

REAL AND APPARENT INTERCENSAL GROWTH
OF THE FEMALE AND MALE LABOR FORCE IN ARGENTINA

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Abstract

A number of criticisms on the recommendations issued by international organizations regarding 'labor' and 'economically active population' have accumulated along the last fifteen years. Many empirical evidences on the statistical undercounting of part of the labor force have also accumulated. In the light of these circumstances, international organizations have recommended new conceptual definitions for the round of censuses of the nineties. The Argentine Bureau of Statistics faced the challenge in the 1991 census by substantially modifying the way in which 'activity condition' was measured in the 1970 and 1980 censuses.

The advantages of increasing the validity go hand in hand with the disadvantages of interrupting the historical series and the consequent impossibility of assessing the decennial changes.

This paper discusses the results of an experiment carried out by the Argentine Statistical Bureau in two localities before the 1991 population census. Its aim is to assess how much of the intercensal change in the size and characteristics of the female and male labor force is real and how much is technical, i.e., due to the change in the measurement techniques. The consequences of this change for the labor force projections to the year 2000 are also assessed. The conclusions should alert the users of censal data about appearances

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and realities.

INTRODUCTION

The recommendations issued by international organizations regarding the definitions of 'labor' and 'economically active population' in use up to the census round of 1980 have been severely criticized both conceptually and logically. It was, with variations, the one adopted at the Eight International Conference of Labor Statisticians held by ILO, in 1954. According to it, the 'economically active population' 'comprises all persons of either sex who furnish the supply of labor to the production of economic goods and services during the time-reference period [generally as brief as one week] chosen for the investigation'. (UN: 1967)

Although the definition is not limitative, the national practices tended to enumerate as economically active laborers in **paid** employment. On the other hand, although the definition has not made explicit sex-distinctions, its problems and inconsistencies have affected women and men, and young and aged people differently. This is due to the working modalities of many women, and young and aged people in developing countries: discontinuous, part-time, in traditional sectors of the economy, in family enterprises, without pay or on own-account basis, or in the household or family unit.

The low quality of the measurement of the female labor force and some of its causes have been acknowledged for some time (Bancroft: 1958) and more so in the last fifteen years (Hauser: 1974; Boserup: 1975; Durand: 1975; Standing: 1978; D'Souza: 1980; Wainerman and Recchini de Lattes: 1981; Dixon: 1982; Anker: 1983; Anker, Khan and Das Gupta: 1987; Wainerman and Moreno: 1987). The undercounting of the female population have caught much greater attention than that of the young and the aged population, probably because of its largest volume.

International organizations that issue standards for the collection of labor statistics have taken up these issues only

sporadically until the eighties. Barely two years before launching the census round of the '80's, UN explicitly acknowledged the difficulties involved in enumerating female workers (UN: 1978). The same year ECLAC requested from Wainerman and Recchini de Lattes (1981) to assess how the censuses of Latin America and the Caribbean collected information on the female labor force. In 1980, in a document prepared for UN, D'Souza (1980) singled out the sex-based stereotypes and biases among the major factors hindering the quality of censuses by influencing women to perceive themselves, and others to perceive them, as homemakers rather than as labor force members.

For the 1970 round of Latin American and Caribbean censuses, Wainerman and Recchini de Lattes (1981) collected abundant empirical evidence on the sex-selective under enumeration of the labor force. They did it by comparing activity rates obtained by censuses and by (more valid) household surveys collected around the same time in various countries, using the same conceptual definition of labor force, the same length of the reference period, and the same minimum working-time requirement. The censal under enumeration, high among women and low among men, was higher among workers in the agricultural sector, unpaid family workers, and the less educated.

For example, the 1970 population census of São Paulo (the most developed, urbanized and industrialized region of Brazil) underenumerated 18 per cent of female workers but only 3 per cent of male workers, more females occupied in agricultural activities (68 per cent) than in all other activities (10 per cent), and more unpaid family workers (84 per cent) than salaried females (8 pr cent). In the Northeast region (the most backward of Brazil) the same census underenumerated 53per cent of female workers (three times as many as in São Paulo) but a mere 4per cent of male workers. Again, the female underenumeration was higher among agricultural workers (68per cent) than among the rest (36 per cent) and among unpaid (88 per cent) than among salaried workers (30 per cent). The 1974 Guayaquil (Ecuador) census underenumerated 27 per cent of all female workers but only 7 per cent of male workers and many more females with no schooling (31

per cent) or with only primary education (35 per cent) than those with the highest educational level (15 per cent). In Bolivia, the 1976 population census underenumerated 30 per cent female workers --practically one-half (49 per cent) of all rural residents-- but not one male worker. In Colombia, the 1973 census underenumerated 23 per cent of all female workers --43 per cent among rural residents and 19 per cent among urban ones--but only 5 per cent of all male workers.³

The situation did not change substantially by the 1980 round of censuses of the region. With variations in size across different countries, the sex-differential underenumeration persisted. In comparison with the household surveys, the 1980 Panamá census underenumerated 18 per cent of all female workers and only 7 per cent of all male workers. The corresponding figures for the 1980 São Paulo (Brazil) census were 11 and 1 per cent; and for the 1980 census of Greater Buenos Aires (the largest, more developed and industrialized urban area in Argentina), 11 and 2 per cent.

Reasons for the sex-differential underenumeration

What are the reasons for the underenumeration of the female participation in the labor force? On the one hand, the nature of the conceptual definition of 'economic activity'. We include in this definition the length of the reference period and minimum working time required from a person to be considered economically active. On the other hand, technical reasons embedded in the operational translation of 'economic activity' into items of the census questionnaire and its application by the interviewers.

We have said that the definition has been severely criticized because of logical and conceptual failures and because it is inadequate to register a sizable part of the labor force in developing countries where laborers are more likely to work seasonally rather than the year-round, to be unemployed rather than formally employed, and to

³ The data are contained in Wainerman: 1992.

engage in a fluid pattern of diverse and shifting economic activities. These problems affect more women than men, also more young and old people, because more among them work on a part-time basis, seasonally, as unpaid family workers, and on own-account basis.

The short time-reference period adopted by the censuses of the last decades also contributes to the underenumeration of the female workers for women move in and out of the labor force throughout their active lives more often than men. There are evidences that the number of workers of both sexes that are counted with a larger time-reference period is greater, especially among women (Standing:1978;Durand: 1975; Dixon: 1982).

The definition of 'economically active population' in use by censuses until the '80's did not specify a minimum working time except for unpaid family workers who must work at least fifteen hours or one third of the weekly working hours. The absence of specification of a minimum working time has led to a variety of approaches by the censuses of the '70's and '80'. Some countries required most of the week (leaving out of the accounting many women who work part-time), others, part of the week down to a minimum of one single hour, thus making impossible international comparisons.

Two technical issues have a bearing upon the censal underenumeration of female workers, as well as young and aged people: the items used to gather information on activity status and the censists who administered them. During most of the 1970's and 1980's, Latin American and Caribbean censuses used a single question of the form 'What did you do during last week?' followed by various response alternatives indicating activity or inactivity ('worked', 'did not work but had a job', 'was seeking job', 'pensioned or retired', 'student', 'homemaker', etc. Even though censists are instructed to read the alternatives one by one and to stop for an answer between alternatives, the format influences the interviewers to present the alternatives altogether, which in turn makes the interviewees to choose one alternative. As most censuses ask solely for the main activity, married women (also young students and retired people)

engaged in economic activities tend to declare themselves as economically inactive (Lopes: 1981). On the other hand, many censuses use terms like `job', `employment', and `for pay or profit', which influences interviewees to equate economic activity with formal, paid, full-time activity.

Little can be expected in the sense of overcoming the effects of the format and the phrasing of the census questions. In Latin America most censuses are badly trained, poorly or not paid at all, lacking in motivation and supervision, and generally reluctant to study and even to read the instructions manual.

In a study ⁴ conducted in rural and urban areas of Argentina and Paraguay (Wainerman and Moreno: 1987; Wainerman: 1992) the effects of four factors hypothesized to be responsible for the underenumeration of female workers were tested. They were: the questionnaire, the training of census takers, the length of the reference period, and the minimum time requested from people to be economically active. The evidences supported the hypotheses. Out of the four factors --all responsible for the underenumeration-- the type of questionnaire and the length of the reference period proved to have the greatest effect, one which was greater among the rural than among the urban population, and in the less developed (Paraguay) than in the more developed (Argentine) country.

The conceptual criticisms and the empirical evidences that have accumulated with regard to the inadequacy of the population censuses to validly enumerate women who supply labor to the economy were recognized at the 13th. Conference of Labor Statisticians held by ILO in 1982. The recommendations that emerged from the Conference modified the definition of labor force in a number of aspects. ⁵ According to the new definition,

⁴ This study was conducted with a grant from the Ford Foundation.

⁵ The changes are apparently not great since they only make explicit certain issues already implied in the current definition. Their effects will be important, however. That is the case, for instance, of subsistence producers, especially females, who were

the economically active population comprises:
 `...all persons of either sex who furnish the supply of labor or the production of economic goods and services as defined by the United Nations systems of national accounts and balances, during a specified time-reference period. According to these systems, the production of economic goods and services includes all production and processing of primary products, whether for the market, for barter or for own consumption, the production of all other goods and services for the market and, in the case of households which produce such goods and services for the market the corresponding production for own consumption.' (ILO: 1983)
 The major changes introduced were:

- (a) the explicit inclusion of own consumption producers;
- (b) the elimination of the minimum working-time criterion (one third of a normal working week) for everyone, unpaid family workers included, and the adoption of one single hour of activity to qualify as active;
- (c) the use of two reference periods (one week and one year) to collect data on the 'current' and the 'usual' active population.

Argentina only partially adopted these conceptual recommendations for the 1991 census but it introduced, instead, substantial modifications in the censal questionnaire looking to increase the validity of the measurement of activity condition. In so doing, Argentina choose to improve the measurement rather than to preserve the historical comparability. The results of this decision constitute the objective of this paper.

The Argentine censuses of 1970, 1980, and 1991

The 1970 and 1980 censuses are quite similar; they only differ as regards the minimum age set for studying the activity condition (10

included in the conceptual definition in use up to the eighties but effectively excluded from the censal accounting.

years in 1970 and 14 years in 1980) and as regards the minimum time required from a person to qualify as active. The latter was very strict, though ambiguous, in 1970 ('most of the week') and remained unspecified in 1980. Both censuses adopted the same conceptual definition of 'economically active population', the one in use until the eighties comprising the people who supply their labor for the production of goods and services during the week previous to the census. The questionnaire follows the model of the single question followed by a set of response alternatives. In 1970 the question was 'What did you do most of the week from September 21 to 26?', in 1980, 'What did you do last week?' Finally, the training of censists was similar in both censuses: an instruction manual and a brief (two-hours) session with neither role playing nor evaluation were used.

For the 1991 census the conceptual definition of active population varied very little. It comprises persons of either sex who have supplied labor or the production of goods and services to the market, not including barter or self-consumption, for at least one hour. The reference period keeps being one and short (one week), and the minimum time brief and specified: 'even for a few hours' meaning 'at least one hour'. The training of censists, better than in the two previous censuses, included role playing and evaluation.

Whereas the conceptual definition did not vary too much, the censal questionnaire did vary a lot as a consequence of adopting the recommendations which emerged from three workshops organized by the National Institute of Statistics and Censuses (INDEC). Two of these workshops were devoted to assessing the censuses of the '80's (INDEC: 1985, 1987), the third one, held in 1988, to the conceptual and operational contents of the 1991 censal schedule. Following Wainerman and Moreno's (1987) recommendations, the principle that all interviewees 'are active unless they prove otherwise' was adopted. This criterion was translated into a set of mutually exclusive questions to be answered by 'yes' or 'no', thus obliging the censists to read them one by one and the respondents to answer them one by one instead of choosing one among several. In addition, for those who

answered negatively ('did not work') the first question, it was repeated, this second time with examples of activities and ways of carrying them out which de-emphasized formal work and which are frequent among women (young and aged people) who do not perceive their activity as 'work'. Finally, following Marshall's (1988) recommendation,

no category of economic inactivity ('homemaker', 'student', etc.) was mentioned, thus eliminating the chances that the simultaneous holders of the active and inactive conditions might declare themselves as 'homemaker', 'student' or 'retired'.

These modifications were tested in five pilot studies by INDEC's Team for Census Conceptual Design. The questions used by the last three Argentine censuses follow.

1970 and 1980 censuses

What did you do most of the week of September 21 to 26? ⁶

Worked?

Did not work but had a job?

Looked for work having worked before?

Engaged in housework and did not work?

Studied and did not work?

Is sick or invalid and did not work?

1991 census

During last week, did you work even for only a few hours?

yes no IF NO,

Did you do any activity for others at home or did you help somebody with his/her job, store or farm?

yes no IF NO,

Where you on license because of illness, vacations, etc.?

yes no IF NO,

During the last four weeks, did you look for a job?

⁶ The 1980 question was: 'What did you do last week?'

yes no

Evaluation of the effect of the 1991 censal questionnaire

In order to assess the effect of the 1991 censal questionnaire on the enumeration of the active population, INDEC conducted a field experiment in two localities, one urban and one rural, before launching the 1991 census. ⁷

The questionnaire used in 1980 and the one to be used in the 1991 were applied in two experimental groups (EXP 80 and EXP 91) upon representative samples of the population of each locality. The unity of time and place of both enumerations, in addition to the representativeness of the samples, insures its statistical equivalences, hence, that any difference between EXP 80 and EXP 91 activity rates are due to the change of questionnaire.

The change makes the measurement of the active population in 1991 no longer comparable with that of the previous censuses. Hence, in addition to assessing the effect of this change upon the measurement of the labor force ('technical change'), the experiment aimed to assess the 'apparent' and the 'real' changes by comparing EXP 80 and EXP 91 activity rates with 1980 census rates (CEN 80) for each locality. The first comparison --which involves the activity rates obtained at different times with different questionnaires--, illustrates the 'apparent' change (EXP 91 - CEN 80). The second one --which involves the activity rates obtained at different times by the same questionnaire illustrates the 'real' changes (EXP 80 - CEN 80), i.e., the intercensal change in the labor force offer and supply.

The experiment reproduced the typical censal operation. The censists, selected among primary schoolteachers, were shortly trained as were the 1970 and the 1980 censists. The enumeration was completed in one single day.

The samples size of the population (14 years of age and over) in

⁷ The experiment was also conducted in a third urban locality; difficulties with the data make its analysis impossible in this paper.

the urban locality (La Matanza), were 723 for EXP 80 (388 females and 335 males), and 731 for EXP 91 (388 females and 343 males). The respective figures in the rural locality (Trancas) were 879 (431 females and 448 males) and 857 (451 females and 406 males). The age structure of each pair of samples are statistically identical.⁸

Results

Table 1 summarizes the activity rates obtained by the three sources of information --CEN 80, EXP 80 and EXP 91-- for the active population, the female and male active population separately, as well as the size of the `apparent', the `real', and the `technical' changes. The figures indicate a strong `apparent' growth in both localities, from 53.7 to 62.8 per cent in La Matanza and from 48.6 to 62.5 per cent in Trancas, which represents an increase of 16.9 and 28.6 per cent respectively. The female labor force growth seems responsible for the increase.

⁸ La Matanza is the largest department of the country's most important and developed population agglomeration (the Great Buenos Aires). According to the 1980 census it was populated by around one million inhabitants. Manufacturing, especially metal mechanics, is its major economic activity. The tertiary sector, headed by transportation and communications and followed by commerce, is second in order of importance.

Trancas, in the northwestern province of Tucumán, was populated in 1980 by twelve thousands inhabitants, with a density of 3.9 by square mile. Cattle raising for milk production is its major activity co-existing with grains production.

Table 1

CEN 80, EXP 80 and EXP 91 economic activity rates and technical, real and apparent changes by locality and sex. Per cent.

Locality and sex	CEN 80	EXP 80	EXP 91	Technical change (1)	Real change (2)	Apparent change (3)
La Matanza						
Total	53.7	52.0	62.8	20.8*	-3.2	16.9*
Females	28.1	29.5	46.4	57.3*	5.0	65.1*
Males	79.9	78.2	81.3	4.0	-2.1	1.7
Trancas						
Total	48.6	54.6	62.5	14.5*	12.3*	28.6*
Females	14.7	29.7	44.6	50.2*	102.0*	203.4*
Males	78.6	78.6	82.5	4.9	0.0	5.0

* significant at .001 per cent.

$$(1) \text{ Technical change} = \frac{\text{EXP 91} - \text{EXP 80}}{\text{EXP 80}} \times 100$$

$$(2) \text{ Real change} = \frac{\text{EXP 80} - \text{CEN 80}}{\text{CEN 80}} \times 100$$

$$(3) \text{ Apparent change} = \frac{\text{EXP 91} - \text{CEN 80}}{\text{CEN 80}} \times 100$$

Source: INDEC. Experiment on activity condition, census 80-census 91.

This growth is only 'apparent'. In La Matanza the change is only 'technical' (20.8 per cent) and affects females but not males, whereas in Trancas it is partially the result of a change in reality (12.3 per cent) and partially the result of the change of questionnaire (14.5 per cent), again among females but not among males. In addition to showing that the new questionnaire achieved its aim of improving the enumeration of female workers, the figures show that the 1991 census questionnaire is as valid as the 1980's to enumerate male workers.

In La Matanza the global figures hide a 'real' decrease in the

activity rates of females at the extreme age groups and an increase of those at the central ages. Nothing like this happens among males at any age group, they have experienced no `real' change. It is noticeable the `real' change that occurred among females at the central age groups and among aged females in Trancas; they increased their participation by 113.0 and 91.2 per cent respectively. The absence of `real' change in the overall participation of males is the result of the decrease of economic activity among young people (-22.4 per cent) and the slight increase among those at the central age groups (5.6 per cent).

Table 2

CEN 80, EXP 80 and EXP 91 economic activity rates and technical, real, and apparent changes by locality, sex and age groups. Per cent.

Locality, sex and age	CEN 80	EXP 80	EXP 91	Change		
				Technical	Real	Apparent
La Matanza						
Total	53.7	52.0	62.8	20.8*	-3.2	16.9*
14-19	43.0	35.5	43.1	21.4	-17.4	0.2
20-54	63.7	66.6	75.3	13.1*	4.5	18.2*
55 and over	24.3	23.2	40.9	76.3*	-4.5	68.3
Females						
Total	28.1	29.5	46.4	57.3*	5.0	65.1*
14-19	32.6	19.6	35.0	78.6	-39.9*	7.4
20-54	32.9	41.2	56.4	36.7*	25.2*	71.4*
55 and over	8.2	7.1	28.7	304.2*	-13.4*	250.0*
Males						
Total	79.9	78.2	81.3	4.0	-2.1	1.7
14-19	53.4	51.8	53.1	2.5	-3.0	-0.6
20-54	94.4	94.0	95.1	1.2	-0.4	0.7
55 and over	43.2	47.7	57.1	19.7	10.4	32.2*
Trancas						
Total	48.6	54.6	62.5	14.5*	12.3*	28.6*
14-19	31.8	26.8	38.2	42.5*	-15.7	20.1
20-54	57.1	68.7	74.8	8.9*	20.3*	31.0*
55 and over	37.2	33.3	42.7	28.2	-10.5	14.8
Females						
Total	14.7	29.7	44.6	50.2*	102.0*	203.4*
14-19	11.0	13.0	30.3	133.1*	18.2	175.5*
20-54	18.3	39.0	55.9	43.3*	113.0*	205.0*
55 and over	6.8	13.0	22.3	71.5	91.2*	227.9*

Males						
Total	78.6	78.6	82.5	4.9	0.0	5.0
14-19	50.4	39.1	49.1	25.6	-22.4*	-2.6
20-54	92.7	97.9	94.7	-3.3	5.6*	2.1
55 and over	61.4	53.2	65.5	23.1	-13.3	6.7

* significant at .001 per cent.

Source: INDEC. Experiment on activity condition, census 80-census 91.

What was said is 'real'. The 'apparent' image of a great increase in the activity rates relative to CEN 80 is strongly concentrated in the female activity rates in La Matanza, especially among those aged 55 years and over (250.0 per cent) and among those aged 20 to 54 years (71.4 per cent). In Trancas the same happens among females at all ages whereas no significant change is visible among males.

It is the 'apparent' change that will be known and eventually be used by researcher, planners and politicians, i.e., the users of censal data when they are published in 1993. If no warning is given by INDEC, the 'apparent' change will be taken as 'real', i.e., as reflecting a change in the labor force supply and offer without acknowledging that it is largely the product of a change in the data collection instrument.

The improvement of the 1991 Argentine census will undoubtedly offer census users a more adequate portrait of the female, as well as of the youngest and oldest sectors of the population, but they will lose the opportunities to do trend analyses. This is a problem that INDEC has to face to prevent users from making spurious interpretations of the information.

Drawing labor force projections has also been affected since the 1991 figures will mark a change of magnitude in the trend started in the '70's and earlier. To assess the size of the change we adjusted the official projection to the year 2000 on the basis of the rate and the volume of the active population registered by the experiment. We did it for the urban and the rural population and for females and males

separately.

We assumed, quite grossly indeed, that EXP 91 rates for La Matanza are representative of the country's urban rates and EXP 91 for Trancas, of the rural rates. We applied them to the INDEC projections for 1970-2000 (INDEC: 1986, 1989). Table 3 shows the activity rates by sex and place of residence estimated by INDEC for the population aged 10 years and over (adjusted to the population aged 14 and over) for 1970-2000, EXP 91 rates for 1990', and the rates adjusted for the year 2000' on the basis of 1990' and assuming the growth 1990'-2000 is a weighted average of the growth 1970-1980 and 1980-1990. We made no considerations on the 'real' and the 'apparent' change; the exercise is based on EXP 91 rates, i.e., the 'apparent' rates.

Table 3

INDEC* estimated activity rates, by sex and place of residence 1970-2000, and 1990' and 2000' activity rates adjusted on the basis of EXP 91. Per cent.

Residence sex	INDEC estimated rates				Adjusted rates by EXP91	
	1970	1980	1990	2000	1990'	2000'

Females						
Urban	28.6	28.1	30.0	33.0	46.4	47.5
Rural	15.5	16.2	15.7	15.6	44.6	44.9
Males						
Urban	78.7	77.4	75.6	75.0	81.3	79.7
Rural	86.8	85.6	83.1	81.7	82.5	80.7

*Rates adjusted to the population aged 14 and over, excluding the weight of the 10-13 age group, assumed constant along the four dates for the total and the active population.

Source: authors' calculation on the basis of INDEC(1986,1989)

Table 4

Volume of economically active population according to activity rates estimated by INDEC and activity rates adjusted by EXP 91. 1970-2000. Index 1970=100.

Date, sex and residence	Estimation INDEC	Adjustment EXP 91	Index INDEC	Index EXP 91
Urban				
Females				
1970	2.049.853	2.049.853	100	100
1980	2.482.357	2.482.357	121	121
1990/1990'	3.161.605	4.889.950	154	239
2000/2000'	4.114.315	5.922.120	201	289
Males				
1970	5.378.997	5.378.997	100	100
1980	6.367.960	6.367.960	118	118
1990/1990'	7.344.715	7.898.484	137	147
2000/2000'	8.665.798	9.208.855	161	171
Rural				
Females				
1970	235.392	235.392	100	100
1980	228.431	228.431	97	97
1990/1990'	207.509	589.484	88	250
2000/2000'	204.896	589.733	87	251
Males				
1970	1.591.998	1.591.998	100	100
1980	1.502.272	1.502.272	94	94
1990/1990'	1.405.508	1.395.360	88	88
2000/2000'	1.350.892	1.334.357	85	84

Source: authors' calculation on the basis of INDEC (1986, 1989).

Given the assumptions on which the exercise was based, it is not surprising that the trends found for 1990'-2000' reproduce those estimated by INDEC projections. In fact, as shown in Table 3, by the year 2000 the rates will slightly decrease among the urban and rural

males, they will increase among the urban women and will remain constant among rural women. What is different, instead, is the level of the rates, higher according to our estimates, especially among women.

The resulting activity rates allow estimating the volumes of active population according to INDEC's and to our exercise. They can be seen in Table 4 together with the variations of one and the other in index numbers with basis 100 in the year 1970. If the rates to be obtained from the 1991 census are incorporated, the volume of active population will be substantially modified. There will be no differences for the rural males and their rates will go on decreasing on the INDEC version as well as in ours between 1970 and the year 2000 from 100 to 85 and 84 respectively. For the urban males, instead, our version would increase the estimated active population in about 543,000 persons, from 100 to 161 and 171 respectively.

The effect is much greater for females. In the urban areas the number of active females estimated by us would outnumber in about 1,800,000 persons those calculated by the current estimates, with an increase from 100 to 201 and to 289 according to INDEC's and our version respectively. For the rural areas the difference would reach about 380,000 females but the change with respect to 1970 would go down from 100 to 87 according to INDEC but it would go up to 257 according to us.

Conclusions

The conceptual and empirical evidences that piled up during the last decade and a half regarding the low validity of censal measurements of the labor force, especially feminine, stimulated conceptual and operational modifications. The 1991 Argentine census faced the challenge by substantially modifying the items addressed to measure the economic participation of the population. In so doing a more valid portrait of reality is obtained, one in which females is who gained most. It is indeed quite positive, if observed from the

current perspective. From a historical view, instead, there are some negative aspects related to the interruption of the historical series of information on the labor force, hence, to the difficulties for doing historical studies and for drawing projections for the future.

The apparent intercensal change 1980-1991 in activity rates is only partially the result of an actual change in the labor force offer and supply and largely the result of the modifications of the censal questionnaire. Census users, either researchers, planners or politicians are to be warned to avoid drawing spurious inferences on the basis of the censal data.

The Argentine case should put on guard other countries that have chosen, or will choose, to improve the validity of current measurements at the expense of keeping the historical comparability. The producers of statistics have to face, in turn, a series of questions like: how to warn the users that part of the 'apparent' change is 'real' and another part is 'technical'?; how to include this new reality when drawing projections, whether to include only the 'apparent' change or the 'technical' change too?, is it necessary to adjust past rates in the light of the new reality?; should the current hypotheses on the growth of employment adopted by the economic plans be adjusted?; the assumed effects of the economic policy on last year's level of employment should be reviewed? Should the government full employment goal be modified?

The consequences of improving the validity are on sight, those of breaking the historical series demand extensive discussion and a strong effort of imagination.

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