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The contribution of national statistical systems to the study of links between educational strategies, families and population dynamics.

Alicia Maguid*
Verónica Arruñada**
Julián Govea Basch***

*Director of Social Statistics , National Institute of Statistics and Censuses, Argentina. CONICET Researcher.

**Methodological Coordinator, Direction of Social Statistics, National Institute of Statistics and Censuses, Argentina.

***Coordinator of the Area "Dynamics and Structure of the Population", Direction of Social Statistics, National Institute of Statistics and Censuses, Argentina.

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I. INTRODUCTION

The main purpose of this paper is to illustrate how the countries' statistic systems of socio-demographic indicators could contribute to the study of links between educational strategies, the family and population dynamics.

In order to do this the Argentinean case is taken, where the National Institute of Statistics and Censuses (INDEC) has been developing for a few years, the Integrated System of Sociodemographic Statistics (SESD) aiming at having a set of indicators that give an account of the population's situation and social evolution and which enables to identify the most vulnerable regions and groups. This information should become an essential input for the design and implementation of effective policies and social actions that aim at diminishing the inequalities and improve the people's living conditions.

This System-SESD-contemplates indicators both for the whole country, as for the provincial units and departments, that attempt to give an account of the present situation and the changes produced in the different dimensions of social reality, classified into various theme areas (subject matters): Dynamics and Structure of the Population; Composition and characteristics of the Families and Households; Housing and Basic Sanitation; Education; Health; Work and income; Social Security, Public Security, Citizen's Participation; Use of Leisure time; Living conditions and Poverty; Situation of women, children and adolescents, youth and elderly adults.
The results are delivered through periodical publications and magnetic means[1].

The information that feeds the system comes both from sources elaborated by the INDEC: Population and Housing National Censuses, Permanent Household Survey-Employment and Unemployment-, National Survey of Household Expenditure, Living Conditions Survey, and from other special sources, such as the information yielded by the different social sectors of national and provincial governments.

In order to contextualize the contribution of the Indicator System to the analysis that constitutes the subject of this Seminar, the basis and methodological criteria that support the System's design, its range and its theme content, are presented in the first place.

Later, it is pointed out its potential for the analysis of interrelations or links among indicators from different dimensions, distinguishing those which can be established regarding education, type and composition of families and population dynamics.

It is also considered the role performed by the educational background of the people and the families-measured respectively by the educational level achieved and the household educational climate-in achieving dignified living conditions that are measured through aspects such as: availability of health care, housing, drinkable water and sanitation, appropriate work insertion and income level and to sum up, the possibilities they have for overcoming poverty.

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[1] Two series are published. The first is called "Social Situation and evolution. Sinthesis" and it includes indicators for the whole country and for each province, differentiating urban from rural areas. It includes a first chapter with analysis and interpretation of results. The second, "Provincial Social Situation and evolution" includes indicators for each province, distinguishing among the departments that compose it.

Finally, some results from the System are analysed as an example to learn about :

- The existing relationship between the families characteristics and their educational strategies.
- To which extent the result of these educational strategies determine the demographic dynamics, access to health and insertion pattern within the labour force market.
- If there exists an intergenerational transmission of problems regarding the access to education, that is if the children from poorly educated families have less chances of attending school and achieve higher educational levels.

2 THE INDICATOR SYSTEM : BASIS, METHODOLOGICAL CRITERIA AND CONTENT

The idea of developing an integrated system of social and population statistics has a long trajectory within the national and international experience. The concern of the United Nations for measuring the development, level and living conditions of the population arouse quite early, almost by mid-century, when the " Report on the international definition and measurement of the living standard" was published. (UN,1954).

During the 60's and 70's many documents were yielded that show significant methodological progress, in which recommendations, rules and definitions are stated for designing and implementing an integrated system of social and demographic statistics that could be applied to all countries with homogeneous criteria, in order to insure international comparison.

The relevance acquired then by the "indicator movement" is seen in countries such as Great Britain, France and the United States with the appearance , in the early 70's, of pioneer publications such as "Social Trends" (UK, 1970) ; Social Indicators (US, 1973) ; Données Sociales (France, 1973) that are published regularly until present.

Our country wasn't unaware of such concerns, therefore, the INDEC began working on the development of the system in the mid 80's . In a first and laborious stage the social sectors which produced statistics and other existing sources of information at national and provincial level were identified. Then, the definition, harmonisation and integration of the indicators from various areas of social interest enabled the consolidation of a system.
Recently, a redesign of this system was performed on the basis of a series of methodological criteria that is summarised below :

2.1 Basis and criteria that support the System

It is expected to count on a system of information which gives an account in an appropriate, timely and permanent fashion of the social situation of the whole country and the geographic units that compose it so as to provide input for the diagnoses and follow-up of the changes produced in the area.

However, in order to make this information useful for the decision making meant to improve the population's living conditions, it is necessary that it should allow us to learn about the complexity and heterogeneity of social reality, that is it should identify the areas and

subpopulations most relegated and compare them with the groups which are better-off for evaluating the distance that needs to be shortened to overcome their relative underdevelopment.

The chosen indicators for becoming part of the system should then be **pertinent** and **relevant** to reflect, through clear and appropriate statistical measurements- percentages, rates, indexes, etc.- the phenomena that contribute to the description and explanation of the different dimensions of social reality and the behaviour of various population groups

On the other hand, it is necessary for these indicators in order to become a system to be **interconnected** ; the concept of system relies on the idea of connection, it is not a set of isolated indicators, they should be linked by some systematic interaction pattern interdependence. Thus, it is essential as a starting point to define a set of common criteria that will guide the election of the indicators and that common definitions and classifications exist, not only regarding the variables or characteristics investigated but also regarding the unit of analysis and geographical units considered. Therefore, the indicators, though based on information obtained through different sources should be feasible of being compared within provinces, within regions and within the population groups under study.

Finally, the system is meant to be **"complete and dynamic"** : the completeness refers to the inclusion of all the important social aspects and the dynamics refers to the fact that if the system wishes to reflect the reality it should be flexible enough to allow its updating in relation to the appearance of new phenomena or new methodologies for grasping and measuring more suitably the social events.

Moreover, to learn about the people's social situation and evolution-that constitute the main interest of the SESD- it is necessary to use different levels of analysis : not only the individuals' but also the one corresponding to the families, the households and other population groups of interest for the social policies.

From the experience gathered, the revision of national and international antecedents and from consulting specialists, producers and users of sociodemographic information, three criteria have been privileged that have helped as a guide to define the theme range of the system and the indicators which compose it :

a) **Focus criteria**, this means the portray of the situation of the highly relegated population groups and geographical areas in the whole country and for each province. This decision reflects in the calculation of the indicators in each area of social concern , in a discriminated way for these segments of the universe and in the inclusion of new subject areas on living conditions and the situation of women, children and adolescents, and the elderly.

b) **Disparity criteria,** counting on discriminated indicators in such a way that they allow us to acknowledge the gap or distance that separates the different social and population sectors in the whole country and in each province ; the interprovincial heterogeneity and the disparity among the different territorial areas- particularly rural and urban-.

c) **"International goals"**, that is to consider the objectives and goals that have been set by different sectors- but particularly those set by the International Conferences of the Organisms of the United Nations- and Argentina has agreed on, aiming at counting on indicators that give an account of the progress made in our country in that matter.

It should be pointed out that the eduacational level of the people, the household head and the educational climate (background) of the families constitute a significant part of the indicators used as a control variable to identify the most vulnerable subpopulations *(focus criteria)* so as to acknowledge the social heterogeinity *(disparity criteria)* .

2.2   The range and content of the System

Due to the fact that a system is necessarily complex it is convenient to divide it into parts. Regarding in particular social and demographic statistics, this implies to acknowledge various dimensions of reality or subject matters whose range is defined below.

1	Dynamics and Structure of the Population	The volume, the population's pace of growth and its composition constitute factors closely related but which also affect all the other social events. Thus, the magnitude of the the population (demanding) consuming different health programmes, different educational levels, social security, housing and the volume of the work offer for which employment is required will depend on the dynamics of demography. As a result, this area crosses the System and becomes its pivot . The main aspects considered make reference to : • The dynamics of past and current growth of the population and its components : natality- determined by the fertility levels- mortality and migrations. • The composition by sex and age and particularly the ageing population problem. • The geographical distribution of the population and the urbanization process.

2 Family and Households	The indicators included attempt to reflect the characteristics and changes which have taken place in the type and composition of the households and families. assuming that it is in these settings where life strategies are shaped. Aspects concerning the formation and dissolution of unions. type of households and families. family life cycle and the presence of incomplete marital units-monoparental families- are considered. Furthermore. it is intended to identify those households which are in a vulnerable situation due either to the household's characteristics or its head's and to the presence of children. adolescents or elderly people in unfavourable conditions. Thus. the system allows us to know which are the population groups of interest or concern for focused social policies from two viewpoints the one which considers the households as units of analysis -and as a target for policies- and the one which considers the individuals from each group through the indicators of the chapters corresponding to each specific subpopulation (See Areas 13 and 14).
3 Housing and Habitat	In this subject matter indicators are included that show the relative presence of the various types of private dwellings and of the households and population residing there :the different alternatives found in the possession of the home : the access to the basic services- drinkable water and sewers- and the availability of other facilities in the home.The aim is to identify the households inhabiting precarious homes or that do not enjoy the basic sanitation services. It is also desirable to have indicators on the environment and the homes' habitat.
4 Health	The problems regarding health and access to health care services are meant to reflect through a set of indicators concerning mortality levels- levels and death causes by sex and age, paying special attention to infant mortality- : the existance of low baby weight at birth or mothers in a situation of risk, the characteristics of morbidity. the availability of hospital resources and the coverage of vaccine programmes. The non-possession of a health care security system, either public or private- on behalf of the household members is another important aspect when identifying population groups and areas in a situation of vulnerability.

5 Education	Here we consider indicators related to the current coverage of the educational system, the human and material resources available, and the permanence and promotion of students within this system according to the expected age for each grade and level. The relationship between the population consumer of formal education, in each group according to age and the population who actually attends educational facilities in each level provides the educational system's coverage. Furthermore, the problems of falling behind, repeating or desertion or failure, specially in the primary and secondary level of education are also examined. The level of education achieved by the population reflects not only the access they had to education, but also the profile of our society's human resources, specially those participating in the labour market.
6 Work	The indicators included attempt to gain information on the dynamics and structure of the labour force market. Thus, levels of activity, employment, unemployment and under-employment are considered, trying to show the existing differences among different population groups and geographic areas. Another set of indicators explain the employment structure and the insertion patterns of the occupied (employed) according to the branch of activity and the size of the building (site), the category of employment, the occupational qualification, etc., identifying the situations in which labour precariousness exist.
7 Income	Here indicators are presented regarding individual income and the per capita income of the household which enable a closer inspection on how the total income of a society is distributed among its population.
8 Social Security and Assistance	This issue is trying to illustrate the actions of the State's social programmes and the target population who will benefit from them. In the first place, indicators which refer to the population included in the Unique Social Security System valid in our country are presented. Distribution and Capitalization Regime, Pension Benefits, Unemployment insurance (individuals on the dole), Family assignments (extra resources), etc. Later, other indicators are presented regarding the range and coverage of other specific programmes specially aimed at children and the elderly in particularly difficult circumstances.
9 Public Security	This area includes indicators related to the report of crimes committed, the traffic accidents occurred, the performance of the Penalty System and the magnitude and characteristics of the prison population. It is important to point out that the statistics on crime committed, based on the information reported by the population are incomplete because many crimes are unrecorded and vary accross time so the follow up of the data becomes difficult

10 Participation of Citizens	These indicators make reference to the participation of citizens in the national and provincial elections- both for authorities of the Executive and Legislative Power –and to the results obtained by the main political parties which have taken part in them. Indicators referring to the participation of the population in various community organizations are also included for which information secured through special surveys is required.
11 Leisure time	Although this area refers to the population's use of leisure time, the information on this issue is scarce. It is even less feasible to know how this varies by sex and age groups, by level of education and socioeconomic level. Therefore, the indicators focus more on the activities available for the use of the free time and to the total events, amount of newspapers and magazines, amount of film viewers , - than on the people who take part in them.
12 Living conditions	It refers to the incidence of poverty, identifying its various types, but it also Refers to situations of vulnerability which are not detected when the only methods used are those meant to measure poverty In this sense, in addition to identifying the "structural paupers", who don't have their basic needs satisfied and , the "poor according to income", who live in households whose income is not enough to cover the food and services expenditure ; other indicators are included that enable the identification of homes and individuals in precarious living conditions, which make them vulnerable or potentially vulnerable and that could also be the target for social policies.

13 Situation of Women	This area expects to give an account of the situation of women and gender inequality in different dimensions of social reality. But it is also important to show the heterogeneity existing among the women belonging to different social groups or geographical areas. That is why the indicators presented here respond to three types of objectives : 1. To provide **"gender gap"** indicators, this means showing disparity between male and female : 2. To provide indicators that enable the follow-up of the evolution in women's position in dimensions which are particular of women, such as the maternal mortality and aspects of reproductive health. 3. To provide **"social gap"** indicators that give an account of the particular situation of the women who belong to vulnerable groups and to expose, in this case the disparity among women with different social characteristics, such as educational level or situation of poverty. It is necessary to point out that the gender disparity approach crosses the whole SESD, because in all the subject areas the indicators by sex are discriminated, and this allows for those interested in this issue to widen and study in-depth this chapter.
14 Groups of interest/ concern for Social Policies.	The importance acquired by the focus concept and the increasing importance assigned to each of these population segments as a target for social policies justifies its inclusion to the SESD. For statistical purposes each group is defined according to their age : - Children and Adolescents : 0 to 17 years old · Youth : 18 to 29 · Elderly : 60 onwards. Within each group different age groups are discened, in every case related to different stages in the life cycle. For each set of age groups , indicators are included so as to learn about the group's situation in a global fashion or discerning within them those which are found in a too difficult or risky situations for a suitable development. The same as in the chapter on women and due to the fact that age also crosses the whole system as a crossing variable, it is possible to increase the characteristics of these groups of concern with the information included in the rest of the subject areas.

The SESD is conceived as a dynamic system both regarding subject areas and the indicators considered which will necessarily be adjusted according to the information requirements. Thus, the last four areas have been included as a result of a recent re-design of the system and their indicators will appear having been calculated in the next publication of the series Social Situation and Evolution. Synthesis IV, whole country and province by province coverage.

3.   ANALITIC POTENTIAL OF THE SYSTEM

According to the characteristics already mentioned the SESD enables to :

a) Carry out statistical analysis of interrelation among the various subject areas, taking different units of analysis : individuals, families, households or different geographical areas.

b) Carry out association analysis among indicators. For instance, analyse the relationship between different types of family and the educational strategies for their children , the link between the parents' educational level and the chances of access to education of their children, the predominating types of family in the population groups with different education levels, the association between the educational attainment of the individuals and the family and the characteristics of their socio-demographic behaviour, and the influence of the education in the quality and insertion patterns in the labour market and in the chances of access to social security services.

Regarding the interrelation analysis among the System's indicators, its aim is to learn about the associations among the various SESD indicators and identify those with greater explanatory and discerning power to carry out diagnoses of the social situation. Due to the system's current degree of development, in the near future will begin the evaluation of different statistical methodologies for the analysis of interrelation among indicators, and the construction of geographic strata with homogeneous socio-demographic features, taking as a unit of analysis the smallest administrative unit, that is each department within every Argentinean's province.

Moreover, it is expected to count on a computerised data base of the SESD indicators, which will speed up its calculation and updating.

4.   INDICATORS REGARDING THE POPULATION DYNAMICS, THE FAMILIES AND EDUCATION

In Scheme 1, the main indicators which refer to each of the subject areas approached in this seminar are listed.

Scheme 1:

Dynamics and structure

Dynamics Components
- Total growth rate
- Crude birth rate
- Crude mortality rate
- Net migration rate

Fertility and Marriage
- Total fertility rate
- Total offspring
- Crude marriage rate
- Distribution according to marital status

Mortality
- Mortality rates per age
- Infant mortality rate (total, neo-natal and post- neo-natal)
- Life expectancy

Structure
- Composition by age and sex
- Potencial dependency index: total, of young and elderly people
- Renovation index

Migration
- Migratory status
- Characteristics of migrants

Geographical distribucion and urbanisation
- Percentage of urban population and in towns of 100.000 inhabitants and over
- Index of urban primacy
- Percentage of population in the 4 most populated towns

Education

School attendance and educational level
- School attendance rate
- Net rate of schooling, by level
- Distribution of the population according to highest educational level reached
- Illiteracy rate
- Extra-age rate by grade/level of education
- Repetition rate by grade/level of teaching
- Potential population demanding formal education

Population assisted by the educational system
- Students enrolled according to sector (public and private)
- Students enrolled according to educational level
- Students enrolled according to type of education

Indicators of resources and managment of the educational system
- Educational units by sector
- Educational units according to educational teaching levels
- Educational units according to type of education
- School buildings which do not have water from public pipes
- School buildings which do not have electricity
- Average number of pupils by section
- Percentage of teachers in charge of a course

Familiy

- Type of family
- Completeness of marital nucleus
- Socio- demographic traits of the household head sex, age, migratory status, highest educational level achieved, work status
- Educational climate of the family
- Poverty level
- Familiar *per capita* income

The current development model in each society determines in it certain social and regional differentiation. This social and regional differentiation will result in differential demographic behaviour of social classes families and individuals.

The families' behaviour result in turn, in certain material living conditions and in a specific socio-demographic structure of the family (Torrado 1998), dimensions which interrelate closely and in a variety of ways.

It is well known the mutual connections between the population dynamics, the type and composition of the families and the educational strategies. However, the intensity of these vary according to the stage of demographic transition undergone by each society and its degree of development.

Below, we expose the main connections among the three dimensions considered and how they can be seen through the indicators considered by the system **(See Schemes 2 and 3).**

Scheme 2:
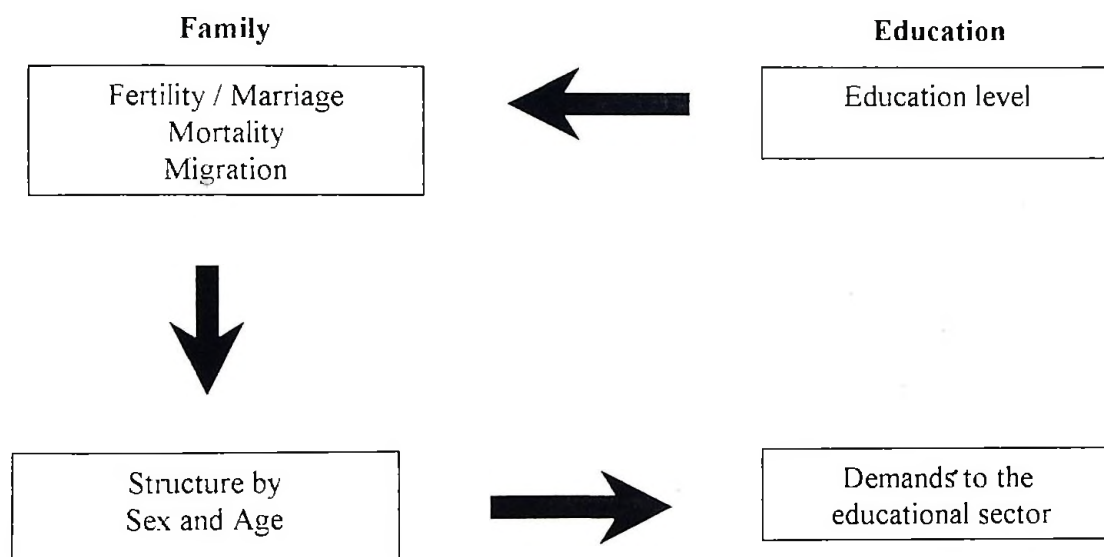
The intervening factors in the population dynamics -marriage and fertility, mortality and migrations- determine the composition by sex and age of the population. This composition, and in particular, the amount of people in age suitable for schooling generate specific educational coverage demands in the different levels of the education system.

The SESD includes the potential consumer population of the different educational levels in the period 1990-2005. The population by five-year periods of age are projected until the year 2050.

Provided that the public policies predict the future demographic changes and establish the conditions to ensure the whole population's equal right to education, these demands will obtain a satisfactory response. This situation is not yet witnessed in the countries that are behind in development such as the Latin American ones.
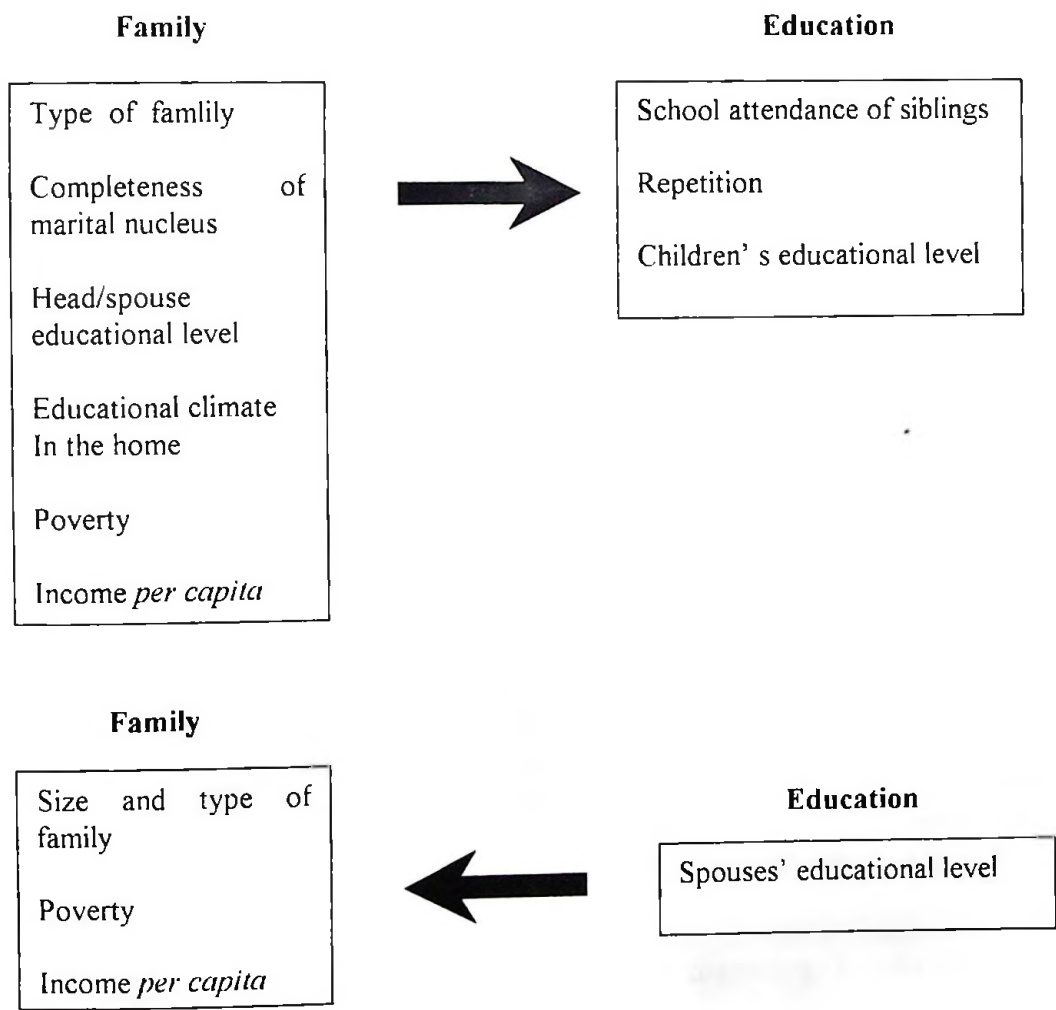
On the other hand the population's educational level definitively affects the dynamics of demography, showing significant differentials in the mortality levels, particularly during the early years of life, in fertility and in the insertion of the migrants in the destination societies.

The role played by the educational variable has been repeatedly acknowledged. According to CELADE-BID (1996) "The increase of the educational level, possibly associated to the improvement in the living conditions and medical care, have historically had a determining effect in the decrease of mortality levels (specially infant mortality) and fertility levels, either directly or through its influence on the determiners close to these variables."

The SESD contemplates infant and first years mortality, global fertility rates and final offspring according to the educational level. Furthermore, it allows the analysis of its incidence in the insertion patterns of the internal and international migrants.

The Scheme 3 summarises the most relevant interrelations among the indicators that portray the families and those referred to access to education.

Scheme 3:

Family

Type of famlily

Completeness of marital nucleus

Head/spouse educational level

Educational climate In the home

Poverty

Income *per capita*

Education

School attendance of siblings

Repetition

Children' s educational level

Family

Size and type of family

Poverty

Income *per capita*

Education

Spouses' educational level

The chances of access and permanence of children and youth within the educational system are strongly conditioned by various traits of the families they belong to.
These qualities of the family are of various types: the type and composition, the presence or not of both spouses (completeness of marital nucleus), the family's educational climate and the socio-economic situation of the family, revealed through its poverty and income level.

In the SESD, the rates of school attendance are calculated for the different educational levels of each pertaining age group, and the level of education achieved by those aged 15 and above who are excluded from the educational system- as an expression and result of educational strategies- according to the various characteristics of the families already mentioned.

In turn, the educational level of the household head and eventually its partner, affect the size, type and composition of the family and its socio-economic level.

The SESD includes indicators that enable the understanding of how the family features vary- the type, composition, completeness, poverty and income level- according to the educational level of its head.

5. INCIDENCE OF THE POPULATION DYNAMICS, THE FAMILY AND EDUCATION: ITS RELATION WITH THE MATERIAL LIVING CONDITIONS.

It is important to point out that the subject dimensions of the previous point are closely related to other areas in the System, which explain the material living conditions. Thus, the chances of access to health, housing, employment, social security and other services vary remarkably according to the socio-economic stratum of the families they belong to and the socio-demographic traits of its members.

In Argentina, the indicators concerning the educational level still constitute an appropriate indicator to get close to the social-economic level of the individuals and the families, in the last mentioned by the educational level of the head of the household and the educational level (background) of the family

Therefore, great part of the indicators in the rest of the subject areas of the SESD is calculated controlling the educational level achieved.

On the other hand, certain demographic features, such as age and sex, also play an important part, specially in the chances of getting a job and the insertion pattern in the labour market.
In our country, within the context of high unemployment rates and under employment, the young and the elderly are those to suffer these problems more intensively. Furthermore, the most significant gender gaps are seen in the unemployment and under-employment levels, in the socio-professional qualification of the jobs performed by male and female, and in the income obtained as a retribution to jobs of similar qualification.

Thus, the indicators of work sector and income appear controlling besides the educational level, the sex and age.

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To illustrate the possibilities that the SESD has to analyze the relations among the dimensions that this seminar focalizes, the following point presents, in first place, some examples concerning the relation between the material conditions of life and the educative achievements of adults, young and children. Afterwards, some tables are presented to show the differences that the composition of the poor families can determine in the educative strategies and in the intergenerational transmission of their scholar achievements. Finally, some examples were selected to show the role of the education in the determination of some aspects of the demographic dynamics.

6. APPLICATION OF THE SESD TO ACKNOWLEDGE SOME DIMENSIONS OF THE LINKS BETWEEN DEMOGRAPHIC DYNAMICS, FAMILIES AND EDUCATIONAL STRATEGIES.

6.1 Material living conditions and education

The material living conditions strongly affect school attendance, and therefore, the educational levels achieved by the different social groups.

In Argentina, in the last decades two ways of measuring **poverty** through secondary data have been used. In this case we have chosen to work with the measurement of the basic unsatisfied needs through the **NBI index**, which measures chiefly the structural type of poverty through the dwelling's features, mainly.[2]
The other system for measuring this phenomenon is the **poverty line**, methodology that enables to record the poor by income.

Table 1 shows the **relationship between the poverty level of the households and the educational level** of its **heads.**

Table 1
Percentage of poor homes by educational level achieved and household head's sex. Argentina-1991

Household's head educational level	Total	Male head	Female head
Incomplete primary level	30.6	30.7	30.2
Complete primary and incomplete secondary	14.3	15.0	11.3
Complete secondary level and further	4.3	4.3	4.1

Source: INDEC (1999b) based on data secured through the National Population and Housing Census, 1991.

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[2] Poor homes are those which : have over three people per room (heaping), inhabit an improper house, precarious dwelling or other type of dwelling, wich excludes house, flat or hut (precarious home), do not have any toilet room (sanitation), have a child or more in school age not attending school (school attendance) or those which have 4 or more people by occupied member (which is equivalent to an economic dependency of 3 inactive members of the household by each occupied one) and moreover, whose head has poor educational attainment, that is , if he nevel attended any educational facility or attended up to 2nd grade of the primary school at the most (subsistence capability).

As shown above, 30% of the households, whose head has poor educational attainment, are poor.
The percentage drops to 4% in the households whose head has at least secondary level education. The sex of the head does not introduce any significant changes.

In the provinces located in the Northeast and Northwest of the country, areas with the greatest incidence of poverty, the percentage of poor households whose heads have the lowest educational level rises to almost 50%

The **association between poverty and low educational attainment** can be verified in **Table 2**, where the distribution of the population over 24 years old, according to its poverty condition and by maximum educational attainment is shown

Table 2
Population aged 25 years and over: distribution by poverty status according to educational level achieved. Argentina-1991

| Condition of poverty	Maximum educational level achieved (%)			
	Population (thousands)	Complete primary	Complete primary/ incomplete secondary	Complete secondary and further
Total	17,095	26.7	47.8	25.5
Not poor	14,560	22.5	48.7	28.6
Poor	2,535	51.1	42.4	6.5

Source: INDEC (1997) based on data from the National Population and Housing Census, 1991.

While half of the poor are found in the most disadvantaged category, hardly 6 % of them managed to finish at least their secondary level education, level considered the minimum required for an appropriate insertion in the labor market.

Showing that **the occupational insertion of youth and adults is strongly conditioned by the educational levels they have access to, Graph 1** illustrates the existing association between the level of education achieved by the economically active population and their individual incomes.

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Graph 1 Percentage of economically active population in the first 2 quintils of total individual income by educational level achieved. Main urban agglomerates-1997
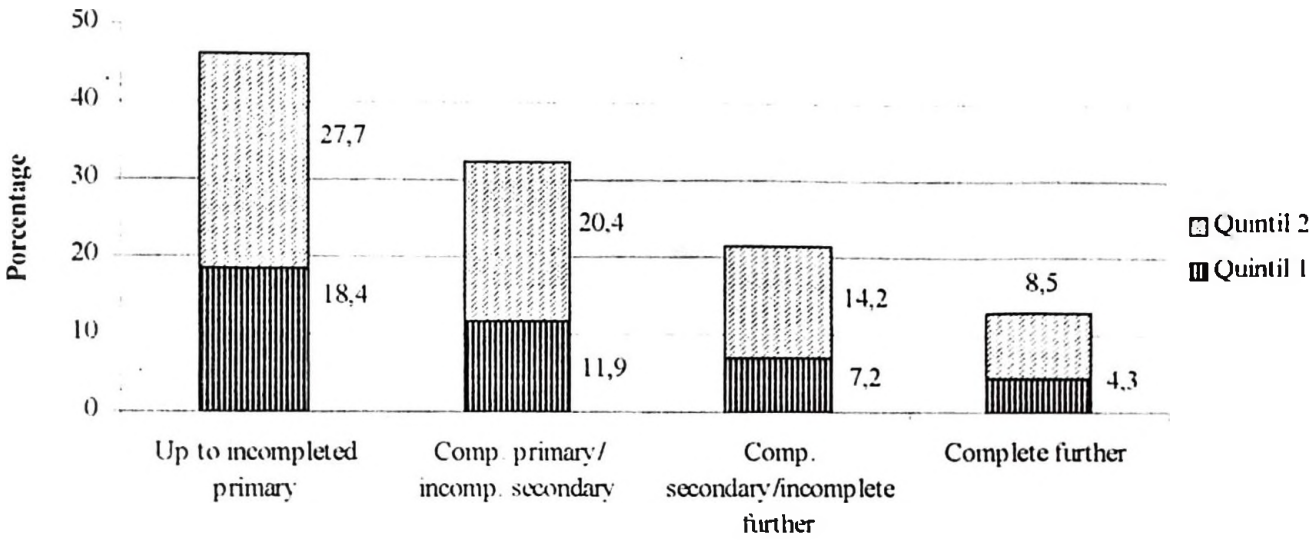
Source: INDEC (1999b) based upon data provided by the Permanent Household Survey.

It is observed that almost half of those who have not finished the primary school are situated in the two strata with lower income, although it is also true in a lower degree, that there is an important proportion of the population within these lower strata who, having completed the primary school haven't either had access to secondary school or completed this level. As the educational attainment increases, the percentage of population in the most unfavoured quintiles decreases.

It is now our concern to **inquire up to which extent the poverty level of the families whose members have a poor educational level and an inappropriate insertion in the labor market, create unfavorable conditions in the school attendance of children.** It is considered that the attendance of children and adolescents to the formal educational system is a quite precise indicator of the socio-economic reality of their homes, and a decisive factor in the configuration of their chances of social insertion in the short, middle and long term.

In Argentina, the percentage of primary level school attendance according to pertaining age (6 to 12 years old) was 86% in 1960, 20 years later it climbed to 90% and in 1991, it was 96 %. The system's coverage is far more restricted in the secondary level attended only by 38% of the adolescents between the ages of 13 and 18 in 1980, and by 54% of them, in 1991.

Table 3 illustrates the net rates of school attendance in the primary level -the lowest of the educational levels-. These rates are obtained by relating the children between 6 and 12 who attend classes in this level with the total number of children in this age group.

Table 3

Population from 6 to 12 years old: Net schooling rate
by poverty status. Argentina-1991

Poverty status	Population aged 6-12 (thousands)	Net schooling rate (%)
Total	4.631	95.7
Not poor	3.337	98.1
Poor	1.294	89.4

Source: INDEC (1997) based on data provided by
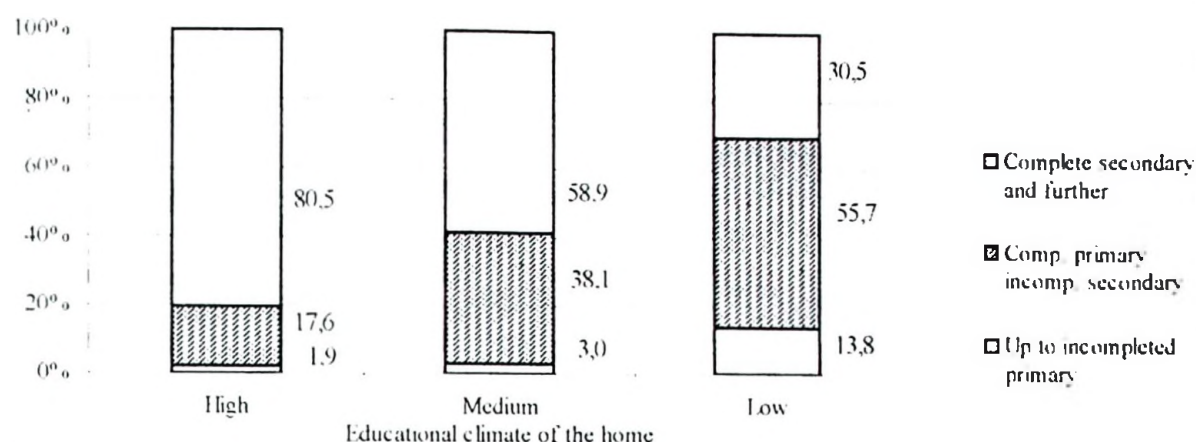the National Population and Housing Census. 1991.

The schooling percentages are very high for the whole of the population, being total the coverage among those who are not poor. However, it is observed that 1 every 10 poor children do not attend school, which could mean that they have had no access to the formal educational system or that they have had to drop out. In any case, the evidence indicates that the poor could be forced to consider family strategies that involve the possibility of non-attendance of children to school, even in the elementary level.

As a result, the educational level achieved by children and adolescents will be closely related to that of their parents. In that sense, the educational climate of the home is an indicator that accounts for the intergenerational transmission of educational attainment. It is calculated as the average years of schooling of the household members who are over 30. Less than 7 years of schooling is considered to be a low educational climate; when the average years of schooling is between 7 and 11, it is considered as standard or average and when it is higher than 12 it is considered to be high.

It must be pointed out in the first place that, **90 % of those aged between 6 and 17 who have not completed the primary education and do not attend school, live in households with low educational climate,** reproducing in this way, the meagre educational attainment of their predecessors.

In Graph 2, the unequal opportunities available for the young people aged between 18 and 29 coming from households with different positions in the educational system, are exposed.
However, it is also noticeable the fact that it is by no means despicable the proportion of young people who manage to overcome the situation of their elders.

Graph 2 Relative distribution of youth by educational level achieved by the household according to educational climate. Argentina-1991

Source: INDEC (1999a) based on data from the National Population and Housing Census, 1991.

The mutually conditioned relation existing between the material living conditions and the educational attainment have already been shown, and how, at the same time, these conditions of the family strongly influence the chances available for children from poor homes in overcoming future situations of poverty. Therefore, in the next section we focus our attention on **poor families in order to study how their composition can determine different educational strategies.**

6. 2   Composition of poor families and their educational strategies

It is known that the national averages can hide social and regional differences. Thus, certain groups, either because of their geographical location, the socio-economic situation of its homes, or due to the combination of these factors or others, may present values well under the national average. When these groups have little relative weight within the total population, their situation might be completely hidden to the view of the general statistics. Therefore, one of the criteria that guide the SESD is that of **focus,** trying to portray the situation of the most relegated population groups and geographical areas.

This section is expected to show that certain characteristics regarding the composition of poor families determine schooling percentages that are well below the average of that population group.

The geographical area of coverage in this example is the Buenos Aires Suburban Area, a set of 19 districts located in the Buenos Aires province which constitute, together with the Capital and a few towns of other districts in the province, the Great Buenos Aires Metropolitan Area. In spite of taking up only the 0.1 % of the total national territory, in 1991 7,696,000 inhabitants lived in these districts, that is 24% of the total country's population and the 63% of the total province of Buenos Aires. The tables below were arranged according to the information provided by the 1991 National Population and Housing Census.

It is necessary to make clear that **complete families** are those made up of a couple or by a couple with one or more children and **monoparental families** are those composed of one

parent with one or more children. **In the case of these last families, the sex of the head will also be discerned.** We will make reference to this distinction when we refer to **composition of the family,** in the three tables of this section.

Table 4 presents the distribution of the families according to their type. Regarding the type of family, we call **nuclear families** those that only include one marital nucleus, **extended families** to those composed of one marital nucleus and other relatives or non-relatives.

Table 4
Percentage distribution of the poor families by family composition according to type of family. Buenos Aires Suburban Area-1991

Composition of the family		Type of family	
	Total (thousands)	Nuclear	Extended
Total poor families	280	76.9	23.1
Complete families	230	80.2	19.8
Monoparental fs	50	60.9	39.1
Female head	35	62.4	37.6
Male head	15	57.6	42.4

Source: Own elaboration based upon the data provided by the INDEC, National Population and Housing Census. 1991.

While 80% of the complete families are nuclear, among the monoparental families this percentage drops to 60%. The household head's sex also implies differences, due to the fact that among those families whose head is a male the percentage of nuclear is lower than among those with female heads. In fact, the trend to form extended families, which becomes more noticeable in monoparental families is specially noticed in those whose head is a male. **The women who are left alone to lead the family resort in a lower degree to the cohabitation with people who are alien to the marital nucleus.**

Table 5 displays the net school attendance rates in the primary level of those children who belong to poor families.

Table 5

Poor population from 6 to 12 years old: Net schooling
attendance rate by family composition according
to Sex. Buenos Aires Suburban Area-1991

Composition of the family	Population 6-12 years old (thousands)		Net Schooling rate (%)	
	Fem.	Male	Fem.	Male
Total poor families	145	148	91.3	91.7
Complete families	120	124	92.7	92.4
Monoparental fs.	25	24	84.7	88.0
Female head	17	16	89.9	89.1
Male head	8	7	73.4	85.7

Source: Own elaboration based upon data provided by the
INDEC. National Population and Housing Census. 1991.

School attendance is lower in monoparental families than in complete families. The degree of attendance in monoparental families with female headship is slightly inferior to that verified in complete families. On the contrary, **in monoparental families headed by male, the attendance of children decreases for both sexes**, though dramatically in the case of girls: **a quarter of them doesn't attend classes.**

When one of the members of the marital nucleus is missing, his/her absence (regarding the house chores which are regularly related to women, among them those which are necessary for the daily reproduction of human labor) could be substituted totally or partially by someone who does not live in the home (not very frequent practice among the poor) or by some other member of the household. In this last case, the substitute could be **a) the household head; b) the son/daughter; c) any other household member not belonging to the marital nucleus.**

The empirical evidence analyzed could be indicating that when the monoparental families are headed by females, these tend to substitute the missing male head fulfilling both: the domestic role and the sale of their labor force in the market **(option a)**, in a greater degree than those male who are in the same situation. In those families whose head is male:

- Exist a greater proportion of members who don't belong to the marital nucleus as part of a strategy that could privilege **option c.**
- Among the reasons that might push girls and adolescents into an important school desertion could be their participation in domestic activities **(option b)** owing this to their female condition given the characteristics assumed in our country by the sexual division of labor.

Again, in the secondary level of education, the attendance percentages are higher in the complete families than in the monoparental ones **(Table 6).** It should be highlighted that whatever the composition of the family (except for monoparental families with male head), the female school attendance is higher than male's.

Table 6
Poor population between 13 to 18 years old: Net schooling
attendance rate by family composition according to Sex.
Buenos Aires Suburban Area-1991

Composition of the family	Population 13-18 years old (thousands)		Net schooling rate (%)	
	Fem.	Male	Fem.	Male
Total poor families	87	83	28.2	22.2
Complete families	67	65	29.8	23.8
Monoparental fs.	19	18	22.3	16.5
Female head	14	13	24.8	16.7
Male head	6	5	16.2	16.1

Source: Own elaboration based upon data from the
INDEC. National Population and Housing Census. 1991.

In this case, the differences in the schooling of male and female are understood as part of a strategy that privileges the early insertion of youth in the labor market, in detriment of their education. **This strategy would be affecting boys in a greater degree than girls** and the exception we have mentioned above, is the result of an early school desertion of the girls from monoparental families where the missing parent is the mother.

6.3 Educational level and demographic dynamics

In the previous point we have made reference to the connection between the composition of the family and the families' educational strategies (through the school attendance of children and youth). As it is known, **there are important associations between educational attainment and the components of the demographic dynamics.** The SESD provides, for instance, the following information, which complements the relationship between the families, the educational strategies, implemented by them and their demographic dynamic.

The relation between the **educational and fertility level**, measured on this occasion through the total offspring, is shown in **Table 7.**

Table 7

Women aged between 45 and 49: Total offspring by educational level achieved. Argentina. 1991

Educational level	Total Offspring	The women with low educational level have an average of 4 children at the end of their reproductive period, value reduced by half among those with high educational level.
Total	2.8	
Low	4.0	
High	2.1	

Source: INDEC (1999b) based upon the data provided by the National Population and Housing Census, 1991.

However, and as an example of the existence of other factors that condition the demographic dynamic (social structure, urbanization, quality of social systems, etc.), besides the educational ones, the regional heterogeneity which accounts for different stages in the transition of fertility, is particularly remarkable. Thus, in the city of Buenos Aires, the jurisdiction with the highest indicators of living condition in the country, the total offspring doesn't vary much if we take the educational level into account: it is of 2.2 children per female for those with low educational attainment and 1.8 for those with high educational level. Instead, in the poorest regions of the country, the final offspring will climb to over 5 children per women among the poorly educated, and fluctuates around 2.5 children among the rest.

Graph 3 presents the **infant mortality rate according to the educational attainment of the mothers.** It should be pointed out that, in this case, the quality of the basic data imposes certain restrictions in the analysis, due to the fact that in 30% of the cases the mother's educational level is unknown. For this reason, the following results should be cautiously treated.

Graph 3 Infant mortality rate (by thousand): Total, neo-natal and post-neo-natal, by educational level achieved. Argentina-1996
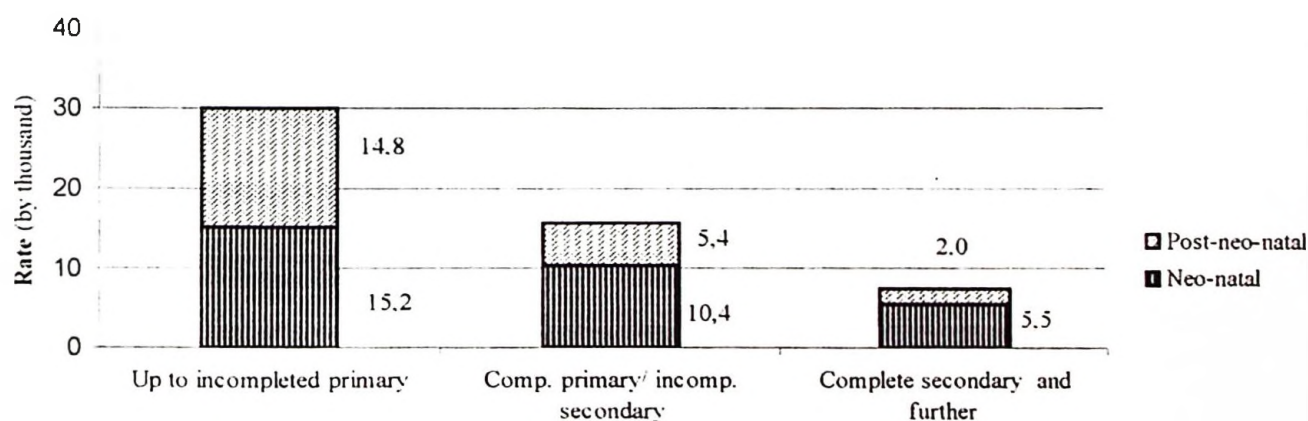
Source: INDEC (1999a) based upon data provided by the National Programme of Health Statistics.

As in the study of fertility, the infant mortality is clearly associated to education. The respective rate, which reaches the 30 per thousand in the lowest educational level, goes down to 7 per thousand in the other end of the educational scale. Another similar link is shown by the neo and post-neo-natal. As in the case of total offspring, it is also necessary to mention the regional disparities according to the presence of other factors. Thus, the most disadvantaged group, including those with incomplete primary, show levels which go from 60 per thousand in La Rioja Province- Northwest region- to 13 per thousand in the City of Buenos Aires.

Finally, we would light to point out that the lack of education associated to high fertility and mortality levels, plays an important role in the social reproduction of poverty in many aspects. And although the educational achievement does not ensure *per se* the overcoming of poverty (because in determining poverty intervene factors of the social structure mainly, which are the result of a dominant development strategy) the early drop-out from the formal education system constitutes a violation to the children's rights and is, for sure, the starting point for future situations of social inequality.

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