VULNERABLE CHILDHOODS AND SOCIAL PROTECTION SYSTEMS: CHILD ALLOWANCE IN ARGENTINA

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I. Introduction

In the mid-1990s, countries such as Brazil and Mexico started implementing the income transfer programs, which in their current versions we know as "Bolsa Familia" and "Oportunidades," respectively. The main short-term goal of these initiatives, and of many others developed in the countries of the region, was to reduce poverty. Their medium- and long-term purposes were to develop human capital through the nutrition, health, and education triad.

In the case of Argentina, the equivalent of the Latin American experiences mentioned above was the 2004 "Families for social inclusion" program, which came about as an offshoot of the first mass income transfer program, known as the "Unemployed Heads of Household Plan.""Families for social inclusion" was a focused program, with a geographic reach and limited coverage compared to the regional experiences mentioned.

During the 2009 international crisis, while undergoing a progressive stagnation of full employment creation, the Argentinean state extended the social protection regime targeted at the vulnerable population through the

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"Universal Allowance per Child for Social Protection" (AUH). This allowance was established by a Necessity and Urgency Decree [Argentina (Decree 1602/2009), 2009],² and it constitutes a turning point in the social protection system.

With the AUH, the Argentinean state acknowledges social inequality in the access to social protection, which is reflected in the duality between the population that belongs to the formal sector (with access to health coverage, retirement contributions, and work-related accidents insurance) and the population that has restricted access as a result of being part of the informal market, unemployed, or idle. In average, informal employment in Argentina between 2010 and 2012 affected 35% of the economically active population (PEA). Without a doubt, here lies one of the main differences from other previous and current programs in the region. The eligibility criteria for the population are defined by the relationship of the parents with the job market.

This transformation of the social security system was accompanied by the restructuring of the preexisting economic assistance programs to the extent that the creation of the AUH was accompanied by the immediate incorporation of children under 18 years from homes that up to that moment received income from social programs. It is estimated that, with the restructuring of the system, over 2.2 million children immediately became direct beneficiaries of the new scheme. In 2012, there were 3.5 million of children with AUH (1.9 million of participant households). The cash transfers of this allowance, along with the family pensions and the contributions from other municipally managed income transfer programs, represent between 0.6 and 0.8% of the GDP.

² To obtain AUH benefits, the responsible adult (father, mother, or guardian) and the child must have a National Identity Document and a minimum three years of residence in the country if they are foreigners. Likewise, they must not receive other noncontributive assistance programs or contributive family allowances, and be unemployed, seasonal workers, social small taxpayers, nonregistered workers, or domestic workers with income under the minimum vital and mobile wage. The payment modality of the AUH is conditioning to the parents meeting certain requirements that act as incentives for investment in the human capital of their children (fundamentally, education and health). About 80% of the economic contribution is paid on a monthly basis and the remaining 20% is accrued and paid on an annual basis when it is certified that the child attended school during the school cycle and complied with the sanitary controls and the vaccination plan.

With this background, one may ask these questions: What is the coverage of each of the social security subsystems and what type of children are still excluded from them? How is the fragmentation of the protection system expressed in the infringement of basic children rights? In addition, and considering the fact that this is a program that has conditional requirements, it becomes necessary to question its impact. It is to be expected that, as a result of the "conditional requirements" of the allowance system, some positive effects are noticed in educational inclusion, and, particularly, among teenagers, where there is a greater deficit in schooling.³ Now, it is relevant to ask to what extent was the increased educational inclusion associated to the "conditional requirements" of the AUH or if it instead was independent from the benefits offered by the allowance system.⁴

Also to be expected is a positive impact on the per capita income as an effect of the direct transfer of income, and, therefore, in indicators such as destitution, and in aspects that are related to the material resources, but not exclusively, such as food insecurity. In addition, we also wonder about the effect on the propensity to child labor.⁵ In this aspect, the AUH system has no

³ According to the last Population Census in Argentina (2010), only 1% of children in primary school age at the country level didn't attend a formal educational center. Likewise, school absenteeism in secondary school was 10.9%. In the first cycle of secondary school it was 3.5%, and it increased in the second to 18%. The evolution of absenteeism in the second cycle of secondary school in the 1981–10 period shows that in 1980, 48.2% of the teenagers didn't attend secondary school; this figure decreased almost 11 percentage points toward the end of the decade, with values around 37.4%. This trend continued and grew stronger in the 1990s, whereas absenteeism decreased to 20.6% in 2001. Last, in the 2001–10 period, while school absenteeism was reduced, it did only by 2 percentage points.

⁴ In the particular case of the educational policies, there are different initiatives directly or indirectly aimed at achieving a greater inclusion and at improving quality. In effect, the 26206 National Education Law of 2005 establishes the mandatory nature of secondary school. At the same time, the Educational Funding Law established an increase of the investment in education from 4 to 6% of the 2005 and 2010 GDP, a goal that was met, and has been kept in recent years. Also the *Conectar Igualdad* program must be considered as an incentive for the schooling of teenagers. This is a program of the national government that seeks to deliver one laptop to each secondary school student in the public system, as well as to the students in the systems of grants and programs aimed at inclusion and at the completion of middle school.

⁵ The Law 26390 prohibits child labor in Argentina and it increases the minimum age for employment to 16. Work is regulated for teenagers above 15 in terms of time and conditions, because it is acknowledged that work complicates educational inclusion and the mandatory school path in Argentina since 2005.

conditions; however, due to its link with schooling and its potential capacity to offset income, it may have had a positive impact.

Answering these questions seems relevant in itself; however, we offer a reflection on the extent of the expected impacts from a rights-based approach, and in terms of the human and social development of children. Thus, we also ask, "what is the potential of income transfer programs in fostering economic autonomy for the families, distributive equity, and social inclusion for children?"

II. Social security systems in Argentina: Coverage, evolution, and focus

As described, in Argentina there are different public economic assistance subsystems for children. However, the national system with the largest coverage and economic impact is the Family Allowances Regime. It is based on a contribution-based system grounded in the principles of distribution (targeted at children whose parents are dependent workers, who receive a salary under the minimum nontaxable threshold, beneficiaries of the Work-Related Risks System, and beneficiaries of the Integrated Unemployment Benefits System), and a noncontribution-based system (targeted at children from poor families or disabled children, which includes the AUH regime). On the other hand, there is a system targeted at homes with children whose parents receive income as dependent workers and/or higher autonomous workers at a minimum scale with the right to deduct from the annual income tax a fixed sum as tax credit per child.

Table 1a shows the coverage attained by each of the aforementioned subsystems, social programs, and the population that still has not been covered by any of the regimes.

Data show, on the one hand, that the wage increase of the 2011–12 interannual period among formal workers was not accompanied by the corresponding increase of the minimum non-taxable scale of the income tax regime, which had an increase of 7.7 percentage points in coverage. On the other hand, the children receiving economic assistance through the AUH and other social plans in urban Argentina between 2010 and 2012 were, in average, 36%. In this sense, there would seem to be no changes in state coverage in the period, the coverage of the AUH grew moderately, and the assistance through other social programs decreased. Despite the growing coverage, of the new social plans, and due to the changes occurred in social security in general, it is estimated that almost 20% of the children—in

average, in the 2010–12 period—does not receive economic assistance from the state.

	2010	2011	2012
Tax credit per child	6.9	9.5	17.2
Family Allowances Regime	38.0	35.9	26.0
Universal Allowance per Child (AUH)	29.0	30.3	30.8
Other social programs	7.8	5.9	5.6
No coverage	18.3	18.4	20.4

Table 1a. Evolution of the different public economic assistance systems for
children in urban Argentina. Years: 2010, 2011, and 2012.Percentage of children aged between 0 and 17 years

Source: EDSA-Bicentenario 2010–12. Argentinean Social Debt Observatory.

Now we may ask what is the incidence of vulnerable childhoods in terms of economic family welfare, access to food, schooling, and child labor, in each of the economic protection subsystems. It is easy to notice that over 45% of the most vulnerable childhoods in terms of per capita family income—under one and two basic food baskets (CBA)—and in a situation of food insecurity as a direct measure of poverty are under the AUH system. Without a doubt, that indicates an adequate focus on child poverty, but it also shows the inclusion challenge represented by the 16% of homes that do not receive income equivalent to a CBA or the 19% in situation of food insecurity.

Children who suffer educational deficits, and/or exposure to economic labor, present a clear fragmentation within the allowances systems (see table 1b). Based on the acknowledgment of this heterogeneity, there is a valid question to be asked about the impact of the AUH on economic poverty and on the human capital indicators analyzed.

	1 CBA 0–17 years **	2 CBA 0–17 years ***	Food insecurity 0–17 years	Does not attend school 5–17 years	Economic labor 5–17 years
Tax credit per child	-	0.4	2.7	5.5	7.0
Family Allowances Regime	14.5	19.8	19.9	24.5	28.2
Universal Allowance per Child (AUH)	49.9	46.1	47.2	28.0	29.6
Other social programs	19.6	12.3	11.1	15.1	12.7
No coverage	16.0	21.5	19.1	27.0	22.6

Table 1b. Segmentation of the allowances system for economic poverty in the household and human development indicators of childhood. Percentage of children aged between 0 and 17 years*

Source: EDSA-Bicentenario 2010–12. Argentinean Social Debt Observatory.

*Base average stacked EDSA 2010-11-12.

**Population under one Basic Food Basket per capita with a value of US\$77.6.

***Population under two Basic Food Baskets per capita with a value of US\$155.

III. Background of the mixed impacts of transfer systems

The noncontributive pension programs and the conditional income transfers in Latin America were expanded in the past decade in terms of coverage and investment (Cecchini and Madariaga, 2011). The literature reports mixed results in terms of their impact. There are consensuses around the positive effects on schooling, on the amount and nutritional composition of what is consumed in the households (Fiszbein and Schady, 2009; González de la Rocha, 2010; Bastagli, 2008), as well as in the reduction of income-related poverty and destitution (Fiszbein and Schady, 2009). With respect to health, there have been improvements in the use of primary attention centers and in preventive care such as vaccination (Veras Soares, 2009). While the reduction of child labor is often not an explicit goal of these programs, the evaluations that have been performed indicate an impact that is somewhat bigger among the little children than the teenagers, it has occurred both in urban and rural areas, and in some cases there has been a greater impact on domestic labor than in economic labor (Cecchini and Madariaga, 2011).

At the local level, and little after the implementation of the AUH, a series of simulation exercises were carried out, based on the Permanent Households Survey (EPH-INDEC), which showed the potential of the transfer policy over different social indicators (Gasparini and Cruces, 2010; Basualdo *et al.*, 2010; Maurizio and Perrot, 2011). The study by Bustos (2011) recognizes a positive impact of the AUH in the income of beneficiary households *versus* non-beneficiary households.

Our own studies show that the positive distributive impacts of the AUH (Salvia *et al.*, 2013) produced a significant increase in household income, which implied a reduction of destitution and poverty rates. Likewise, the AUH would have tended to reduce the risk of suffering events of food insecurity, whereas it would have had an eventual positive effect over secondary schooling.

With respect to the first of the findings, a greater reduction of food insecurity in the households that received AUH income compared to those that did not receive them was noticed during the peaks of the 2010-12 period. In addition, participation of households with food security that received income from these social programs increased. Generally speaking, this positive impact of the allowance would have been great at a time of economic growth (2010-11), whereas in the recessive and more inflationary phase of the period (2011–12), there was a drop in the effect. With respect to the second finding, it was seen that educational inclusion through schooling among teenager would not have had an immediate response before the expansion of the protection system until the 2011–12 interannual period, where there is a more noticeable effect in terms of teenage school inclusion. The main source of this partial positive effect would have been the "return" and/of "retention" of non-attending beneficiaries. Likewise, a portion of the non-schooled beneficiary teenagers and of the non-schooled non-beneficiary teenagers would have migrated to the situation of double exclusion associated with not being participants of the AUH regime and not attending secondary school (Salvia et al., 2013; Tuñón and González, 2012).

However, the truth is that these multiple approaches to the estimation of the effects of the AUH have been able to recognize modest effects in the reversion of structural childhood exclusion conditions. A time effect has been recognized in part in the implementation processes of the system, but it is also necessary to recognize a non-negligible problem in terms of the reliability of the results, related to the fact that, in addition to the fact that the studies are not quasi-experimental or panel studies, the differences observed are generally statistically significant; therefore, these results must be, in general, interpreted as indicators of plausible effects, and not as robust statistical relations. Based on these preliminary approaches, we decided to make a quasiexperimental study that would allow us to homogenize the characteristics of the comparison (control) group with those of the group receiving the AUH, and in that sense gaining more reliability in the comparisons and in the evaluation of potential impacts.⁶

IV. Effects of the AUH on economic welfare and human development indicators

1. Estimation of the impact on destitution and food safety

Although the benefit provided by the AUH transfers to the average per capita income of the family (IPCF) of participant households was US\$22.2, the real impact on the IPCF, controlled/controlling the counterfactual action of nonparticipant households, is estimated at US\$8.9 (see table 2a). However, this effect does not control the indirect aggregated impact of the AUH/7H⁷ over the capacity of (nonparticipant) households to generate additional incomes through the labor market and/or by receiving interfamily transfers.

 Table 2a. Impact of the AUH over the average per capita income of the family (IPCF) by study group

IPCF of participants with AUH/7H (1) (US\$)	IPCF of participants without AUH/7H (2) (US\$)	IPCF of the comparison group (counter factual) (3) (US\$)	Benefit of the AUH/7H to the IPCF of participant households (1)-(2) (US\$)	Net impact of the AUH/7H on the IPCF of participant households (1)-(3) (US\$)
116.5	94.3	107.5	22.2	8.9

Source: EDSA-Bicentenario 2010–12. Argentinean Social Debt Observatory. *Note*: The exchange rate used was US\$1 = AR\$5.8.

The positive effect observed of the average per capita income of the family allows one to infer a positive impact on the situation of destitution and food insecurity of the children. Given a CBA per capita of US\$77.6, the rate of children and teenagers with AUH—for the 2010–2011–2012 period—with

⁶ See the methodological specifications of the study in the annex of this paper.

⁷ The treatment group includes children under the noncontributory regimes of AUH and the pension for seven children because both are conditional transfers for similar amounts.

IPCF under that value is 13%, whereas for the comparison group, it is 19.9%. That is to say, participating in the AUH program reduced the risk of extreme poverty by 34.9% (6.9 p.p.) for the beneficiaries.

But, considering the value of two CBA per capita (US\$155) as the parameter, the rate of participant children and teenagers with IPCF under that value is 62.5%, whereas for the comparison group, it is 65.6%. That is to say, in that case the AUH program reduced the risk of extreme poverty by less than 5% (3.1 p.p.) for the beneficiaries (see table 2b).

Table 2b. Reduction of the risk of being under the value of
one/two CBA per capita and/or of suffering food insecurity by study group.
Percentage of children aged between 0 and 17 years

	AUH/7H participants group	Comparison group (contrafactual)	Impact of the AUH/7H	
			In p.p.	In %
One CBA	13.0	19.9	-6.9	-34.9
Two CBAs	62.5	65.6	-3.1	-4.8
Food insecurity	10.9	13.5	-2.6	-19.2

Source: EDSA-Bicentenario 2010–16. Argentinean Social Debt Observatory (ODSA-UCA). Year 2010–12.

2. Estimation of the impact on school attendance and economic labor

The AUH imposes the conditional requirement that children and teenagers aged between 5 and 17 years should attend the compulsory formal education publicly managed system. As mentioned, schooling between 5 and 12 years of age in urban Argentina has almost reached a full coverage, whereas the inclusion challenge lies with the teenagers in age of attending secondary education.

The analysis of table 3a allows us to estimate a positive impact of the AUH/7H on the schooling of 61.6% of those aged between 5 and 17 years in the participant group compared to the comparison group. In effect, although absenteeism was 3.6% in the participant group, in the comparison group it was 9.5% (a difference of 5.9 p.p. in favor of the former). Although the impact in relative terms was similar on children in age of attending primary education (5–12) and on teenagers in age of attending secondary school (13–

17) (59.4 and 61.2%, respectively), the absolute impact was significantly higher in the reduction of absenteeism among teenagers.

Although the reduction of child labor was not an explicit goal of the allowances system, it is inferred that there may have been a positive effect as a consequence of the schooling requirement that involves a tension with child labor and of the improvement of family income. The truth is that this study identifies a positive effect in the reduction of economic labor between 5 and 17 years. The difference between the rates yields a positive effect of 2.4 p.p. for the participant group, or a 14.3% reduction (table 3a). The effect in percentage terms was higher between 5 and 12 years than between 13 and 17 years (15 and 12%, respectively), whereas in terms of absolute impact, the reduction was greater among the teenagers.

The impact of the AUH in the reduction of school absenteeism in relative terms was four times the relative impact on in the reduction of economic labor. This difference is not surprising to the extent that educational inclusion is a "conditional requirement" of the system, and no restriction associated with child labor was included. Although the relative differences show a greater impact among children than among teenagers, both for schooling and for child labor, the absolute impact was clearly higher among teenagers, which are the most vulnerable demographic group in terms of educational exclusion and economic exploitation.

	Age group	AUH/7H Participants group	Comparison group (contrafactual)	Impact of the AUH/7H	
				In p.p.	In %
_	5-17	3.6	9.5	-5.9	-61.6
Does not attend school	5-12	1.3	3.2	-1.9	-59.4
	13-17	7.7	20	-12.2	-61.2
	5-17	14.3	16.7	-2.4	-14.3
Performs economic labor	5-12	8.3	9.8	-1.5	-15.1
	13-17	25.1	28.5	-3.4	-12.0

Table 3a. Not attending school and performing economic labor by study group.Percentage of children aged between 0 and 17 years.

Source: EDSA-Bicentenario 2010–16. Argentinean Social Debt Observatory (ODSA-UCA). Year 2010–12.

V. Final reflections

The AUH confirms a trend toward broader base income transfer policies. Its distributive impact, however insufficient to overcome income-related destitution in childhood, has been firmly progressive. Now, the important role of economic protection performed by the allowance also reflects the persistence and reproduction of an excluded population without access to full employment with all rights and to a more integral protection system; therefore, receiving the said income transfer programs is also an indicator of the deficit in terms of economic autonomy, distributive equality, and social inclusion that is a burden to broad sectors of the population, and which particularly affect children.

The AUH has attained a broad coverage in the target population; however, we estimate that 20% (approximately 2,600,000) of the children were excluded from the allowances regimes in 2012. In that sense, there is a pending challenge of providing social protection to children and of reviewing the current eligibility and universality criteria.

In the framework of a fragmented social protection system, the AUH reaffirms the condition of employment informality of a large portion of the Argentinean population, and which is not reverted in the period under review by the percentage of coverage of the allowance, which has not changed. The employment paths of the vulnerable sectors are changing and unstable, but the state must promote their full inclusion. In that sense, the employment status should not be an eligibility criterion, but rather the status of children whose basic rights are being infringed.

The impact of the AUH on per capita family income has been modest, but positive. However, it is necessary to ask about the purchase power of the said income, in the framework of the high levels of inflation registered in recent years, which have a liquefying effect over the amount of the benefit. Somehow, the partial impact of the allowance over the income can be noticed in the percentage of the reduction of the rate of destitution and food insecurity among socially vulnerable children, which was 34.9 and 19.2%, respectively. The analysis of the differentiated effects made it possible to notice the paradox of the higher relative effects over destitution, which has no correlation with the decrease of food insecurity. Of course, the increase of household income improves their purchasing power, and particularly, their power to buy food; however, it seems complex that it would certify their nutritional value and guarantee access in terms of quantity and quality.

Schooling in the publicly managed educational system is one of the conditional requirements of the AUH system. This study has estimated a positive effect on the schooling of 61.6% in the population aged between 5 and 17 years that is under social vulnerability conditions. Although the relative effect was similar among age groups, the absolute effect was significantly higher in the reduction of absenteeism among teenagers, which are the demographic group that is most affected by educational backwardness and exclusion. However, it is necessary to ask about the effect of income transfer systems on human capital to the extent that they are not accompanied by more substantial transformations of the integrative capacity of the educational system for the new generations. In the framework of a fragmented educational system, how could we expect allowances regimes to guarantee the investment in human capital if schooling is not synonymous to valuable learning, or to equivalent educational results?

In the framework of homes with unstable and precarious forms of integration to the job market, the secondary workforce is often an important resource, and this workforce includes children and, particularly, teenagers. Although the AUH does not establish an explicit conditional requirement related to child labor, this study has estimated a positive effect on its reduction. Probably, the economic contribution of the children to the home with the allowance along with the restriction of time that is available to work as a consequence of the requirement to attend school have jointly influenced the 14.3% effect, which is clearly insufficient, and shows that the allowance may partially offset the income generated by child labor.

Without a doubt, income transfer programs fulfill a fundamental role in a society where a strong core of poverty persists, one that includes a relevant proportion of children. However, the limits of this system in reducing destitution and food insecurity raise the urgency to define the limits of these programs, including the AUH, to meet the minimum goal, which is eradicating extreme poverty.

In that sense, from the perspective of social rights, attention must be drawn to the fact that the improvements achieved in the living standard and welfare of households with children through this economic assistance, although clearly indispensable, are far from being a platform for social inclusion or an indicator of sustainable and socially integrated human development. The positive achievements of the transfer programs may be maintained and, simultaneously, be expanded, if they were accompanied by more integral human and social development policies.

Mainaxes of debate:

The impact assessment of the AUH for this article was performed considering the first three years of its implementation. This period may be considered as insufficient for an assessment. In effect, the impacts generally are noticed after a longer time. However, in this particular case of the AUH, the purpose was to achieve an immediate impact over the income of the households as well as produce effects over schooling and preventive health care (its conditional requirements). Likewise, it must be mentioned that this transfer of income was not complemented with any other action that may allow the conclusion that the passage of time may be an intervening factor. In any case, it must be noted that controls in the compliance of the conditional requirement demand implementation time, and in that sense, they may exercise an effect in the short term.

Also, it is necessary to ask what should be evaluated as an effect of the AUH. The effects that were expected of the AUH were the increase of family income, the increase of schooling, and increase in preventive health controls. However, in the framework of this study, we also sought to evaluate its effect on child labor. It is clear that this is not an effect or goal that was expected of the program, and, even though in that sense it may not be legitimate to demand the said impact from the state, its positive effect seems plausible to the extent that schooling takes time away from work and, at the same time, the household offsets the income with the transfer.

In the region, there is a debate on the conditional requirements of the income transfer programs. This debate has different angles; on the one hand, the angle related to the discrimination represented by requiring a condition to have access to a right such as the social protection of children, and on the other, the actual effect of requiring the condition over the strategies of the households. In this case, the schooling requirement was useful to the extent that there was a comptroller of the condition, and its effect was seen more clearly in the second year of implementation of the allowance.

It is still necessary to continue to work on nonobservable external factors that may shed some light over the reasons for which a portion of Argentinean children continue to be in social vulnerability conditions and do not participate in the AUH. Precisely, a problem of the quasi-experimental method offered by matching, even after being corrected with a regression, is how to capture nonobservable factors related to the motive, the ability to withstand, among others, that may be associated. Although the matching took into account a considerable set of variables, there are nonobserved features for which we were not able to match the groups. However, it seems unlikely that there are factors not being represented in any of the observable factors introduced, but it cannot be ruled out for sure. In that framework, the factors that cause a proportion of vulnerable children to be still not under an allowance regime are various: migratory origin, family structure, extreme marginality, among others. All of them are factors that were introduced in the matching.

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VII. Methodological annex

1. Argentinean Social Debt Survey (EDSA)

The Argentinean Social Debt Survey is a multipurpose survey carried out at the national level since 2004 to date, on an annual basis. The EDSA studies for the 2010–16 Bicentennial started a new era in which the sample extended its reference framework. The annual measurement is carried out every third quarter of the year. The EDSA is based on a probabilistic multistage sampling design with nonproportional stratification and systematic selection of households and homes at each sampling point. The sample covers 18 urban agglomerations with over 80,000 inhabitants: the Metropolitan Area of the Greater Buenos Aires (Buenos Aires City and 24 Districts of the Metropolitan Area), Greater Cordoba, Greater Rosario, Greater Mendoza, Greater Salta, Greater Tucuman and Tafí Viejo, San Rafael, Mar del Plata, Greater Parana, Greater San Juan, Greater Resistencia, Neuquen-Plottier, Zárate, Goya, La Rioja, Comodoro Rivadavia, Ushuaia, and Rio Grande. This is a sample of homes, with a sample size of 5,700 cases. From this survey, we take information on the households, adults over 18 years, and children and teenagers between 0 and 17 years. EDSA forms and technical specifications on sample design can be consulted in *www.uca.edu.ar/observatorio*.

The sample from which the treatment group and the comparison group were formed using the matching procedure was based on the 2010, 2011, and 2012 stacked samples. These three measurements included questions that sought to identify the different types of social protection systems for children and teenagers, and particularly for the population that receives the AUH/7H.

2. Methodology used in the assessment of the impact

In this study, we made an evaluative design based on a quasi-experimental model that consisted of forming a treatment group and a comparison group to allow us to estimate the impact of the AUH, as the difference between the indicator of the result with the reception of the allowance and its counterfactual value for the receivers in the absence of the allowance. The estimation of the counterfactual was based on forming a comparison group with matched nonreceivers.

First, we selected the children between 0 and 17 years, in whose homes the responsible adult (father or mother) had a salary employment without retirement withholdings and non-salary employees who made no contributions, or unemployed and idle persons who did not receive other noncontributive assistance programs. Within this population, that meets the eligibility criteria of the program, we proceeded, on the one hand, to form a treatment group with children between 0 and 17 years who received, as stated by their reference adults, the AUH/7H,⁸ and on the other hand, with those that did not receive the AUH/7H we proceeded to form a control or comparison group with the propensity score matching method, which allowed us to identify a group of children statistically similar to the group selected for the treatment group. For the selection of the comparison group

⁸ This noncontributory pension is targeted at mothers with seven children or more who are socially vulnerable, who are not covered by provisional or noncontributory injunction. In addition, they must not own a property, goods, or receive any income that may allow subsistence. They must also not have any relatives who have a legal obligation to provide food to their children, or if they have them, they shall be unable to do so. Last, beneficiary mothers shall not be under detention or prosecution. See Law No. 23.746 and Decree No. 2360/90.

we considered a broad set of independent variables that were part of the logistic regression that allowed us to estimate the propensity scores for the matching.⁹

This methodology provided an adequate "matching" of the comparison group to the characteristics of the treatment group,¹⁰ which allows us to evaluate the extent to which the AUH/7H has the expected effect on key aspects such as per capita family income, destitution, severe food insecurity, educational inclusion through schooling, and propensity to economic labor.

The analysis of the data built is carried out with tables that present the mean and ratio differences and their significance, as the case may be, between the participant (treatment) group and the group of nonparticipants (comparison), for each of the dependent variables considered, under the matching and by estimation through linear and logistic regression models (impact estimated with a regression adjustment).¹¹

⁹ For the purposes of "matching up" the groups, we used a logit model to estimate a ratio of propensity (Rosenbaum and Rubin, 1983,1985) to being an AUH receiver, which would allow us to select in the control group any children between 0 and 17 years of age with characteristics that were "equal" to those of the receivers of the AUH (members of the experimental group). This way, each receiver is compared with the average characteristics of its most similar *n* individuals in the control group. See tables 1 and 2a in the annex.

¹⁰ The nearest neighbor matching was used as matching criterion, that is to say, one (1) control chosen over the nearest basis of the propensity coefficient. In this case, the individual chosen by the matching had to meet the requirement that the quadratic difference between the propensity index of being a receiver of the AUH and the propensity index of the individual of the control group had to be lesser than 0.05. The study groups (experimental and control) made up with this matching criterion were submitted to a mean difference test for each of the independent variables considered in the logit regression model used to estimate the propensity coefficient used in the "matching." Those mean difference tests indicated that the independent variables considered didn't present significant differences between the study groups as per the matching criterion.

¹¹ The matchingonly distributes the observable characteristics equally. In other words, it assumes that there is no other relevant nonobservable variable that systematically differed between the experimental group and the comparison group and that, then, the result of the experimental group, if it had failed to participate, or to benefit from the program (that is to say, the counterfactual), equals the result of the comparison group that, actually, didn't participate. That is to say, that there is nothing that guarantees that the "matching" generated balanced experimental and comparison group samples with respect to these nonobserved factors, the measure of the impact we obtain may suffer an important bias with respect to its authentic value (Dehejia and Wahba, 1998). A regression may potentially improve the accuracy of the estimates.

The method allowed us to match 3,562 participant cases (out of the 5,476 original cases) with an optimal equalization result: None of the observed variables introduced in the model showed significant differences of less than p = 0.10 among the population with AUH/7H and the comparison group (see *t* test of mean differences in table 1a).

3. Regression models: Variables and operational definitions

Below, table 4a, is a summary chart with the dependent and independent variables included in the linear and logistic regression models, as the case may be, from which we performed the adjustments of the impact estimations.

Six regression models were performed, with which we sought to perform the impact estimations of the AUH/7H in economic welfare and human and social development indicators (table 4 b).

Dependent variables	Scale	Values and categories
Per capita income of the family (a)	Metric	
One CBA (b)	Metric	
Two CBA (c)	Metric	
Food insecurity (d)	Categorical	0. Rest (c) 1. Severe deficit
Schooling	Categorical	0. Attends school (c) 1. Does not attend school
Child labor (e)	Categorical	0. Does not work (c) 1. Economic labor

Table 4a. Dependent variables considered in the regression models

Source: EDSA-Bicentenario 2010–12. Argentinean Social Debt Observatory.

(a) The income has been normalized to December 2012 pesos.

(b) Population under 1 Basic Food Basket per capita with a value of US\$77.6.

(b) Population under 2 Basic Food Baskets per capita with a value of US\$155.

(d) Severe food insecurity: children who stated they felt hunger due to lack of food in the past 12 months due to economic problems (Salvia *et al.*, 2012).

(e) Children between 5 and 17 years that helped a relative or acquaintance in a job, or who performed an activity on their own to earn money serving as employees or apprentices in the past 12 months.

	AUH participant group (%)	Comparison group (%)	Dif. (p.p.)	Significance (t test)
Sex of the child (boy/girl)	49.2	49.1	0.1	0.962
Age group of the child				
0–1 year	10.8	10.9	-0.1	0.881
2–4 years	21.9	23.2	-1.3	0.184
5–12 years	43.1	41.4	1.7	0.152
13–17 years	24.3	24.5	-0.2	0.807
Amount of children in the household				
1 child	14.2	14.7	-0.5	0.524
2 or 3 children	25.1	23.5	1.6	0.108
4 or more children	31.1	32.7	-1.6	0.149
Emotional upbringing environment (with deficit/without deficit) (a)	37.7	39.1	-1.5	0.198
Family configuration (complete parental household/incomplete parental household)	68.6	69.8	-1.2	0.244
Family nucleus (extended/non- extended)	34.1	32.9	1.2	0.268
Age group of the mother				
Up to 24 years	14.4	14.1	0.3	0.759
Between 25 and 34 years	41.3	42.8	-1.4	0.227
Between 35 and 44 years	30.9	30.8	0.1	0.936
45 years and older	13.3	12.3	1.1	0.177
Maximum educational level of the mother				
Up to incomplete secondary school	70.7	70.8	-0.1	0.893
Complete secondary school	23.4	23.5	-0.1	0.914
Tertiary or college	5.9	5.6	0.3	0.646
Migratory origin of the father/mother			0.0	
Native	76.5	75.7	0.7	0.472
Neighboring migrants	3.9	4.4	-0.5	0.287
Other non-neighboring migrants	19.6	19.8	-0.2	0.814

Table 4b. Ratio ttests for differences in the factors considered in the logit model for the estimation of the propensity index between the AUH participant group and the comparison group

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Job situation father/mother				
Regular job	66.0	65.5	0.5	0.665
Sub employed	19.2	18.9	0.3	0.761
Unemployed or idle	14.8	15.6	-0.8	0.366
Number of employed persons in the household (up to 1 employed person/more than 1 employed person)	47.9	47.2	0.7	0.549
<i>NBI</i> (with deficit/without deficit) (b)	38.4	38.9	-0.5	0.656
<i>Socio-residential space</i> (informal urbanization/formal urbanization) (c)	9.2	9.2	0.0	0.998
Ownership regime of the home (owners/not owners)	59.6	57.9	1.7	0.140
Urban population center				
City of Buenos Aires	2.4	3.0	-0.6	0.110
Buenos Aires Metropolitan Area	28.1	26.8	1.2	0.247
Other large metropolitan areas of the province	44.8	44.3	0.5	0.699
Rest of the urban areas of the province	24.7	25.8	-1.1	0.302
Year of the sample				
Year 2010	34.2	35.6	-1.4	0.230
Year 2011	32.7	32.7	-0.1	0.963
Year 2012	33.1	31.7	1.4	0.204

Source: EDSA-Bicentenario 2010–12. Argentinean Social Debt Observatory.

(a) Children in households in which the reference adults stated that they use forms of physical and/or verbal violence as a form of discipline for their children (teaching what is wrong).

(b) Informal urbanization: form of urbanization with no state planning and regulation, produced as a result of the occupation of (private or fiscal) land and of the self-construction of the habitat and the dwelling, with a predominance of the irregular modality of home and land ownership. Formal urbanization: form of urbanization with state planning and regulation in the construction and urban infrastructure.

(c) Unsatisfied basic needs (NBI): children in households that present at least one of the following deprivations: 1—three or more persons per habitable room, 2—living in an inadequate dwelling (room in a tenement, precarious dwelling), 3—homes with no kind of WC, 4—homes with a child in school age (6–12) who does not attend school, 5—homes with four or more persons per employed member, and, 6—additionally, whose head of the family has completed primary school as the highest level of education.