	8	74	80	16	13
Q1-Women	9	60	71	15	14
Q2-Men	11	67	77	20	17
Q2-Women	9	45	63	11	12
Q3-Men	13	49	62	18	18
Q3-Women	7	30	48	6	7
Q4-Men	15	29	43	12	13
Q4-Women	6	10	22	2	3
Q5-Men	15	3	7	1	2
Q5-Women	6	1	3	0	0

Looking first at the estimates of Argentina, we can see that the LIMTIP adjustment renders the poverty picture among low-wage workers bleaker. For men and women in the lowest quintile, the official poverty rate was, respectively, 25 and 15 percent, compared to the LIMTIP poverty rate of 36 and 26 percent. Large increases in the poverty rate were also found in the second quintile. Official poverty rate for men and women was, respectively, 10 and 2 percent, as against 22 and 11 percent under the LIMTIP poverty line. We noted above that about 21 percent of the LIMTIP poor were persons with middle-class wages, i.e., from the third quintile, as compared to only 10 percent of the official poor. What lies behind this change is the dramatic increase in the poverty rate of men and women in the third quintile when time deficits are accounted for: from 3 to 11 percent for men, and from 1 to 7 percent for women. The single largest group of employed poor was women in the bottom of the earnings distribution. They accounted for 36 percent of the official poor and 27 percent of the LIMTIP poor. This is a result of the gender disparity in earnings; i.e., women are disproportionately represented in the bottom quintile. Therefore, even though men have a higher poverty rate in the bottom quintile, in terms of absolute numbers, there are more poor women than poor men in the bottom quintile. The position for the second largest group is almost a tie between men from the bottom two quintiles (roughly 19 percent).

The results for Chile are qualitatively similar. Low-wage workers are far more prone to poverty than recognized by the official poverty measure. We found that for those in the lowest quintile, the increase in the poverty rate was from 25 to 36 percent for men and 17 to 30 percent for women. Striking increases occurred for those in the second quintile, too. According to the official poverty measure, only 13 percent of men and 5 percent of women in that quintile were poor. In contrast, the LIMTIP measure showed that 25 and 18 percent, respectively, of men and women in the second quintile were poor. Similar to Argentina, we had found that in Chile, too, the percentage of those with middle class wages in the pool of poor people increased (from 10 to 17 percent) when time deficits were taken into account. Just as in Argentina, this was the result of sharply higher poverty rates among men (14 versus 4 percent) and women (7 versus 2 percent) in the third quintile. Once again, similar to Argentina, the largest single group of employed LIMTIP poor was women in the lowest quintile (25 percent), in spite of their lower poverty rate than men in the same quintile, reflecting the fact that women outnumber men by a considerable margin in the lowest quintile.

The poverty picture of low-wage workers in Mexico was quite grim according to official measure itself. Approximately, only one out of four was officially not in income poverty among men in the bottom quintile. With the LIMTIP adjustment, this proportion shrank to one out of five. Among women in the

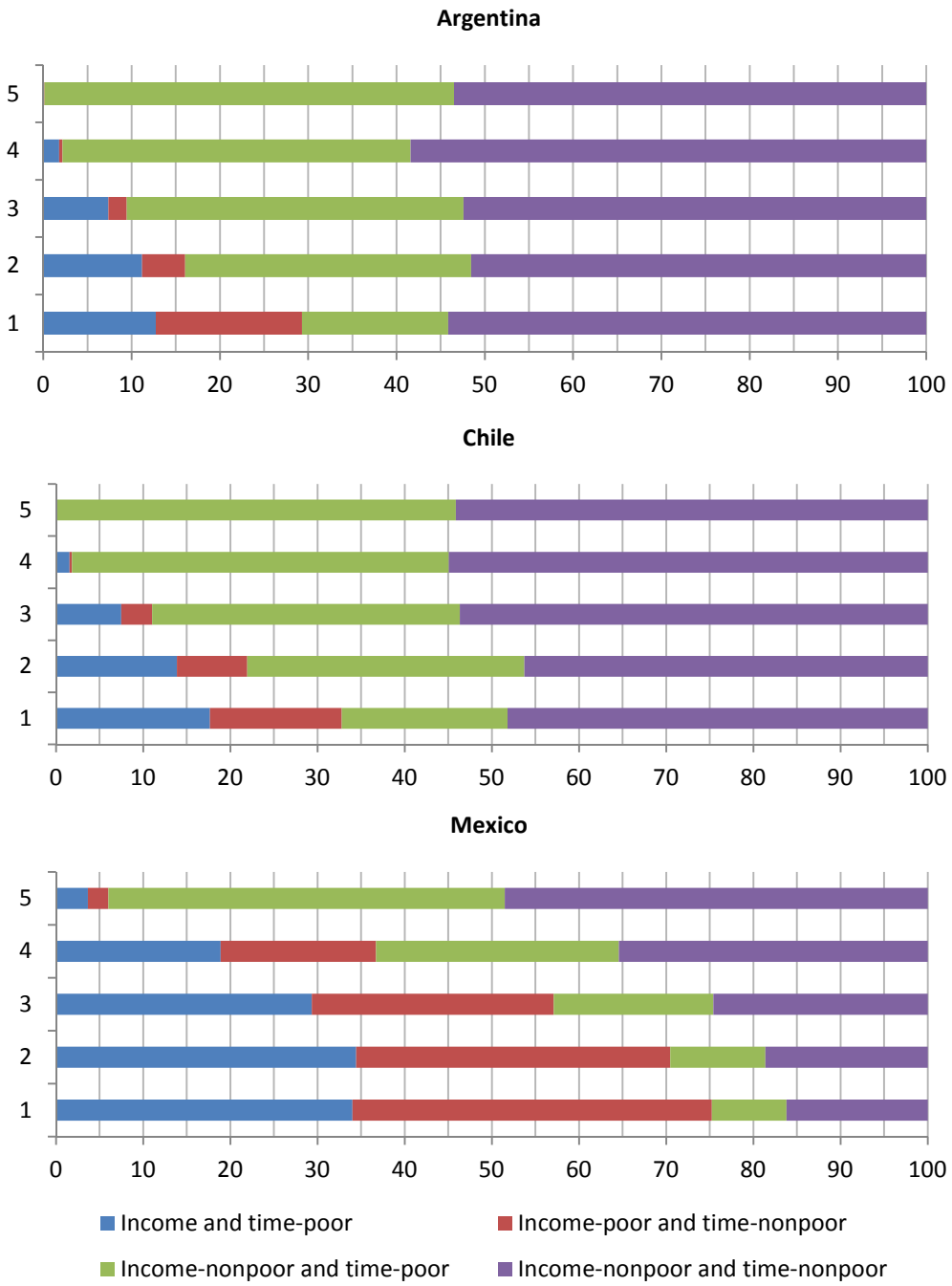
bottom quintile, as in the other two countries, the poverty rate was lower than men (60 and 71 percent under, respectively, the official and LIMTIP poverty line). With time deficits accounted for, men in the second quintile saw their measured poverty rate increase by 10 percentage points to 77 percent, while the increase for women was by the order of 18 percentage points to 63 percent. A decisive majority of men (62 percent) and nearly half of women (48 percent) with middle class wages lived in households with income below the LIMTIP poverty line. Their official poverty rates were, respectively, 49 and 30 percent. Large changes could also be observed in the fourth quintile, with as much as 43 percent of men under the LIMTIP poverty line, compared to 'only' 29 percent under the official line. For women in the fourth quintile, too, the change was notable as their LIMTIP poverty rate (22 percent) was more than double their official poverty rate. Unlike in the other two countries, the largest single group among the employed poor was men in the third quintile (18 percent), followed closely by men in the second quintile (17 percent). We had already discussed the reasons as to why, in Mexico compared to the other two countries, the share of women in employed poor was lower (see the discussion following Table 4-3). As we pointed out, this was the result of both the lower share of women in the total number of employed persons, as well as their lower poverty rate.

The evidence presented in Table 4-6 showed that men had higher poverty rates than women in every quintile with poor people in Argentina and Chile. This can be reconciled with our earlier finding (Table 4-3) that as a whole employed men and women had practically similar poverty rates once we take into account the gender disparities in earnings. As can be seen for Argentina (Table 4-6, column 1), the highest quintile had no poor people, but it contained double the number of men than women. A similar skewed pattern favoring men can also be seen in the fourth quintile. In contrast, the number of men in the bottom quintile was just a little over half of the number of women in the same quintile. The Chilean data also showed the same pattern. Arithmetically, the higher representation of men in the higher rungs of earnings distribution happened to be offset by their higher poverty rates in the lower quintiles and the opposite was the case with women. Thus, the rough gender parity in poverty rate among the employed is partly a reflection of the gender divide in earnings rather than an indication of its absence.

4.2.2.2 The LIMTIP classification of employed by earnings quintile

We begin with a brief summary of the broad patterns in the three countries under study. This is followed by a closer examination of the two income-poor groups (time-poor and time-nonpoor) within each individual country. Finally, we summarize the findings for the income-poor groups across all countries.

Figure 4-8 LIMTIP classification of employed adults by earnings quintile



Note: Quintile 1 is the bottom quintile and quintile 5 is the top quintile.

The results reported in Figure 4-8 indicate the following broad patterns regarding the joint distribution of income and time poverty across the quintiles of earnings. In all cases, the incidence of the double-bind—the percentage of people that are time and income-poor—falls as we move from the bottom to

the higher quintiles. This is a reflection of the earlier relationship that we saw: the inverse relationship between the incidence of income poverty and earnings. Notably, the decline between the bottom and second quintile is rather small suggesting that the vulnerability to the double-bind is the same, on the average, for the 40 percent of the earnings distribution. *This is true for all three countries*. For Argentina and Chile, a large reduction in the incidence can be observed as we move to the third quintile, and it becomes negligible in the fourth quintile, and virtually nonexistent in the top quintile. In Mexico, the vulnerability to double-bind is certainly lower for the middle quintile than for the bottom two quintiles, but the reduction is less pronounced than in the other two countries. Notable reduction occurs when we move to the fourth quintile and becomes negligible only in the top quintile. The different pattern in Mexico is accounted for by the fact that income poverty rate is rather high (compared to the other two countries) even in the middle and fourth quintiles.

The percentage of people who are income-poor but time-nonpoor is also higher in the lower quintiles than in the higher quintiles. Again, this is to be expected given that those in the higher rungs of the earnings distribution are less prone to income poverty. But, in this case (unlike the incidence of double-bind), in Argentina and Chile, the decline in the incidence is quite sharp between the first and second quintiles, becomes small in the third quintile, and almost absent in the top 40 percent. In Mexico, on the other hand, the reduction in the percentage of this group across the quintiles is more gradual and becomes trivial only in the top quintile. This is once again a reflection of the fact that income poverty rate in Mexico is rather high (compared to the other two countries) even in the middle and fourth quintiles.

We found that the percentage of people with time deficits and without income deficits rises as we move from the lower to the higher quintiles. This is partly a reflection of the fact that income poverty declines as we move up the earnings distribution. In Argentina and Chile, the jump is fairly large as we move from the first to the second quintile, but less so between second and third quintile. In Mexico, on the other hand, there is only a small increase. The sharp increase in the time poverty rate among the income-nonpoor from the first to the second quintile in Argentina and Chile on the one hand, and the rather small increase in Mexico, on the other hand, accounts for the observed difference. In all three countries, the top quintile had a higher percentage of people with no income deficits and time deficits than the middle quintile—a reflection of the lower time poverty rate of the latter group. In Argentina, there was almost no change between the third and fourth quintiles in the relative frequency of people with time deficits and without income deficits, while in the other two countries, it showed an increase.

The percentage of people with neither income nor time deficits remains pretty stable across earnings quintiles compared to the percentage of the other three LIMTIP groups in Argentina and Chile. In Mexico, the percentage of people with neither time nor income deficits grew as we moved from the lower to the higher quintiles. Since the time poverty rate remained roughly constant across the quintiles in Mexico, the positive correlation stems entirely from the reduction in income poverty that occurs as we move from the lower to the higher rungs of the earnings distribution.

We now turn to a closer look at the income-poor groups, paying special attention to the gender dimension of income and time poverty in the three countries.

Table 4-7 LIMTIP classification of employed persons by earnings quintile and sex: Argentina

	Income and time-poor	Income-poor and time-nonpoor	Income-nonpoor and time-poor	Income-nonpoor and time-nonpoor	Total
Lowest	**13**	**17**	**17**	**54**	**100**
Men	12	23	9	56	100
Women	13	13	21	53	100
Second	**11**	**5**	**32**	**52**	**100**
Men	15	8	22	56	100
Women	8	3	41	48	100
Third	**7**	**2**	**38**	**52**	**100**
Men	8	3	31	58	100
Women	6	1	47	46	100
Fourth	**2**	**0**	**39**	**58**	**100**
Men	3	1	34	63	100
Women	0	0	52	47	100
Highest	**0**	**0**	**46**	**53**	**100**
Men	0	0	43	56	100
Women	0	0	52	47	100

We have already seen that the incidence of the double-bind of income and time poverty was identical (6 percent each) for employed men and women in Argentina (Table 4-4). The estimates reported in Table 4-7 show that the incidence of double bind was twice as high among those in the lowest quintile of earnings. However, since there were far more women than men in the lowest quintile, two-thirds of those in the lowest quintile facing the double-bind were women. The lowest quintile accounted for 33 percent of all the employed in the double-bind. Men in the second quintile faced a much higher

incidence than their female counterparts (15 versus 8 percent). Yet, once again, as a result of the greater number of women in this quintile, too, women constituted 41 percent of those in the second quintile who faced the double-bind. Men and women in the second quintile together accounted for 33 percent of those in the double-bind. Men faced a slightly higher incidence of the double-bind in the third quintile and were 63 percent of those in the middle quintile facing the double-bind. The higher incidence combined with the fact that men outnumbered women in the third quintile brought about this outcome. The third quintile accounted for 27 percent of those in double-bind. The remainder (6 percent) in double-bind was drawn almost exclusively from men in the fourth quintile. It is striking that roughly a third of those in the double-bind have earnings that place them squarely in the 'middle-class'. The evidence also points to the fact that men would benefit as much as women from policies to alleviate the double-bind in Argentina, as they made up a narrow majority (53 percent) of those in double-bind.

There was rough gender parity in the proportion of employed men and women who were income-poor and time-nonpoor in Argentina (about 5 percent for each). However, the proportion was far higher among the lowest quintile at 23 percent for men and 13 percent for women. This is not surprising given the correlation that we have already seen between low wages and higher poverty. But, given the large disparity in the number of men and women in the lowest quintile, women actually formed the majority (53 percent) of people who were income-poor and time-nonpoor in that quintile. Together, men and women in the lowest quintile made up nearly two-thirds (65 percent) of all income-poor and time-nonpoor employed people. The proportion of people in the second quintile who were income-poor and time-nonpoor was exactly the same as the proportion among all employed (5 percent). However, the incidence was higher among men in the second quintile than women (8 versus 3 percent) and men made up roughly 69 percent of the income-poor and time-nonpoor people in that quintile. The second quintile accounted for 22 percent of all employed income-poor and time-nonpoor people. The remainder (12 percent) of income-poor and time-nonpoor people was mainly men from the third quintile. Overall, 57 percent of income-poor and time-nonpoor people were men.

As reported earlier (Table 4-4), in Chile, we had found that a slightly higher proportion of employed women than men were in the double-bind of income and time poverty (9 versus 7 percent). As we would expect, incidence was the highest for the lowest quintile (Table 4-8). Unlike in Argentina, a higher proportion of women than men (19 versus 16 percent) were in the double-bind in the lowest quintile. Women formed the majority in the lowest quintile. Hence the higher incidence meant that they also constituted the majority of those in the double bind in that quintile (64 percent). Together, the men and

women in the lowest quintile constituted 41 percent of all persons affected by the double-bind. In the second quintile, we found lower incidence of the double-bind, and, once again, unlike Argentina, women were more prone to it than men (15 versus 13 percent). Men outnumbered women in the second quintile. The gender difference in incidence, however, ensured that nearly half of the persons affected by the double-bind in the second quintile were women. All together, the second quintile accounted for 37 percent of all employed persons in time and income poverty. Unlike in the first two quintiles, in the third quintile, women had a lower incidence of double-bind than men (5 versus 9 percent). They also accounted for less of the people in the third quintile and, as a result, their share of those in that quintile facing the double-bind was only 26 percent. The third quintile accounted for nearly one-fifth (19 percent) of all employed people in double-bind. The remainder (about 3 percent) of those in double-bind was found mainly among men in the fourth quintile. Just as in Argentina, a rather substantial share (22 percent) of those in the double-bind was workers earning middle class wages. Also, the workers in the double-bind were evenly divided across the sexes, pointing to the fact both would be helped by policies that would alleviate the burden of the double day.

Table 4-8 LIMTIP classification of employed persons by earnings quintile and sex: Chile

	Income- and time-poor	Income-poor and time-nonpoor	Income-nonpoor and time-poor	Income-nonpoor and time-nonpoor	Total
Lowest	**18**	**15**	**19**	**48**	**100**
Men	16	20	11	52	100
Women	19	12	24	45	100
Second	**14**	**8**	**32**	**46**	**100**
Men	13	12	21	54	100
Women	15	3	45	37	100
Third	**7**	**4**	**35**	**54**	**100**
Men	9	5	24	62	100
Women	5	2	53	40	100
Fourth	**2**	**0**	**43**	**55**	**100**
Men	2	0	33	64	100
Women	0	0	53	47	100
Highest	**0**	**0**	**46**	**54**	**100**
Men	0	0	42	58	100
Women	0	0	53	47	100

The proportion of individuals who were income-poor and time-nonpoor in Chile was slightly higher for employed men than women (6 versus 4 percent). In the lowest quintile, the incidence as well as the disparity was much higher (just as we had observed for Argentina). About 20 percent of men and 12 percent of women in the lowest quintile were income-poor but time-nonpoor. Even though women outnumber men in the lowest quintile, the disparity in incidence was large enough to make men the majority of those who were income-poor and time-nonpoor in that quintile (54 percent). Workers in the bottom quintile made up over half of all the income-poor, time-nonpoor employed people (53 percent) in Chile. Among the workers in the second quintile, the proportion of the income-poor, time-nonpoor group was lower than in the first quintile. Men had a much higher incidence than women, as in the case of Argentina (12 versus 3 percent). Men also outnumbered women in the second quintile. In combination with their higher incidence, men made up 84 percent of income-nonpoor, time-poor persons in the second quintile. The second quintile, as a whole, accounted for 32 percent of all the income-poor, time-nonpoor employed people. The third quintile had a lower share of income-poor, time-nonpoor people than the first two quintiles. Just like the bottom two, however, men continued to have a higher incidence than women (5 versus 2 percent) and constituted the clear majority (83 percent) of income-poor, time-nonpoor individuals in the third quintile. Altogether, workers with middle class wages constituted about 14 percent of all income-poor, time-nonpoor workers in Chile. Overall, 68 percent of income-poor, time-nonpoor workers were men, a larger proportion than in Argentina.

We had reported earlier (Table 4-4) that about 23 percent of all employed persons were in the double-bind of income and time poverty in Mexico. As we have seen for the other two countries, the incidence of the double-bind was much higher among the bottom 40 percent of earners. Unlike the other two countries, the incidence showed no decline in Mexico from the bottom to the second quintile. Roughly a third of all workers in the first two quintiles suffered from income and time poverty. The incidence was notably higher among women than men in the bottom two quintiles, unlike in Argentina, and the disadvantage faced by women relative to men (40 versus 29 percent) was far higher than in Chile. Women also constituted the majority of those afflicted by the double-bind in the first quintile (64 percent) and the second quintile (53 percent). The lower share of women in the second quintile is a reflection of their lower share in the number of workers in that quintile. Altogether, the first and second quintiles each accounted for29 percent of all employed persons in double-bind. The incidence of the double-bind was lower for the workers in the middle quintile than in the bottom two quintiles, but not by a large margin (29 versus 34 percent). The gender disparity was evident also in the third quintile as the incidence was higher for women than men (36 versus 26 percent). This is quite unlike Chile and

Argentina where men in the middle quintile faced higher rates of double-bind than women. However, men constituted the majority (57 percent) of the workers in the middle quintile suffering from the double-bind because their lower incidence was offset to some extent by the fact that men outnumber women in the middle quintile. Workers in the middle quintile made up 24 percent of all workers in the double-bind in Mexico. As we would expect, workers in the fourth quintile faced a lower incidence of double-bind than those in the quintiles below them (19 percent). The prevalence of double-bind in this quintile was confined to men, who accounted for 75 percent of those facing the double-bind in the fourth quintile. Workers in the fourth quintile made up 16 percent of all workers in the double-bind in Mexico. Our estimates showed that workers in the third and fourth quintiles together made up 43 percent of all employed persons in the double-bind, suggesting the truly pervasive nature of the problem for most Mexican workers, except for those at the very top of the wage distribution. Overall, the workers in double-bind were slightly more male (53 percent) than female (47 percent), again suggesting that the issue cuts across the gender line in Mexico.

Table 4-9 LIMTIP classification of employed persons by earnings quintile and sex: Mexico

	Income- and time-poor	Income-poor and time-nonpoor	Income-nonpoor and time-poor	Income-nonpoor and time-nonpoor	Total
Lowest	**34**	**41**	**9**	**16**	**100**
Men	27	54	4	15	100
Women	40	31	12	17	100
Second	**34**	**36**	**11**	**19**	**100**
Men	29	48	6	18	100
Women	41	22	18	20	100
Third	**29**	**28**	**18**	**25**	**100**
Men	26	36	11	27	100
Women	36	12	31	21	100
Fourth	**19**	**18**	**28**	**35**	**100**
Men	20	23	19	38	100
Women	2	1	62	35	100
Highest	**4**	**2**	**45**	**49**	**100**
Men	4	3	38	54	100
Women	2	1	62	35	100

The proportion of employed individuals who were income-poor and time-nonpoor in Mexico was about 24 percent, with men facing a markedly higher incidence than women (29 versus 16 percent). As in the

case of Argentina and Chile, we found that, in the lowest quintile, the incidence as well as the disparity was much higher. About 54 percent of men and 31 percent of women in the lowest quintile were income-poor and time-nonpoor. Just as we saw with Chile, the higher incidence among men was large enough to make them the majority (59 percent) of those who were income-poor and time-nonpoor in that quintile. Workers in the bottom quintile were 29 percent of all the income-poor, time-nonpoor employed people in Mexico. As in the other two countries, among the workers in the second quintile, the proportion of the income-poor, time-nonpoor group was lower than in the first quintile. Also, as in the other two countries, men had a much higher incidence than women (48 versus 22 percent). Men made up 73 percent of income-nonpoor, time-poor persons in the second quintile as a combined effect of their higher incidence and higher number of workers in the second quintile. The second quintile, as a whole, made up 29 percent of all the income-poor, time-nonpoor employed people. As in the other two countries, the third quintile had a lower share of income-poor, time-nonpoor people than the first two quintiles. Just like in the bottom two quintiles, however, men continued to have a higher incidence than women (36 versus 12 percent) and constituted the clear majority (85 percent) of income-poor, time-nonpoor individuals in the third quintile. Altogether, workers in the middle quintile constituted about 24 percent of all income-poor, time-nonpoor workers in Mexico. Unlike in the other two countries, a relatively high proportion (18 percent) of employed people in the fourth quintile were also in the income-poor, time-nonpoor group, mainly because of the prevalence of this group among men. In fact, men constituted 91 percent of all income-poor, time-nonpoor persons in the fourth quintile. Overall, 75 percent of income-poor, time-nonpoor workers were men, a larger proportion than in Chile and Argentina.

Some salient points emerge from our description of the relationships between earnings distribution, time poverty, and gender disparities. Women workers formed the majority, in all three countries, of the group that perhaps may be described as the worst-off according to our measure: income-poor, time-poor, and belonging to the bottom of the earnings distribution. This was the result of the overrepresentation of women in the lowest quintile of earnings and the higher incidence of the double-bind among women. Gender disparities in earnings thus accentuate the income and time deprivations faced by women workers.

However, taken as a whole, workers in double-bind were divided approximately evenly across the sexes. To us, this suggests that public action to alleviate the burdens of time and income poverty can and should be based on alliances that cut across the gender line. We also found that, in Argentina and Chile,

a substantial share of workers in double-bind actually earned 'middle class' wages; i.e., they belonged to the third quintile of the distribution of earnings. Hence, public action seeking to roll back the double burden can and should be built on solidarity between low-wage and middle-wage workers. The Mexican situation is, of course, different from that in Buenos Aires and Greater Santiago. The fact that nearly 37 percent of Mexican workers in the *fourth* quintile of the earnings distribution were income-poor indicates that the country does not have a sizeable middle class working population. In this context, public action to combat time and income poverty can and should be based on a much broader solidarity of the vast majority of employed poor, since only a minority, mostly belonging to the top 20 percent of the earnings distribution, appears to escape the grip of income poverty.

Men formed the majority of poor workers who were time-nonpoor in every quintile of the earnings distribution.[48] Their lack of time deficits could be the result of diverse circumstances. An important circumstance is underemployment. However, our calculations showed that the average male worker who was income-poor and time-nonpoor had weekly hours of employment[49] that amounted to 44, 50, and 54 hours, respectively, in Argentina, Chile, and Mexico. *Thus, their income poverty is not, in general, tied to underemployment but low pay*. Another circumstance is that when we classify an individual as time-poor or not, we disregard the time poverty that may be faced by the other members of their household. In other words, time-nonpoor men may live in households that are time-poor because other members, especially the female members, may be in time poverty due to the inequitable division of domestic labour. We found that in our data, about 60 percent of all income-poor, time-nonpoor men in all three countries lived in households that were time-poor, suggesting that inequitable intrahousehold division of domestic labour might be a significant factor behind the lack of time deficits for the majority of income-poor male workers. Yet another circumstance that can account for the lack of time deficits of some income-poor workers could be that they live in households with relatively low requirements of household production (e.g., single-person household). Our tabulations showed that income-poor men and women who were time-nonpoor, on the average, were engaged in *both* lower hours of employment and housework than their time-poor counterparts. We take a closer look at the major differences in the circumstances of time-poor and time-nonpoor workers in the next section devoted to income-poor workers and their employment conditions.

[48] The exception was Argentina. In this instance, it was solely the result of women outnumbering men in the bottom quintile because the incidence of being income-poor and time-nonpoor was substantially higher for men.
[49] We calculated hours of employment as usual hours spent at work plus average commuting time.

4.2.3 Employed persons by type of employment

We now turn to examine how poverty of employed persons varies according to their type of employment. For Argentina and Chile, we use a three-way classification of the employed: own-account workers, regular-wage workers, and casual wage workers. For Mexico, we also include the category of unpaid family workers since they constitute a nontrivial proportion of total employment in that country. We define regular and casual wage workers in the conventional manner. Regular workers generally have formal wage contracts and are covered by social security benefits. Casual workers generally lack formal wage contracts and are not covered by the social security benefits available to the regular workers.

The wage structures and hours of employment that emerge reflect a variety of demand and supply conditions which are embedded in the prevailing patterns of sectoral economic growth, institutional and constitutional agreements, and the emerging stratification of rewards accorded to skills and educational attainment. Segmentation of labour markets through occupational segregation and gender biases are deeply intertwined all along. What our study adds to these determinations is the important consideration of differences among individuals in the demands placed on their time to fulfil household production activities. Their poverty status and deprivations, accordingly, is accentuated by the degree to which their earned wages are not sufficient to put their household income at a level sufficient to replace their time deficits in household production.

To contextualize the findings, we begin with some basic information on the distribution of employed people by employment status and relative median earnings by employment status in Argentina (Table 4-10).

Table 4-10 Employment and relative median earnings by type of employment and sex: Argentina

	Employment		Relative median earnings
	Number ('000)	Share	
Own-account	**338**	**25**	**1.00**
Men	207	15	1.20
Women	131	10	0.75
Regular	**779**	**58**	**1.04**
Men	412	30	1.20
Women	366	27	1.00
Casual	**225**	**17**	**0.50**
Men	95	7	0.60
Women	129	10	0.40
All	**1,352**	**100**	**1.00**
Men	717	53	1.06
Women	635	47	0.80

Note: Relative median earnings for a group is the ratio of the group's median monthly earnings to the median monthly earnings of all employed persons.

Own-account or self-employed workers made up about 25 percent of all employed in Argentina. The majority (75 percent) are wage workers, with regular-wage work being the most prevalent type of employment. Roughly the same percentage of men and women are in regular employment (57 percent). The gender disparity in the type of employment is clear in the shares of men and women in self-employment (29 percent for men versus 21 percent) and casual worker status (13 percent for men versus 20 percent for women). Notably, the average female own-account worker earned 25 percent less than the average worker while the average male own-account worker earned 20 percent more than the average worker. Both the average male and female casual worker earned far less than the average worker, though the wage gap was lower for men than for women (40 versus 60 percent). Thus, the gender pay disparity within each type of employment and the greater incidence of (low-wage) casual worker status among women contributed to the situation in which the average female worker earned only 75 percent as much as the average male worker.

Table 4-11 Official and LIMTIP poverty by type of employment and sex: Argentina

	Official income-poor		LIMTIP income-poor					
			Income-poor		Income-poor and time-poor		Income-poor and time-nonpoor	
	Number ('000)	Percent	Number ('000)	Percent	Number ('000)	Percent	Number ('000)	Percent
Own-account	**17**	**5**	**39**	**12**	**25**	**7**	**14**	**4**
Men	11	5	23	11	13	6	10	5
Women	6	5	16	12	12	9	4	3
Regular	**20**	**3**	**56**	**7**	**39**	**5**	**17**	**2**
Men	13	3	33	8	22	5	11	3
Women	7	2	22	6	17	5	6	2
Casual	**25**	**11**	**46**	**20**	**20**	**9**	**25**	**11**
Men	11	12	20	21	9	10	11	12
Women	13	10	26	20	11	9	14	11
All	**62**	**5**	**142**	**11**	**85**	**6**	**57**	**4**
Men	35	5	77	11	45	6	32	5
Women	27	4	65	10	40	6	25	4

Note: 'Percent' refers to percent of the relevant population, i.e. poverty rate.

According to the official and LIMTIP measure, casual workers were the most poverty-prone (Table 4-11). This is not surprising given that the average casual worker's earnings were only 50 percent of the average worker. The LIMTIP poverty rate for casual workers, just as for all employed, was approximately double the official rate, with 20 percent of all casual workers being LIMTIP income-poor. Own-account workers have a substantially lower rate of poverty than casual workers according to both official and LIMTIP measures. Officially, only 5 percent of all own-account workers were in income poverty, but accounting for time deficits made that proportion more than twice as much to 12 percent. The lowest official and LIMTIP poverty rates were found among regular workers (3 and 7 percent, respectively). Regular workers were also the group with the highest relative earnings, suggesting that in Argentina, the poverty rates of persons in the three types of employment were inversely related to their relative earnings.

The differences in the magnitude of the hidden poverty rate (i.e., the difference between the LIMTIP and official rate) relative to the official poverty rate among persons in the three types of employment we considered here imply that the composition of the LIMTIP poor by type of employment would look different than the official picture. In fact, as implied by the number of income-poor people reported in Table 4-11, regular workers constituted a larger share of the LIMTIP poor than the official poor (39

versus 32 percent). The proportionately larger increase in the poverty rate of regular-wage workers resonates well with our earlier finding that when time deficits are accounted for, people from the higher rungs of the earnings distribution fall into the ranks of the income-poor (see Table 4-5). We also found that the share of self-employed in the total number of employed poor was the same under both official and LIMTIP measures (28 percent), while the share of casual workers was lower under the LIMTIP measure (32 versus 40 percent). In sum, the largest single group among the LIMTIP income-poor population was regular workers, while among the official income-poor the largest single group was casual workers. However, among the poor women, casual workers still were the largest single group, closely followed by the regular workers. This is primarily a reflection of the starkly higher LIMTIP income poverty rate of casual women workers compared to regular women workers (20 versus 6 percent). While a similar differential in poverty rate existed for men, too, this was offset by the small share of male workers in the casual wage worker category (13 percent), and the largest portion of poor male workers turned out to be in the regular-wage worker category.

Overall, among all employed, 60 percent of the LIMTIP income-poor were also time-poor, as implied by the estimates reported in Table 4-11. Among income-poor regular-wage workers, however, time poverty rate was even higher at 70 percent. Female regular-wage and self-employed workers faced the highest time poverty rate, about 74 percent, among all the subgroups shown in the table. They were followed by men in regular-wage worker status with a time poverty rate of 67 percent and next by self-employed men with a time poverty rate of 57 percent. Within each type of employment, women had a greater rate of time poverty than men, except among casual wage workers where there was approximate gender parity in the incidence of time poverty. Time-poor individuals were a minority (44 percent) among casual wage workers.[50]

We found that the lower time poverty rate of casual wage workers was due to *both* lower hours of employment and housework (Table 4-12). This was true for male and female casual wage workers, that is, their average weekly hours were lower than their counterparts in self-employed or regular-wage worker status. As one might expect, hours of employment are likely to be lower for casual workers than for regular workers because the former lack regular employment contracts and are therefore completely dependent on the need of the employers for their labour. We might also expect the hours of

[50] Since casual workers form a substantial share of the income-poor, the gender parity in time poverty rate among casual wage workers contributed to the lower gender disparity among poor workers than nonpoor workers in Argentina (see Table 4-2).

employment of casual workers to be lower than the self-employed because the latter set their own hours and are more likely to follow the convention of regular business hours. Thus, the lower hours of employment can make the casual workers less vulnerable to time poverty. Additionally, they may also face lower average household production requirements, either because of their household size and composition (i.e., number of adults and children) or a pattern of intrahousehold division of housework that puts fewer burdens upon them.

Table 4-12 Weekly hours of employment and housework by type of employment and sex: Argentina

	Employment	Housework
Own-account	**52**	**36**
Men	55	27
Women	46	49
Regular	**53**	**41**
Men	59	33
Women	45	52
Casual	**39**	**34**
Men	48	23
Women	32	43
All	**48**	**37**
Men	55	29
Women	40	48

Note: Hours of employment is the sum of usual hours spent at work and required hours of commuting. Hours of housework is the time contributed by the person to meeting the threshold hours of household production of their household.

Turning to Chile (Greater Santiago), the vast majority of employed (76 percent) in Chile were also wage workers (Table 4-13). Again, similar to Argentina, regular-wage work was the most prevalent type of employment. The percentage of regular-wage workers was somewhat lower among women than among men (63 versus 59 percent). This is unlike Argentina, where the percentage was roughly identical. However, similar to Argentina, the gender disparity in the type of employment was evident in Chile, too, with self-employment turning out to be a more frequent form of employment among men than women (24 percent of men were self-employed versus 21 percent of women) and the incidence of casual work being higher for women than men (13 percent of men were in casual work versus 19 percent of women). Similar to Argentina, gender disparity in earnings was lower in regular-wage work than own-account work, though unlike there, the average female regular worker earned less than the average own-account worker. Both the average male and female casual worker earned far less than the average worker in Chile, too, and the wage gap was higher for women. The average female casual worker earned

only about half as much as the average worker, while the average male casual worker earned about 70 percent of the average worker's earnings. Just as in Argentina, the average female worker earned only about 75 percent as much as the average male worker, reflecting the gender pay disparity within each type of employment and the greater incidence of (low-wage) casual worker status among women.

Table 4-13 Employment and relative median earnings by type of employment and sex: Chile

	Employment		Relative median earnings
	Number ('000)	Share	
Own-account	**573**	**23**	**1.53**
Men	350	14	1.70
Women	223	9	1.02
Regular	**1,539**	**61**	**1.04**
Men	912	36	1.09
Women	627	25	0.92
Casual	**389**	**15**	**0.61**
Men	185	7	0.70
Women	204	8	0.52
All	**2,514**	**100**	**1.00**
Men	1,451	58	1.12
Women	1,063	42	0.85

Note: Relative median earnings for a group is the ratio of the group's median monthly earnings to the median monthly earnings of all employed persons.

According to the official and LIMTIP measure, casual workers in Chile, just as in Argentina, were the most poverty-prone (Table 4-14). And, just as in Argentina, this is correlated with casual workers' position in the earnings distribution: the average casual worker earned only about 60 percent as much as the average worker. The LIMTIP poverty rate for casual workers in Chile was identical to that of casual workers in Argentina and, just as in Argentina, was approximately double the official rate, with 20 percent of all casual workers being LIMTIP income-poor. Own-account workers and regular-wage workers have a substantially lower rate of poverty than casual workers according to both official and LIMTIP measures. Their poverty rates were also identical. Officially, only 6 percent of all own-account workers and 6 percent of all regular-wage workers were in income poverty, but accounting for time deficits made that proportion double to 12 percent for both groups. It is interesting that own-account workers and casual workers in Chile have LIMTIP income poverty rates that were very similar to their counterparts in Argentina.

Table 4-14 Official and LIMTIP poverty by type of employment and sex: Chile

	Official income-poor		LIMTIP income-poor					
			Income-poor		Income-poor and time-poor		Income-poor and time-nonpoor	
	Number ('000)	Percent	Number ('000)	Percent	Number ('000)	Percent	Number ('000)	Percent
Own-account	**34**	**6**	**68**	**12**	**39**	**7**	**29**	**5**
Men	16	5	36	10	19	5	17	5
Women	18	8	32	14	20	9	12	5
Regular	**86**	**6**	**185**	**12**	**117**	**8**	**68**	**4**
Men	60	7	115	13	61	7	54	6
Women	26	4	70	11	56	9	14	2
Casual	**39**	**10**	**79**	**20**	**44**	**11**	**35**	**9**
Men	18	10	38	21	20	11	18	10
Women	20	10	41	20	24	12	16	8
All	**160**	**6**	**334**	**13**	**201**	**8**	**133**	**5**
Men	95	7	190	13	100	7	90	6
Women	65	6	144	14	101	9	43	4

Note: 'Percent' refers to percent of the relevant population, i.e., poverty rate.

Unlike our finding for Argentina, the composition of the LIMTIP income-poor by type of employment did not appear to be much different than the official picture. This can be explained by the fact that the relative increase in the incidence of poverty for people in different types of employment was quite similar in Chile, while it was somewhat different in Argentina. As indicated by the number of income-poor people reported in Table 4-14, regular workers were the single largest group of income-poor and constituted a similar share of LIMTIP and official income-poor (about 55 percent). Casual workers were the next largest segment with a share of 24 percent, followed by own-account workers who accounted for 21 percent of the income-poor. The main contrast with Argentina was the higher (lower) share of regular (casual) workers in the pool of the income-poor in Chile, which can be accounted for by the comparatively larger share of regular workers in employment and their higher rate of income poverty. In spite of the overall stability in the proportions of people from different types of employment in the income-poor, the accounting of time deficits did have an impact on the composition of poor women by type of employment. Regular workers constituted a greater proportion of the LIMTIP income-poor than the official income-poor among women (49 versus 40 percent), with concomitant declines in the shares of the self-employed and casual wage workers. This was primarily a reflection of the proportionately larger change in the incidence of poverty for regular female workers compared to female self-employed and casual wage workers as well as their larger share in employment.

Our estimates reported in Table 4-14 showed that 57 percent of the employed income-poor were also time-poor. This is the same proportion as in Argentina (60 percent). Just as in Argentina, the time poverty rate of income-poor regular-wage workers was higher at 63 percent. Female regular-wage workers faced a time poverty rate of 80 percent that was far higher than of any other subgroup shown in the table. They were followed by self-employed women with a time poverty rate of 62 percent and next by women in the casual worker status with a time poverty rate of 60 percent. Thus, within each type of employment, women had a greater rate of time poverty than men unlike in Argentina where there was approximate gender parity in the incidence of time poverty among casual wage workers. It may also be recalled that in Argentina, time-poor individuals were a minority (44 percent) among casual wage workers. However, we found that, in Chile, the majority of every subgroup of the income-poor was also time-poor.

The time poverty rate of regular workers (63 percent) was higher than that of own-account (57 percent) and casual workers (56 percent). This appears to be purely the result of higher time poverty rate of women in regular work status because the time poverty rate of men in all three types of employment was practically the same (52 percent). It may be recalled that in Argentina we had found that the lower time poverty rate of casual wage workers was due to *both* lower hours of employment and housework (Table 4-12). In a similar vein, poor women in regular work status had higher hours of employment *and* housework compared to their counterparts in self-employment and casual work status (Table 4-15). This observation is valid for the comparison between male regular workers and male self-employed, but not for male regular workers and male casual workers. The hours of employment for male casual workers were higher than male regular workers while their hours of household production were lower. Thus, the factors behind the higher time poverty rate of poor regular workers was not simply a matter of them engaging in more hours of employment and household production. Gender disparity in time poverty played a greater role in Chile than in Argentina because the higher time poverty rate of regular workers was solely due to the higher time poverty rate of regular *women* workers.

Table 4-15 Weekly hours of employment and housework by type of employment and sex: Chile

	Employment	Housework
Own-account	**48**	**26**
Men	51	17
Women	45	35
Regular	**55**	**27**
Men	55	21
Women	53	38
Casual	**48**	**26**
Men	57	17
Women	40	34
All	**52**	**27**
Men	55	19
Women	48	37

Note: Hours of employment is the sum of usual hours spent at work and required hours of commuting. Hours of housework is the time contributed by the person to meeting the threshold hours of household production of their household.

Wage workers formed a slightly smaller share of total employment in Mexico (71 percent) than in Argentina and Chile. The difference was mainly accounted for by the greater presence of unpaid family workers in Mexico (6 percent of total employment) because the percentage of own-account workers (24 percent) was virtually identical to the other two countries. Given that our data for Mexico is for the whole nation, in contrast to the data on the city of Buenos Aires for Argentina and Greater Santiago for Chile, it is not surprising that we found a greater presence of unpaid family workers in Mexico. Regular-wage workers constituted a smaller proportion of all wage workers in Mexico (conversely, casual workers formed a greater proportion) than in the other two countries, probably, again, partly a reflection of the differences in the geographical coverage of the data.

The distribution of men and women across major types of employment did not show any large differences. A slightly lower percentage of regular-wage workers was found among women than men (47 versus 44 percent) and the incidence of casual work was slightly higher for women than men (26 versus 24 percent). We also found that the share of self-employment was virtually the same among men and women (about 24 percent). While there were equal number of men and women in the status of unpaid family worker, the incidence was higher for women because there were a lot less employed women than men in Mexico, as we have noted before. However, this is a small group. Similar to Argentina and Chile, gender disparity in earnings was far lower in regular employment than in self-employment and disparity in casual employment was in the intermediate position. Unlike in Argentina

and Chile, the gender gap in earnings within each type of employment played a greater role in shaping the overall disparity in earnings in Mexico because the gender differences in the distribution of employed persons among types of employment was far less important. The average female worker earned only about 70 percent as much as the average male worker.

Table 4-16 Employment and relative median earnings by type of employment and sex: Mexico

	Employment		Relative median earnings
	Number ('000)	Share	
Unpaid family worker	**2,264**	**6**	**0.00**
Men	1,050	3	0.37
Women	1,213	3	0.00
Own-account	**9,423**	**24**	**0.60**
Men	5,998	15	0.80
Women	3,425	9	0.39
Regular	**18,369**	**46**	**1.39**
Men	11,749	29	1.44
Women	6,620	17	1.29
Casual	**10,003**	**25**	**0.70**
Men	6,045	15	0.83
Women	3,958	10	0.56
All	**40,059**	**100**	**1.00**
Men	24,843	62	1.11
Women	15,216	38	0.78

Note: Relative median earnings for a group is the ratio of the group's median monthly earnings to the median monthly earnings of all employed persons.

Casual workers in Mexico, just as in Chile and Argentina, were the most vulnerable to income poverty (Table 4-17). However, their poverty rate was only marginally above that of own-account workers according to the official measure (49 versus 47 percent). Accounting for time deficits widens the gap as the LIMTIP income poverty rate for casual workers was 61 percent versus 56 percent for own-account workers. The comparison of casual workers with the small group of unpaid family workers produced broadly comparable results: 48 and 58 percent of unpaid family workers lived in poverty according to the official measure and the LIMTIP measure, respectively. Unlike in the other two countries, the relationship between the ranking of relative earnings and poverty rate is not clear-cut. The relative wage of the average casual wage worker was higher than that of the average own-account worker; yet the poverty rate of casual wage workers was higher than that of the average own-account worker. This finding appears less anomalous when we take into account the fact that the average worker in both

groups earned less than the average employed person by a substantial margin. The risk of income poverty in Mexico affected earners even in the *fourth* quintile of the earnings distribution, as we documented in the previous section (Table 4-6).

Table 4-17 Official and LIMTIP poverty by type of employment and sex: Mexico

	Official income-poor		LIMTIP income-poor					
			Income-poor		Income-poor and time-poor		Income-poor and time-nonpoor	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Unpaid family worker	**1,079**	**48**	**1,321**	**58**	**682**	**30**	**640**	**28**
Men	504	48	603	57	243	23	360	34
Women	574	47	718	59	438	36	280	23
Own-account	**4,400**	**47**	**5,314**	**56**	**2,724**	**29**	**2,590**	**27**
Men	2,904	48	3,409	57	1,515	25	1,894	32
Women	1,496	44	1,905	56	1,209	35	696	20
Regular	**4,392**	**24**	**6,268**	**34**	**3,104**	**17**	**3,164**	**17**
Men	3,226	27	4,357	37	1,751	15	2,606	22
Women	1,166	18	1,911	29	1,353	20	557	8
Casual	**4,871**	**49**	**6,102**	**61**	**2,818**	**28**	**3,283**	**33**
Men	3,153	52	3,787	63	1,377	23	2,410	40
Women	1,718	43	2,315	58	1,442	36	873	22
All	**14,742**	**37**	**19,006**	**47**	**9,329**	**23**	**9,677**	**24**
Men	9,787	39	12,157	49	4,886	20	7,271	29
Women	4,954	33	6,848	45	4,442	29	2,406	16

Note: 'Percent' refers to percent of the relevant population, i.e., poverty rate.

Regular-wage workers have a substantially lower rate of poverty than casual workers according to both official and LIMTIP measures. This echoes the findings for Chile and Argentina. Of course, just as with workers in other types of employment, taking time deficits into account increased their measured poverty rate, too: the LIMTIP income poverty rate of 34 percent was 10 percentage points above the official rate, a change that is comparable to the change for the employed as a whole. However, proportionately, the increase in the poverty rate of regular workers was far higher because their (official) poverty rate was much lower than for persons in other types of employment.

As a result, the composition of the poor did change in Mexico with regular workers constituting a larger share of the LIMTIP income-poor than the official income-poor (33 versus 30 percent). The three-percentage point gain in the share of regular workers occurred concomitantly with a 2 percentage-point decline in the share of own-account workers (from 30 to 28 percent) and one-percentage point decline

in the share of casual workers (33 to 32 percent). As may be recalled, a similar change in the composition of the income-poor occurred in Argentina as a result of accounting for time deficits, but the change in the percentage shares was larger in that case. In Chile, on the other hand, there was hardly any difference in the composition of income-poor by type of employment between the official and LIMTIP measure.

Our estimates (Table 4-17) imply that 49 percent of the employed income-poor were also time-poor in Mexico, a proportion that is much lower than the other two countries (57 and 60 percent, respectively, Argentina and Chile). Just as we observed in the case of the other two countries, the time poverty rate of income-poor casual workers was lower than that of other types of workers. The estimates shown in Table 4-17, imply that casual workers had a time poverty rate of 46 percent as against 50 percent for regular workers and 51 percent for own-account workers. Also, similar to the other two countries, income-poor female regular-wage workers faced the highest time poverty rate, 71 percent, among all the subgroups considered here. Women in other types of employment were next and they had very similar rates of time poverty, falling between 61 and 63 percent. Just as in Chile, within each type of employment, women had a greater rate of time poverty than men in Mexico. However, in contrast to Chile, time-poor persons were a minority among income-poor men within every type of employment.

The gap between casual workers and own-account workers in time poverty rate was not due to differences in time poverty rate between women in the two groups: Both had approximately the same time poverty rate of 63 percent. Instead, it was due to the difference in the time poverty rate of men. Male casual workers had a lower time poverty rate than male own-account workers (36 versus 44 percent). It is likely that this stemmed from the higher average hours of employment and housework of male own-account workers relative to casual workers (Table 4-18). In contrast, the gap between casual workers and regular workers was driven by the higher time poverty rates of *both* men and women in regular worker status. As shown in Table 4-18, average hours of employment and housework for income-poor regular male and female workers exceeded that of their counterparts in casual worker status; however, the gap in hours of employment was larger than the gap in housework.

Table 4-18 Weekly hours of employment and housework by type of employment and sex: Mexico

	Employment	Housework
Unpaid family worker	**48**	**30**
Men	55	16
Women	42	43
Own-account	**51**	**26**
Men	56	17
Women	43	44
Regular	**55**	**25**
Men	57	18
Women	50	42
Casual	**50**	**26**
Men	54	16
Women	44	41
All	**52**	**26**
Men	55	17
Women	45	42

Note: Hours of employment is the sum of usual hours spent at work and required hours of commuting. Hours of housework is the time contributed by the person to meeting the threshold hours of household production of their household.

4.3 Summing up

In this section we looked at the time and income poverty of individuals in our study. By construction, the time-adjusted income poverty rate was higher than the official poverty rate for individuals in all three countries. The size of the hidden poor population is nonetheless noteworthy: 7 percent or 183,000 in Buenos Aires, and 432,000 in Gran Santiago, and 9 percent or 9.5 million in Mexico. While there were small differences in poverty rates by gender, the differences between adults and children were large because households with children are likelier to be poor. In Argentina, the official and LIMTIP poverty rates of children were more than twice that of adults and 65,000 children are in hidden poverty, bringing the total to 150,000 in time-adjusted income poverty. In Chile, the official and LIMTIP income poverty rates for children were 9 and 12 percentage points higher than for adults, at 19 and 29 percent, respectively. In Mexico the gap was even larger at 15 and 17 percentage points for official and LIMTIP income poverty, though the relative increase was smaller, since poverty rates are so high in Mexico. In Chile, an additional 172,000 children are recognized as living in income-poor households using the LIMTIP definition, bringing the total to 487,000; while in Mexico the number was 3.7 million, bringing the total to about 26 million children living in poverty.

In Argentina, the portion of children living in time-poor and officially income-nonpoor households was 70 percent, considerably higher than women or men, for whom the proportion was 54 and 58 percent respectively. This contrasts with Chile, in which the proportions for men, women, and children were quite similar, at 57, 56, and 58 percent, respectively, and Mexico, where the proportion for children was lower than that for men or women, 33 percent compared to 41 and 38 percent. In all three countries, though the proportion of the children living in time-poor and officially income-nonpoor households that were LIMTIP income poor (the hidden poor households) was higher than that for men or women: 17 percent, compared to 10 percent for men and women in Argentina; 19 percent, compared to 11 and 12 percent in Chile; and 29 percent, compared to 21 and 22 percent in Mexico.

Most children live in time poverty: 80 percent of children in Argentina, 70 percent in Chile, and 74 percent in Mexico live in time-poor households. The same is true for income poverty only in Mexico, where 66 percent of children live in income-poor households, although 28 and 29 percent of children live in income poverty in Argentina and Chile, respectively. In all three countries, most children living in income poverty were also in time poverty: 84 percent of income-poor children in Argentina and 75 percent in Chile and Mexico. While in Argentina and Chile, roughly the same portion of women and men (5 or 6 percent) suffered both time and income poverty, in Mexico the ratio was slightly higher for women, 19 percent compared to 16 percent. In all three countries, women suffered higher rates of time poverty than men: 33 percent compared to 31 percent in Argentina; 32 percent versus 27 percent in Chile; and 36 compared to 31 percent in Mexico. Not surprisingly, then, in all three countries men were more likely to be both income- and time-nonpoor: 62 percent compared to 60 percent in Argentina; 63 versus 56 percent in Chile; and 36 compared to 32 percent in Mexico.

Addressing differences in time poverty rates among adults by sex, income poverty status, and employment status sheds additional light on the composition of time poverty. In income poor households, men had higher overall rates of time poverty than women in Argentina (41 versus 39 percent) and Chile (36 versus 34 percent), and lower rates in Mexico (33 versus 38 percent). But all of the male time poverty in Chile and Mexico and most in Argentina is that of employed men, and although most of the time poverty in income-poor households is that of employed women, 20 percent of the time-poor women in Argentina and Chile and 33 percent in Mexico were nonemployed. Thus, their time poverty status indicates that, despite not working for pay, their share of household work is greater than their available time. This is true of almost none of the nonemployed men, whose time poverty rates in income poor households was 1 percent in Chile and Mexico and 5 percent in Argentina. In income-

nonpoor households, time poverty rates were consistently higher for women than for men (31 versus 29 percent in Argentina, 32 versus 26 percent in Chile, and 34 versus 29 percent in Mexico). In Argentina and Chile this was due mostly to the sharper drop in time poverty rates for employed men between income-poor and nonpoor households. In Mexico, the gap between male and female time poverty rates is the same as for income-poor households, and since the share of men in employment is the same, the drop in male time poverty comes entirely from the lower time poverty rate of employed men, while for women, the drop comes from the sharp drop in time poverty among nonemployed women, which outweighs the rise in time poverty due to the higher employment rate for women.

For all three countries the gap between official and LIMTIP income poverty rates is greater for employed individuals than for the nonemployed. This is due to the larger time deficits of the former group. In both Argentina and Chile, employed men and women had similar rates of both official and LIMTIP income poverty. In Mexico, however, employed men had higher rates of official (LIMTIP) income poverty than women: 40 (49) percent versus 33 (45) percent. For the nonemployed, the situation varied across the three countries. In Argentina, nonemployed men had higher rates of official (LIMTIP) income poverty than women: 15 (21) percent versus 11(15) percent. In Chile, the nonemployed men were slightly more likely to be income poor: 18 (23) percent versus 16 (22) percent for women. And in Mexico, nonemployed women were more likely to be among the income poor: 50 (56) percent compared to 43 (49) percent for nonemployed men. Two striking implications of accounting for time deficits in the measurement of poverty become apparent. First, employed persons constituted a greater proportion of the poor under the LIMTIP poverty line than the official poverty line. Second, women account for a larger share of the employed poor when time deficits are taken into account.

In both Argentina and Chile, three quarters of nonemployed men and women suffered neither time nor income poverty, while in Mexico this was true of only half of nonemployed men and two-fifths of nonemployed women. In all cases, income but not time poverty characterized almost all (Argentina and Mexico) or all (Chile) of the remaining men, while nonemployed women also endured time poverty, though the majority in all three cases (13 percent in Argentina, 20 percent in Chile, and 44 percent in Mexico) were income- but not time-poor. For employed men and women in all three countries, income poverty rates were lower and time poverty rates, higher.

Adjusting official poverty lines for time deficits means that more of the income-poor will be from higher up in the earnings distribution. In Argentina, 89 percent of officially income-poor individuals were from the bottom two quintiles of the earnings distribution, while 74 percent of the LIMTIP income-poor were.

In Chile, 90 percent of the officially income-poor were from the bottom 40 percent of the earnings distribution, while only 71 percent of the LIMTIP income-poor were. Finally, in Mexico, where poverty is more widespread, the numbers were much closer: 62 percent versus 58 percent. Breaking these numbers down by sex, we found that women were overrepresented in the lower earnings quintiles, and so, even though their income poverty rates were lower, comprised a majority of the income-poor among the bottom quintile, except in Mexico, where an almost equal share of employed men and women in the bottom quintile results in an almost equal share of the income poor in the lowest quintile. In all cases, the percentage of people that are time- and income-poor falls as we move from the bottom to the higher quintiles. The percentage of people who are income-poor but time-nonpoor is also higher in the lower quintiles than in the higher quintiles. The percentage of people with time deficits and without income deficits rises as we move from the lower to the higher quintiles. The percentage of people with neither income nor time deficits remains relatively constant across earnings quintiles in Argentina and Chile, while in Mexico, this proportion grows as we move from the lower to the higher quintiles. In all three countries, individuals facing the double deprivation of time and income poverty were concentrated in the lowest two quintiles of the earnings distribution, and since women are at a disadvantage in earnings, the majority were women.

Turning to consideration of the incidence and depth of time and income poverty by employment type, we find that while there are relatively small differences in poverty rates between men and women in the different employment categories in Argentina, own-account women workers are more likely to suffer from the combination of income and time poverty, though they are outnumbered by men since men make up a majority of own-account workers, while among casual workers, the number of income poor women is higher than that of men, though their poverty rate is smaller. Also, the largest single group among the LIMTIP income-poor population was regular workers, while among the official income-poor the largest single group was casual workers. In Chile, by contrast, the rates of time poverty were higher for women than for men in all three employment types, and the official and LIMTIP poor were both concentrated among the regular-wage workers (although casual workers did comprise a larger share of the LIMTIP than of the official income poor). In Mexico, income poverty rates were lowest for regular-wage workers, by a wide margin (34 percent of regular-wage workers suffered from LIMTIP income poverty compared to between 56 and 61 percent of other workers). The gender differences in poverty rates were highest among casual wage workers, while the incidence of the double-bind of time and income poverty was lowest among regular-wage workers and roughly similar for unpaid family workers, own-account, and casual wage workers.

5 Full-Time Employment and Poverty

It is often argued that lack of employment opportunities are at the heart of income poverty, and there is indeed some truth to this. But the fact that the decisive majority of officially income-poor households were employed households (that is, households where the head, spouse, or both were employed) in the three countries under study suggests that this proposition is only partially true. Accounting for time deficits in the measurement of poverty undermines the proposition even further because doing so has the effect of increasing the measured income poverty rate of the employed relative to nonemployed and hence enlarging the share of the employed among income-poor (see the discussion around Table 3-4 in Section 3.2.1). Considering adults, instead of households, the share of the employed in the total number of officially poor adults was still over half in Mexico, and between 40 and 50 percent in Chile and Argentina. Once time deficits were taken into account, the employed became the majority of income-poor in all three countries (see the discussion around Table 4-3 in Section 4.2.1.1). In sum, for a sizeable number of people, prevailing wage structures, labour market conditions, and segmentation prevent employment from being a sufficient condition to escape income poverty.

The fact that the majority of income-poor households are employed households obviously does not imply that employment cannot offer a way out of income poverty for a substantial number of individuals and households. Among income-poor employed households, a sizeable number of households may escape poverty if employment opportunities were to be available to all employable individuals in those households. Similarly, among many income-poor nonemployed households, the employment of the head, the spouse, or both could put an end to income poverty. We have also seen in the previous chapter that the income poverty rate of nonemployed individuals exceeds that of employed individuals by a notable margin (see Figure 4-7), suggesting that employment might offer better protection from income poverty than no employment.

The purpose of this chapter is to address the potential of employment to reduce income poverty. We attempt to grapple with this rather complicated question via a microsimulation exercise that was described earlier (Section 2.2.5). As discussed there, we model a hypothetical scenario in which all employable adults are employed full-time, i.e., spending 25 hours or more per week in paid work.[51] The simulation leaves the hours of employment and earnings of those who are already employed full-time unchanged. For employable adults ('recipients'), we assign jobs and earnings that are in line with their

[51] Employable adults are defined as all individuals between the ages of 18 and 74 who are (a) not disabled, retired, in school, or in the military; and (b) not employed or working part-time (less than 25 hours per week).

labour market and demographic characteristics. The additional earnings of the newly employed increase their household income, relative to what is observed in the data. We assume that the intrahousehold division of domestic labour may change in households with newly employed individuals ('recipient households'). Accordingly, we assign household production responsibilities to individuals in recipient households that were observed for individuals most similar to them in households where all employable adults were actually employed full-time. [52] People who were actually working full-time in recipient households may end up with time deficits as a result of the new pattern of intrahousehold division of labour. The newly employed individuals in recipient households may also be found to have time deficits as a result of their new pattern of time allocation to employment and housework.[53] It is indeed possible that the additional earnings may turn out to be insufficient to offset the monetized value of additional time deficit for some income-poor recipient households. Such households would be LIMTIP income-poor even with full-time employment. Additionally, some recipient households may remain income-poor because even with full-time employment of all employable adults, their household income still falls below the official income poverty line. On the other hand, for some income-poor recipient households, full-time employment would unambiguously pave the way out of income poverty.

The simulation exercise allows us to form admittedly rough quantitative ideas about the potential and sometimes contradictory effects of full-time employment on time and income poverty. To contextualize the results of the simulation, we begin this chapter with an overview of the employable pool in the three countries. In the next major section, we discuss the effects of full-time employment on households. In particular, we identify the group of households that remain income-poor even when every employable adult is engaged in full-time employment—the hard-core poor—and discuss the reasons behind their poverty trap. We also pay particular attention to the transition dynamics between the four LIMTIP groups that result from full-employment, documenting the drastic decline in income poverty, the persistence of the double-bind of income and time poverty, and the overall increase in time poverty. In

[52] Since the threshold hours of household production for the household do not change as a result of the simulation, what is involved here is the change in the proportions in which the threshold hours are divided among the members of the household.

[53] As an example, consider the case of a recipient household that consists of a married couple, with husband actually working full-time and wife assigned a full-time job in our simulation. Our simulation would, in all likelihood, change the division of domestic labour in this household to resemble the pattern observed in a household (most similar to the recipient household in a statistical sense) where husband and wife actually worked full-time. This may increase the hours of household production assigned to the husband in the recipient household which, in turn, can put him at risk of time poverty. The newly employed wife in the recipient household may also incur time deficit because full-time hours of employment exceed the time available to her after setting aside the time for required amount of household production and personal care.

the next major section, we focus on the effects of full-time employment on the income and time poverty status of individuals, especially adults between 18 and 74 years of age. We discuss the differentiated effects of full-time employment on men and women, paying special attention to the differing incidence of the double-bind of time and income poverty. Broadly speaking, our results suggest that gender inequities in earnings and intrahousehold division of labour play a central role in explaining the likely outcomes of a full-time employment scenario in terms of income and time poverty.

5.1 Characteristics of employable adults

We begin by briefly describing a few key demographic characteristics of individuals who were assigned full-time employment in our simulation (Table 5-1). The chosen characteristics have been found during the course of our analysis to have significant impact on the time and income poverty of individuals and households.

Table 5-1 Selected characteristics of current full-time (FT) workers, employable adults, and employable LIMTIP income-poor adults

	Argentina			Chile			Mexico		
	Current FT	Employable		Current FT	Employable		Current FT	Employable	
		All	Poor		All	Poor		All	Poor
Total ('000)	988	409	100	2,270	1,052	271	35,403	23,888	14,361
A. Sex									
Men (percent of total)	58	23	31	60	22	26	66	18	19
Women (percent of total)	42	77	69	40	78	74	34	82	81
B. Sex and parental status									
Fathers (percent of men)	51	32	40	55	25	37	58	37	39
Mothers (percent of women)	49	61	68	52	63	68	51	65	66
C. Sex and age									
Percent of men:	*100*	*100*	*100*	*100*	*100*	*100*	*100*	*100*	*100*
Less than 34 years	32	31	34	37	56	48	44	46	45
35 to 54 years	45	29	34	48	26	37	43	27	29
54 years and older	23	40	32	15	18	16	13	27	26
Percent of women	*100*	*100*	*100*	*100*	*100*	*100*	*100*	*100*	*100*
Less than 34 years	32	23	28	39	35	44	45	40	46
35 to 54 years	49	40	45	50	43	45	45	39	36
55 years and older	20	37	27	11	22	11	9	21	18
D. Sex and education									
Percent of men:	*100*	*100*	*100*	*100*	*100*	*100*	*100*	*100*	*100*
High school or less	51	69	86	69	73	89	64	69	80
Some college or college degree	49	31	14	31	27	11	36	31	20
Percent of women	*100*	*100*	*100*	*100*	*100*	*100*	*100*	*100*	*100*
High school or less	41	68	83	65	84	94	54	76	84
Some college or college degree	59	32	17	35	16	6	46	24	16

To begin with, the employable pool was mostly female (approximately 80 percent) while the majority of those actually employed full-time was male (approximately 60 to 65 percent). As we have seen, women are more prone to time poverty, employed women are more prone to the incidence of the double-bind of income and time poverty, and women earn less than men. Thus, we are, in our simulation, assigning full-time employment status to a group that is more prone to the travails of income and time poverty. Of course, the higher share of women in the employable pool is a reflection of their lower rates of employment, a point that we have already noted several times before (see, e.g., the discussion in Section 4.1.3 surrounding Table 4-2). Further, the majority of employable women were mothers living

with children under 18 years of age (approximately 60 to 65 percent). As we have seen before, households with children are more vulnerable than households without children to income and time poverty in all three countries (see Sections 3.3.1 and 3.3.2). Finally, the employable pool was at a disadvantage with respect to two key characteristics that are known to affect potential earnings positively: being in prime working age (35 to 54 years) and college education. The share of the prime age group is notably lower in the employable pool than current full-time workers. Employable adults also had a markedly lower level of education than the workers who were actually employed full-time, namely, a much higher percentage of the latter group had attended or graduated from college. The educational gap was especially pronounced between the employable income-poor and current full-time workers. In sum, while the employable people consist predominantly of women who are more prone to income and time poverty, it still remains to be seen whether their additional earnings would be sufficient for a substantial number of households to escape income poverty.

5.2 The effects of full-time employment on the income and time poverty of households

5.2.1 Official versus LIMTIP income poverty

Our simulations showed that full employment can achieve spectacular reductions in income poverty even without altering the current structure of earnings (Table 5-2).[54] In Argentina, it appears that official income poverty would almost vanish if every employable poor adult were to work full-time. In Chile, too, the official poverty rate would be as low as 3 percent under full employment. The official income poverty rate in Mexico would also shrink radically, but given the high initial level of poverty, it would still be considerable at 21 percent. The incidence of income poverty as measured by the LIMTIP also falls dramatically. Job creation means poverty reduction, irrespective of whether we use the official or LIMTIP poverty line as the yardstick.

[54] As described in Section 2.2.4, we assign for each previously nonemployed or underemployed individual hours of employment and earnings using an imputation procedure that matches the individual to an actual full-time worker who 'resembles' them most in a statistical sense in terms of demographic characteristics such as sex, educational attainment, household type, etc.

Table 5-2 Actual and simulated income poverty rates of households (percent)

	Argentina		Chile		Mexico	
	Actual	**Simulation**	**Actual**	**Simulation**	**Actual**	**Simulation**
Official income-poor	6	1	11	3	41	21
LIMTIP income-poor	11	6	18	11	50	39
LIMTIP minus official (hidden poor)	5	5	7	8	9	19
Addendum: Decomposition of the hidden poverty rate:						
Time-poor and officially income-nonpoor/All (percent)	49	63	55	79	40	70
Hidden poor/Time-poor and officially income-nonpoor (percent)	10	8	13	11	22	26

Yet, it is striking that, even under the simulated scenario of all employable adults working full-time, the LIMTIP poverty rate was as high as the actual (i.e., pre-simulation) official poverty rate. In Argentina, where the official poverty rate was only 1 percent with full-time employment, the bulk of the LIMTIP income-poor (5 percent of all households) consisted of the hidden poor. In Chile, the hidden poor contributed 8 percentage points to the LIMTIP income poverty rate of 11 percent. Thus, in both countries, the majority of income-poor under the full employment scenario consisted of the hidden poor. The decomposition of the hidden poverty rate shown in the addendum to Table 5-2 indicates that full employment was accompanied by a sizeable increase in the percentage of time-poor, officially income-nonpoor households in both countries (see Section 3.1.1 for a discussion of the decomposition). This was sufficiently large to offset the decline in the percentage of households with income below the LIMTIP poverty line in the total number of time-poor, officially income-nonpoor households in both countries. As a result, hidden poverty rate in the two countries remained stable.

The hidden poor contributed 19 percentage points to the full-employment LIMTIP income poverty rate of 39 percent in Mexico. That is, the hidden poor made up roughly half of all LIMTIP income-poor households in Mexico under the full employment scenario, compared to only about one-fifth of all LIMTIP income-poor in the actual situation. Relative to the other two countries, a much larger proportion of time-poor households in Mexico that are officially classified as income-nonpoor did not have income high enough to compensate for their time deficit. This finding for the full employment scenario replicates our finding for the actual observed conditions and reflects, to a considerable extent,

the persistence of relatively large incidence of income poverty even in the higher rungs of the earnings distribution (see the discussion in Section 4.2.2.1). Unlike the other two countries, the proportion of the hidden poor in time-poor households that are officially classified as income-poor actually increased with full-employment, again a reflection of the fact that income poverty befalls upon even the relatively better off earners in Mexico.

5.2.2 The hard-core poor

It is logically possible that some income-nonpoor households might end up being income-poor after the simulation. This can happen if they are very close to the poverty line and if the time deficits generated by the newly employed member of the household are too large to be compensated by the additional earnings. This possibility makes it hard to judge, based on the tabulations that we presented in Table 5-2, how much of the reduction in the poverty rate induced by full employment was due to poor households escaping income poverty. A clearer view can be obtained by cross-tabulating the distributions of actual poor and simulated poor households. The results are displayed in Table 5-3 in the form of a transition matrix with the actual status shown along the rows and the simulated status shown along the columns. Thus, for example, reading across the row labeled 'Nonpoor' for Argentina, we can infer that 100 percent of those who were nonpoor in the actual situation remained nonpoor after the simulation in Buenos Aires. That is, the logical possibility we mentioned at the start of this paragraph was not practically relevant. A similar conclusion emerged also for Chile and Mexico, although there were a small number of cases in these countries where full-employment brought about a slippage into income poverty.

Table 5-3 Changes in the income poverty status of households from actual to full-employment simulation

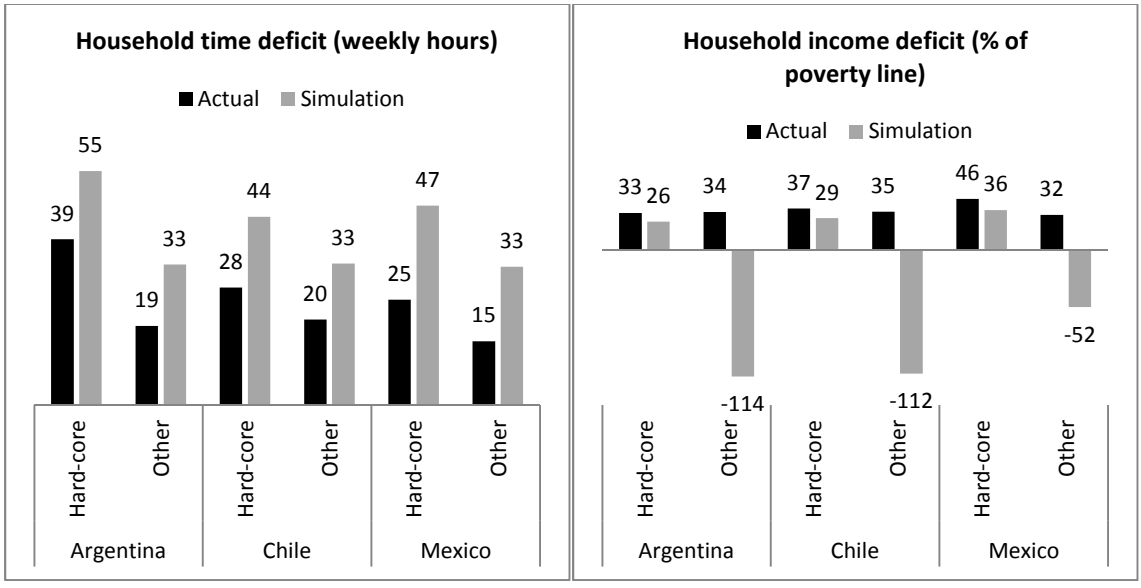
	Actual	**Simulation**		
		Nonpoor	Poor	**All**
Argentina	Nonpoor	100	0	100
	Poor	46	54	100
Chile	Nonpoor	98	2	100
	Poor	47	53	100
Mexico	Nonpoor	96	4	100
	Poor	25	75	100

Reading along the row labeled 'Poor,' we can see that full employment eradicated income poverty for a little less than half of all income-poor households (46 and 47 percent, respectively, in Argentina and Chile). More than one half still remained in income poverty. In Mexico, full employment eliminated

income poverty for only 25 percent of the income-poor households, with the majority (75 percent) still mired in income poverty. We call the population whose income poverty is impervious to full employment the 'hard-core poor.' Given the very small size of the population that falls into poverty as a result of full employment, we can conclude that practically all of the income-poor households in the simulation scenario constituted the hard-core poor and consider the poverty rate in the simulation scenario (reported in Table 5-2) as the incidence of hard-core poverty. In absolute numbers, there were approximately 60,000 hard-core poor households in Argentina, 145,000 households in Chile, and about 10 million households in Mexico.

By construction, the presence of hard-core poor households is accounted for by the fact that the earnings of adults in the household assigned full-time employment turned out to be insufficient to close the income deficit (the difference between poverty line and household income). The changes in the time and income deficits of the hard-core income-poor, when contrasted with the deficits of the 'other' income-poor, i.e., the income-poor that made the transition to income-nonpoor status as a result of full-time work, reveals this mechanism clearly.

Figure 5-1 Income deficit (percent of LIMTIP poverty line) and time deficit (weekly hours) of hard-core and other income-poor households, actual and simulated



Note: Income deficit is measured as poverty line *minus* household income. Therefore, poor households will have positive values of deficit and nonpoor households will have negative values. Time deficit can only be zero or negative, but are shown here as positive values for convenience.

Our estimates of income deficits for the hard-core and 'other' poor households showed that in both Argentina and Chile, their initial (actual) position was roughly identical. In Mexico, in contrast, the hard-

core poor were in a deeper hole than 'other' poor households. Our estimates of time deficits for the two groups reveal the same pattern of hard-core poor households facing notably higher time deficits than 'other' poor households in both the initial (i.e., actual) and full employment scenarios. Full-time employment increased the average amount of time deficit faced by both groups of income-poor households, a reflection of the fact that the incidence and extent of time poverty tend to increase with increases in hours of employment. However, for the group labeled 'Other', the increase in time deficits was offset by the additional earnings of the newly employed individuals in their households. The simulated change in the income deficit for this group imply large increases in average household income as a result of all employable adults working full-time: In Argentina and Chile, the change in income deficit implies that household income more than doubled, while in Mexico the increase was no less than 1.5 times, on the average, for households that escaped income poverty.[55] In contrast, the hard-core poor were only able to attain modest reductions in their income deficit.

What prevented such sizeable proportions of the income-poor from escaping income poverty even with all employable adults working full-time? The first factor, within our framework, is that some income-poor households may have no employable adults to whom we could assign full-time employment in the simulation. In our data, we found that a little over half of the hard-core poor households in Argentina and Chile fell into this category (56 and 51 percent, respectively). In Mexico, this was a much smaller subset of hard-core poor households: about 30 percent. Households may have no employable adults if individuals between the ages of 18 and 74 in the household were disabled, retired, in school, or in the military. Job creation may not be an effective route, at least directly, for eradicating poverty among these households and direct income-support policies via cash and in-kind transfers would be required.[56]

Alternatively, all adults between the ages of 18 and 74 in the household may be already employed on a full-time basis. By and large, the main reason behind the lack of employable adults in hard-core poor households turned out to be the fact that the vast majority of individuals between the ages of 18 and 74 living in such households were already employed on a full-time basis. We found that, among adults living in hard-core poor households where we could find no one to assign full-time employment in our simulation, roughly 76 percent were actually working full-time in Argentina and Chile. In Mexico, their

[55] The percent increases in household income that we report here are approximate because the LIMTIP poverty line, on the average, would also increase with full-employment as a result of higher time deficits.

[56] Indirectly, job creation may have effects on the poverty status of this group of households, too, due to increases in interhousehold transfers (e.g., a newly employed person supporting their elderly parents) or changes in household formation (e.g., a newly employed person providing room and board in their own house to their widowed, elderly mother). We neglected these possibilities in our simulation scenario due to their complicated nature from a modeling standpoint.

proportion was still higher at 85 percent. For this segment of the hard-core poor, increasing the 'quantity' of their current employment (i.e., hours of employment) does not represent a viable poverty-reduction strategy. The only effective alternatives would be labour market legislation (e.g., introduction of higher minimum wages), government transfers (cash and noncash), creation of jobs that pay living wages, or a combination of all three, depending on the circumstances of individual countries.

Similar considerations also apply to the subset of hard-core poor households that did have newly employed adults in our simulation. As indicated above, the majority (70 percent) of hard-core poor households in Mexico belonged to this category; they were nearly half (44 and 49 percent, respectively) of all hard-core poor households in Argentina and Chile. The imputed earnings of the newly employed in hard-core poor households were systematically lower than the newly employed in 'other' poor households, as we would expect. On average, the newly employed in hard-core poor households had earnings that were only 60, 50, and 43 percent of the newly employed in 'other' poor households, respectively, in Argentina, Chile, and Mexico. The earnings disparity appears to be mostly a reflection of the difference between the two pools of employable adults in terms of gender, educational attainment, and age.

Table 5-4 Selected characteristics of employable LIMTIP income-poor adults in hard-core poor and other poor households

	Argentina		**Chile**		**Mexico**	
	Hard-core	**Other**	**Hard-core**	**Other**	**Hard-core**	**Other**
Total('000)	31	69	81	191	9,109	5,251
A. Sex						
Men (*percent of total*)	17	37	12	32	14	27
Women (*percent of total*)	83	63	88	68	86	73
B. Sex and age (*percent of total*)						
Men, less than 34 years	10	11	6	15	7	12
Men, 35 to 54 years	5	13	5	11	4	8
Men, 54 years and older	2	13	1	5	4	7
Women, less than 34 years	31	15	44	28	42	29
Women, 35 to 54 years	38	28	38	31	29	30
Women, 55 years and older	14	20	6	9	15	15
C. Sex and education (*percent of total*)						
Men, high school degree or less	16	31	11	28	13	19
Men, other	1	6	1	4	2	7
Women, high school degree or less	77	49	85	63	76	54
Women, other	6	15	2	6	9	19

Employable adults in income-poor households (as in all households) are predominantly female and less educated compared to full-time workers, as we had noted earlier (Table 5-1). However, women had a higher share of employable adults in the hard-core income-poor group than in the 'other' income-poor group. This difference was particularly marked in the case of Argentina and Chile (83 versus 63 percent and 88 versus 68 percent, respectively), and, less marked in the case of Mexico (86 versus 73 percent). The burden of gender disparity in earnings thus bears down more heavily on the employable adults in the hard-core group. We also found that the less educated (people with a high school degree or less) constituted a greater proportion of employable persons in the hard-core than the 'other' income-poor group. The difference in educational attainment was particularly notable in the case of Argentina and Mexico (93 versus 80 percent and 89 versus 73 percent, respectively). In Chile, the difference between the two groups of income-poor was less pronounced: 97 versus 91 percent. To the extent that differences in educational attainment translate into disparities in earnings, the educational disadvantage also takes a heavier toll among the employable adults in the hard-core poor.

Age composition also worked against the employable adults in the hard-core poor group. In all three countries, the sex-age combination with the lowest relative earnings was women between 18 and 34 years of age.[57] As shown in Table 5-1, they constituted a much larger share of the hard-core than the 'other' income-poor group. Similarly, men between the age of 35 and 74 years had the highest relative earnings in all three countries; however, they were a much smaller proportion of the newly employed in the hard-core than the 'other' poor group. In combination, the disadvantages that labour markets impose upon women, less educated, and younger workers can be expected to act with more force upon the pool of employable adults in the hard-core income-poor group. In our simulation, we found that the force of the disadvantages imposed by the existing apportionment of rewards from employment was severe enough to confine them and their households to a state of income poverty even when all adults in such households were in full-time employment.

5.2.3 The LIMTIP classification of households

We now turn to examine the changes in the LIMTIP classification of households brought about by the full-employment scenario. The most notable change appears to be the virtual disappearance of the category of households that are income-poor and time-nonpoor under the full-time employment scenario. There are two reasons behind this. First, it is logically impossible for an income-nonpoor

[57] This is true among all full-time workers and among full-time workers with no college education. The latter, of course, is the more relevant comparison group for the employable adults in the income-poor group.

household to become an income-poor and time-nonpoor household as a result of the simulation. Logically, it is possible for an income-poor, time-poor household to eliminate its time deficit as a result of the change in the intrahousehold division of labour that ensues upon the (simulated) entrance of a member of that household into full-time employment. Our framework also allows for the possibility of an income-poor, time-nonpoor household to remain in the same category after the simulation. Our data, however, indicated that such outcomes were rare. It appears that the hours of employment and earnings that were assigned to employable adults in income-poor households, along with the attendant changes in intrahousehold division of labour, either moved them to the other side of the poverty line or pushed them into the twin bind of time and income poverty.[58]

We also found a sizeable decline in the proportion of households that faced neither time nor income deficits. As a matter of arithmetic, the decline in the shares of the time-nonpoor groups in the population must be accompanied by an increase in the shares of the time-poor groups in the population. As it turned out, in both Argentina and Chile, we found the increase only for the income-nonpoor segment of the time-poor population. However, in Mexico, there was a slight increase in the share of the income-poor segment of the time-poor population, also. Thus, even though income poverty fell dramatically in Mexico in the full-time simulation, the incidence of the twin bind of income and time poverty increased slightly.

Table 5-5 Actual and simulated LIMTIP classification of households (percent)

	Argentina		**Chile**		**Mexico**	
	Actual	**Simulation**	**Actual**	**Simulation**	**Actual**	**Simulation**
Income-poor and time-poor	8	6	12	10	35	37
Income-poor and time-nonpoor	3	0	6	1	15	2
Income-nonpoor and time-poor	44	58	49	71	30	52
Income-nonpoor and time-nonpoor	45	36	33	18	20	9
Addendum: Time poverty rates						
All	52	64	61	81	65	89
LIMTIP income-poor	70	94	69	91	69	94
LIMTIP income-nonpoor	49	61	60	80	61	85

We expect time poverty to be higher under the full-employment scenario than the actual situation because the main reason behind time poverty is the excess of hours of employment over the time

[58] We examine the nature of transitions across groups later in this section.

available after setting aside the minimum required amounts of time for household production and personal care. Additionally, the evidence we have already presented (see Table 5-1) regarding the characteristics of individuals who 'received' full-time employment in our simulation—largely female and living in households with children—also suggest that we should expect an increase in the time poverty rate. Our findings that the share of the hidden poor in the total number of income-poor households (Table 5-2) and the time deficits of income-poor households had increased (Figure 5-1) would indicate that the time poverty rate among the income-poor is likely to have increased with full employment.

The findings on time poverty rates reported in the addendum to Table 5-5 bears out these expectations. We found that 64, 81, and 89 percent of all households were time-poor, respectively, in Argentina, Chile, and Mexico under the full-employment simulation. The incidence of time poverty among the income-poor was higher than the income-nonpoor, a disparity that we had also noted in the actual situation. Only 6 percent of all income-poor households were able to avoid time poverty in Argentina and Mexico while the proportion was slightly higher, 9 percent, in Chile. Thus, while full employment, as simulated here, achieves impressive reductions in the incidence of income poverty, virtually all of the remaining poor would be in the double bind of income and time poverty. It is worth emphasizing that, in all three countries, the size of this population is roughly equivalent to the population that was actually income-poor according to the official poverty line. We will return to this issue in the next chapter on policy considerations.

To understand the changes in the distribution of households across the four LIMTIP groups as a result of full employment, it is useful to consider the transition (or lack thereof) of recipient households from each LIMTIP group. Cross-tabulating the LIMTIP classification of recipient households in the actual and simulated scenarios results in a transition matrix similar to that introduced for discussing the transition from income poverty before (Table 5-3). As before, the actual classification of recipient households is shown along the rows, and the simulated classification is shown along the columns (Table 5-6).

Table 5-6 Changes in the LIMTIP classification of recipient households, actual to full-time work (percent)

A. Argentina

Actual	Full-time work				All
	Income-poor and time-poor	Income-poor and time-nonpoor	Income-nonpoor and time-poor	Income-nonpoor and time-nonpoor	
Income-poor and time-poor	41	1	56	2	100
Income-poor and time-nonpoor	22	1	52	26	100
Income-nonpoor and time-poor	2	0	95	3	100
Income-nonpoor and time-nonpoor	1	0	65	33	100

B. Chile

Actual	Full-time work				All
	Income-poor and time-poor	Income-poor and time-nonpoor	Income-nonpoor and time-poor	Income-nonpoor and time-nonpoor	
Income-poor and time-poor	40	0	57	3	100
Income-poor and time-nonpoor	25	2	53	21	100
Income-nonpoor and time-poor	4	0	91	5	100
Income-nonpoor and time-nonpoor	2	0	78	20	100

C. Mexico

Actual	Full-time work				All
	Income-poor and time-poor	Income-poor and time-nonpoor	Income-nonpoor and time-poor	Income-nonpoor and time-nonpoor	
Income-poor and time-poor	80	1	18	1	100
Income-poor and time-nonpoor	66	5	25	4	100
Income-nonpoor and time-poor	12	0	86	2	100
Income-nonpoor and time-nonpoor	15	0	79	7	100

Note: 'Recipient household' refers to households that consisted of at least one adult who was assigned full-time work in the simulation. Each row of the table shows the percentage distribution of recipients from the group named in the column 'Actual' across the groups indicated under the columns listed below 'Full-time work.' The shaded cell in each row represents the percentage of households in the group that remained in the same group after the simulation.

Roughly 90 percent or more of the recipient households drawn from the income-nonpoor and time-poor group remained in the same category after the simulation, confirming our expectation that the simulation does not make the income-nonpoor into income-poor or the time-poor into time-nonpoor in any practically significant manner. The recipients from the group that faced neither time nor income deficits in the initial situation, ended up, in the majority of cases (65, 78, and 79 percent, respectively, in Argentina, Chile, and Mexico) in the income-nonpoor, time-poor group, as we would expect.

In Argentina and Chile, the majority of recipient households (about 60 percent) that were actually income-poor and time-poor escaped income poverty as a result of full-time employment. The Mexican picture is starkly different because only a minority (about 20 percent) managed to escape income poverty. The remaining 80 percent of the income-poor and time-poor recipient households continued to be in the same boat even with full-time employment. Almost all of the recipient households that became income-nonpoor, however, continued to face time deficits. This is in line with our expectation that a time-poor household is unlikely to become time-nonpoor as a result of full-time employment.

A higher percentage escaped income poverty from the income-poor, time-nonpoor group of households. In Argentina and Chile, they constituted around three quarters of the group. Just as we saw with the income- and time-poor group in Mexico, only a minority (29 percent) were able to escape income poverty from the income-poor, time-nonpoor group, also. Virtually all of those that were unable to escape income poverty were also saddled with time poverty in all three countries. The majority (roughly two-thirds) among those who did escape income poverty, encountered time deficits while working full-time in Argentina and Chile. In Mexico, this was true of almost all that avoided income poverty from this group.

In Argentina and Chile, roughly 40 percent of the income-poor, time-poor recipient households and quarter of the income-poor, time-nonpoor recipient households remained income-poor, even with full-time employment. Together, they accounted for approximately half of all hard-core poor households in the two countries (the other half did not have any employable adults). In Mexico, 80 percent of the income-poor, time-poor recipient households and 66 percent of the income-poor, time-nonpoor recipient households remained income-poor in the full-time employment scenario. In combination, they accounted for 73 percent of all the hard-core poor households in Mexico. As we saw earlier, the proportion of households that were in the double-bind of income and time poverty was somewhat higher in the full-time employment simulation than in the actual situation. We can now see that this outcome was due to the very high persistence of poverty among recipient households in the income-

poor, time-poor group, compounded by the high proportion of income-poor, time-nonpoor recipient households that failed to escape income poverty and fell into time poverty. The lower rate of exit from poverty among the time-poor subgroup of the income-poor in all three countries is a reflection of the differences in the mix of employable adults that we discussed earlier (see Table 5-4 and related discussion) and the impoverishing effects of time deficits.

5.3 The effects of full-time employment on the income and time poverty of individuals

5.3.1 Official versus LIMTIP income poverty

In light of the evidence regarding the dramatic decline in income poverty rates for households associated with full employment, it is not surprising that we found similar results for individuals. Yet, as we found for households, the LIMTIP income poverty rates for individuals under the full-time employment scenario are still troublingly high (Table 5-7).

Table 5-7 Official, LIMTIP and hidden income poverty rates for individuals, actual and simulated

		Actual			Simulation		
		Official	**LIMTIP**	**Hidden**	**Official**	**LIMTIP**	**Hidden**
Argentina	Men	7	13	6	2	7	6
	Women	7	12	6	1	7	6
	Children	16	28	12	5	19	15
	All	9	16	7	2	10	8
Chile	Men	9	15	6	1	8	6
	Women	11	18	7	2	10	8
	Children	19	29	10	5	19	15
	All	13	20	8	3	12	9
Mexico	Men	40	49	9	19	37	18
	Women	43	51	8	20	38	18
	Children	57	67	10	34	56	23
	All	47	56	9	25	44	20

Note: For all individuals, their income poverty status is ascertained at the household-level, i.e., if their household income is below the poverty threshold then they are considered to be poor.

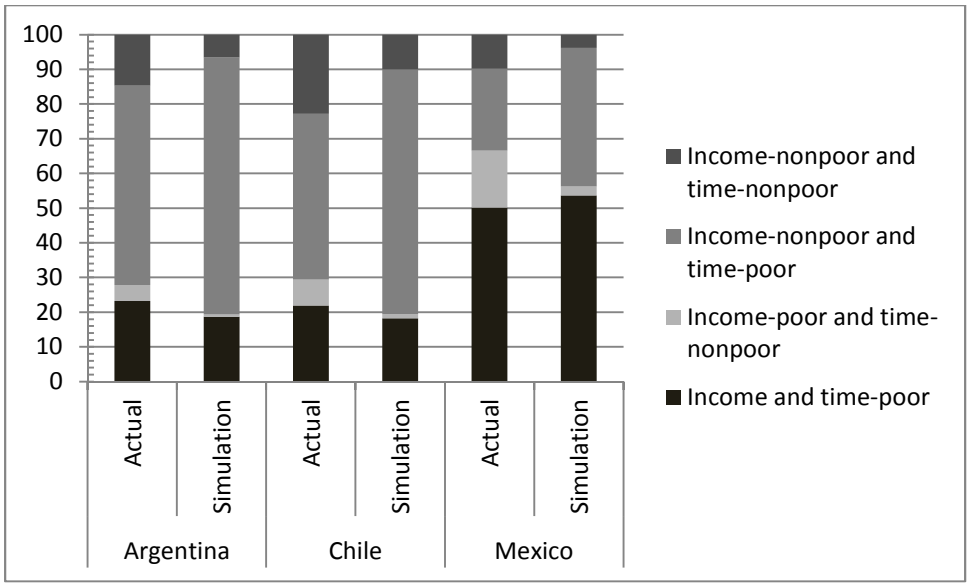
The full employment LIMTIP income poverty rates for all individuals—men, women, and children—were roughly similar to the actual official income poverty rates for the respective groups in Argentina and Chile. This suggests that the problem of income poverty for individuals was as severe in a scenario with full employment as existing actual official income poverty, once time deficits are taken into account. In Mexico, the full employment LIMTIP income poverty rate for all individuals was 44 percent, only about 3

percentage points lower than the actual, official income poverty rate. For men and women, too, the full employment LIMTIP income poverty rate was lower than actual income poverty rate, while for children it was roughly the same. Children's vulnerability to income poverty thus remains pretty high in all three countries even under the full employment scenario, a reflection of the higher income poverty rate of households with children and the higher average number of children in poor households.[59] As in the actual situation, there was a small gender disparity in income poverty rate in Chile and Mexico, while there was none in Argentina. The proportion of the hidden poor among the LIMTIP income-poor individuals under the full employment scenario was similar to that which we observed for households, i.e., the great majority of LIMTIP income-poor in Argentina and Chile consisted of the hidden poor, while in Mexico the proportion was little less than half.

5.3.2 The LIMTIP classification of individuals

We have already pointed out that children were more prone to live in households with the double-bind of income and time poverty, and they were also more likely to live in households that were time-poor (Section 3.3.2). Subsequently, we had reported that only a relatively small proportion of income-poor children lived in households that were not time-poor (see Figure 4-3 and related discussion in Section 4.1.2).

Figure 5-2 Distribution of children by LIMTIP classification of income and time poverty, actual and simulated (percent)



Note: Children are classified as time-poor if they live in a time-poor household, i.e., a household with at least one time-poor adult.

[59] We found that in the full employment scenario, the LIMTIP income poverty rate of households with children was considerably higher than households without children: 15 versus 2 percent in Argentina, 16 versus 3 percent in Chile, and 49 versus 21 percent in Mexico.

Given the evidence that we have already presented regarding the virtual disappearance of the time-nonpoor group among income-poor households, it should come as no surprise that over 95 percent of income-poor children in all three countries would find themselves living with at least one time-poor adult in the full-time employment scenario (Figure 5-2). This suggests, again, the importance of considering policies specifically aimed at children in poor, employed households as an integral part of job creation strategies. Without such policies in place, job creation programs may have undesirable effects on the well-being of the children of the working poor. It is also important to note that most of the children (around 90 percent) in income-nonpoor families would also live with at least one time-poor adult in our simulation.

We begin with the results for Argentina. Table 5-8 shows the cross-tabulation of men and women (separately) across the LIMTIP groups in the actual and simulated scenarios. As before with the transition matrices, the actual distribution is depicted along the rows and the simulated scenario along the columns. Thus, the actual distribution of men across the LIMTIP groups can be read down the rows under the column labeled 'All', and their simulated distribution can be read across the columns along the row labeled 'All'. We explain the table below with the panel concerning men, but the same logic also applies to reading the panel on women. Along the rows, we can see the numbers (expressed as a percentage of all men) of men from a given group that ended up in the four groups in the simulated scenario. We can also see, down the columns, the numbers of men (expressed as a percentage of all men) that came from the four groups to constitute a given group in the simulated scenario. For example, reading across the columns in the row labeled income-poor and time-poor under 'Actual', we can see that 5 percent of all men were income- and time-poor in the initial situation. This was made up of 3 percent (of all men) who remained income-poor and time-poor in the full employment simulation, 1 percent (of all men) who ended up being income-nonpoor and time-poor, and 1 percent (of all men) who became income-nonpoor and time-nonpoor. An example of reading down the column can be seen by considering the column labeled 'Income-nonpoor and time-nonpoor' under 'Full-time employment'. The entry along the row labeled 'All' indicates that in the full-time employment scenario, 60 percent of all men were income-nonpoor and time-nonpoor. This was made up mostly by men who were income-nonpoor and time-nonpoor in the actual situation (54 percent of all men). Of the remainder, 3 percent (of all men) came from 'income-nonpoor and time-poor' groups, 2 percent (of all men) came from 'income-poor and time-nonpoor' groups, and 1 percent (of all men) came from 'income-poor and time-poor' groups.

Table 5-8 Actual and simulated LIMTIP classification of adults by sex (percent): Argentina

A. Men

Actual	**Full-time employment**				
	Income-poor and time-poor	Income-poor and time-nonpoor	Income-nonpoor and time-poor	Income-nonpoor and time-nonpoor	**All**
Income-poor and time-poor	3	0	1	1	**5**
Income-poor and time-nonpoor	1	3	2	2	**8**
Income-nonpoor and time-poor	0	0	22	3	**26**
Income-nonpoor and time-nonpoor	0	0	7	54	**62**
All	**4**	**4**	**32**	**60**	**100**

B. Women

Actual	**Full-time employment**				
	Income-poor and time-poor	Income-poor and time-nonpoor	Income-nonpoor and time-poor	Income-nonpoor and time-nonpoor	**All**
Income-poor and time-poor	3	0	1	0	**5**
Income-poor and time-nonpoor	2	2	2	2	**8**
Income-nonpoor and time-poor	0	0	25	2	**28**
Income-nonpoor and time-nonpoor	0	0	13	47	**60**
All	**5**	**2**	**41**	**52**	**100**

Note: Adults are defined as individuals 18 to 74 years of age. The adult is considered as income-poor if their household income is below the LIMTIP income poverty, and considered as time-poor if they are time-poor. Numbers along the rows and columns may not add up due to their respective totals showed under 'All' due to rounding.

Similar to the results we reported for households in Argentina, we found that the majority of men and women in the double-bind of income and time poverty remained in the same position after the simulation. Also, similar to the results for households, there was a dramatic reduction in the percentage of men and women in the income-poor, time-nonpoor group. Again, this is to be expected because relatively more of the newly employed among the income-poor were drawn from the time-nonpoor rather than time-poor persons.[60] About half of men and women from this group remained income-poor even after the simulation, while the other half was split evenly, for both sexes, across the time-poor and time-nonpoor segments of the income-nonpoor population. We did not expect to see much mobility

[60] Roughly 30 percent of all newly employed men and 18 percent of all newly employed women were from the income-poor, time-nonpoor group. Only 3 and 5 percent of newly employed men and women, respectively, were from the income-poor, time-poor group.

among persons initially in the income-nonpoor and time-poor group because very few of the newly employed came from this group. Nearly two-thirds of all newly employed men and women actually were originally income-nonpoor and time-nonpoor. However, the effect of the newly employed on the size of this group was different for men and women. The result was the transfer of 12 percent of these men (7/62) into the time-poor segment of the income-nonpoor population. The propensity to fall into time poverty was higher among women as 24 percent of the income-nonpoor, time-nonpoor group (13/60) transferred into the income-nonpoor, time-poor category. For both men and women, this led to the enlargement of the income-nonpoor, time-poor group. Reading down the rows of the column labeled 'income-nonpoor, time-poor group', we can see that most of the addition to this group came from persons that were income-nonpoor and time-nonpoor. In sum, full-time employment brought about a dramatic reduction in the income poverty rate by reducing the relative size of the time-nonpoor segment of the income-poor population. However, the incidence of double-bind remained stubborn to an equal extent among men and women, as dida notable gender disparity in the proportion of people with neither time nor income deficits because the time poverty among income-nonpoor people rose faster for women than men.

The results for Chile showed some interesting differences (Table 5-9). Among women, the incidence of the double bind of income and time poverty was slightly *higher* in the full-time employment scenario than the actual situation. The opposite was true for men, though both groups had identical incidence of double-bind in the actual situation. Compared to men, a larger proportion of women that were actually income-poor and time-poor tended to stay in that category and a larger proportion of income-poor women that were time-nonpoor tended to fall into time poverty under the full employment scenario. Similar to Argentina, however, there was a notable decline in the percentages of men and women that were income-poor and time-nonpoor because relatively more of the income-poor recipients were drawn from the time-nonpoor pool than the time-poor, as we would expect.[61] In fact, a higher proportion of men and women than in Argentina made the transition out of income poverty from the income-nonpoor, time-poor group, with about 40 percent of men and 33 percent of women still remaining income-poor with full-time employment.

Table 5-9 Actual and simulated LIMTIP classification of adults by sex (percent): Chile

A. Men

[61] About 30 percent of all newly employed men and 20 percent of all newly employed women were from the income-poor, time-nonpoor group. Only less than 1 percent and 3 percent of newly employed men and women, respectively, were from the income-poor, time-poor group.

Actual	Full-time employment				All
	Income-poor and time-poor	Income-poor and time-nonpoor	Income-nonpoor and time-poor	Income-nonpoor and time-nonpoor	
Income-poor and time-poor	2	1	1	1	**6**
Income-poor and time-nonpoor	1	3	2	4	**10**
Income-nonpoor and time-poor	0	0	17	5	**22**
Income-nonpoor and time-nonpoor	0	1	10	52	**63**
All	**3**	**4**	**30**	**62**	**100**

B. Women

Actual	Full-time employment				All
	Income-poor and time-poor	Income-poor and time-nonpoor	Income-nonpoor and time-poor	Income-nonpoor and time-nonpoor	
Income-poor and time-poor	4	0	1	1	**6**
Income-poor and time-nonpoor	2	2	4	3	**12**
Income-nonpoor and time-poor	0	0	23	3	**26**
Income-nonpoor and time-nonpoor	1	0	19	37	**56**
All	**7**	**3**	**46**	**44**	**100**

Note: Adults are defined as individuals 18 to 74 years of age. The adult is considered as income-poor if their household income is below the LIMTIP income poverty, and considered as time-poor if they are time-poor. Numbers along the rows and columns may not add up due to their respective totals showed under 'All' due to rounding.

In Chile, just as in Argentina, there was little mobility among persons that were actually in the income-nonpoor and time-nonpoor group, and roughly 70 percent of all newly employed men and women were originally income-nonpoor and time-nonpoor. However, the effect of the newly employed on the size of this group was different for men and women, in a manner similar to Argentina. The risk of falling into time poverty was higher among women than men, and, as a result, proportionately more women were transferred into the time-poor segment of the income-nonpoor population. We can gauge the gender disparity in the risk of time poverty starkly here because the share of people with neither time nor income deficits remained fairly constant for men, and declined for women between the actual and full employment scenarios. All told, full-time employment brought about a drastic reduction in the income poverty rate by reducing the relative size of the time-nonpoor segment of the income-poor population in Chile. However, the incidence of the double bind increased slightly for women, while it declined for men as a result of full employment, in contrast to Argentina where it was equally prevalent among men

and women in the full-time employment scenario. Gender disparity in the proportion of people with neither time nor income deficits, already manifest in the actual situation, became larger under the full employment scenario because time poverty among income-nonpoor people rose faster for women than men.

Table 5-10 Actual and simulated LIMTIP classification of adults by sex (percent): Mexico

A. Men

Actual	**Full-time employment**				
	Income-poor and time-poor	Income-poor and time-nonpoor	Income-nonpoor and time-poor	Income-nonpoor and time-nonpoor	**All**
Income-poor and time-poor	10	3	2	1	**16**
Income-poor and time-nonpoor	6	16	3	8	**33**
Income-nonpoor and time-poor	0	0	11	3	**15**
Income-nonpoor and time-nonpoor	0	1	6	29	**36**
All	**16**	**20**	**23**	**41**	**100**

B. Women

Actual	**Full-time employment**				
	Income-poor and time-poor	Income-poor and time-nonpoor	Income-nonpoor and time-poor	Income-nonpoor and time-nonpoor	**All**
Income-poor and time-poor	15	1	3	1	**19**
Income-poor and time-nonpoor	13	7	7	4	**32**
Income-nonpoor and time-poor	0	0	14	2	**17**
Income-nonpoor and time-nonpoor	1	0	14	17	**32**
All	**29**	**9**	**38**	**24**	**100**

Note: Adults are defined as individuals 18 to 74 years of age. The adult is considered as income-poor if their household income is below the LIMTIP income poverty, and considered as time-poor if they are time-poor. Numbers along the rows and columns may not add up due to their respective totals showed under 'All' due to rounding.

The results for Mexico are quite different from those for the other two countries. Here, too, the decline in income poverty occurs mainly via the reduction in the size of the income-poor, time-nonpoor group, as we would expect. However, a much higher proportion of the group, compared to the other two countries (about 65 percent for both men and women), stayed income-poor even with full-time employment. This is partly a reflection of the adverse labour market characteristics of the newly employed women in the group because about 80 percent of all women in the group were assigned full-

time jobs in our simulation (see Table 5-4 and the associated discussion of the hard-core poor in Section 5.2.2). The entrenched nature of gender inequalities in the rewards to employment and the division of domestic labour are mirrored in the fact that 42 percent of women in the income-poor, time-nonpoor group fell into the double-bind of income and time poverty with full employment.[62] Because of the relatively large number of new entrants, the incidence of the double-bind among women was strikingly higher with full employment than in the actual situation (29 versus 19 percent), while among men the incidence was unchanged (16 percent). The relatively large shifts (compared to the other two countries) found in Mexico among the income-poor population are due to the fact that, unlike in Argentina and Chile, the largest share of the newly employed were those who belonged to the income-poor, time-nonpoor group (58 and 44 percent, respectively, of newly employed men and women).

Similar to the other two countries, there was only a minor degree of mobility among persons that were actually in the income-nonpoor and time-poor group, and the majority of all newly employed income-nonpoor men and women were originally income-nonpoor and time-nonpoor.[63] The gender disparity in the effect of the newly employed on the size of the latter group was evident in Mexico, as in the other two countries, and to an even greater extent. Women were more prone to time poverty than men, and, as a result, proportionately more women were transferred into the time-poor segment of the income-nonpoor population. The gender asymmetry in the risk of time poverty was reflected clearly in the fact that the share of people with neither time nor income deficits *increased* for men (from 36 to 41 percent) and *declined* for women (from 32 to 24 percent) between the actual and full employment scenarios. Overall, full-time employment brought about a remarkable reduction in the incidence of income poverty for both men and women by reducing the relative size of the time-nonpoor segment of the income-poor population in Mexico. This was accompanied, however, by a notable *increase* in the incidence of the double-bind for women and by a notably unchanged level for men. Mexico, like Chile, displayed a considerable degree of gender disparity in the proportion of people with neither time nor income deficits in the actual situation. Under the full employment scenario, the disparity widened in both countries because time poverty among income-nonpoor people rose faster for women than men.

[62] For men, this proportion was much lower at 17 percent.

[63] About 35 percent each of all newly employed men and women were from the income-nonpoor, time-nonpoor group. As noted above, and in contrast to the other two countries, the largest contributor to the newly employed in Mexico was the income-poor, time-nonpoor group. This is a consequence of the much higher incidence of income poverty in Mexico.

5.3.3 Time poverty rates for employed men and women

We have already seen that the full-time employment simulation produces higher time poverty rates among both households and individuals. In this section, we dissect this phenomenon a little further by discussing, along the lines previously elucidated (see Sections 3.1.3, 3.2.3, 3.3.3, and 4.1.3) how entrenched differentials based upon gender and income poverty status are likely to manifest themselves in a full employment situation. We focus our attention on employed adults.

We pointed out in the previous section (Section 5.3.2) that the increase in time poverty upon full-time employment is more pronounced for women. This is partly because women make up the majority of individuals that were assigned full-time jobs in the simulation. Another reason, the evidence for which we have highlighted at several junctures so far, is the gender disparity in the division of domestic labour. We have also seen that there was a notable shrinkage in the share of time-nonpoor individuals among the income-poor, and consequently, the incidence of time poverty among the income-poor increased considerably. Thus, the increase in time poverty of women is the combined result of the gender-based inequality in unpaid work burden and lack of adjustment of the burden between the spouses even when both work full-time.

The results reported in Table 5-11 resonate well with the findings so far. Women had higher rates of time poverty than men on both sides of the poverty line in the actual situation. The disparity widened in a marked fashion with full-time employment. In Argentina, the gender disparity widened from 4 to 18 percentage points among the income-poor and from 10 to 13 percentage points among the income-nonpoor. The increase was equally strong in Chile, where the gender disparity increased from 17 to 30 percentage points among the income-poor and from 20 to 22 percentage points among the income-nonpoor. In Mexico, the gender disparity rose from 24 to 31 percentage points among the income-poor and from 22 to 28 percentage points among the income-nonpoor.

Table 5-11 Time poverty rates of employed men and women, actual and simulated (percent)

Country	Income poverty status	Sex	Actual			Simulation		
			Employment-bind	Double-bind	Time poverty	Employment-bind	Double-bind	Time poverty
Argentina	Poor	Men			58			62
		Women	43	19	62	55	25	80
	Nonpoor	Men			35			39
		Women	39	6	45	45	8	52
Chile	Poor	Men			53			50
		Women	58	12	70	62	18	80
	Nonpoor	Men			32			37
		Women	48	4	52	54	6	60
Mexico	Poor	Men			40			49
		Women	52	13	65	62	18	80
	Nonpoor	Men			35			40
		Women	53	5	57	62	6	68

Note: We have not shown the estimates of employment and double-bind rates of time poverty separately for men because the incidence of double-bind among men was too small to allow reliable estimates.

Part of the reason for the widening gender disparity among the income-poor was the increase in the double time-bind among income-poor women.[64] There was an increase in the incidence of double-bind among income-nonpoor women, too, but it was much more moderate than among income-poor women. The increase in the double time-bind among women is driven largely by the entrance of nonemployed time-poor women (those already in the housework time-bind) into the ranks of the employed. Most of the women in the housework time-bind were income-poor. While it is logically possible that, for such women, entering into full-time employment *could* usher them (and their households) into income-nonpoor status, our data indicates that such cases were infrequent. These two facts help explain why the increase in the double poverty-bind accounted for a larger proportion of the growing gender disparity among the income-poor than income-nonpoor.

[64] It may be recalled (see Section 3.1.3) that there are two distinct sources of time poverty in our model. The first is that the hours of employment of the individual exceed the time available to them, after setting aside the time needed for personal care and necessary household production from the physically fixed number of hours. The second factor that can lead to time poverty occurs when the time available to the individual, even before taking into account their hours of employment, turns out to be negative. Such individuals may be employed, and in that case, we referred to them as subject to the double-bind of employment and housework.

The disparity in time poverty rates between income-poor and income-nonpoor women also widened considerably with full-time employment, reflecting the faster rise in time poverty among the poor than the nonpoor that we noted before. Income-poor women in Argentina and Chile bore a time poverty rate that was roughly 18 percentage points higher than their income-nonpoor counterparts. With full-employment, the gap widened to 28 and 20 percentage points, respectively, in Argentina and Chile. In Mexico, the gap between income-poor and nonpoor women widened from 8 percentage points to 12 percentage points. It should be noted that income-poor men also suffer from a greater incidence of time poverty than income-nonpoor men. However, the full employment situation did not widen the gap relative to the actual situation in any way comparable to women; in fact, a narrowing of the gap was found in Chile.

5.4 Summing up

Our findings suggest that while job creation can lead to a very substantial reduction in income poverty, a considerable proportion of households would still remain income-poor. Among the households that remain in income poverty—the hard-core poor—it is important to distinguish between three different groups. The *first* group of households did not experience any change in their poverty status because they contain only ineligible adults, i.e., adults who were disabled, retired, in school, or in the military. Poverty alleviation for these households cannot be effectively accomplished via job creation. The *second* group of households did not experience any change in their poverty status because all the eligible adults were already employed full-time. The *third* group consists of households that, even though they have employable adults who were assigned full-time employment in the simulation, remain below the LIMTIP poverty line. Some households in the third group will be officially income-poor while the others would belong to the hidden poor, i.e., households with incomes above the official threshold but below the LIMTIP poverty line. The majority of households in our case studies were the hidden poor, thus suggesting that monitoring the incidence of poverty via official measures becomes even more biased when we attempt to evaluate the poverty-reducing impact of job creation. Further, policies to redress time poverty among the working poor must accompany efforts to promote job creation.

Our simulations showed that women are more likely to receive lower-paying jobs in services and sales. As a result, they are less likely to move out of income poverty, while experiencing greater time deficits. Given the existing gendered nature of the industry-occupation employment composition, these results are not surprising. What the simulation confirms is that neither simple income supports through employment nor transfers will address the needs of all people in poverty. A multi-dimensional approach,

such as a living-wage guarantee, a better transportation system for easier commute, and social care provision, is necessary to reduce poverty—both visible and 'hidden'.

The fact that over 95 percent of income-poor children in all three countries would find themselves living with at least one time-poor adult in the full-time employment scenario suggests the importance of considering policies specifically aimed at children in poor, employed households as an integral part of job creation strategies. Without such policies in place, job creation programs may have undesirable effects on the well-being of the children of the working poor. And since most children in income-nonpoor families would also live with at least one time-poor adult in our simulation, support for policies specifically aimed at easing the time-crunch faced by poor working parents may come from middle class working parents, too, if proposed policies are adequately universal.

In Argentina, full-time employment brought about a dramatic reduction in the income poverty rate by reducing the relative size of the time-nonpoor segment of the income-poor population, though the incidence of double-bind remained stubborn to an equal extent among men and women, as well as a notable gender disparity in the proportion of people with neither time nor income deficits because the time poverty among income-nonpoor people rose faster for women than men.

In Chile, full-time employment brought about a drastic reduction in the income poverty rate by reducing the relative size of the time-nonpoor segment of the income-poor population. However, the incidence of the double-bind increased slightly for women, while it declined for men, in contrast to Argentina, where it was equally prevalent among men and women in the full-time employment scenario. Gender disparity in the proportion of people with neither time nor income deficits, already manifest in the actual situation, became larger under the full employment scenario because time poverty among income-nonpoor people rose faster for women than men.

In Mexico, full-time employment brought about a remarkable reduction in the incidence of income poverty for both men and women by reducing the relative size of the time-nonpoor segment of the income-poor population. This was accompanied, however, by a notable *increase* in the incidence of the double bind for women and by a notably unchanged level for men. Mexico, like Chile, displayed a considerable degree of gender disparity in the proportion of people with neither time nor income deficits in the actual situation. Under the full employment scenario, the disparity widened in both countries because time poverty among income-nonpoor people rose faster for women than men.

Among the employed, women had higher rates of time poverty than men on both sides of the poverty line in the actual situation. The disparity widened in a marked fashion with full-time employment. The disparity in time poverty rates between income-poor and income-nonpoor women also widened considerably with full-time employment.

We can see now that poverty-reduction strategies that do not take into account the time required to reproduce the household will fall short of reducing deprivation, and indeed, could exacerbate it in some extreme cases. In the following section, we turn to some policy recommendations that follow from our investigation into time and income poverty.

6 Concluding Remarks: Policy (Re) Considerations

Our LIMTIP framework and findings suggest that for policies to reduce time-adjusted income poverty, there is a need to pay attention to five interlocking key domains: (a) labour market outcomes, reflected in hours of employment and earnings; (b) demographic structures and household composition as they influence the amount of time needed to fulfil household production requirements; (c) levels of social protection/assistance (i.e., cash transfers) as they modify incomes; (d) provisioning of social (public) goods and services because they greatly affect the ability to meet household production requirements; and (e) gender norms which are embedded in all of the above mentioned domains. These factors are intertwined and it is their combined effect that determines the (time-adjusted) poverty status of individuals and households. To effect positive transformation, care must be taken so that changes in one domain (among a-e above) can work synergistically with the others. If not, there is a danger of trading off one dimension of poverty (income) for another (time deficits).

Over the years, pathways to economic development have varied a lot, but it is safe to say that improvements in the standard of living and sustained reduction in poverty for the majority of the world's population have been largely achieved through the creation of better paying jobs and productivity gains in agriculture. In addition, the adoption of minimum wage legislation, regulation of work hours, equitable sharing of productivity gains between wages and profits, and introduction of social security systems have contributed greatly to the well-being of those whose main asset is their own labour. Nonetheless, and despite many gains made, the persistence of inequalities and poverty called for remedial public action. To ameliorate socioeconomic inequalities, redistributive tax and expenditure policies that enlarge access to necessities through social provisioning of goods and services, and mitigate loss of income through social protection and social assistance measures were deemed indispensable. To a large degree, then, reduction of income poverty and multiple inequalities, including their gendered forms and dimensions, reflect the *joint impact* of economic and social policies; when effective, they ultimately result in widely shared prosperity and better quality of life for all, including the least privileged.

Many parts of the world are still marked by deep inequalities and face new vulnerabilities. Structural external account imbalances have not been accompanied by strong trends of surplus recycling to where it is most needed. Lacklustre creation of decent jobs has overlapped with dramatic increases in the prices of essential items, such as food and fuel, and financial and sovereign debt crisis. Slow job recovery in post-crisis periods is at times accompanied by labour market deregulation and an upsurge of

casualization of work. Skill-based wage differentials have widened, and self-employment and migration have been distressed. These are but manifestations of present-day risks. Hence, addressing poverty and inequality remains a key policy priority.

From the standpoint of earnings, the challenge of allocating *time* to gainful employment that can provide for above-poverty standards of living takes two forms: some face nonemployment and underemployment due to insufficient demand for labour; others, earn very low wages combined with long hours of work schedule. Those who have 'time to spare' coexist with the 'overworked and underpaid'. When the dimension of poverty-inducing time deficits in household production is made evident, the limited options for transitioning out of poverty become even narrower.

Our study has shown that the poverty-inducing effect of *time deficits* individuals and household encounter in meeting their household production requirements is, in fact, substantial. Not taking this factor into account renders many households' inability to meet basic needs invisible:

- Some, especially the employed, fall outside the radar of policy - these are the 'hidden poor'.
- For others the difficulty arises in that their depth of poverty is largely underestimated, and current *levels* of interventions cannot truly lift them out of poverty.
- Yet for another group, those with incomes that hover near and around the LIMTIP poverty threshold, the risks and vulnerabilities they face are indiscernible by official poverty measures. Idiosyncratic or systemic shocks are bound to create hardships for them.

Our framework provides a lens that makes these vulnerabilities evident, observable, and measurable. We have also shown that poverty-inducing deficits in household production are not uniformly distributed across households and individuals. Gender, size of households, presence of young children, and parental and worker status matter a lot. Hence, this study reinforces the idea that when remedial policies are contemplated, 'one shoe does not fit all sizes'. Finally, we have shown that inclusive growth policy interventions that aim at job creation, while being effective for a large percentage of the income-poor population, are unlikely to be effective for a sizeable number of the income-poor. Unless policies are in place to counteract time deficits in household production and dismally low wages, many individuals and women, in particular, will remain excluded from the promise that remunerative work holds.

The results we have reported for each country reflect specificities that include the differences of geography and population size under study. Additionally, and very importantly, the time use and household survey data, despite having been collected just a few years apart, finds these countries in very different economic conditions. Argentina in 2005 had just emerged from the severe 2001 crisis, with 33 percent of the urban population found in (official) income poverty. For Chile, 2006 was a prosperous year coming in the aftermath of high growth rates registered in 2004 and 2005 of 6 and 5.4 percent, respectively, accompanied by only 11.5 percent of the population below the official poverty line in 2006. On the other hand, Mexico, in 2009, was experiencing in full swing the adverse effects of the global financial crisis that erupted at the end of 2007 in its most significant trading partner and neighbouring country, the United States, and the national official poverty rate stood at 44.5 percent. Apart from the differences in poverty rates and macroeconomic conditions, each country had chartered distinct developmental paths marked by unique political, economic, and social contexts over the preceding decade. They had significantly different national perspectives as to how income poverty can be addressed, as well as different anti-poverty programs that displayed variations across years in terms of budgetary allocations. They also differed in their ability to create decent jobs. Despite these differences, the country-specific profiles of poverty that emerge from our study allow us to discuss some overarching themes with policy relevance across countries, notwithstanding the fact that the particular avenues for change may be different in each national context.

A useful way of thinking about policy interventions begins with the idea that individuals and households below the poverty line consist of two groups: the employed, referred to in the literature as *working poor*, and the nonemployed. Both groups are equally in the radar of policy makers, and from our perspective, there is no premium attached to being overworked and underpaid or not having employment options. Both are impoverished. Nonetheless, the two groups experience poverty differently, and poverty reduction policies must be informed by this difference.

6.1 The employed poor

The majority of poor, employed men and women face time deficits though the incidence is higher among women, partly because they suffer from the *double time-bind* (see Table 5-11). Long hours of employment, low earnings, and relatively (relative, that is, to available time) high household production needs are the defining characteristics of the employed individuals locked into a position of time and income poverty. Current levels of social protection and social provisioning appear to fail for this group that constituted 6, 8, and 24 percent of all employed adults, respectively, in Argentina, Chile, and

Mexico. One reason why existing government programs fail them may be that a sizeable proportion of them are above the official poverty line. This suggests that taking time deficits into account while formulating poverty alleviation programs will alter the focus of the coverage so as to include the 'hidden poor' in the target population. For the time-poor, employed persons that fall below the official poverty line, existing programs do not appear to be capable of closing the income gap even relative to the official poverty line. Taking time deficits into account will alter the level of benefits bestowed to this group of individuals by existing or contemplated programs. The specifics of the interventions do matter for their success. This is the question of 'what' intervention and for 'whom', so that policies are designed appropriately. We believe that the rich information base constructed in the LIMTIP framework can be used to evaluate various policy options, including those targeting time-nonpoor but income-poor employed persons.

In-kind provisioning formulated to address time deficits (longer school hours, infant and early childcare provisioning, and elder home-based care, for example) is very important in this context. But, it is useful to think of the evidence when fiscal space is limited and prioritization is needed. For instance, we found that the incidence of time deficits was higher among the income-poor than the income-nonpoor households in all three countries, dispelling the myth that it is well-off households with members engaged in skilled professional occupations that face greater vulnerability. The gap was the widest in Argentina (70 versus 49 percent), but smaller in Chile (69 versus 60 percent) and Mexico (69 versus 61 percent).

The pressures imposed by time and income gaps can be reduced by a coordinated *package* of interventions. To address demographic and gender characteristics of the LIMTIP poor, policy scenarios should include combinations of interventions that reduce time deficits and improve earnings. These can include price supports of basic consumption goods and productive inputs for small scale farmers, particularly relevant in rural areas in Mexico; removal of user fees (that augment the reach of current incomes); regulation of the length of the working day and legislation that provides social pensions along the lines of the Social Protection Floor for own-account workers; registration of informal workers along the lines of recent efforts in Argentina; and rebalancing of wage structures to improve the earnings of low-wage workers holding regular contracts. The promise is that such interventions would affect income inequalities structurally and boost the incomes of those at the bottom of the distribution. Finally, when space for such changes is limited, income support through cash transfers to guarantee a minimum standard of living is necessary.

Specifically, it is worth highlighting the following findings and their implications:

1. Public action to alleviate the burdens of time and income poverty can and should be based on alliances that cut across the gender line. Our estimates showed that workers suffering from income and time deficits were divided nearly equally across the sexes. We also found that, in Argentina and Chile, a substantial share of workers with income and time deficits actually earned 'middle class' wages, i.e., they belonged to the third quintile of the distribution of earnings. Hence, public action to alleviate the double burden of income and time deficits can and should be built on solidarity between low-wage and middle-wage workers. The Mexican situation is of course different from that in Buenos Aires and Greater Santiago in that the scourge of poverty reaches up to higher rungs of the earnings distribution, indicative of the absence of a sizeable middle class working population. In this context, public action to combat time and income poverty can and should be based on a much more broader solidarity of the vast majority of employed poor since only a minority, mostly belonging to the top 20 percent of the earnings distribution, appears to escape the grip of income poverty completely.
2. Women workers formed the majority, in all three countries, of the group that perhaps may be described as the worst-off according to our measure: income-poor, time-poor, and belonging to the bottom of the earnings distribution. This was the result of the overrepresentation of women in the lowest quintile of earnings and the higher incidence among women of being both income- and time-poor. Gender disparities in earnings thus accentuate the income and time deprivations faced by women workers. The implication is that ameliorating gender pay disparities can contribute toward the reduction of poverty and improvement of overall gender equity.
3. Our study validates that Latin America's grave concerns with workers in own-account and casual work status are well-founded. In fact, we showed that their poverty situation is considerably bleaker when time deficits are taken into account. However, we also found that a substantial segment of regular (registered) workers were also prone to similar vulnerabilities because they belonged to the hidden poor, thus bringing to light a rather neglected aspect of deprivation in Latin America. Time deficits have an impoverishing effect even among the regular-wage workers. In fact, in both Argentina and Chile, the incidence of income *and* time poverty among regular workers according to the LIMTIP was *higher* than the incidence of official income

poverty.[65] Since the hidden poor are officially nonpoor, the finding points to the fact that substantial number of households with regular workers must also be falling through the cracks in the social safety net. Hidden poor households do not qualify for social assistance or for special early childhood programmes and subsidized after school programmes. Policies to address time and income deficits can benefit regular workers as well as casual and self-employed workers to a much more equal extent than implied by the official poverty measure.

4. The higher vulnerability of working parents—men and women—and households with young children to income and time poverty has been noted in all three countries. A critically important finding is that this vulnerability affects disproportionately single female-headed households, but they are not the only affected group. Insufficient incomes (relative to the LIMTIP poverty line) affect adults and their children in single earner *and* dual earner households. Some have incomes below the official poverty line because wages are very low. Others have incomes above the official poverty threshold, but only because they devote very long hours to employment and when the monetized value of time deficits are incorporated in the poverty line, the families of these working parents are revealed to be suffering from income poverty.
5. From a gender perspective, in addition to the lower female labour force participation (with adverse effect on women's earnings and on the income of their households), we also have to consider the fact that among the employed, poor men devote overwhelmingly more hours than women to employment. The majority of poor, employed men, too, face a 'double day' at their job and hence their time deficits generally come from very long hours of employment. Women in 'employment status' devote substantially fewer hours to employment, with their time deficits being traceable to household production responsibilities, which on average offset the gaps in hours of employment that they have with men. The critical issue from our perspective is not whether women end up spending some extra hours in terms of total hours (paid and unpaid) *vis-à-vis* men. The fundamental policy concern here is that the 'male breadwinner' model is reinforced by labour market outcomes and realities that women face. With wage differentials biased against women (including among poor unskilled workers) and precarious work on the rise, with poor men working very long hours for pay, and with lack of vigorous decent job creation for all, the gender stereotypes that naturalize women as carers and mothers permeates

[65] See Table 4-11, Table 4-14 and Table 4-17. Official income-poor among regular-wage workers were 3, 6, and 24 percent, and LIMTIP income and time-poor 5, 8, and 17 percent, respectively, in Argentina, Chile, and Mexico. Adjusting for time deficits increased measured income poverty rates to 7, 12, and 34 percent, respectively, in Argentina, Chile, and Mexico.

societies, even as the proportion of married couple households in all households have been on the decline. The city of Buenos Aires constitutes an extreme example where married couples with children make up only a quarter of all households.

6. In view of the above finding, for poor households with one or more members in employment status, it is rather unreasonable to expect that gender-equitable redistribution of intrahousehold responsibilities is easily achievable in these three countries. Unless women allocate more of their time to employment and men allocate more of their time to unpaid household production, income-poor women will remain time-poor due to too much time in household production; poor men will remain time-poor due to much longer time devoted to paid employment. In this sense, labour market outcomes—indeed, underpinned by a gender (inequitable) division of labour embedded in social norms—become drivers that structurally reinforce intrahousehold inequitable ascriptive social roles. The co-responsibility of the state in care provisioning is key to enabling women to allocate more time to employment. But, again we must ask: what else is needed? If poor unskilled women's wages and hours of employment remain as they are, expanding child care centres alone will turn out to be a necessary but not sufficient condition for poverty reduction. Additionally, for women who are currently nonemployed, job opportunities must be available for poverty reduction to become a reality.
7. Given the persistence of (official) income poverty, cash transfers have emerged as a remediating policy intervention to ameliorate impoverished earnings. Often, especially in Latin America, conditionalities are attached to target and assist recipient households with school-aged children, whereby the aim is to supplement earnings while encouraging parents to keep children and adolescents, especially girls, within the educational system. From the perspective of employed (LIMTIP) poor households, consideration must be given to several issues. *First*, a family-based cash allowance that would reach not only women who are mothers and not only households with school-aged children, but all households in need. *Second*, given that households with children under the age of six years are found to (a) be in poverty in large numbers and (b) face a high incidence of time poverty, expanding access to early childhood development centres is critically important. Those in official poverty and the 'hidden poor' (seemingly 'middle income') stand to benefit greatly. Although not providing cash directly, such centres can substantially reduce time deficits and thereby reduce or, in some cases, even eliminate the income deficit with respect to the LIMTIP income poverty line. As these establishments cover much of the nutritional, health, and mental stimulation needs of infants and the very young, they would

serve to promote their overall well-being. In so far as the centres reduce or eliminate the current expenditures on private childcare, they can also improve the economic well-being of poor families because the money previously spent on childcare can now be spent on other necessities such as food, clothing, etc. Finally, it is worth mentioning here that public investment in neighbourhood-based childcare centres, such as the *Estancias Infantiles* in Mexico, also contribute to poor women's earned incomes by absorbing them in the labour market. *Third*, budgetary allocations dedicated to a combination of expanding the hours of school operation, midday meal programmes, and after school enrichment programmes would both ease time deficits and allow incomes to go further in meeting household needs.

6.2 The underemployed and nonemployed poor

The other LIMTIP income-poor group consists of the nonemployed or 'inactive' persons who have time available to perform all the required household tasks, and also time to 'spare.' This is a diverse group. For example, it includes retirees and the elderly; the severely disabled or permanently ill persons; students in higher education; individuals who have withdrawn from the labour force temporarily, such as postnatal mothers or persons with temporary health issues. However, the core of the group that is extremely important from a policy point of view consists of employable, working age adults—individuals that are able and willing to work for pay but do not have access to full-time jobs.

This group is of particular relevance for the types of policy interventions considered in this report. It is useful to think of the income-poor persons in this core group as belonging to two types of households. Some of the individuals live in income-poor *employed* households (households where the head, spouse, or both are employed). A sizeable number of households may escape poverty if employment opportunities were to be available to the additional potential earners in the household (e.g., nonemployed wife or adult child of the head). The remainder of income-poor employable persons live in (income-poor) *nonemployed* households (households where neither the head nor spouse is employed). In such cases, the employment of the head, spouse, or both could put an end to income poverty for a substantial number of households.

For income-poor households with jobless individuals, access to work may be the key, but not a guarantee to escaping poverty. Some households may remain income-poor because even with full-time employment of all employable adults, their household income still falls below the official income poverty line. Such households are likely to be in extreme poverty, composed of adults with abysmally

low earnings, and receive little income (e.g., in the form of remittances or social assistance programmes) other than the earnings of the members living in the household. Another group of households may remain income-poor because of the impoverishing effects of time deficits. The household may already have a time-poor adult (this is more likely in employed households) and the entrance of an additional member of the household into employment might worsen the time deficit faced by the household. This can happen either because the newly employed person turns out to be time-poor due to their hours of employment, or because the time deficit of the adult who was time-poor to begin with increases as a result of the reallocation of domestic labour that is likely to ensue as a result of the change in the employment status of individuals in the household. Alternatively, a time-nonpoor household may become time-poor (this is more likely in nonemployed households) because the newly employed individuals in the household may encounter time deficits as a result of their new pattern of time allocation to employment and housework. Irrespective of whether the household experiences the worsening of already existing time deficits or emergence of time deficit as a result of changes in the employment status of the individuals in the household, the crucial question is: Are the additional earnings sufficient to offset the monetized value of additional time deficit? For some income-poor households, employment would unambiguously pave the way out of income poverty. On the other hand, for some income-poor households, the answer will be in the negative and such households would be LIMTIP income-poor even with employment. Our simulation exercise tried to address the rather complex relationship between job creation and poverty by modelling a situation in which all employable adults were employed full-time. In this regard, it is important to keep in mind the following findings and their implications.

1. As a prerequisite to our simulation, we had to identify the pool of employable adults in each country. We found that the substantial majority of such individuals were women. This is not surprising given the lower employment rates and lower hours of employment of women. From the standpoint of a job creation strategy that aims at poverty alleviation, it is important to note that the majority of the employable income-poor women were parents of children under 18 years of age and had only a high school degree or less in terms of educational attainment. Poor employable women face the double disadvantage of their gender (i.e., women earn less than men on the average) and educational attainment (i.e., the average earnings of those who have never attended college is lower than those who have) in their potential earnings. They are also more prone to time deficits because of their gender and parental status. Employment policies that do not take into account these crucial features of the employable adults in income-poor

households are likely to be less effective in terms of poverty alleviation than intended by those who design and implement them. The need for early childhood care and afterschool programmes we discussed above is clearly equally pertinent here.

2. Our simulations showed that full employment (defined as full-time employment of all employable adults) can produce a dramatic reduction in the incidence of income poverty, even without altering the current structure of earnings. Job creation on such a scale translates into poverty reduction, irrespective of whether we use the official or LIMTIP poverty line as the yardstick. To us, this indicates the central importance of the efforts to steer economic development towards inclusive growth via policies that try to create enabling employment generation conditions.
3. However, our simulations also showed that even with full employment, the LIMTIP poverty rate was as high as the actual (i.e., pre-simulation) official poverty rate. Important as the objectives and targets of inclusive growth may be for social cohesion and justice, we should recognize fully this reality and the challenges it poses for women in particular. The presence of a significant proportion of the population whose income poverty is impervious to full employment—the 'hard-core poor'—indicates the limits of a poverty-reduction strategy that merely focuses on the 'quantity' of employment. To be effective, increase in employment would have to be accompanied by labour market legislation (e.g., introduction of higher minimum wages), redistributive policies to expand social provisioning of care, government cash transfers, creation of jobs that pay living wages, price supports, and removal of user fees, and probably a particular combination of all of the above, depending on the circumstances of individual countries. Economic inclusion and access to remunerative work is a fundamental right, but unless transformative labour market interventions are also part of the agenda, and unless investments in social care are put in place, much will remain to be desired. Substantial segments of the nonemployed and poor will end up joining the ranks of the working poor.
4. In all countries, half or more of the hard-core poor consisted of the hidden poor, that is, households with incomes below the LIMTIP threshold but above the official threshold. This indicates that using the official poverty measure to monitor the impact of job creation on poverty alleviation can leave a substantial portion of the working poor out of the radar of the policymakers. The share of the hidden poor among the hard-core poor also indicates the rampant time poverty that income-poor households are likely to encounter in a situation of full employment since, by definition, the hidden poor are also time-poor.

5. As we noted above, the majority of the employable adults that were 'given' full-time employment in the simulation were mothers. If early childhood development services were to be available, the time deficits they are likely to encounter with full-time employment would be ameliorated. In turn, lower time deficits would certainly lower their income deficits (relative to the LIMTIP threshold) and, at least for some, facilitate an exit from income poverty.

The trouble, of course, is that it is unrealistic to expect the 'normal' functioning of markets to deliver such favourable scenarios whereby, for instance, early childhood centres are available and job creation becomes plentiful for low skilled workers in locations that they live in. Policies, referred to as employment guarantee, have been adopted in a variety of countries to differing degrees to counter precisely this problem of 'market failure'. Such interventions stand in between active labour market policy interventions and social assistance programming. The most well-known—*and* home grown—version in Latin America is Argentina's *Jefes y Jefas de Jogar* emergency employment programme of 2002, but Chile offers a good example of a permanent programme that in fact acts as an automatic stabilizer. When the nonemployment rate reaches a level above a three-month moving average, the employment guarantee programme is automatically activated. Typically, these are community-based direct employment programmes that offer jobs to unskilled jobless workers at low wages, and can effectively enforce a floor on market wages for casual and own-account workers. Should such job creation be implemented, for women it is critical that childcare services are a part of the programme to avoid time deficits and their potential impoverishing effects.

Of course, it is well-recognized that social protection measures and active labour market policies are *complementary* poverty alleviation interventions. Our study has highlighted the *jobs deficit* (lack of job opportunities), *earnings deficit* (the inability of a substantial segment of employed households to attain an income above the poverty line), and the *deficit in the social provisioning of care and other essential services*, such as transportation, that interact to keep a considerable proportion of the population locked in the grip of poverty. A coherent set of interlinked interventions that address the triple deficit of jobs, earnings, and social provisioning must lie at the core of any inclusive and gender equitable development strategy that is worth its name. Public action and public policy cannot afford to wait for positive outcomes to trickle down eventually and magically. Neither can social development interventions be expected to deliver on the promise of poverty reduction in light of the interlocking nature of the triple deficits identified above. Appropriately sequenced policy interventions that directly address the triple

deficits while keeping the reduction of the deficits faced by the least privileged at the forefront (even in the case of 'universal' policies) holds much promise for reducing inequalities and deprivations for men and women alike.

References

Burchardt, T. 2008. Time and Income Poverty. Center for Analysis of Social Exclusion Report 57, London School of Economics.

Harvey, A. and A.K. Mukhopadhyay. 2007. "When Twenty-Four Hours is not Enough: Time-Poverty of Working Parents." *Social Indicators Research*, 82, 57-77.

Kum, Hyunsub, and Thomas Neal Masterson. 2010. Statistical matching using propensity scores: Theory and application to the analysis of the distribution of income and wealth. *Journal of Economic and Social Measurement* 35, no. 3 (January 1): 177-196. doi: 10.3233/JEM-2010-0332.

Vickery, C., 1977. The Time-Poor: A New Look at Poverty. *The Journal of Human Resources*, 12(1), 27-48.

Zacharias, Ajit. 2011. "The Measurement of Time and Income Poverty." Levy Economics Institute Working Paper 690 (October). Annandale-on-Hudson, NY: Levy Economics Institute of Bard College. http://www.levyinstitute.org/pubs/wp_690.pdf.