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ATHOS BELLETTINI

LA CROISSANCE URBAINE EN ITALIE ET SES TENDANCES RECENTES. LE CAS DE BOLOGNE (*).

1. Au cours de ces dernières années, la réalité économique et sociale de l'Italie est caractérisée par de profonds changements au sein des phénomènes démographiques. Dans le cadre du mouvement naturel de la population, le processus de diminution des naissances, et par conséquent de la natalité, s'est rapidement accentué, selon une tendance actuellement commune à la plupart des pays développés en Europe et hors de l'Europe. La mobilité de la population sur le territoire national a subi une flexion sensible pendant que les changements de direction des courants migratoires intérieurs acquièrent une importance capitale. La dynamique de la natalité réduit progressivement l'écart positif du mouvement naturel global de la population italienne, et cela au sein d'une situation où de vastes zones du pays comportent plus de décès que de naissances. Les flux migratoires intérieurs, de leur côté, sont en train de modifier d'une façon considérable la distribution territoriale de la population telle qu'elle était depuis la fin de la guerre, à peu de chose près, jusqu'au début des années soixante-dix.

Cette situation nous porte à envisager de nombreux problèmes et de multiples questions d'ordre démographique et socio-économique, et cela à brève échéance aussi. Il y a à l'origine de cette situation un ensemble de facteurs difficilement localisables de manière spécifique. La grave crise économique qui a touché le pays ces dernière années est certainement un des facteurs les plus importants.

Toutefois, en ce qui concerne la dynamique de la population, surtout pour la flexion de la natalité, des comportements influencés par des facteurs sociologiques, probablement destinés à s'avérer de caractère irréversible, prennent le dessus.

2. Une des plus importantes conséquences des tendances démographiques récentes consiste en l'arrêt des processus de croissance de la population de bon nombre des plus importantes villes italiennes. Dès l'immédiat après-guerre, la croissance urbaine a été en Italie particulièrement rapide et accentuée. Le développement économique qui a eu lieu depuis les années cinquante, tout en comportant des contradictions graves et des déséquilibres territoriaux et sociaux profonds, a déterminé une migration imposante de la population vers l'industrie et les services

(*) Communication présentée au Congrès sur les *«Mutations économiques et démographiques : Perspectives pour les années 1980»*, Union Internationale pour l'Etude Scientifique de la Population, Helsinki, 1980.

SUMMARY

In the course of the last few years there have been considerable changes in the demographic situation in Italy.These changes are destined to have vast economic and social consequences. It can be predicted that in the near future the rate of population growth will go down to zero due to the rapid fall of the birth rate. Italy's net migration regarding foreign countries has changed from a negative figure to a positive one as a result of the increasing unemployment in European countries. Within Italy the movement of the population has changed profoundly compared to the trends of previous decades. One of the most important consequences of these new developments has been the halt in population growth of the larger cities of the country, cities which had experienced an intense and rapid process of urbanization in previous years.

At present the balance of migration of the major cities has become negative in almost every case. In the northern industrial cities the natural population balance has also become negative, and therefore, the urban population is progressively decreasing.

A typical case is the city of Bologna where these trends have been particularly accentuated. After the great expansion of the city from 1951 to 1961 the urban spread covered the ring of bordering communities, radically transforming the area's economic, industrial and social structure. Since that time the increase in population has concentrated in these outer communities, fostered by the installation of a large number of small and medium sized companies there. In the past few years the city has been decreasing in population compared to both this bordering area in expansion and to the rest of the province. What's more, the exceptional drop in the birth rate which has taken place recently in its urban population progressively accentuates the process of regression.

Within the city this phenomenon has been accompanied by a shift of the population out of the old historic city center, whose number is continually diminishing, and towards the outlying urban areas which were built up more recently. This shift is quite selective in its demographic and socio-professional structure. The urban population is undergoing a rapid aging process, a phenomenon which reaches pathological proportions in the historic city center. In the expanding outer belt, on the other hand, there is the opposite tendency; the population is becoming younger. Within the city the proportion of residents employed in service jobs, a category which was already prevalent in the past, is growing; in the surrounding communities the highest proportion is found in the industrial sector. Another aspect of the relationship between the city and its surronding industrialized zone is that the distance between place of residence and place of work has increased, resulting in a considerable flow of daily commuters from the city to the bordering communities.

ZULMA RECCHINI DE LATTES – CATALINA H. WAINERMAN

MARITAL STATUS AND WOMEN'S WORK IN ARGENTINA: A COHORT ANALYSIS (*)

INTRODUCTION

In recent years, the study of female participation in the labor force has focused either on the analysis of its determinants or on the changes it has undergone as part of the process of economic development. In the first case, the object has been to account for certain variations in women's propensity to enter the labor market, in terms of educational attainment, marital status, number of children, etc. In this instance, the study generally deals with a single case, be it a country or a region, the units of analysis are few, and the level of variable discrimination is relatively high. The paradigm in this line of research is, perhaps, Sweet's work (1973).

The second type of study follows an almost opposite model: numerous units, exceptionally observations of a single unit at different times, and a very low level of variable discrimination. Whereas in the first case time is not a central variable, it is definitely so in the second. See, for example, the studies by Leser (1958), Collver and Langlois (1962), Sinha (1965), Boserup (1975), Durand (1975a, 1975b) and, within the Latin American context, Durand (1972, 1975b), Elizaga (1974) and Pantelides (1976).

All these authors have focused on changes undergone by female participation throughout the processes of economic development. Sinha was the first to describe in 1965 a curvilinear change – U-shaped – with relatively high participation levels at the early and late stages, and relatively low at the intermediate ones, starting with synchronic data collected around 1950 among a series of countries in different levels of development. The similarity of levels, merely formal, expresses quite different contents in terms of the economic structure. During the first stages most of the production takes place within the limits of the domestic unit, with generally unpaid economic participation; instead, during the last stages, participation is generally extra-domestic and paid.

(*) This article is based on work the authors undertook as part of a project supported by grant number 3-9-76-0009-02 from the International Development Research Centre, Canada. A version of this article was prepared for the International Union for the Scientific Study of Population General Conference, Mexico City, Mexico, 8-13 August 1977.

While some authors tend to corroborate Sinha's U-curve in their results, others do not. In the specific case of Latin America, Whereas Durand's (1975b) and Pantelides' (1976) synchronic data suggest an ascendent rather than descendent linear association from the early to the intermediate stages, Ramos' (1970) show no association at all, and Elizaga's (1974), seem to corroborate the U-curve. One of the few case-studies available for the region – Madeira and Singer's (1973) – also seems to corroborate Sinha's findings.

It is highly probable that the various discrepancies are the result of a series of theoretical and methodological difficulties. On the one hand, the authors mentioned differ in their conceptualization and measurement of economic development; the data they use also differ with regard to the definition of activity condition, and as far as the activity sectors to which they refer. On the other hand, lacking historical series, they frequently use a pseudo-trend type of design, essentially synchronic, where data from various units located at different stages of economic development (1) at one single point in time are substituted for data from each individual unit (country, region or metropolitan area) throughout its own specific process of economic development. In this line of research all other variables which are not economic development such as cultural traits, socio-political circumstances, etc. are treated as constant or irrelevant. In other words, these studies substitute a ficticious historical time for a real one, and the economic development of an inexistent, ficticious, unit for that of a specific, real, one. Finally, in order to include as many units of analysis as possible (15 in Leser's case, 36 in Collver and Langlois', 39 in Boserup's, 100 in Durand's: 1975a, 1975b), they use very few variables at a very low level of discrimination. They do not include age, marital status, number of children, and with regard to the economic structure they only consider sectors.

Whether real or only apparent, the discrepancies shown by the results surveyed here have led us to seek another approach in order to obtain an adequate description and explanation of female participation in the labor force. It is our view that lengthy historical series, together with a greater number of variables, with a higher level of discrimination, would provide a more fruitful course. In other words, the suggestion would be to combine the two types of studies mentioned, taking some elements from both.

As far as variables, for example, going from economic sectors to industries, occupation and status, to finally occupations which require different modes of production organization. It would also be more profitable to describe in greater detail the behaviour of females belonging to different age-groups; and discarding the simple dichotomy "ever married" – "never married" women try out a differentiation among legally and consensually married women, widowed and divorced. Due

(1) Throughout a process tacitly assumed to be unique, threfore sooner or later to be followed by all countries and their respective regions.

to their low frequency in the overall population the last two categories are generally lumped together, yet at certain ages, their relative importance is high. Age at marriage and child-spacing varies among different social classes, hence, the "two-children" or "three-children families" concept means quite different experiences for women belonging to one class or another.

"Time", the variable which constitutes the physical support along which change develops, poses another major research problem. It is undoubtedly true that when the goal is to learn how a phenomenon changes, it is pertinent to analyze it throughout time (2). But, what kind of time? The historical time of the whole society; the individual time along which the biography of the individual members of the society develops; or else the individual time of groups as it develops throughout different moments of the society's historical time? When the subject is the behaviour of all the members of a system at different moments, the focus is historical time, hence, the biographical experiences of individual members are blurred. When the topic is individual time – i.e., when the focus is on the movement of each individual along the stages of the life cycle – then historical time becomes blurred. However, when our objective is to study the changes undergone by groups of similar age (generations), individual time is embedded within historical time, i.e., the individuals' *age* (or else the stage of the life-cycle they go through) and historical *time* coexist and change simultaneously. The latter approach to time underlies cohort analysis, a cohort being an aggregate of individuals who experienced the same event (e.g., birth) within the same time interval. In other words, cohort analysis provides the aggregate analogue (or macrobiography) of the individual life history (Ryder: 1965). Because this kind of analysis allows to rescue individual time while emphasizing its development in the historical context of the whole society, it permits the identification of processes, and the detection of responsible agents for these processes underlying the overall change which historical time reflects undiscriminately.

This paper is an attempt to follow some of the suggestions singled out in our introduction. Using data from Argentina it purports to show what cohort analysis can contribute to our knowledge about changes in female economic participation during the last decades, and to our understanding of the existing relationship between female participation in the labor force and the dynamics (3) of female marital status, differentiating between married, single, widowed, and divorced.

(2) Since we are referring to case-studies we are only considering "real", not "inferred" or "ficticious" time, which is in fact the kind of time dealt with in essentially synchronic pseudo-trend studies, as in Collver and Langlois' (1962) or in Sinha's (1965).

(3) In this paper, the term "dynamics" refers to the changes in marital status experienced by the members of each cohort throughout the life cycle.

CHANGES IN ECONOMIC PARTICIPATION

Argentina is one of the few Latin American countries which already has a series about female participation from 1869 to 1970. The data suggest a U-curve though the right-hand side is still too short to warrant definite conclusions:

Year	Refined participation rate * (percentage)
1869	58.8
1895	41.9
1914	27.4
1947	21.7
1960	21.6
1970	24.3

* On the basis of the population of ten years of age and over.
Source: Recchini de Lattes (1975), Table 6.2.

Female activity measured by refined participation rate has diminished from the very high levels corresponding to the end of last century to the lowest values observed in 1947 and 1960 (which are almost identical), though 1970 shows an increase. If the trends observed by cohorts persist in the future, the curve will continue to ascend.

Disregarding the marginal ages at which women's behavior is similar to that of men and at which participation is expected to diminish concomitantly with economic development, the gross number of active life years between the ages of 20 and 54 reaches its minimum level in 1947. It increases slightly towards 1960 and markedly so in the following years. That is, the curve's increasing phase for the central age groups in Argentina begins in 1947, continues to grow slowly between 1947 and 1960, and more rapidly between 1960 and 1970. All quinquennial participation rates between ages 20 and 59 follow a similar pattern: they increase from 1947 to 1960 and between 1960 and 1970, with only two exceptions between the first and the second date, the 50-54 and 55-59 age groups, whose participation first diminishes and then rises by 1970.

These data may be observed from the perspective of cohort analysis, cohorts being defined by the birth date. Figure 1 shows the evolution of participation rates of female cohorts born between 1910-1915 and 1945-1950, while passing through ages 15-19 to 50-54 (full line), observed every five years (4). (Cohort curves are incomplete due to lack of information).

(4) Since the last two censuses are separated by a ten-year period, an interpolation for the intermediate dates became necessary in order to allow the presentation of the histories of the quinquennial cohorts at five-year intervals. Furthermore, for the sake of conveniency, the 1947 data were extrapolated to 1945.

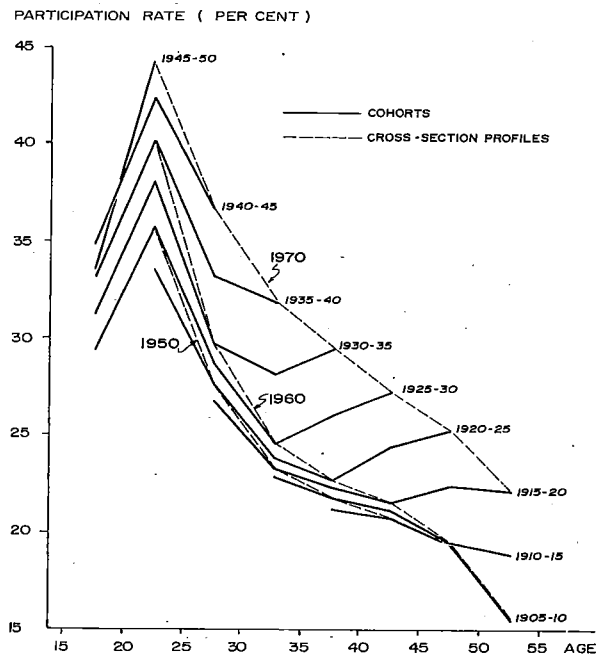

FIG. 1 — *Evolution of Participation Rates of Female Cohorts Born between 1910-1915 and 1945-1950, while Passing Through Ages 15-19 to 50-54 (Full Line), Observed Every Five Years. (Cohort Curves Are Incomplete Due to Lack of Information).*

In the same Figure 1, dotted lines join the rates corresponding to cross-section observations made in 1950, 1960 and 1970. Thus, for instance, the 1970 participation curve by age may be seen as the combination of participation, at a given moment, of seven different female cohorts each of which has a different history of participation in the labor market and, presumably, in other aspects as well.

This figure clearly shows that:

i. The participation curves of female cohorts throughout their life cycles have a similar shape from the age of entry into activity up to about age 30-34, though the decrease in participation – after the highest level reached by all cohorts at age 20-24 – is less marked for the most recent cohorts. The shape of the curve is presumably related to the completion of formal education, on the one hand, which would make the rates of all groups up to the 20-24 rise, whereas the subsequent decrease could be accounted for by marriage and childbearing.

ii. Younger cohorts will have a higher participation rate at age 20-24 and at all subsequent ages, that is, the cohorts which participate most in their youth continue to do so throughout their life cycles (5). If the complete accounts of the cohorts' activities were available, it would be found that the youngest have worked, as an average, longer than the oldest ones.

In order to support this statement, an estimate has been made of the cohorts' gross number of active life years (GNALY) in two periods of the life cycle regarded as highly significant (the "central" ages), as shown in Table 1. Actually, the youngest cohorts have worked longer, as an average, than the oldest ones, in the youngest (age 20 to 34) as well as in the most mature (age 35 to 49) spans of their life cycle. There is a difference of one year between the oldest and the youngest cohort in the 20-34 span, and a difference of slightly over half a year in the most mature period. In both periods of the life cycle, the change is faster as one moves from the oldest to the youngest cohorts, but the acceleration is particularly remarkable in the span of the most advanced ages. In other words, the most recent cohorts — whose youngest span of the life cycle as been analyzed — started to increase their participation earlier than the oldest cohort whose most "mature" span was the only one that could be analyzed. Therefore, should this trend continue, it is to be expected that in the future changes for cohorts reaching these ages within the next decades will be still more remarkable.

iii. Although the activity of all the observed cohorts diminishes from age 45-49 onwards (Figure 1), the decrease is lower for the youngest cohort (which passes through those ages, during the 1960-1970 decade) than for the oldest ones (which pass through those ages in the previous decade). It is likely that at this period of the life cycle two trends are blending: many females in the cohorts who entered the labor force when they were very young may have fulfilled the requirements for retirement whereas, on the other hand, some other females in those same cohorts may have entered the labor market at a relatively recent data (at a relatively advanced age) and thus should remain active for some more years before being able to retire.

iv. The behavior of the different cohorts from age group 30-34 onwards (6) shows important changes just as the cohorts born in 1905-10 and 1910-15 which reached ages 30 to 39 between 1945 and 1950 show a steady decrease in their participation rates as they advanced in age, the youngest cohorts (1915-20 to 1930-35) show a different behaviour. As pointed out by Figure 1, the curves corresponding to these cohorts increase again between 1960 and the following years. That is, the cohorts in question increase their participation rates either when pas-

(5) This observation is in agreement with Ostry's (1968) for Canada and by Jaffe and Ridley's (1976) for the United States.

(6) These findings are also similar to Ostry's (1968) for all the Canadian female cohorts born since 1921 onwards.

TABLE 1

Gross Number of Active Life Years at Selected Life-Cycle Spans, Female Cohorts 1905-1910 to 1935-1940

20-34			35-49		
Cohort	GNALY	% change	Cohort	GNALY	% change
1920-25	4.26		1905-10	3.08	
		4.2			1.3
1925-30	4.44		1910-15	3.12	
		7.9			6.1
1930-35	4.79		1915-20	3.31	
		9.6			9.4
1935-40	5.25		1920-25	3.62	

Source: Recchini de Lattes (1977), Table 1.

sing from ages 40-44 to 45-49 (1915-20 cohort), or from ages 35-39 to 40-44 and even to 45-49 (1920-25 cohort), or from ages 30-34 on (1925-30 and 1930-35 cohorts).

Therefore, beginning in 1960 women between ages 30 and 49 entered the labor market. Women who had participated in the labor market earlier and had retired, or entered it for the first time at that point of their life cycle.

The different behavior of cohorts when passing through the same period of their life cycle will be examined more closely in connection with the dynamics by their marital status. We will address ourselves to the following question: what is the relationship between changes in participation and changes of marital status? Asking this question does not imply ignoring that other variables may be at work here, whether in connection with the supply (for instance, family income level) or with the demand (preference for single or married women, or for certain levels of qualification). It only means probing deeper into the study of change in female participation along one of the variables involved.

As a first step in our analysis, we shall start with the participation differentials by marital status. Secondly, we shall discuss the effect of changes in the structure and dynamics of marital status on the labor market behavior of cohorts born between 1900-05 and 1925-30.

ECONOMIC PARTICIPATION DIFFERENTIALS BY MARITAL STATUS

That women have varying participation propensities according to their marital status is a widely acknowledged fact in most countries. Argentina is no exception in this respect. In 1970, at the central ages (between 25 and 59), considering the most numerous groups (single and married), the highest rates are found among single women, and the lowest ones among married women (7), a situation which holds for each age group, as may be seen in Figure 2.

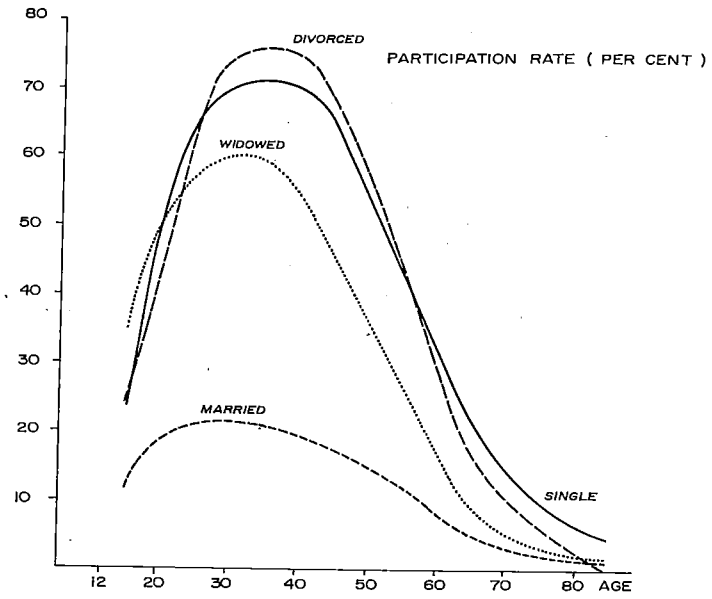

FIG. 2 *Economic Participation Differentials by Marital Status.*

In fact, in every age group the propensity of single women to participate in the labor force at least triplicates that of married ones. There is practically no difference between the activity rates of divorced (8) and single women; the rates for widows are intermediate, though closer to the labor behaviour of single women. In all cases, participation becomes maximal between 20 and 39 and then decreases, especially after 49.

All this indicates that the presence of a partner decreases the probability for women to enter the labor market. His absence not only increases that rate but contributes to their remaining longer in it. In fact, at an age in which most women

(7) Including both legal and consensual unions.

(8) Divorce is not legal in Argentina; it is a *de facto* status.

have retired from the market (between 50 and 59), almost half the single women and the divorced ones remain in it. Furthermore, even at age 40-49, and particularly at 50-59, when the demands created by the presence of young children have disappeared and family burdens become more similar for single, married, widowed and divorced women and therefore a greater similarity in their propensity to enter the market could be expected, the differentials remain at levels which are very similar to the ones found at younger ages.

The high activity rates for widows and divorced women, closer to those of women who have never had a partner than to those who have one, are indeed a consequence of a greater lack of economic protection, though in Argentina widows and divorced women are legally protected by a pension or an alimony system. On the other hand, the high participation rates of these women may be due to psychological reasons: the need to find outside their homelife other activities likely to provide them with an opportunity to establish meaningful interpersonal contacts.

These motivations are probably more frequent among divorced women than among widows. It is also possible to hypothesize that a considerable proportion of these women had already joined the labor force before their divorce, a circumstance which might have affected their decision to end their marriage because of their lower economic dependency on their partners. Such a hypothesis is based upon evidence which points out that past labor market experience increases the probability of staying within the market, as is shown by the cohort analysis discussed in the previous section.

The situation in Argentina in 1970 does not differ substantially from the one prevailing in 1960 in terms of the differentials of female activity rates by marital status. This does not mean that no changes have taken place in the last decade. Only that ten years before, the propensity to enter the labor market was already very common among single and divorced women, not very common among married women and intermediate among widows (9). Although the absence of data makes it impossible to describe the situation prevailing in 1947 (10), it is reasonable to think that it must have been similar.

(9) In fact, the difference in participation rates of single and widowed females which, as stated earlier, reached 3 to 1 in 1970, has decreased since 1960 when the relation was 4 to 1. In this sense, Argentina has followed a trend which is already quite evident in the more developed countries. In these countries, the expansion of married women participation rates and the narrowing of the difference with respect to those of single women, represents one of the major changes that have taken place in recent years as far as human resources is concerned. (See, for instance, Oppenheimer's: 1970 data for the United States, and Ostry's: 1968 for Canada). In 1960 for women aged 20-39, the relationship between the participation rates of single women and widows was about 2 to 1 for the more developed countries whereas it stood at 5 to 1 for Latin American countries (Elizaga: 1974).

(10) The 1947 census did not tabulate the activity condition by marital status.

CHANGES IN THE STRUCTURE BY MARITAL STATUS

One of the most important among factors determining the population structure by marital status is, no doubt, its nuptiality rate. As is well known, this rate is highly sensitive to economic variations. Nuptiality rates reached unsually high values between about 1944 and the end of the Fifties, the highest value corresponding to 1947 (Schkolnik and Pantelides: 1975). This increase has been accompanied by a brief rise in the birth rate, which had been decreasing since at least the turn of the century (Lattes: 1975).

The nuptiality rates growth is reflected in changes in the structure by marital status, as the last three population censuses show. In fact, the structure by marital status for the female population (standardized by age) is markedly modified between 1947 and 1960 in the direction of a striking increase of the proportion of legally or consensually married women and a concomitant decrease in the proportion of single women. Likewise, changes in the death rate make for a striking decrease in the proportion of widows. Between 1960 and 1970, the only substantial change is the increase in the proportion of divorced women, though they still represent a minority group within the population at all ages.

A COHORT ANALYSIS OF LABOR FORCE BY MARITAL STATUS

As may be seen in Table 2, during the 1960-1970 period in the three youngest cohorts, married women show the greatest increase both absolute and relative in participation rates by marital status. In the oldest cohort, whose participation rate decreases during that period, again the decrease is smaller among the married women. In other words, in the cohorts whose participation rates increase, the rise is more marked among married women than among all others, in those that decrease, the rates of married women diminish less.

Although, in terms of participation propensities, married women may increase more (because theirs are the lowest), and in fact they did so as the cohorts observed revealed, it should be kept in mind that the dynamics of the change is basically different for each marital status and at each stage of the life cycle.

Just as in a closed population single women in each cohort decrease steadily in number, since the single status once abandoned cannot be regained, women with other marital statuses, show very different dynamics. Married women increase in number at very early ages, and begin to decrease (although new members are still incorporated through marriage) from a certain age onwards, in favor of the number of widows and of divorced women (11). The latter ones, which at young

(11) Mortality has not been taken into account since it has a very small relative effect on the ages under study, and in so doing the analysis was simplified.

TABLE 2

Female Participation Rates of Selected Cohorts, by Marital Status, Observed in 1960 and 1970

Cohort	Age at 1960	Age at 1970	Total $_{a}60$	Total $_{a}70$	Total Δ	Single $_{a}60$	Single $_{a}70$	Single Δ	Married $_{a}60$	Married $_{a}70$	Married Δ	Widowed $_{a}60$	Widowed $_{a}70$	Widowed Δ	Divorced $_{a}60$	Divorced $_{a}70$	Divorced Δ
1925-30	30-34	40-44	24.3	27.0	2.7	66.8	67.2	0.4	13.9	18.6	4.7	50.3	50.3	–	67.1	70.5	3.4
1920-25	35-39	45-49	22.5	24.8	2.3	64.6	62.0	– 2.6	13.8	16.5	2.7	48.1	40.1	– 8.0	67.3	62.0	– 5.3
1915-20	40-44	50-54	21.5	21.9	0.4	60.4	50.5	– 9.9	13.2	14.3	1.1	41.4	31.3	– 10.1	61.4	51.4	– 10.0
1910-15	45-49	55-59	19.3	16.2	– 3.1	53.9	37.0	– 16.9	11.6	10.0	– 1.6	32.7	20.5	– 12.2	52.6	36.3	– 16.3

Note: The population of unknown marital status was left out. The quinquennial rates for 1970 were obtained by means of the graphic interpolation of groups 40-49 and 50-59 for each marital status. Care was taken that the interpolated rates applied to the population of the respective quinquennial groups when added up into decennial groups reproduced the labor force registered per marital status for each decennial group. They also reproduce the labor force in each quinquennial age group of the total population, including the active females in every marital status.

Source: Based on data from Argentina INDEC (n.d.b), Tables 7 and 23, and Argentina INDEC (n.d.c), Tables 3 and 15.

TABLE 3

Mean Growth Rates of Selected Female Cohorts by Marital Status, 1950-1960 and 1960-1970 (per cent)

Age at		Observation period: 1950-1960						Observation period: 1960-1970					
Beginning	End	Cohort	Total	Single	Married	Widowed	Divorced	Cohort	Total	Single	Married	Widowed	Divorced
30-34	40-44	1915-20	− 0.7	− 5.3	0.0	7.9	4.0	1925-30	− 0.3	− 4.8	− 0.2	13.1	13.0
35-39	45-49	1910-15	− 0.2	− 3.1	− 0.1	7.5	2.8	1920-25	− 0.4	− 3.4	− 0.9	12.4	11.4
40-49	50-59	1900-10	− 0.4	− 1.1	− 1.3	6.1	0.6	1910-20	− 0.7	− 1.8	− 2.0	9.6	8.3

Note: The population in each marital status and age group between 1947 and 1960 was interpolated linearly to obtain the 1950 figures. The 1947 census took into account only legal unions, while subsequent ones added consensual unions. In order to make an estimate for the 1947 married woman category comparable to that used in the 1960 and 1970 censuses, this following procedure was adopted: It was assumed that most women living in consensual unions stated their legal status as single. In 1960, the proportion of consensual unions amounted to about 6 per cent of the total women in each age group. It was assumed then that this proportion (6 per cent) would be valid for 1947. So, a 6 per cent was subtracted from the total of each group for the single category and conversely the married category was increased in the same proportion.

Source: Estimates based on data from Argentina, DNSE (n.d.a), Table 14, Argentina, DNEC (n.d.b), Table 7 and Argentina, INDEC (n.d.c), Table 3.

ages are very few, begin to show a very fast growth at intermediate ages. The differences in the increase rates of female groups of different marital status in the same cohorts at selected ages are enormous, as may be seen in Table 3, since changes in size and in sign are observed. In fact, whereas single and married women cohorts show negative growth rates, those of widows and divorced show significantly high positive ones.

On the other hand, the examination of the amount of growth of female labor force, by cohorts and marital status (Table 4) between 1960 and 1970 offers a wholly different picture. Although during the period under study married women increased their participation rate substantially, the decrease in the *number* of married women lowered their share in the total growth of the labor force to the point of even counteracting the upward effect of their increasing *participation rates*. Indeed, only in the youngest cohort (1925-1930) the contribution of married women to the growth of active ones (182 per cent of the total) is greater than any other marital status. In the 1920-25 cohort, the contribution of married women to the increase of the female labor force is already smaller than that of widows and divorced women (90 per cent against 155 and 111 per cent, respectively), and in the two oldest cohorts, married women make a negative contribution to the increase of active women. Thus, the growth rates of the cohorts of female labor force by marital status show something new: widows and divorced women, in spite of their diminishing participation rates (see Table 2), have made the greatest contribution to the growth of the female active population in these cohorts (662 and 446 per cent of the total increase, respectively, for the cohorts studied) and, in so doing, they have made the major contribution to the 1960-1970 increase in the participation rates of the cohorts born between 1915 and 1930.

Our finding leads us to considering the following question: Since in the 1960-1970 period the dynamics inherent in the marital status of the population, rather than the change in the participation rates of married women is mainly responsible for the growth of active women, was the dynamics of marital status in the previous decade different enough to warrant the inference that it was at least partly responsible for the decrease in the total cohort participation rates?

Since the weight of each marital status group in the growth of the labor force for the 1950-1960 period cannot be directly measured, a comparison will be drawn between the increase of the cohorts by marital status (active plus inactive). Table 3 showing the increase rates and the comparison between one period with the other, clearly brings out the differences. The negative growth rates of married women, lower in the first than in the second period, probably reflect the increase (even at relatively advanced ages) in the nuptiality rates discussed in the previous section. This movement would tend to counteract the effect of those who cease to be married and become widows and divorced. In fact, an increase in the nuptiality rates implies that women that have "postponed" marriage, or otherwise would have remained single, widowed or divorced, enter or re-enter marriage. Hence, we may infer that some women got married later and, concomitantly, had children at

TABLE 4

Change of the Female Labor Force of Selected Cohorts by Marital Status, 1960-1970

Age at 1960	Age at 1970	Cohort	Total	Single	Married	Widowed	Divorced
			AMOUNT				
30-34	40-44	1925-1930	14,837	− 36,124	27,048	10,867	13,046
35-39	45-49	1920-1925	8,479	− 21,644	7,586	13,103	9,434
40-44	50-54	1915-1920	− 3,874	− 16,063	− 5,171	12,395	4,965
45-49	55-59	1910-1915	− 26,023	− 17,489	− 17,622	7,205	1,883
30-49	40-59	1910-1930	− 6,581	− 91,320	11,841	43,570	29,328
			PERCENT DISTRIBUTION				
30-34	40-44	1925-1930	100.0	− 243.4	182.3	73.2	87.9
35-39	45-49	1920-1925	100.0	− 255.3	89.5	154.5	111.3
40-44	50-54	1915-1920	− 100.0	− 414.6	− 133.5	320.0	128.1
45-49	55-59	1910-1915	− 100.0	− 67.2	− 67.7	27.7	7.2
30-49	40-59	1910-1930	− 100.0	− 1387.6	179.9	662.1	445.6

Source: Idem Table 2

later ages. Similarly, the birth rate increase that occurred in the 1945-1950 period may reflect a rise in the number of fertile women rather than an increase in the number of children of fertile women. Such women would be less prone to enter the labor market.

Differences between the two periods are especially important with regard to the growth rates of widowed and divorced women. In the second period (1960-1970) they are much higher. As for divorced women, it is evident that patterns have undergone a very marked change in a society which only now is beginning to recognize the existence of divorce. As to the greater number of widows, we might ask whether the increase observed in male mortality during that period (12) is the only factor responsible or if the quality of census data has improved from one date to the other. On the other hand, high nuptiality rates may be the result of widows and/or divorced women remarrying. If such was the case, remarriage may have contributed, though only partially, to the low growth rates observed. In any case, and for our inmediate purpose, the important thing is to point out that the cohorts increase rates in two of the three categories with the highest labor market participation (widows and divorced women) were significantly lower in the first period, when the participation rates for all cohorts decrease, than in the second when the participation rates of three out of four cohorts increase (Table 2).

On the basis of these results it would appear that the changes in the population dynamics by marital status are related to the increase or decrease in the female population participation rates by cohorts when passing through a certain period of their life cycle. Hence, the 1960-1970 increase in female participation — on which suggests a U-curve long-term tendency — is related to the changes in the composition by marital status experienced by the cohorts involved.

CONCLUSIONS

The main contribution of this paper has been to indicate some mean of increasing our knowledge beyond the regularities already detected up to the present on the basis of the habitual highest aggregation levels in dealing with the question of female participation on the labor force. We hope that our study of the Argentine case between 1950 and 1970 shows: (a) the heuristic value of applying cohort analysis; (b) the relevancy of including marital status dynamics of cohort members throughout their life cycle; and (c) the need to discriminate female marital status beyond dichotomous classifications.

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(12) The male life expectancy at birth decreased from 63.7 to 61.9 years between 1960 and 1970. On the other hand female life expectancy has remained practically unaltered around 69.5 (Müller: 1978).

The application of cohort analysis of female participation at certain ages in Argentina has provided us with new knowledge about the behavioral change of the population studied between 1950-1960 and 1960-1970 (the right-hand side of the U-curve). During the former period, all the cohorts aged 20 at the beginning of the period *decrease* their participation. In the latter, the participation of several cohorts *increases*. When analyzing the marital status of cohorts whose participation increases (1960-1970) it was shown that: 1) only the rates for married women increase significantly; 2) however, widows and divorced women make their greatest contribution to the female labor force growth in these cohorts. When comparing the economic behavior of the different cohorts in the same period of their life cycle in 1950-1960 and 1960-1970, our findings suggest that changes as to the dynamics of the population by marital status observed between one period and the other have played an important explanatory role.

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SUMMARY

Female activity rate in Argentina has diminished from very high levels at the end of the last century to its lowest values in 1947 and 1960, though 1970 shows an increase. But the gross number of active life years between the ages of 20 and 54 specifies that the minimum was reached by 1947.

A cohort analysis of census data from 1950, 1960 and 1970 shows that this type of analysis can contribute to understanding changes in female economic participation. The cohorts which participate most in their youth continue to do so throughout their life cycles. The participation curves of female cohorts throughout their life cycles have a similar shape from the age of entry into activity up to about 30-34. But the behavior of the different cohorts from that age group onwards shows important changes. Beginning in 1960 women between ages 30 and 49 entered the labor market — women who had participated in the labor market earlier and had withdrawn, or women who had entered it for the first time at that point of their life cycle. When analyzing the marital status of cohorts whose participation increases it was shown that: only the rates for married women increase significantly, however, widows and divorced women make their greatest contribution to the female labor force growth in these cohorts. When comparing the economic behavior of the different cohorts in the same period of their life cycle in 1950-1960 and 1960-1970, our findings suggest that changes as to the dynamics of the population by marital status observed between one period and the other played an important explanatory role.

RIASSUNTO

Il tasso di attività femminile in Argentina è diminuito dai livelli molto alti della fine del secolo scorso a quelli minimi del 1947 e del 1960 sebbene nel 1970 si sia manifestata una ripresa. Ma il numero di anni lordi di vita attiva tra le età di 20 e 54 anni testimonia del raggiungimento del minimo nel 1947.

Un'analisi per coorti dei dati censuari del 1950, 1960 e 1970 mostra che questo tipo di analisi può far meglio comprendere le variazioni nella partecipazione della donna alle attività economiche. Le coorti che partecipano di più nella loro gioventù continuano a farlo nel resto della loro vita. Le curve di partecipazione delle diverse coorti femminili nel corso della vita mostrano andamenti simili dall'età in cui inizia l'attività economica fino alla classe 30-34 anni circa. Ma il comportamento delle diverse coorti per gli intervalli successivi si modifica considerevolmente.

A cominciare dal 1960, le donne tra i 30 e i 49 anni sono entrate nel mercato del lavoro: parte di esse erano già state inserite nel mercato del lavoro e si erano poi ritirate, e parte vi sono entrate per la prima volta in quel momento della loro vita. Quando si analizza lo stato civile delle coorti la cui partecipazione aumenta, si nota che soltanto i tassi relativi alle coniugate aumentano significativamente, però è soprattutto in queste coorti che le vedove e le divorziate contribuiscono alla crescita della forza lavoro femminile.

Confrontando il comportamento economico delle diverse coorti in periodi corrispondenti della loro vita, nel 1950-1960 e nel 1960-1970, i risultati ottenuti suggeriscono che le variazioni della dinamica demografica, secondo lo stato civile, osservate tra l'uno e l'altro periodo, giocano un importante ruolo esplicativo.

RESUME

Le taux d'activité féminine en Argentine a diminué, en passant des niveaux très élevés de la fin du siècle dernier aux niveaux minimum de 1947 et de 1960 bien qu'une reprise se soit manifestée en 1970. Mais le nombre des années brutes de vie active entre 20 et 54 ans témoigne qu'on a atteint le minimum de 1947.

Une analyse par cohortes des données des recensements de 1950, 1960 et 1970 montre que ce type d'analyse peut mieux faire comprendre les variations dans la participation de la femme aux activités économiques. Les cohortes qui y participent davantage pendant la jeunesse continuent à le faire le reste de leur vie. Les courbes de participation des différentes cohortes féminines au cours de la vie montrent la même allure à partir de l'âge auquel commence l'activité économique jusqu'à la classe 30-34 ans environ. Mais le comportement des diverses cohortes dans les intervalles successifs se modifie considérablement.

A partir de 1960, les femmes de 30 à 49 ans sont entrées dans le marché du travail: une partie d'entre elles étaient déjà entrées dans le marché du travail et s'étaient ensuite retirées, d'autres y sont entrées pour la première fois à ce moment là de leur vie.

Quand on analyse l'état civil des cohortes dont la participation est en hausse, on note que seuls les taux concernant les femmes mariées augmentent de façon significative, mais c'est surtout dans ces cohortes que les veuves et les divorcées contribuent à la croissance de la force de travail féminine.

Si l'on compare le comportement économique des différentes cohortes dans des périodes correspondantes de leur vie, en 1950-1960 et en 1960-1970, les résultats obtenus suggèrent que les variations de la dynamique démographique selon l'état civil, observées entre une période et l'autre, jouent un rôle explicatif important.