

**Inter-generational and inter-socioeconomic group transfers in Argentina.  
NTA estimates for 2016**

Pablo Comelatto (Centro de Estudios de Población-CENEP)  
pcomelatto@cenep.org.ar

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The main results of the estimation of the National Transfer Accounts for Argentina 2016 are presented. The analysis includes estimates by socioeconomic level. Given the demographic history of the country, the cohort born between 1970 and 1990 reverses the drop in the consumption support ratio observed between 1950 and 1990. When the members of the cohort begin to reach productive ages, the window of demographic opportunity that Argentina is currently going through begins. Three socioeconomic levels are identified, according to the educational level reached by the head of the household. Given the different demographic and socioeconomic realities of the 3 groups, the public sector not only redistributes resources between age groups but also between different socioeconomic groups. Profiting from the demographic dividend rests on the contribution of the socio-economic group with the highest education, which is generating the lifecycle surpluses that are the main source of financing for the deficits of all groups. The current challenge for Argentina seems to be how to profit from the surpluses generated during the demographic window of opportunity to meet the simultaneous goals of 1) investing in the human capital of future workers; 2) finance fixed capital formation (which is today one of the main constraints impeding economic growth since 2012); and 3) sustain the consumption of older adults. The estimates highlight the complexity of the interaction between a large public sector with financing difficulties, an aging population, and a social structure with a significant level of stratification.

Argentina is an upper-middle income country that has started the demographic transition process early in the Latin American context. It also has a long history of macroeconomic instability, which has resulted in increasing social heterogeneity. Currently, the demographic evolution presents a set of challenges that, combined with the social fragmentation, question the sustainability of various public transfer programs.

The early demographic transition has resulted in a low-growth, aging population. This process, however, has been slowed down recently as a consequence of an increase in fertility produced in the 1970s and 1980s, which has resulted in the present in a period of reduction of the ratio of the number of economically dependent individuals, to those who are in the surplus stage of the life cycle. The reduction in this dependency ratio can be interpreted as a period of demographic opportunity, consisting of the possibility of taking advantage of the “gift” that demography makes to economic development. Thus, the country faces the challenge of taking advantage of this gift, better known as a demographic dividend or bonus, while attending to the ever more pressing needs of the unstable macroeconomic situation.

The public sector in Argentina plays a preponderant role in transferring resources that finance the consumption of the deficit stages (young and old age). In the last three decades, the public sector has grown significantly, particularly due to the growth of social protection programs. But this role of the public sector is not only intergenerational but also between socioeconomic groups. In light of this growth, it is debated today whether the size of the public sector contributes to macroeconomic instability or whether, on the contrary, it is the result of the need to address the deterioration of the social and economic situation.

This complex dynamic of demographic change, macroeconomic instability and social stratification is the subject of this presentation. Based on a classification of the population into three socioeconomic groups (population in households classified according to the educational level of the head of household), the differences in the demographic structure of each group and the differential role of the public transfers for each group in terms of public inflows and outflows are analyzed. Emphasis is placed on highlighting the role of the public sector, both in financing the deficit stages of the life cycle, and in the transfer of resources between socio-economic groups.

The estimates highlight the complexity of the interaction between a large public sector (both in terms of historical comparison, and in comparison with other countries in the region with a similar degree of development) and with difficulties in financing public spending, an aging population and a social structure with a significant level of stratification.

The NTA estimation work required the compilation of the Argentine National Accounts data from different sources. The calculation of age profiles was made from the microdata bases of the Permanent Household Survey (second, third and fourth quarters of 2016), the National Survey of Household Expenditures 2012, published

tables of the Utilization and Expenditure on Health Services Survey 2010 and administrative data, when available (National Social Security Administration and National Institute of Social Services for Retirees and Pensioners). Finally, for the components of public spending, data from the National Budget Office were used. The population data were obtained from a request to the social and population statistics office of the Instituto Nacional de Estadísticas y Censos.

## Demographic and social situation

Argentina's population experienced an early start, in the Latin American context, of the demographic transition process<sup>1</sup>. The decline in birth and mortality rates begins in the 1870s, with a somewhat simultaneous decline of both rates and resulting in relatively low levels of natural growth. Prior to 1930, the immigration dynamics more than compensated for the drop in natural growth. Subsequently, the fall in the net number of immigrants accelerated the fall in the total population growth rate<sup>2</sup>. The resulting process of population aging has only been slowed down recently as a consequence of a temporary increase in fertility in the 1970s and 1980s<sup>3</sup>.

We can illustrate the differential evolution of the age groups sizes through the evolution of the dependency ratio. While the dependency ratio of older adults (OADR: 65+ years) rises systematically throughout the entire period 1950-2050, the dependency ratio of children (YADR: 0-14 years), remains more or less stable until the beginning of the decade of 1970, and then begins to increase until reaching its peak in the mid-1980s. The combined effect of both trends results in a total dependency ratio that increases from 1950 to 1988 and begins to decline in that year (when cohorts born in the 1970s they reach working age) until approximately the year 2030, when the increase in the OADR exceeds the fall (less and less rapid) of the YADR.

Being an upper-middle-income country, Argentina has a long history of macroeconomic instability. The country faced in 2001 one of its hitherto most severe fiscal and debt crises, resulting in high levels of unemployment, poverty, and inequality<sup>4</sup>. As a result of the recurring instability, Argentina presents a heterogeneous socioeconomic composition, with poverty levels that have fluctuated in the last 20 years between a quarter and a little more than half of the population<sup>5</sup>, always depending on the volatile economic situation. This variability exposes how a significant fraction of the population is highly vulnerable to fluctuations in their employment status and the real value of their income, periodically subject to real declines due to insufficient adjustment to persistently high inflation levels.

Recovery after the crisis presented in the 2003-2011 period an important new development: a significant increase in the role of the public sector's share in the economy, with increased tax collection and public spending. Thus, in 2016 Argentina was one of the Latin American countries with the highest ratios of tax revenue to GDP:

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<sup>1</sup> Recchini de Lattes and Lattes (1975), Pantelides and Moreno (2009).

<sup>2</sup> Otero (2007).

<sup>3</sup> Pantelides (1989), Pantelides and Moreno (2009).

<sup>4</sup> Gasparini and Cruces (2008).

<sup>5</sup> Instituto Nacional de Estadísticas y Censos (2016) and periodic technical reports.

32.7 percent. This ratio puts Argentina above the average for Latin American and Caribbean countries (22.7 percent<sup>6</sup>), and somewhat below the average of the OECD countries (34.26 percent<sup>7</sup>)<sup>8</sup>.

This trend is partly a result of the expansion of the social protection network created at the end of the economic and social crisis of 2001. This expansion has consisted largely of the implementation of social programs with specific age patterns, aimed at childhood and the elderly, specifically by granting non-contributory pension benefits to approximately 3.2 million older adults (*Moratoria Previsional*) and conditional cash transfers to children (AUH, *Asignación Universal por Hijo para Protección Social*, or Universal Child Allowance for Social Protection) with slightly less than 4 million beneficiaries. The *Moratoria Previsional* was aimed at individuals who, having reached an advanced age, did not meet the formal contributions requirements to receive pension benefits. The AUH, for its part, is aimed at children from households with unemployed adults or employed in the informal sector and is conditional on schooling and vaccination of children.

In year 2016, these two programs amount to 2.8 points of GDP (non-contributory pensions) and 0.6 points (AUH) (Table 1). Combined with the traditional contributory pensions system and other cash transfers, total spending on social security and social assistance reached 11 points in 2016, or 37.9 percent of total current public spending. This social spending, with very rigid inflation indexation rules, has become an important driver of the fiscal dynamics, in a context where public consumption (in kind) has also grown significantly, reaching 29 points of GDP in 2016.

The pension system (both the contributory and non-contributory components) is, at 9.4 percentage points of GDP, the largest public program. The contributory component is a pay-as-you-go system, with a scheme of contributions and benefits defined by law in a way that does not guarantee their actuarial balance. An important characteristic is that the system only covers workers in the formal sector, that is around between 55 and 65 percent of the workforce.<sup>9</sup> It is estimated that, prior to the implementation of the *Moratoria Previsional*, 66 percent of the population over 65 years of age were beneficiaries of the system.<sup>10</sup> Currently, after the incorporation of new beneficiaries with non-contributory benefits, coverage among the population aged 65 and over is practically universal.<sup>11</sup>

The cash transfer system also includes two transfer programs for children. The aforementioned non-contributory AUH for children under 18 with unemployed parents (or parents working in the informal sector), and a contributory program for children under 18 with at least one parent working in the formal sector.<sup>12</sup> All of these cash transfer programs to children amount to 1.3 points of GDP. Other minor cash transfer programs represent 0.3 points of GDP.

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<sup>6</sup> IARAF (2018), CEPAL (2018).

<sup>7</sup> <https://data.oecd.org/tax/tax-revenue.htm>, accessed on 12/4/2018.

<sup>8</sup> Estimates of the tax to GDP ratio may differ slightly depending on the income classification.

<sup>9</sup> Bertranou and Casanova (2014).

<sup>10</sup> Cetrángolo and Grushka (2004).

<sup>11</sup> Rofman (2017), Rofman et al. (2013).

<sup>12</sup> With an income below a threshold.

The expansion of the social protection system, emerging from the 2001 crisis, is a recognition of the deterioration of the social situation, despite the period of economic growth in 2003-2011.

## Components of the life cycle deficit

Based on microdata of the Permanent Household Survey (EPH), the age profile of labor income and self-employment income was calculated. The combined profile of both sources of income (Figure 1) grows rapidly from the age 15, reaching its peak at age 41 and then decreasing more rapidly from age 60 (women's retirement age) and 65 (men's).

Self-employment income represents about 15 percent of total income and has a much more biased profile towards older ages, peaking at age 50 and declining less steeply than labor earnings. This observation is consistent with the fact that self-employed workers are usually much more concentrated in the informal sector and, hence, the incidence of retirement age is much less significant.

Figure 2 shows the age profile of public and private consumption. Although private consumption constitutes the most important proportion, public consumption stands out at the extremes of the life cycle. Both types of consumption (public and private) are divided into health, education and other.<sup>13</sup> The particular profile of public consumption is due to education expenditures, which include the initial, primary, secondary, tertiary and adult levels and the impact of the "Comprehensive Medical Care Program" (PAMI-Programa de Atención Médica Integral), aimed mainly at the elderly population (in addition to the service provided in public hospitals). The "other" public consumption, in kind, is assigned equivalently to all individuals, without distinction of age.

Figure 3 presents the age profiles that result from combining the three types of consumption (health, education, other) with the two sources of provision (public and private).

Table 2 summarizes the life cycle deficit and its components and figures 4 and 5 show the life cycle deficit that results from combining the profiles of labor income and consumption. The deficit stages range from 0 to 28 years, and from 59 years on. The surplus stage occurs between 29 and 58 years. The combined deficits of those under 29 and over 58 (in per capita terms) far exceeds the surplus generated between these ages, and the deficit of older adults, on the other hand, is greater than the deficit of children.

In aggregate terms, on the other hand, the deficit of children is much higher than the deficit of the elderly (Figure 6), given the age composition, where those under 29 years of age represent 48 percent of the population and those older than 58 years, 16 percent. Although in aggregate terms the deficit of the elderly is less than a third of the

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<sup>13</sup> In the case of "other" public consumption, it consists of the rest of public consumption, also called in NTA other transfers in kind. The "other" private consumption is the remainder of the total consumption after discounting health and education and includes the estimation of the imputed value of the services of own housing.

deficit of children, the per capita profile draws attention to the expected impact of the aging process that Argentina is undergoing.

The impact of the changing demography on the dependency ratios discussed before can be complemented if we weight the different age groups by their labor income and consumption patterns. Additionally, reversing the interpretation of this ratio, we can compute the support ratio, as the ratio between the effective number of workers and the effective number of consumers.<sup>14</sup>

The demographic evolution throughout the 100 years between the mid-twentieth and twenty-first centuries is reflected in Figure 7, through the support ratio. The drop in the support ratio between 1950 and 1990 stands out, mainly due to the slow but sustained increase in the proportion of older adults. On the other hand, the fall in the support ratio was reinforced by the aforementioned phenomenon that began with the 1970s, when an upturn in fertility led to a modest "baby boom" that lasted throughout the 1970s and 1980s, reducing the support ratio due to the increase in the proportion of children.

This cohort born between 1970 and 1990, relatively larger in size than before and after, reverses the drop in the support ratio from the 1990s, when they start to reach economically productive ages. This is the beginning of the demographic window of opportunity that Argentina is going through. This evolution illustrates the possibility of taking advantage of the first demographic dividend, until this cohort begins to withdraw from the labor market beginning in the 2030s. From this moment on, the aging process will lead to a decline in the support ratio.

## **Socioeconomic Status groups**

In this report, the population is stratified into three socioeconomic status groups (SES groups), defined according to the years of education of the household head.<sup>15,16</sup> Based on this classification, 34% of the population lives in households with a head with up to 7 years of education (group 1), 41 percent in households with up to 12 years of education (group 2) and 25 percent with 13 or more years of education (group 3) (Table 3).

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<sup>14</sup> United Nations (2013).

<sup>15</sup> I follow Turra and Queiroz (2005) and Mejía-Guevara (2014), among others, using the years of education of the household head as an indicator of the socioeconomic status of the household. Unlike these authors, three groups were chosen, instead of four, since each of the three groups seems to present a distinctive demographic profile.

<sup>16</sup> Years of education were imputed using data from the Permanent Household Survey, based on the highest educational level attended by the household head, and the last year completed at that level. The number of years of education was chosen to homogenize the differences in the levels resulting from two reforms of the educational system that redefined the levels and the number of years at each level, in addition to homogenizing the differences in the different provincial regimes. The three categories are Complete primary or less (up to 7 years of education), complete secondary or less (up to 12 years), and at least one year of tertiary level (13 years or more). The proportion of individuals belonging to each socioeconomic group, by age, was applied to the age structure of the total population provided by INDEC.

Group 1 represents a third of the population and is the group with the lowest labor force participation rate of the household head (50.1 percent), the highest level of unemployment (6.3 percent) and the lowest percentage of employees in the formal sector (55 percent).

At the opposite extreme, group 3, with the highest level of education, represents a quarter of the population, with the highest labor force participation rate (78.8 percent), the lowest unemployment (3.6 percent) and the highest percentage employed in the formal sector (85.6 percent).

All three socioeconomic groups present distinctive demographic profiles. The average age of the three groups is very uneven (Table 3). Group 1 is the oldest (average age 35.2 years and 15 percent of the group 65 years or older), while group 2 is the youngest: average age 30.8 years, with 8 percent of the group aged 65 and over and the highest proportion of children aged 0-14 (28 percent of the group), surely reflecting higher levels of fertility.

Group 3 has the lowest proportion of children (21 percent, reflecting low fertility) and a low proportion of older adults (9 percent, reflecting that the group has not aged yet). It also is the group where the presence of the 1970-1990 (relatively large) cohort is most visible in the age pyramids presented in Figure 8. The three socioeconomic groups correspond to three very different population configurations. Group 1 corresponds to an aging population, with a larger proportion of older adults and relatively few children and working age adults. It is an aging population with a low educational level. Group 2 approximates the classic pyramidal shape, with a wide base and a narrow cusp, which characterizes a young population, with relatively few older adults and large proportions of children and young adults.

The third group's salient characteristic is the presence of the "baby boom" cohort born during the 1970s and 1980s. The group has the highest levels of education, with relatively few children (due to the drop in fertility that resumed its declining path in the 1990s and, particularly, the 2000s), and a deficit of older adults, since the cohort has not aged yet. Group 3 is probably the one that best embodies the idea of demographic dividend, having a large educated cohort, with few children, and that is going through its most productive years.

The disparity between the three socioeconomic groups is also reflected in Figure 7, where the support ratios for each group in 2016 are presented, using the consumption and labor income profiles of the total population. It should be noted that group 1 already has a lower support ratio than any value taken by this indicator for the total population throughout the hundred years considered. In this sense, group 1 is several decades ahead (in terms of population aging) of the evolution of the total population.

At the opposite extreme, group 3 presents a support ratio much higher than any value taken by this indicator for the total population. This is the group that, if isolated from the rest of the country's socioeconomic reality, would be in a privileged position to take advantage of the first and second demographic dividends. As we will see later, its role as the main supporter of public transfers seriously limits the chances of taking advantage of the demographic opportunity. Given the burden that, as will be seen, this group faces in sustaining transfers to the other socioeconomic groups, the upcoming



aging of the group opens questions about the future sustainability of the transfer programs currently in force.

## **Role of transfers: inter-generational and inter-SES-groups**

Each group is defined based on its socioeconomic status (SES group). The different groups have their own age patterns, own profiles of labor income, asset-based income and consumption and its own life cycle deficit.

Faced with these different demographic and socioeconomic realities, the public sector not only redistributes resources between age groups, but also between different socioeconomic groups. Consequently, the position of each socioeconomic group vis-à-vis the public sector varies, with some groups being net recipients and other net contributors. This, in turn, results in different demands and perceptions about the way in which the public sector can and should intervene in the distribution of the economy's resources.

The deficit of the life cycle of the entire population (Table 2) can be decomposed in the proportion of the deficit corresponding to each group (Table 4). 50 percent of the total population deficit corresponds to group 1, while only 10.5 percent of it corresponds to group 3. This disparity is a consequence of the large income differential between groups, with a much smaller differential in consumption levels (a result of the equalizing role played by public consumption).

Figure 9 shows that, while group 1 only shows a small surplus between ages 39 and 44 (6 surplus years), group 2 generates a larger surplus between ages 28 and 57 (30 years) and group 3 between ages 29 and 63 (35 years). These disparities between the LCDs of the 3 groups is a first indication that group 3 is, by far, the main generator of surpluses that support transfers to the other groups and finance their deficit stages.

Weighted by the size of the different age groups, group 2 stands out for having the highest aggregate deficit in childhood, given the relatively young age structure of the group (Figure 10b). On the contrary, group 1 stands out for the weight of the deficit of older adults since it is the socioeconomic group that concentrates the largest proportion of individuals in this age group.

The consumption of education (public and private) marks a clear difference between the different socioeconomic groups. Groups 1 and 2, on the one hand, reach the maximum consumption of public education between 15 and 17 years old, and with a marginal participation of private education. Group 3, on the other hand, presents a fairly flat profile in public education up to the age of 17, and reaches its peak in public education at age 19, consistent with the prevalence of public university education among the middle class and upper middle class.

Public health consumption is also notable for the difference between groups, particularly among older adults. Indeed, per capita public health consumption is higher among groups 1 and 2 than in group 3, which, on the other hand, consumes considerably more private health.

### Public transfers by SES groups

The profile of income from public transfers per capita (Figure 12) shows group 3 as the recipient of higher pension transfers, in accordance with the rules that define the benefits taking into account the years of contributions and the salary of the worker. Groups 1 and 2, for their part, receive transfers for a smaller amount, considering the smaller volume of their contributions to the system.

The other cash transfers are the aforementioned child allowance programs (Asignaciones Familiares for children with parents employed in the formal sector and AUH for children with unemployed parents or employed in the informal sector). Figure 13 shows that while Asignaciones Familiares are mainly aimed at children in group 3, the AUH is primarily aimed at children in group 1. Children in group 2, on the other hand, are less affected by this benefit, probably as a consequence of the design of both programs. A reform launched in 2016, aimed at extending eligibility for Asignaciones Familiares, has probably improved coverage for children in group 2 in subsequent years.

### Transfer Inflows and outflows

The balance of inflows and outflows for public transfers, by age and by socioeconomic group, reflects the position of each group vis-à-vis the public sector and its status as net recipient of transfers (positive or negative). Table 5 presents the balance of inflows and outflows for public transfers and the participation of the different public programs in financing the life cycle deficit for each socioeconomic group, distinguishing between large age groups (0-14 years, 15-64 and 65+).

For group 1, the balance of inflows and outflows from public transfers is positive and is equivalent to 47 percent of the group's deficit. For group 2, the balance is also positive, but is equivalent to only 17 percent of the deficit. On the other hand, for group 3, the balance is negative, which shows that the group, in addition to financing its own deficit, contributes to financing the deficit of the other groups through public sector intervention. Groups 1 and 2 differ as to which is the main public program that transfers income to them: the pension system for group 1 (19 percent of the life cycle deficit), and public education for group 2 (9 percent, excluding other transfers in kind, which have a constant age profile).

Analyzing by large age groups, group 0-14 is the recipient of public transfers in all socioeconomic groups, although they represent 59 percent of the deficit in group 1, 40 percent of the deficit in group 2, and 24 percent of the deficit of group 1. Public education finances 22 percent of the deficit of children in group 1, 17 percent of those in group 2, and only 6 percent of group 3. Consistent with what was previously observed in terms of consumption, it is clear that private transfers are the fundamental support for the consumption of children in the highest socioeconomic group (group 3), while the public sector is a fundamental support for the consumption of children in the other two groups.

As for the age group 65 and over, public transfers cover more than 100 percent of the deficit of groups 1 and 2 (109 percent for group 1; 102 percent for group 2), and 72 percent of the deficit of group 3. Even more than in the case of children, the public sector is essential for sustaining the consumption of older adults in the lower

socioeconomic groups. As expected, the pension system is the main channel to transfer resources to groups 1 and 2 (97 and 99 percent of the deficit, respectively), with the health system in second place (17 and 12 percent). The weight of the pension system is also significant for group 3, in fact financing more than 100 percent of the deficit of older adults.

In summary, while primary and secondary public education redistributes resources to children in groups 1 and 2, public university and tertiary education does so to young adults in group 3. Public health, on the other hand, is fundamentally a redistributive element towards older adults in groups 1 and 2.

In the aggregate of each socioeconomic group, group 3 is the only one with a negative balance of public inflows and outflows. Of the total transfers received by children and older adults from all socioeconomic groups, it is the members of group 3 between 15 and 64 years old who finance two thirds of those transfers. In other words, it is these adults from the highest socioeconomic group who face the greatest burden of supporting a public transfer system that, as we saw, plays a fundamental role in sustaining the consumption of children and older adults. Adults in groups 2 and 1, meanwhile, contribute 26 and 7 percent respectively.

## Discussion

The macroeconomic imbalances exhibited in the last decades jeopardize the country's ability to take advantage of the demographic dividend. Indeed, the periodic reforms attempting to address short-term imbalances have usually not been consistent with long-term needed reforms.

Exploiting the benefits of the demographic dividend can be complemented and reinforced with improvements coming from greater formalization in the labor market, which would directly impact in the solvency of the contributory pension system.

The main element that has recently impacted the solvency of the pension system is the reform that incorporated approximately 3.2 million beneficiaries without (complete) history of contributions to the system, but without formalizing the potential current contributors.

An important result of our estimates is that the discussion about pension reform must contemplate the double redistributive nature of the system: between generations and between socioeconomic groups. Thus, the actuarial aspects of a reform to a system of transfers between generations overlap with the sociopolitical aspects of a reform to a system of transfers between different socioeconomic groups. Recent history (at least in the last three decades) shows that reforms to the pension system are extremely contentious and cause for strong antagonisms.

The expected demographic evolution will worsen the current deficit of the pension system<sup>17</sup>. This evolution requires modifications in the current design of the system, both on the revenue side (amount contributed and number of contributors) and on the generosity of benefits (in their amount and in the minimum age of access to them), at

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<sup>17</sup> Bertranou et al. 2011.

the same time that it aims to sustain or expand the coverage of the older adult population<sup>18</sup>.

However, the demographic evolution and the intergenerational dimension are not the only relevant aspects to consider. As stated, the socioeconomic nature of transfers means that reforms to the system on the revenue or expenditure side are not neutral in terms of its distributive consequences. In effect, a cut in the benefits paid by the system would result in a decrease in its redistributive character, while an increase in contributions would reinforce it.

As an illustration, and although our estimates do not allow us to distinguish the beneficiaries of the pension moratorium from the beneficiaries who contributed to the system in the past, we can assume that the pension moratorium mainly incorporated beneficiaries from socioeconomic groups 1 and 2, without incorporating contributors from those same groups. Taking this into account, the need to promote the formalization of the labor market seems evident, so that an increasing proportion of workers make effective contributions to the social security system. In this sense, one could speak of a “formalization dividend”, in the sense of bringing “new” workers into the (formal) workforce.

However, insofar as informality reflects situations of low labor productivity and not necessarily the simple evasion of tax obligations, there seems to be little margin to advance in the formalization with the current rates of social contributions. The (apparent) need to reduce contributions in order to promote formalized employment contrasts with the need to strengthen the finances of the system, so that there seem to be few degrees of freedom to operate on the revenue side of the system. Indeed, it is important to determine to what extent a reduction in these rates produces two opposite effects: 1) it encourages formalization, 2) it further de-finances the pension system.

The experience of the last decades seems to point to a low elasticity of the demand for labor in relation to contributions and, therefore, to a certain pessimism about the benefits of said reductions in terms of the generation of new employment.<sup>19</sup>

This discussion illustrates how in a context of young and fast-growing populations, an “upward” transfer system is easy to finance, making it possible to generate surpluses to finance other goals, such as redistribution between socioeconomic groups.<sup>20</sup> An aging and slow-growth population, on the other hand, makes it more expensive to transfer resources upward, reducing (or eliminating) the surpluses and hindering the achievement of these other redistributive goals.

Any redesign of the social security system must consider the reality that it has become more difficult to achieve two objectives (redistribute resources between generations

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<sup>18</sup> Cetrángolo (2014) estimates that, without additional reforms and given the expected evolution of formality in the labor market, “the percentage of older adults with retirement benefits will fall to 50% in 2040.”

<sup>19</sup> Beccaria and Maurizio (2017); Cruces et al. (2010).

<sup>20</sup> Lee (2003) analyzes the impact of demographic change on a transfer program, depending on whether the program transfers resources “upwards” (average age of the beneficiaries greater than the average age of the taxpayers) or “downwards” (where beneficiaries are, on average, younger than taxpayers).

and between socioeconomic groups) with a single instrument (the pension system). Reform proposals towards a multi-pillar pension system would reinforce and universalize the non-contributory pillar, guaranteeing a welfare floor for all older adults, and having a contributory pillar paying benefits based on past individual contributions<sup>21</sup>. This type of proposals are consistent with the idea of using two instruments for two objectives: a non-contributory pillar, financed with general government revenue, would allow redistribution between socioeconomic groups, while the contributory pillar, financed with specific social security contributions, would allow intergenerational redistribution. The generosity of the non-contributory pillar will depend to the level of redistribution that the country is willing to finance. The profitability (explicit or implicit) of the contributory system, on the other hand, will be limited by demographic evolution (if the system is pay-as-you-go) or by the profitability of investments (if it is capitalization).

## Conclusion

We have highlighted the challenge of taking advantage of the demographic dividend while attending to the ever more pressing needs of the unstable macroeconomic situation.

Benefiting from the demographic dividend, the result in Argentina of the relatively large cohort of "baby boomers" born in the 1970s and 1980s, depends fundamentally on the socioeconomic group 3, which is generating the surpluses necessary to finance the transfers to the other groups, while also financing investment in human capital of future workers, as well as investment in the formation of fixed capital.

Group 2 seems to be key for the future, with over 45 percent of today's children. However, it is a group with relatively poorly educated household heads. The dependence of this group on public transfers for the accumulation of human capital of their children calls into question the country's ability to take advantage of the first demographic dividend.

Group 3 finances the human capital of their own children through private transfers (financing private education and health, except for public university education, which is significant). Groups 1 and 2 need the public sector to sustain their children's consumption and secure their human capital, having a limited capacity to finance human capital investment on their own. The current configuration of the transfer system does not seem to assure that this will happen. Without public sector intervention, investment in education (and health) seems to operate as a mechanism for intergenerational transmission of socioeconomic status, perpetuating inequality.

On the other hand, the surpluses of group 3, largely absorbed by the public sector, leave little room for the accumulation of fixed capital, which seems to weaken the chances of taking advantage of the second demographic dividend.

As group 3 ages, the group's support ratio will drop, particularly as today's adults begin to withdraw from the labor market within a few years. The current challenge for Argentina seems to be how to take advantage of the surpluses of group 3 to meet the

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<sup>21</sup> Bertranou et al. (2018).

simultaneous goals of investing in the human capital of future workers (via public education for children in groups 2 and 1, via private education for children in group 3), finance the formation of fixed capital (which is today one of the main limitations on the lackluster economic growth that the country has experienced since 2012) and sustain the consumption of the elderly, who are highly dependent on public transfers.

We can conclude, then, that the country faces a serious challenge. The complex interaction between a large public sector and with difficulties to finance public spending, an aging population, and a social structure with a significant level of stratification will require a fine balancing act to meet the competing goals of fixed and human capital accumulation, and financing old age consumption.

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**Table 1.** Main components of government spending, Argentina 2016.

	<b>Current ARS (in millions)</b>	<b>As % of GDP</b>	<b>As % of gov. spending</b>
<b>GDP</b>	<b>8'188'749</b>	<b>100.0%</b>	
<b>Total government spending</b>	<b>2'376'926</b>	<b>29.0%</b>	<b>100.0%</b>
Government consumption (in kind)	1'476'812	18.0%	62.1%
Education	474'573	5.8%	20.0%
Health	256'452	3.1%	10.8%
Other	745'787	9.1%	31.4%
Cash transfers	900'113	11.0%	37.9%
Contributory pensions	538'085	6.6%	22.6%
Non-contributory pensions ("Moratoria Previsional")	233'006	2.8%	9.8%
Child allowances ("Asignaciones familiares")	57'154	0.7%	2.4%
AUH	50'475	0.6%	2.1%
Other	21'395	0.3%	0.9%

**Table 2.** Lifecycle Deficit and components, aggregate values, Argentina 2016.

	<b>Current ARS (in millions)</b>
<b>Lifecycle Deficit</b>	<b>1'703'802</b>
Consumption	5'596'473
Public	1'476'812
Private	4'119'660
<b>Labor income</b>	<b>3'892'670</b>
Earnings	3'381'344
Self-employed	511'326

**Table 3.** Socioeconomic Status groups and characteristics of the head of household

SES group	Years of education of the HH head	Population		Mean age	Head of household		
					Unemployed	Labor force participation rate	% employed in the formal sector
1	0-7	14'734'843	33.8%	35.2	6.3%	50.1%	55.0%
2	8-12	17'742'427	40.7%	30.8	5.3%	72.7%	70.9%
3	13+	11'113'097	25.5%	34.0	3.6%	78.8%	85.6%
<b>Total</b>		<b>43'590'368</b>	<b>100.0%</b>	<b>33.1</b>	<b>4.9%</b>	<b>67.4%</b>	<b>72.9%</b>



**Table 4.** Lifecycle Deficit by SES group, Argentina 2016.

SES group	Lifecycle Deficit		Surplus ages	% financed with public transfers
	ARS (millions)	Percentage		
<b>Total</b>	<b>1'703'802</b>	<b>100.0%</b>	<b>29-58</b>	
Group 1	850'440	49.9%	39-44	47.1%
Group 2	674'095	39.6%	28-57	16.9%
Group 3	179'267	10.5%	29-63	-288.0%

**Table 5.** Lifecycle Deficit and public transfer, by SES group and broad age groups, Argentina 2016.

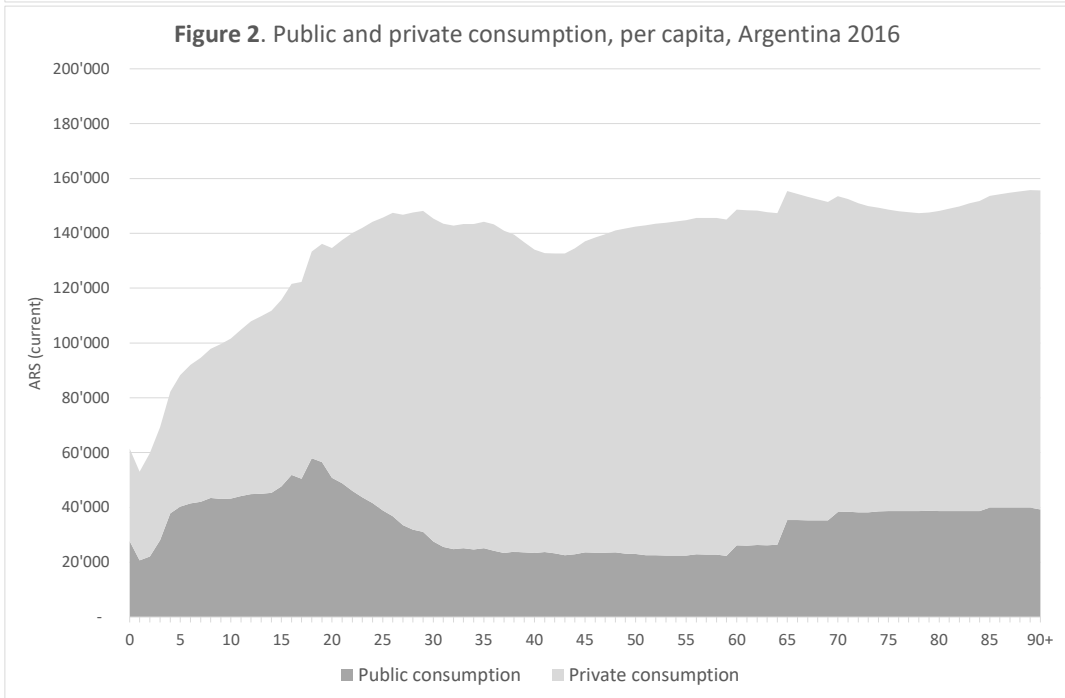
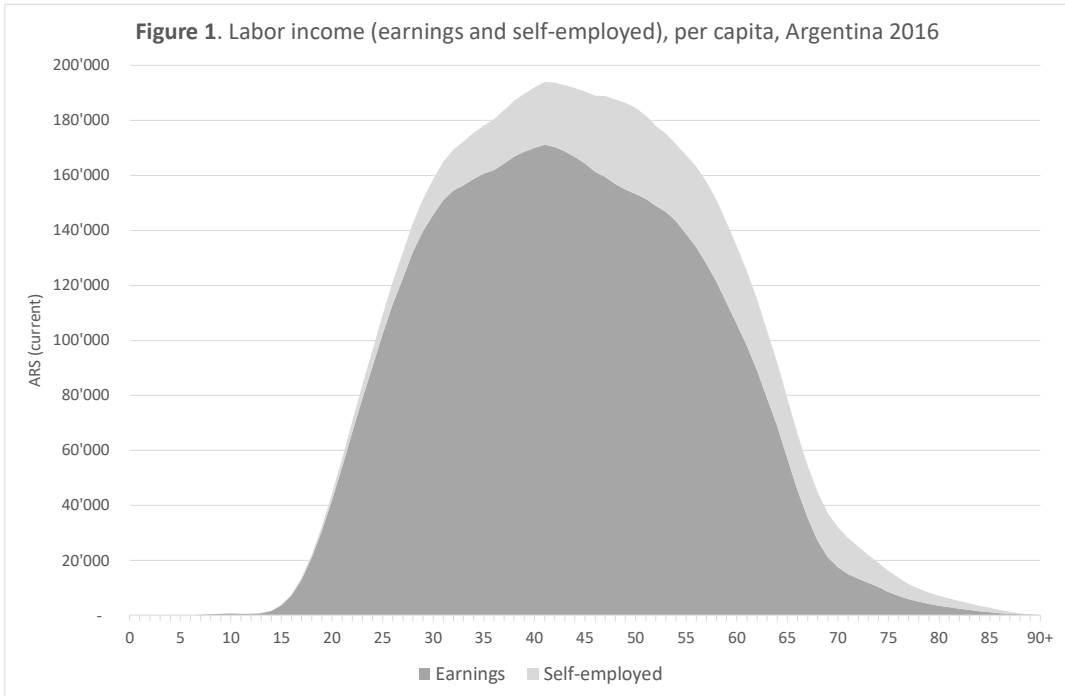
	Group 1							
	Total		0-14		15-64		65+	
<b>Lifecycle Deficit</b>	<b>850'440</b>	<b>100%</b>	<b>290'327</b>	<b>100%</b>	<b>285'785</b>	<b>100%</b>	<b>274'328</b>	<b>100%</b>
<b>Public transfers</b>	<b>400'741</b>	<b>47%</b>	<b>172'186</b>	<b>59%</b>	<b>-70'307</b>	<b>-25%</b>	<b>298'862</b>	<b>109%</b>
Education	44'022	5%	62'790	22%	134	0%	-18'901	-7%
Health	67'915	8%	14'783	5%	6'926	2%	46'206	17%
Pensions	165'334	19%	165	0%	-100'112	-35%	265'281	97%
Other in kind	82'813	10%	47'566	16%	26'578	9%	8'668	3%
Other cash	40'658	5%	46'883	16%	-3'833	-1%	-2'392	-1%

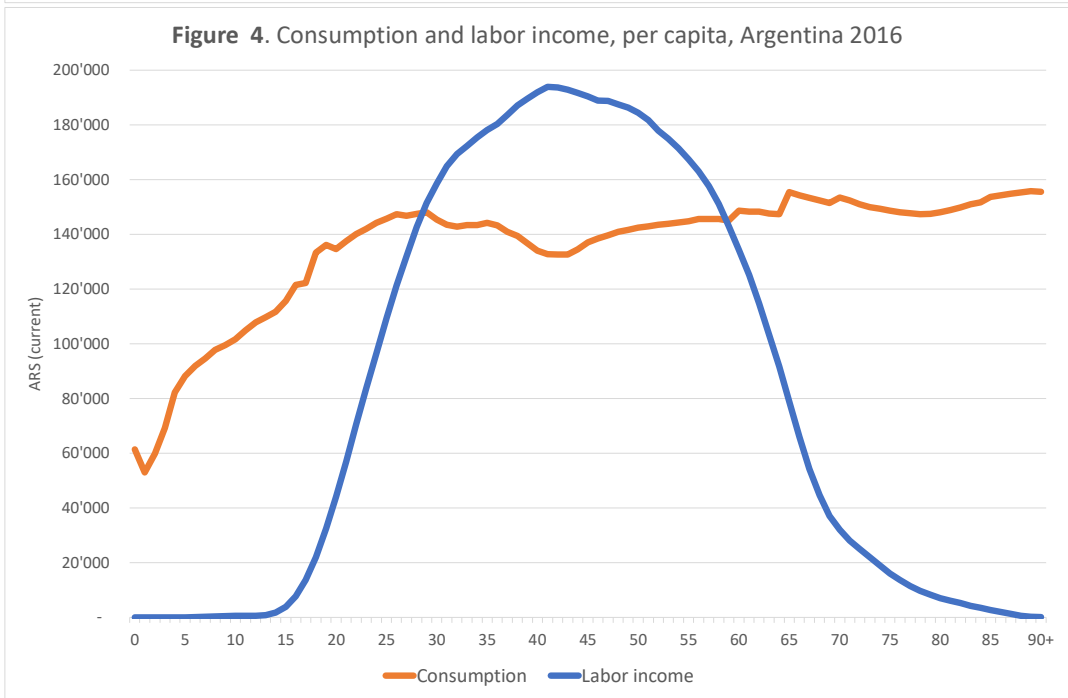
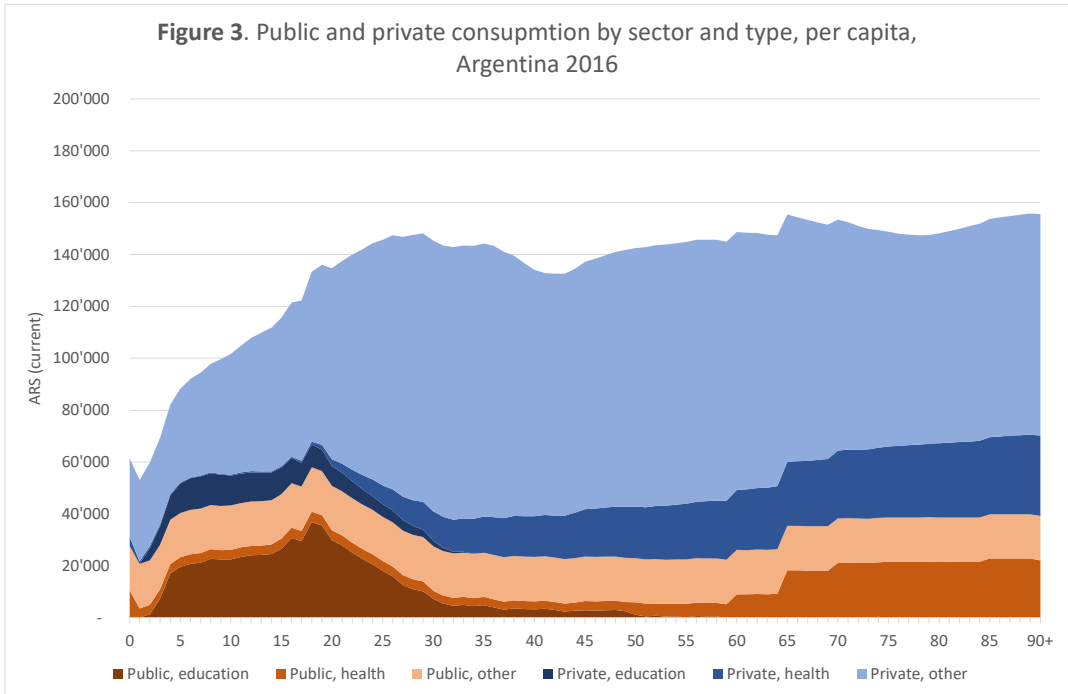
  

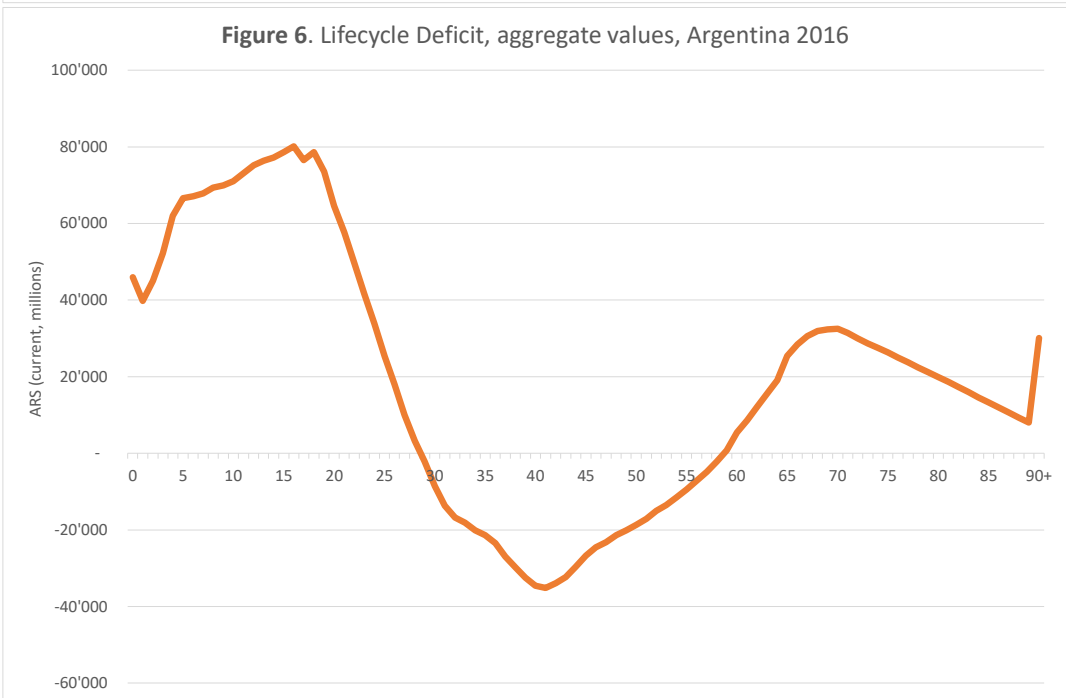
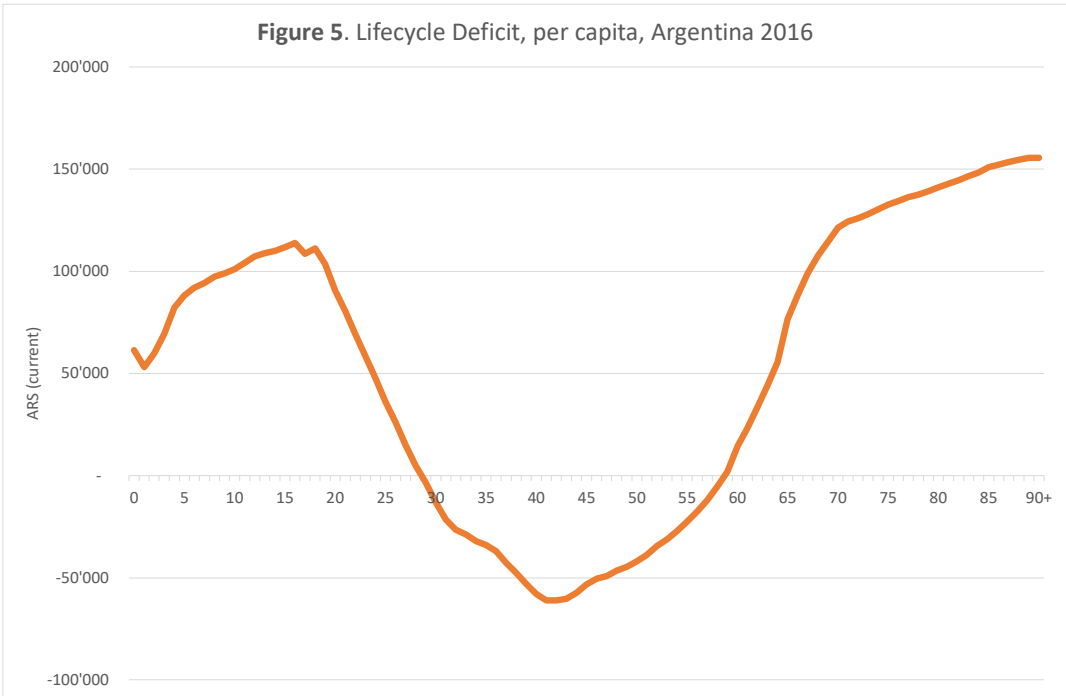
	Group 2							
	Total		0-14		15-64		65+	
<b>Lifecycle Deficit</b>	<b>674'095</b>	<b>100%</b>	<b>418'392</b>	<b>100%</b>	<b>63'590</b>	<b>100%</b>	<b>192'114</b>	<b>100%</b>
<b>Public transfers</b>	<b>113'648</b>	<b>17%</b>	<b>169'346</b>	<b>40%</b>	<b>-251'166</b>	<b>-395%</b>	<b>195'469</b>	<b>102%</b>
Education	59'082	9%	70'229	17%	4'533	7%	-15'679	-8%
Health	25'965	4%	13'086	3%	-10'086	-16%	22'965	12%
Pensions	-48'041	-7%	257	0%	-239'373	-376%	191'075	99%
Other in kind	83'779	12%	64'138	15%	18'450	29%	1'192	1%
Other cash	-7'137	-1%	21'635	5%	-24'689	-39%	-4'083	-2%

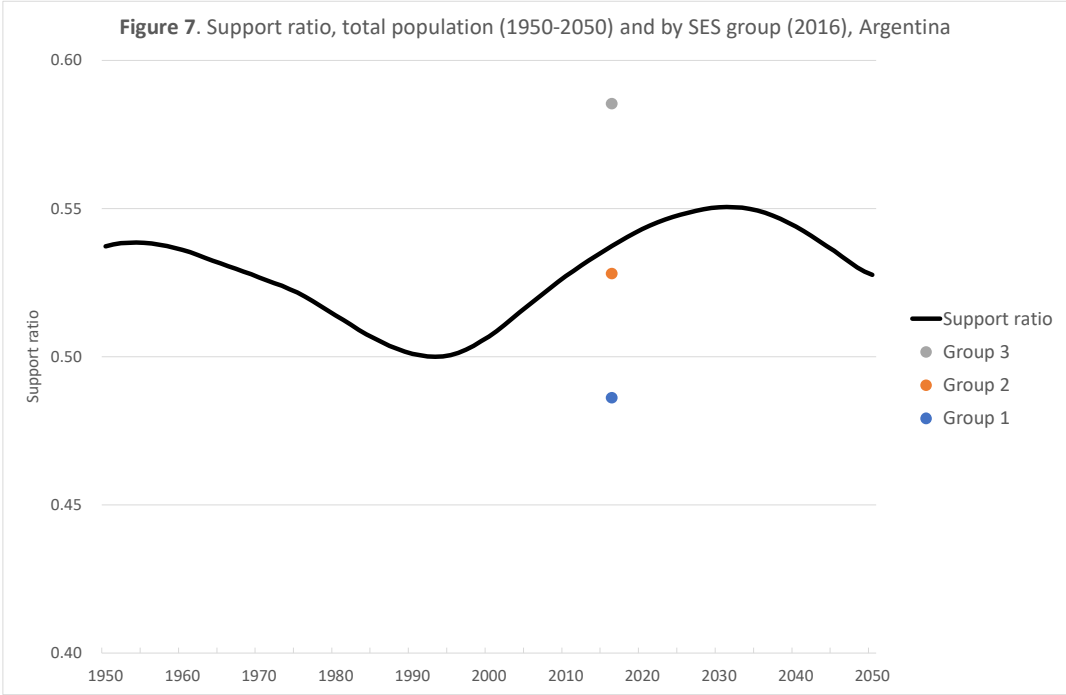
  

	Group 3							
	Total		0-14		15-64		65+	
<b>Lifecycle Deficit</b>	<b>179'267</b>	<b>100%</b>	<b>247'961</b>	<b>100%</b>	<b>-190'289</b>	<b>100%</b>	<b>121'594</b>	<b>100%</b>
<b>Public transfers</b>	<b>-516'201</b>	<b>#####</b>	<b>58'716</b>	<b>24%</b>	<b>-662'364</b>	<b>348%</b>	<b>87'446</b>	<b>72%</b>
Education	-103'105	-58%	14'659	6%	-87'118	46%	-30'646	-25%
Health	-93'879	-52%	-379	0%	-86'619	46%	-6'881	-6%
Pensions	-119'109	-66%	67	0%	-283'992	149%	164'815	136%
Other in kind	-166'592	-93%	23'970	10%	-159'002	84%	-31'560	-26%
Other cash	-33'516	-19%	20'399	8%	-45'632	24%	-8'282	-7%









**Figure 8.** Age structure, by SES group, Argentina 2016

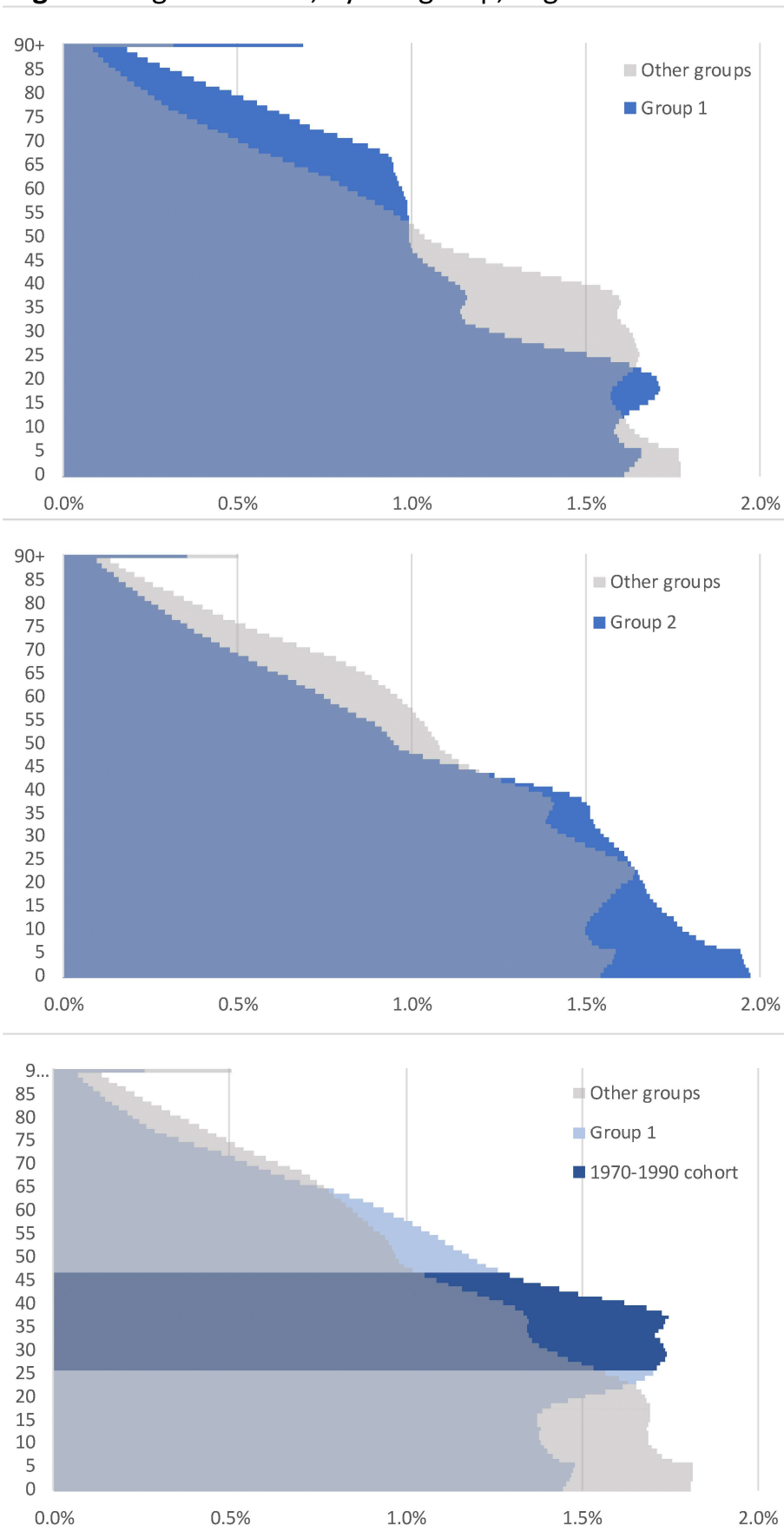
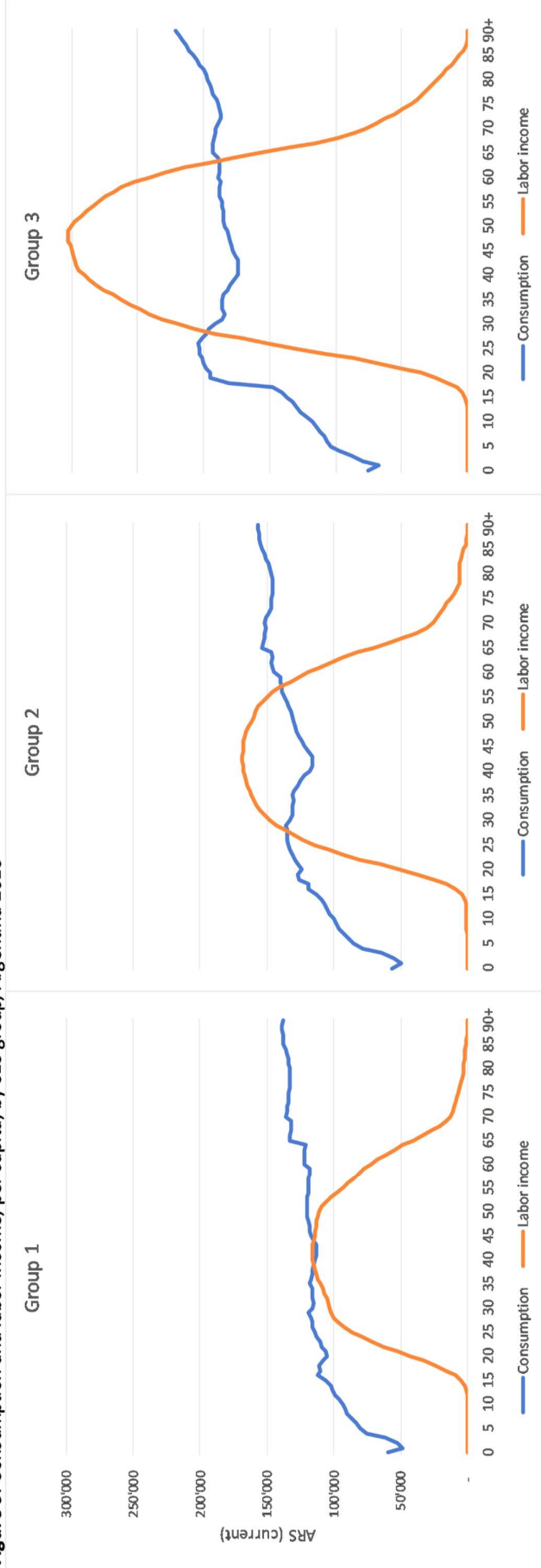
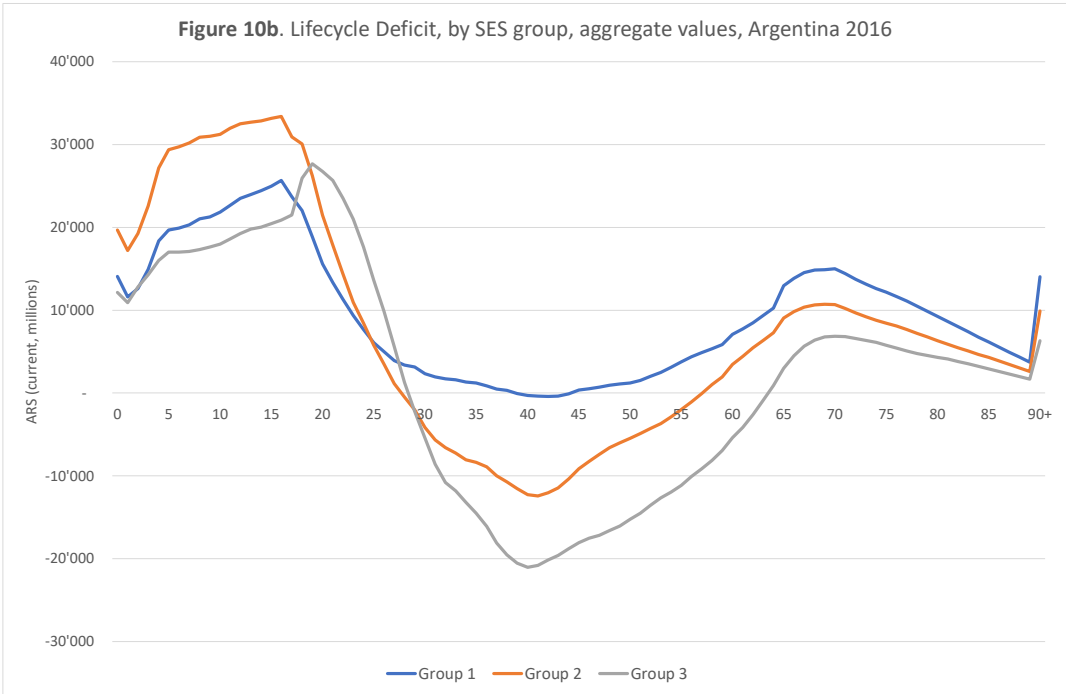
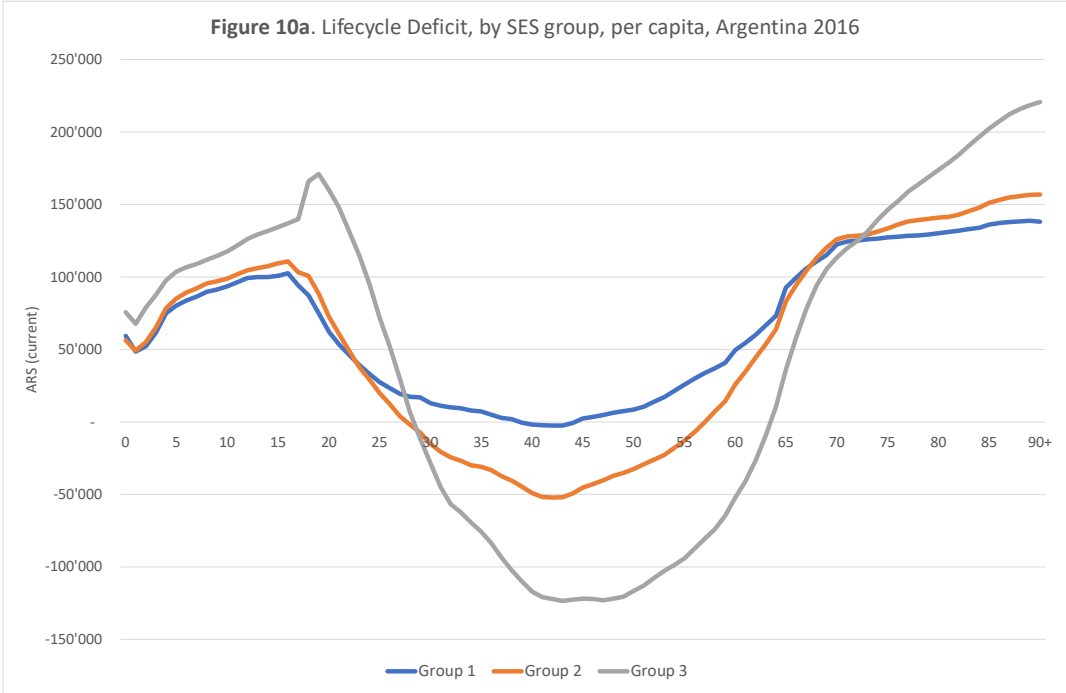


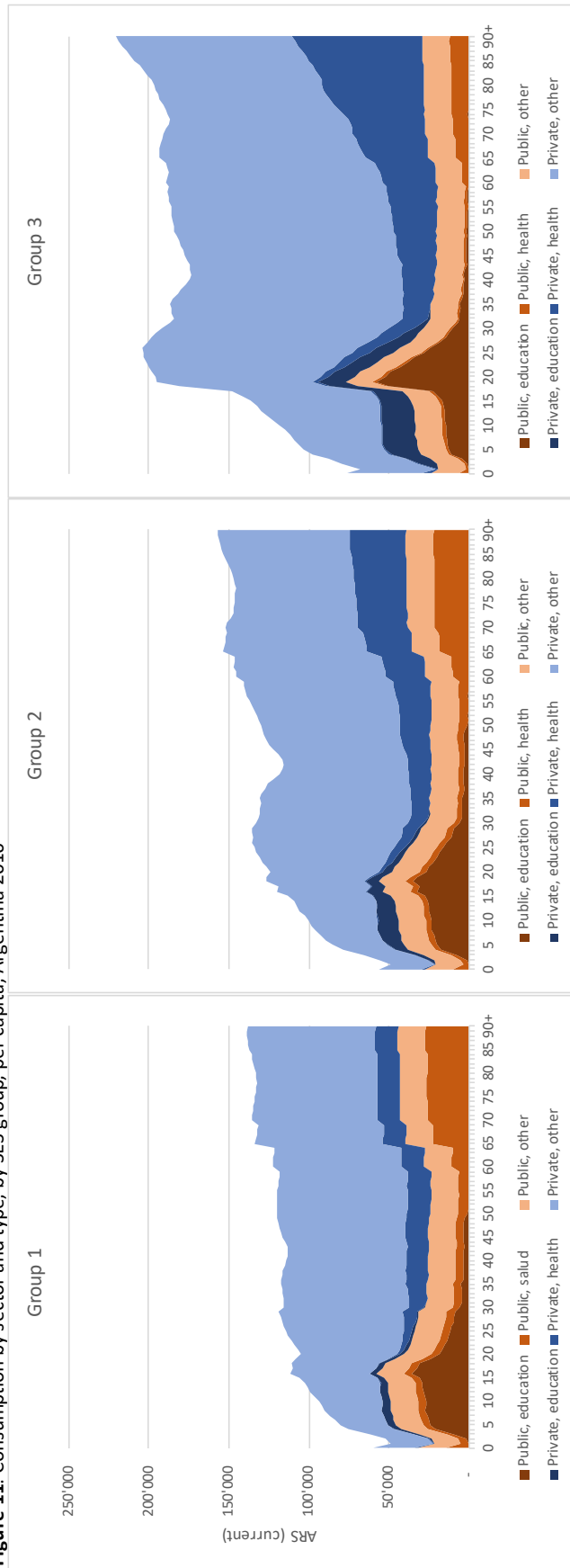
Figure 9. Consumption and labor income, per capita, by SES group, Argentina 2016



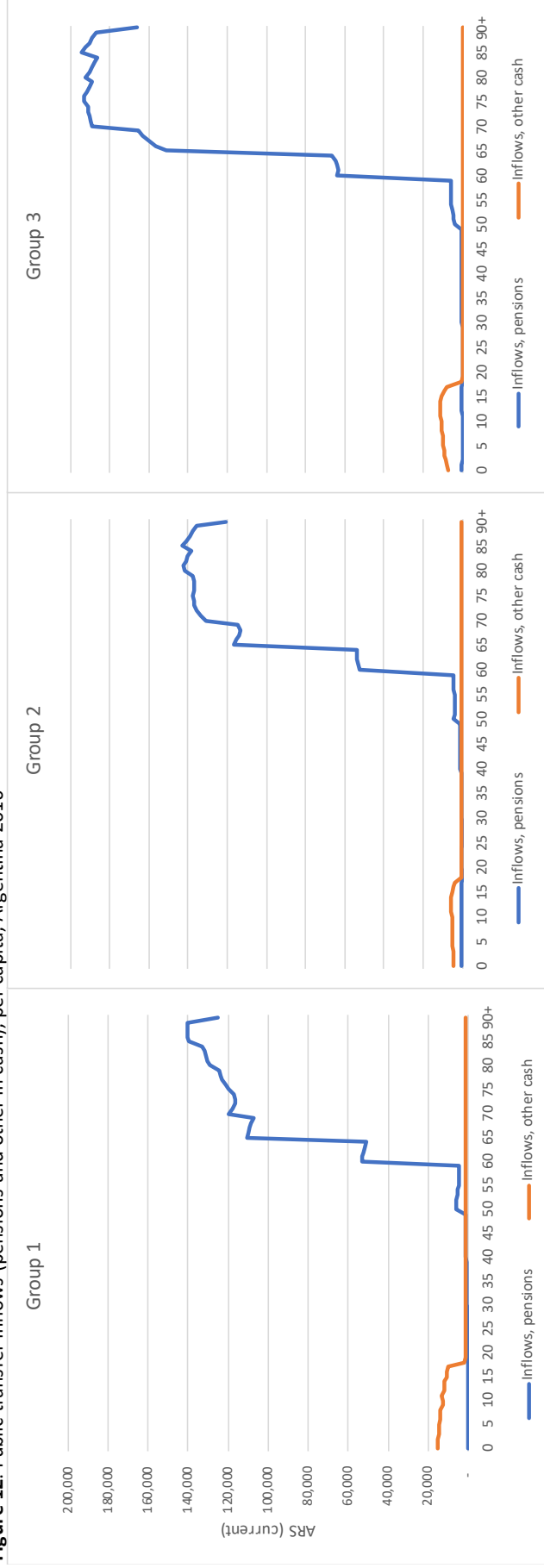




**Figure 11.** Consumption by sector and type, by SES group, per capita, Argentina 2016



**Figure 12.** Public transfer inflows (pensions and other in cash), per capita, Argentina 2016



**Figure 13.** Public transfer inflows, transfers to children, per capita, Argentina 2016

