ΣΠΟΥΔΑΙ / SPOUDAI

FERTILITY AMONG GREEK MIGRANT WOMEN RETURNEES

By

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Abstract

The present article, using data from the 1988 "return migration" sampling survey, analyses the fertility patterns of return migrant women, who had been born in Greece and compares them with those of non-migrant Greek women using linear regression analysis. Separate regression equations were also estimated for women returnees by country of immigration (Germany, USA, Canada, Australia). As it was observed the average fertility rates were differentiated with respect to country of immigration and by age category. Other factors or independent variables (duration of stay abroad, region of immigration, urbanization) that were tested had a non significant impact on fertility rates.

In contrast, as it was expected by the relevant theory, womans work and level of education were the most significant variables affecting fertility rates (JEL : J12-J13-J61-J16).

I. Introduction

According to the 1991 census, the population of Greece was 10.259.900[1]. Relevant projections[2] suggest that by the year 2,021 the Greek population will begin to decline. It is a depressing fact that the Greek population is not replacing itself since the number of children per woman in the reproductive ages during 1993 was 1.35, well below the 2. 1 level required for replacement of the population.

Greece, like other Mediterranean countries (Italy, Spain, Portugal), has one of the lowest fertility rates, compared to many WE and non-European

countries. That is indeed surprising in view of the comparatively strong family and religious traditions.

Nationally, on a macrosociological level, Greece as well as other countries in the Mediterranean area, have gone through the demographic transition processes and the impacts of industrialization, urbanization, and economic development with all the concomitant effects these macro-processes entail with regard to the institutions and values supporting large size families and the diminution of the fertility rates.

Liebenstein[3], for example, identifies 10 crucial factors associated with economic development and fertility rate. These factors continue to have relevance, may help in the interpretation of the data, and need to be recalled. They are as follows

1. Decline in religious interest and traditional values
2. The attenuation or breakup of the extended family system
3. The process of urbanization and especially net migration out of the countryside.
4. The improved educational and socioeconomic status of women.
5. The increased cost of child - rearing, compared with other costs.
6. The reduced reliance on children, especially sons for support in old age or other forms of security.
7. The decline in the preference for male children.
8. The decline in overall mortality, especially infant mortality.
9. The increased economic and social mobility of parents, of children or both.
10. The introduction and improvement of the mechanical and chemical means of contraception.

The above notwithstanding, it needs to be pointed out that according to the 1991 Greek census[4], 28.4% of the Greek population was rural (i.e. living in areas where the most populous settlement had less than 2.000 inhabitants).

Besides the internal migration (urbanization) and the other transition processes, Greece, like many of the other countries in southern Europe, has experienced large waves of worker emigration. The first of these was directed to overseas countries and especially the U.S., during the early part of this century, and the second post-war wave, toward WE, and especially

the Federal Republic of Germany. Between 1821 and 1985 it is estimated[5] that about 2 million Greeks emigrated to other countries. The overwhelming majority of these emigrants were young men, in their reproductive ages and from the rural agricultural areas of Greece. The emigration process affected the size and composition of the Greek population.

To some extent, the negative impacts of emigration on demographic composition and fertility behavior have been counterbalanced by the return migration of emigrant workers, by the influx of ethnic Greeks from former Soviet Union countries (especially the family type), and by the immigration of foreign workers. In regard to the return migration of Greek workers and their families, it is estimated[6] that between 1970 and 1985, about 600.000 Greek emigrants returned to Greece from all the countries of immigration. And about 80% of these were below 50 years of age. In regard to the foreign workers in Greece, the overwhelming majority of them are from third countries, single men and non-documented. Their impact on the population cannot yet be easily determined because of their non-documented status. They are now going through a regularization (legalization) process and about 350.000 have registered. The legalization process is a first step toward greater social integration, as it entails family reunion and family visits, and may under certain conditions have a positive impact upon the Greek population. However, the impact of foreign workers on the Greek population pyramid is not the object of the present report, but the impact of Greek migration process on the birth rate.

Since Greek worker emigration from the rural areas was overwhelmingly directed to the cities of the Western industrialized countries, - and to largely Protestant countries where the traditions of the extended family are not as strong as in the home country - it is anticipated that the emigration experience would be accompanied by a reduction of fertility rates among the Greek migrants. Such correlations have been noted and for other ethnic groups, althoug it is not always definite if the migration process will inevitably lead to a reduction of fertility; A lot depends upon the ethno-religious group, the duration of stay in the immigration country as well as on the demographic policies of the sending country.[7]

There is some comparative evidence[8] that the despite the hypothetical pressures attendant to emigration, the birth rate and family size of Greek migrant families abroad are not necessarily smaller than that of non-migrant Greek families in Greece. Focusing on a selected number of immigration

countries, the following was observed: During the period 1970-1985, the total fertility per migrant Greek woman of reproductive age declined from 2.84 children (1971) to 1.25 children (1985) in Germany, from 3.8 (1974) to 1.79 (1980) in Sweden and from 3.78 (1971) to 2.15 (1981) in Australia. While there is a reduction in accordance with demographic transition acculturation and te development hypotheses, the above selected data suggested that the birth rate among the Greek migrants abroad may indeed be larger than that of their non-migrant counterparts. Actually, it cannot be not known, unless the entire cycle of migration is studied simultaneously, if the Greek migrants with large families become integrated and remain abroad or return to the home country.

In view of the serious demographic problem confronting a small country like Greece, and in conjunction with a general survey of return Greek migrants, the research team responsible for the Emigration - Return Migration Project of the Greek Population considered it of vital importance to also assess the fertility behaviour of returning Greek migrants.

The literature concerning fertility behaviour on an individual level is vast, Generally, however, the relevant theory has evolved from an early stress on purely economic factors as determinants of fertility to a greater stress on sociological ones. Specifically, the pioneering theory and research viewed children as a consumer good and predicted that an increase in family income would be accompanied by an increase in the birth rate. Later on, the neoclassical hypothesis was encriched by the incorporation into the theory of the opportunity cost factor for the women themselves (also known as the new woman hypothesis) which centers about the actual or potential economic losses of women.[9] The latter approach led to a breakdown of the types of family income sources (e.g. family, husband's wife's) and predicted that an increase in the relative income and status of the woman would be accompanied by reduced fertility. Finally, the theory was further enriched and expanded by the addition of a series of sociological factors (e.g. education of the spouses, orientation of the spouses toward sex roles, participation of the spouses in the household chores, the work motivation of women etc) in the fertility equation. Generally, the socio-economic approach represents an outcome of the classical approaches and combines the insights of classical economics and modern sociology in an holistic accounting of fertility rates.

The socioeconomic approach has been used extensively in empirical research on the fertility of Greek women. Using as a model the "World Fertility Survey", researchers[10] at the National Center for Social Research have conducted surveys of married women's fertility, both in the capital area during 1983-84 (N=1924) (The population of the metropolitan Athens constitutes 30% of the national population), and in the "rest of Greece" during 1984-85 (N=4560). Some of their observations and conclusions — in regard to actual live births - are worth reporting since they will serve as a framework for interpreting the data of the present study which was conducted three years after the above survey.

The researchers made the following ovservations - based on cross - tabulations of a limited number of relevant variables and controlling for duration of marriage - with regard to the fertility patterns of married women residing in the Athens area

1. A negative correlation between family income and fertility (not a clearcut pattern).

2. Non-linear U-shaped relationship between husband's income and fertility.

3. Negative correlation between woman's work status and fertility.

4. Positive correlation between house ownership and fertility.

5. Lower fertility rates among the women in the professional, commercial and administrative occupations, as compared to the women workers in the service and industrial worker occupations.

6. Absence of a correlation between the Treiman SES index (Husband's occupation was basis) and woman's fertility.

7. A U-shaped relationship between education (husband's, woman's or of both) and fertilty. The fertility was lowest in the middle levels of education.

8. Progressive perception of sex roles was associated with lower fertility rates, for all levels of woman's education.

9. The actual work experience of woman as well as plans for work were correlated with lower fertility rates.

10. Working because of intrinsic interest by women was associated with lower fertility rate, compared to working because of economic necessity or in order to supplement income.

11. Overall, the rural origin of women was associated with higher fertility rates, though this was not uniform for all categories of marriage duration. There was no simple correlation between duration of stay in the capital area and fertility. Much depends on the reason for migration to Athens,

e.g. the birth rate is high if migration is connected to the husbands work and low if it is connected to the womans pursuit of education.

12. The participation of the husband in the domestic chores is associated with lower fertility rates.

The above observations were not always replicated in the "rest of the country" analysis. It is notewothy that the "rest of the country" besides the rural areas, also includes the small and intermediate size cities. Salonica, the second largest city of Greece is incorporated in the "rest of the country" analysis, although the researchers also proceed to a comparative analysis by level of urbanization. In the "rest of the country" analysis, there were observed replications of capital city outcomes but also some interesting differentiations. Specifically, the observed associations were as follows

1. A clearly negative association between family income and fertility behavior.

2. A non-linear U-shaped relationship between husband's income and fertility. Replicates observations.

3. In contrast to capital area findings, the working women had higher fertility rates. (However, the experience of work after marriage was associated with lower fertility).

4. House ownership was associated with higher fertility rates as in the capital area analysis.

5. A clearly negative association between the Treiman SES index (Husband's occupation) and fertility, in contrast with the capital area observations.

6. An inverse association between education (of woman, of husband and of both) and fertility, in contrast with the observations in the capital area.

7. A progressive perception of sex-roles was associated — as in the capital city study — with lower fertility rates at all levels of education.

8. Women with husbands in professional and service occupations had lower fertility than those in commercial and industrial (worker) occupations, who in turn had lower fertility than women whose husbands were administrators or farmers. It is noteworthy that in the capital area, the women who had an administrator husband had 1.64 children whereas in the "rest of the country" analysis the women with an administrator husband had 2.15 children - about the same rate as the women whose husband was a farmer (2.39).

9. The women in the professional, clerical and administrative occupations had lower fertility rates than those in the industrial, service, and farm occupations.

10. Working by women because of intrinsic interest - as in the case of the capital city - was associated with lower fertility rates when compared to working because of economic needs or in order to supplement one's income.

11. Those residing in the urban places (outside the capital) had lower fertility rates than those residing in semi-urban or rural regions.

12. Just like in the capital area (where origin was not related to the fertility rate), the duration of stay in various urban places was not associated with lower fertility rates.

As indicated, the above observations were based on cross-tabulations of several variables. However, no final conclusions regarding relative contribution can be made unless some kind of multivariate, regression analysis is done. The researchers performed a multiple regression analysis of fertility, on three levels of urbanization (for the capital area, other urban places and the rural areas)[11].

Negative and statistically significant contributions to fertility at all three levels of urbanization were noted for woman's education and employment opportunities (opportunity cost). Positive contributions were also noted, again in all three sub samples of urbanization, for total family income, total number of rooms, duration of marriage, the woman's mother's birth rate, the desired fertility before marriage, the husband's rural origin and progressive sex role attitudes[12]. No correlations or inconsistent associations (across the three samples) were noted for the husband's education, the family SES as indicated by Treiman index (Husband occupation), help provided by the relatives and the husband's mother's fertility rate. It is assumed that findings which cross-cut all three samples of urbanization would most likely be noted in a national analysis which of course was not possible in the "World Fertility Survey" as the data were collected at different times for the capital and the rest of Greece, but which will be attempted in the present study, using the national data from the 1988 national survey of non-migrants that was conducted at the same time with the return migrant's survey.

II. Methodological Note

The data for the present report came from a field survey of return migrants and non-migrants that was conducted in Greece during the summer of 1988. The field survey itself was the second phase of the program, The "Emigration and Return Migration of the Greek Population", which was subsidized by a loan from the "Resettlement Fund of the Council of

Europe", was administered by the General Secretariat for Greeks Abroad and implemented by a research team from the National Center for Social Research.

Specifically, the sampling base of the field survey was a micro census (m i d census) of the Greek population (the first phase of the program) which was conducted in 1985-86 under the supervision of the National Statistical Service of Greece. The principal aim of the micro census was to determine the level of return migration during the period 1970-85, as the National Statistical Services of Greece had ceased the collection of in- and out-migration statistics since 1977, following the free circulation of citizens within the European Community. A secondary aim was to provide a sampling base from which a random sample of return migrants could be drawn for more in-depth investigation of the processes of return migration.

For the second phase of the project -the in-depth field survey- on which this report is based- two random and stratified samples of households (10 regions and three levels of urbanization) were drawn, using the micro census information. The return migrant sample consisted of about 3.000 households and 4.388 return migrants who upon return to Greece had been at least twenty years of age. The second sample - the non-migrant sample - consisted of about 500 households and 1354 individuals who at the time of the micro census were also at least twenty years of age. The purpose of the non-migrant sample was to provide a comparison group for the return-migrants, in order to evaluate more systematically the impacts of emigration.

The field survey was conducted three years after the micro census (in the summer of 1988) using 45 trained interviewers and two questionnaires, one for the return migrants and the other for the non-migrant Greeks. The return migrant questionnaire contained questions on (a) the cycle of migration (e.g. date of departure, place of departure, reasons for emigration, date of return, etc. (I) demographic characteristics (e.g. age, sex, number and characteristics of children, items regarding parity, etc.), (3) socioeconomic variables (e.g. education, occupation, income, work abroad and upon return, etc.) (4) social policy questions (e.g. state of health, social insurance etc.), and (5) questions on social, cultural and political aspects of life (e.g. attitudes towards division of labour in the home, membership in organizations and trade unions, political ideology, linguistic competence, etc.). The non-migrant questionnaire contained the same questions as the migrants, except for those pertaining to the cycle of migration.

Both questionnaires included questions on the total number of children (which is used as a fertility index in the present report) as well as questions on whether they wanted more or fewer children than they had. In case they reported that they wanted more children than they had, they were asked to specify the reasons. The latter question was anticipated to provide qualitative information regarding the motivations and the incentives which lie behind fertility patterns.

The present report restricts itself primarily to an analysis of the fertility patterns of return migrant women who had been born in Greece (N=1837) and compares them with those of non-migrant Greek women (N=704), using linear regression analysis of the SPSS (enter method, pair wise exclusion of missing cases, elimination of variables with tolerance levels below 0.20). Separate regression analyses were also done for return migrant women by country of immigration - the Federal Republic of Germany (N=976), the United States (N=191), Canada (N=103), and Australia (N=159), in order to allow for the assessment of more homogeneous sociocultural impacts, although the relative paucity of cases in the case of the overseas countries of immigration should make us more circumspect with regard to conclusions. Finally, the regression analyses of the total sample of women returnees, the returnees from the Federal Republic of Germany and the non-migrant women (comparison group) are repeated for three age groups but without the cycle of migration variables.[13] As one would anticipate, age was correlated positively with fertility in all samples (See Table 1).

III. The Results: Analysis and Interpretation

A. Descriptive analysis: Average fertility rates by country and age group

The average fertility rates vary by country of immigration and by age category (Table 1). Focusing first upon the country of immigration, it can be noted that the comparative findings of the OECD study referred to above are confirmed. If one examines the means for the "entire population", he/she will note that the migrant women returnees as a whole -but also as former residents of particular countries of immigration- have higher fertility rates than the non-migrant Greek women. The differences between the migrant returnee and the non-migrant women generally persist in all age subgroups and for all the countries of immigration except for some reversals in the case of Canada and Australia. The highest fertility rates are observed in the women returnees from the Federal Republic of Germany, which

probably has to do with the level of education or the fact that the Greeks in Germany are part of a more recent cycle of migration when compared to overseas emigration.

However, it cannot be said with certainty that the birth rates of the women returnees are representative of those of their Greek counterparts who opt to stay abroad since return migration may be selective and affect only the immigrants with larger families while those who have smaller families choose to stay abroad or get integrated in the country of immigration. Yet, even if a selective return migration is operating, the observed differentials can have a positive impact on the Greek population — especially since a large percentage (80%) of the returnees are under 50 years of age[14].

In regard to age, the fertility rate of women increases -as one would expect, with age. This association holds for the return migrants as a whole, for the non migrants as a whole, and for all countries of immigration, except Australia. The older age women returnees from Australia have the lowest birth rates. Apparently, there may be a selective return migration among the older women. However, it is not known whether this is due to demographic policies or to social security policies or to differences in the patterns of reproductive behavior among older emigrant women to Australia or to biased sampling of women returnees. Further investigation is needed to determine the correct interpretation.

B. The role of socioeconomic factors: regression analysis of the fertility behavior of the return migrant and non-migrant Greek women

As mentioned in the methodological note, several regression analyses were done on the fertility data, in an attempt to assess the impact of SES factors on fertility. The first of these (Table 2) involves an evaluation of the impact of several "independent" variables on fertility, including factors that are a part of the cycle of migration (e.g. region of immigration, duration of stay abroad, occupation after return, etc.) and others which are not necessarily part of the cycle (level of education attainment, performance of religious wedding, age etc.) The other analyses (Tables 3 and 4a-4c) evaluate the impact of the independent socioeconomic factors under more specific, homogeneous conditions, e.g. by country of immigration (Table 3) or by age category (Tables 4a-4c). The regression analysis by age category compares the impact of selected socioeconomic variables - that are comparable for both the returnee and the non-migrant women — to fertility behavior. The

Statistical Group	Mean	Std Dev	Cases
Return Migrants (All countries)			
Entire population	**1.9755**	**1.0608**	**1837**
Younger*	1.7744	1.0197	563
Middle*	2.0129	0.9661	1085
Older*	2.3598	1.4903	189
Return Migrants (FRG)			
Entire population	**2.1158**	**0.9170**	**976**
Younger	2.0346	0.8399	260
Middle	2.1014	0.9041	651
Older	2.5846	1.1844	65
Return Migrants (Canada)			
Entire population	**2.0000**	**1.1462**	**103**
Younger	2.0000	1.0343	44
Middle	1.9149	1.0801	47
Older	2.3333	1.7233	12
Return Migrants (USA)			
Entire population	**2.0942**	**1.2821**	**191**
Younger	1.7857	1.0739	56
Middle	2.0353	0.9442	85
Older	2.5400	1.7981	50
Return Migrants (Australia)			
Entire population	**1.9748**	**1.0730**	**159**
Younger	1.9459	1.1042	37
Middle	2.0000	1.0198	101
Older	1.9048	1.3002	21
Non Migrant (Greece)			
Entire population	**1.8381**	**1.2529**	**704**
Younger	1.4000	1.1621	275
Middle	1.9688	0.9696	256
Older	2.3410	1.5113	173

cycle of migration variables have been deliberately removed from this regression analysis in order to achieve comparability. The presentation of the results will be organized in such a way as to answer some of the questions and issues raised in the relevant literature and the introduction of this report.

1. The impact of the region of immigration. The various host countries were grouped into regions, presumably culturally and politically homogeneous areas. To evaluate the impact of region of immigration, region was treated as a dummy variable. Despite the indications of the descriptive analysis, it can be seen that region of immigration (Table 2) does not exert an impact on the fertility rates of migrant women returnees. An exception constitutes the betas for the return migrants from Eastern Europe, which approaches (p<0.06) statistical significance. Possibly there may have been an effect if the individual countries themselves rather than the larger cultural areas were used in the dummy regression analysis.

2. The role of duration of stay abroad. Contrary to our expectations, duration of stay in the host country was not a significant factor in the fertility of migrant women returnees, even though the sign of the beta coefficients is in the expected direction (Table 2). Naturally, a lot may depend upon the demographic policy and the incentives of the host country or upon the extent to which the immigrants become socially integrated in the host community. In the country analysis (Table 3), the impact of the duration factor is negative and significant for the women returnees from the United States. The corresponding coefficient for Australia is positive but not significant. It remains to be seen, following further study, if these differential outcomes are a function of differential demographic policies or other micro processes in the host countries.

3. The role of urbanization. As indicated in the literature review, urbanization has played a crucial role in depressing fertility rates. In the present survey, three different indicators of urbanization were used. The first of these, the level of urbanization of the **respondent's birth place** had, as expected, a negative impact on the fertility rate of the migrant women returnees (Tables 2, 3 and 4a-4b), but it was not generally statistically significant, except in the case of the more restrictive (with fewer independent factors) regression analysis of the total sample of migrant women returnees (Table 4a). where the results are in the expected direction. Also, the level of urbanization of the respondent's birthplace does not have an impact at

all (the signs are positive) in the case of the non-migrant women comparison sample (Table 4c). Perhaps, it would have been better to have used levels of urbanization of the place where respondents spent their formative years.

The second index used was the level of urbanization of the migrant's **residence at the time of departure.** It is known that much of emigration is a two step process, first internal migration from a rural area to a large city (usually the capital) and then emigration abroad. A significant part of Greek emigration, especially to overseas countries, was two-step emigration. Therefore, it was thought wise to assess the impact of urbanization at departure time on fertility rate, which incidentally may be more reflective of urbanization during the formative years. This index, as anticipated, had a stronger negative - and at times significant - impact on the fertility behavior of women - at least for the total return - migrant women sample if not for the individual country samples (Tables 2 and 3).

The level of urbanization of the **respondent's current residence** was the third index of urbanization used. This index had a negative and mostly significant impact upon the fertility of women in both the return migrant and non-migrant groups (Tables 2, 3, 4). The results are also consistent with the outcomes of 1984-85 NCSR study in the "rest of Greece". The correlations of course do not indicate causality. However, in the case of the return migrant women, it may justifiably be asked if women with fewer children upon return tend to settle in large cities or if they first obtain work in large cities and the smaller families are a consequence of job and mobility pressures, following resettlement.

4. Economic and income considerations. Two relevant variables - home ownership and family income - are differentially related to fertility rates. The first of these, home ownership, contrary to the observations in the 1983/84 (capital city) and the 1984/85 (rest of Greece) studies had no consistent or significant impact on the fertility behavior either of the return migrant or the non-migrant women. Exceptions constitute the two age groups in the non-migrant sample (Table 4c), where the outcomes are in the opposite direction. One wonders if there is a generation effect (whereby social mobility or home ownership had become substitutes for children in the older group), but this is pure speculation and the issue needs further researching. It is noteworthy that in the previous studies, the positive association of house ownership and fertility held when both income and

Socioeconomic variables	Standardized Betas
Age of respondent (5 year periods)	0.095**
Area of immigration (Africa Middle East=1)[a]	0.021
Area of immigration (US, Can.=1)	0.033
Area of immigration(E. Europe=1)	-0.059
Area of immigration(W. Europe=1)	0.006
Babycare - a task for both spouses (Yes=1)	-0.013
House owner (Yes=1)	0.120
R's occupation abroad (nonmanual=1)	-0.161**
R's occupation after return (nonmanual=1)	-0.001
Husband's occupation abroad (nonmanual=1)	0.075*
Husband's occupation after return(NM=1)	-0.013
Performance of religious wedding (Yes=1)	0.014
Presence of health problems (Yes=1)	-0.025
R's work status abroad (Working=1)	-0.241**
R's work status after return (working=1)	-0.029
Urban nature of current residence (6 levels)	-0.123**
Duration of stay abroad (in years)	-0.026
Urban nature of place of departure (6 levels)	-0.095**
Father's education (7 levels)	-0.057
Family income (7 levels)	0.093**
Mother's education (7 levels)	-0.009
R's education (7 levels)	-0.171**
Husband's education (7 levels)	0.046
Urban nature of place of birth (6 levels)	-0.060
Constant	2.963
Multiple R	0.432
R^2	0.187
Adjusted R^2	0.173
Standard Error	0.965
F ratio	13.265**

Socioeconomic factors	Total[a]	FRG	CAN.	USA	AUST.
R's age (5 year periods)	0.089**	0.092**	0.093	0.178	0.020**
Caring for babies - task for both spouses (Yes=1)	-0.017	0.062	0.102	-0.152	-0.070
House owner (yes=1)	0.032.	-0.055	0.082	0.044	-0.039
R's occupation abroad (NM=1)	-0.166	-0.075	-0.106	0.079	-0.007
R's occupation after return (NM=1)	-0.004	0.073	-0.622*	-0.076	0.139
Husband's occup abroad (NM=1)	0.078*	0.020	0.332*	0.014	0.086
Husband's occupation after return (NM=1)	-0.010	-0.052	0.088	0.014	0.022
R's work status abroad (Working=1)	-0.255*	-0.110	-0.028	0.006	-0.352
R's work status after return (Working=1)	-0.041	0.034	-0.561*	-0.101	0.011
Urban nature of current residence	-0.127**	-0.180*	-0.104	-0.090	0.044
Duration of stay abroad (years)	-0.051	-0.043	-0.087	-0.210*	0.005
Urban nature of departure place	-0.083*	-0.033	-0.182	-0.041	-0.251
Father's education	-0.059	-0.051	-0.107	0.068	-0.029
Family income	0.103**	0.097**	0.067	0.031	0.060
Mother's education	0.001	0.041	-0.156	-0.198	0.117
R's education	-0.179**	-0.107*	0.175	-0.164	0.012
Husband's education	0.038	-0.034	-0.058	0.150	0.160
Urban nature of place of birth	-0.062	-0.035	0.023	-0.073	-0.006
Constant	3.067	2.811	4.627	2.958	2.954
Multiple R	0.426	0.298	0.519	0.480	0.492
R^2	0.181	0.088	0.269	0.230	0.242
Adjusted R^2	0.171	0.068	0.050	0.100	0.105
Standard error	0.966	0.885	1.117	1.216	1.015
F-ratio	17.149**	4.300**	1.228	1.765*	1.771*

duration of marriage were controlled. Nonetheless, the assessment was not tested in the context of a multivariate regression analysis.

The other economic variable - total family income - had a consistent and positive impact on the fertility of both the return migrant and the non-migrant women, in accordance with the literature and consistent with the findings of the previous National Center for Social Research studies. The results are consistently positive in the comparison, non-migrant group (Table 4c), in accordance with the neoclassical micro economic hypothesis which views children as "consumer goods". Some isolated exceptions, in a negative direction but not statistically significant, are noted in one age subgroup (the older) of the return migrant women in the total and the FRG samples (Tables 4a and 4b).

The theory that income may act to facilitate or inhibit fertility rates is also corroborated by the qualitative analysis (Table 5) of the responses to the question, "what stopped you from having more children", put to those who said they wanted more children than they actually had. As shown in Table 5, the "limited economic opportunities" was the most common reason given both by the migrant returnee and the non-migrant women for not having more children. Economic and income considerations - at least on the family level - certainly play a decisive role in the fertility of Greek women - a factor which needs to be taken into consideration in policy formulation.

5. The occupational factor. The impacts of the husband's and the respondent's occupation[15] on fertility were divergent. Focusing first on the return migrant sample, we observed that the most consistent outcomes were those related to the respondent's (woman's) occupation. The women who while abroad were engaged in a non-manual occupation had lower fertility rates. These results are statistically significant in the total sample and in most of the country samples (Tables 2 and 3). However, they do not hold for the woman's post-return (or current) occupation except for the subgroup of women returnees from Canada (Table 3) and the younger subgroup of women returnees (Tables 4a and 4b). It is possible that these younger subgroups are unmarried returnee women who have not yet given birth to any children and which account for the negative outcomes in this age group.[16]

With regard to the non-migrant women, where the "current occupation" is the surrogate variable of the migrant's post-return occupation, the non-manual occupations exert a consistently negative impact on fertility, both

Variables	All ages	Younger	Middle	Older
Age (five year periods)	0.111**	–	–	–
Caring for babies - a task for both spouses (Yes = 1)	-0.031	-0.094*	0.004	-0.087
House Owner (Yes 1)	0.029	0.066	0.006	0.001
R's occupation after return/current occupation (Non-manual=1)	-0.071	-0.266**	0.067	0.036
Husband's occupation after return (non-manual=1)	0.003	0.124*	-0.062	0.068
R's work status after return (Yes=1)	-0.131**	-0.383**	0.027	{---}[a]
Urban nature of current residence (6 levels)	-0.173**	-0.080	-0.165**	-0.326**
Father's education (7 levels)	-0.059	-0.090	-0.39	0.017
Family income (7 levels)	0.124**	0.160**	0.117**	-0.014
Mother's educaton (7 levels)	0.015	0.053	-0.038	0.112
R's education (7 levels)	-0.196**	-0.279**	-0.120**	-0.099
Husband's education (7 levels)	0.079*	0.052	0.015	0.043
Urban nature of birthplace (6 levels)	-0.084**	-0.057	-0.045	-0.223*
Constant	2.325	3.052	2.327	3.168
Multiple R	0.388	0.558	0.267	0.476
R^2	0.150	0.311	0.071	0.227
Adj. R^2	0.143	0.292	0.059	0.146
Standard Error	0.982	0.858	0.937	1.137
F	19.660**	15.994**	5.777**	2.798**

Variables	All ages	Younger	Middle	Older
Age(five year periods)	0.096*	–	–	–
Caring for babies - a task for both spouses (Yes=1)	0.056	-0.061	0.0107*	-0.054
House Owner (Yes 1)	-0.056	-0.039	-0.075	-0.066
R's occupation after return/current occupation (Non-manual=1)	0.050	-0.336*	0.159*	-0.079
Husband's occupation after return (non-manual=1)	-0.050	0.068	-0.116*	0.073
Rs work status after return (Yes=1)	0.014	-0.450**	0.144	{---}[a]
Urban nature of current residence (6 levels)	-0.201**	-0.112	-0.190**	-0.294
Father's education (7 levels)	-0.044	-0.011	-0.028	-0.054
Family income (7 levels)	0.098**	0.167*	0.098*	-0.076
Mother's education (7 levels)	-0.046	0.058	0.008	0.022
R's education (7 levels)	-0.106*	-0.060	-0.106*	-0.067
Husband's education (7 levels)	-0.028	-0.147	-0.004	-0.115
Urban nature of birthplace (6 levels)	-0.041	0.027	-0.054	-0.263
Constant	2.354	2.976	2.459	4.926
Multiple R	0.285	0.352	0.294	0.623
R^2	0.082	0.124	0.086	0.388
Adj. R^2	0.067	0.075	0.066	0.211
Standard Error	0.888	0.808	0.874	1.052
F	5.604**	2.551**	4.270**	2.188*

Variables	All ages	Younger	Middle	Older
Age (five year periods)	0.238**	–	–	–
Caring for babies - a task for both spouses (Yes=1)	-0.030	-0.057	0.047	-0.017
House owner (Yes 1)	-0.021	0.026	0.155*	-0.226**
R's current occupation (Non-manual=1)	-0.129*	-0.160	-0.132	{---}[a]
Husband's current occupation (non-manual=1)	-0.042	0.106	-0.092	0.007
R's work status (Yes=1)	-0.239**	-0.361**	-0.204	{---}[a]
Urban nature of current residence (6 levels)	-0.118*	0.040	-0.100	-0.253*
Father's education (7 levels)	-0.029	-0.035	-0.020	-0.059
Family income (7 levels)	0.153**	0.190**	0.150	0.132
Mother's education (7 levels)	-0.117*	-0.171*	-0.137	-0.103
R's education (7 levels)	-0.059	-0.130	-0.058	-0.053
Husband's education (7 levels)	-0.082	-0.150	-0.087	-0.160
Urban nature of place of birth (6 levels)	0.001	-0.080	0.019	0.047
Constant	2.501	3.000	2.345	4.374
Multiple R	0.509	0.583	0.350	0.419
R^2	0.259	0.341	0.122	0.176
Adj. R^2	0.240	0.295	0.069	01.07
Standard Error	1.093	0.976	0.936	1.428
F	13.628**	7.489**	2.288	2.556**

Reported obstacles	Return migrant women (N=581)	Non-migrant women (N=193)
Health problems (mine or my husband's)	20.8%	20.7%
Limited economic opportunities	54.7%	50.8%
Delayed marriage	1.2%	1.6%
Obligations to my family	2.1%	2.6%
Difficulties in bringing up children during these times	6.5%	3.1%
Nothing, we can still have more children	3.8%	8.3%
Other, Don't know, No answer	10,9%	12,9%
Total	100.0%	100.0%

practices. It is anticipated to have a negative impact of fertility. Besides that, as the relevant literature suggests, it is not only the woman respondent's education that counts but also the education of those in her background and social environment which have to be taken into consideration.

Starting with the impact of the parents education, and focusing on the return migrant sample, neither the father's or the mother's education had a significant impact on fertility, though the signs for the father's education are in the expected direction. In regard to the impact of the mother's education, the signs are inconsistent and non-significant (Tables 2, 3, 4a, 4b). The impact of the husband's education is also non-significant and inconsistent, being generally positive in the total return migrant women sample and negative in the country analysis - especially in the sumbsample of returnees from the Federal Republic of Germany (Table 4b).

The educational component which was most consistently, significantly, and, as expected, negatively correlated with fertility was the respondent's (woman's) level of education (Tables 2, 3, 4a and 4b). Exceptions constituted the subgroup of returnees from Canada, where more education was associated with higher fertility, although the relevant coefficient was not statistically significant.

With regard to the non-migrant comparison group of women (Table 4c), the impact of all the educational indicators - the parent's, the husband's and the respondent's education-was, as expected, in a negative direction. However, the most significant impact in the case of the non-migrant sample was that of the mother's education, not that of the respondent's, the father's or the husband's. The findings of the present study contrast somewhat with those of the 1984/85 Greek survey, where the respondent's education had the most significant impact on fertility.

Generally, however, the findings in both the return and non-migrant sample are in support of studies which attribute opportunity costs to education.

7. Women's work status. As expected, the migrant woman's work experience abroad had a very significant impact on her fertility behavior.[18] This impact of the work abroad was greater than that of her post-return work experience in Greece (Tables 2, 3). However, the impact of her post return work status was significant and negative in the case of the women returnees from Canada (Table 3) as well as for the younger returnees in the total sample and the sub sample from FRG (Tables 4a and 4b). The significant loading (b = -0.131) regarding post-return work status in the total sample

(Table 4a), is probably an artifact and is a function of the new composition of independent variables in the comparative regression analysis (tables 4a-4c). Possibly, one of the variables (See table 2) accounts for this significant effect.

The impact of work on the fertility of the non-migrant women (Table 4c) is in the anticipated negative direction and for two of them (the total sample and the younger subgroup) is statistically significant. For the older subgroup there was a problem of low tolerance, which may be connected with the former social security system which favored early retirement of women.

8. Sex role attitudes. The survey questionnaire also included a series of questions (8 items) in order to evoke the respondent's attitudes regarding the division of household chores between spouses, assuming that both of them had outside jobs. The present regression analysis used as a dummy variable only one of these items, which had a good distribution (e.g. whether caring for babies was a woman's job, a man's job or a job for both spouses). Generally, the impacts of this factor was not consistent or significant. Exceptions were the negative impact (- 0.093) in the case of the younger subgroup in the total return migrant sample (Table 4a) and the positive impact (+0.107) in the middle age group of returnees from the Federal Republic of Germany (Table 4b). One can ask if the husband's actual participation in the household chores (e.g. successive shifts by the spouses at work and at the house) in the immigration countries can have a positive impact on fertility - when other services are not available.[19]

9. The role of **religion and problems of health.** Two of the indicators - the performance of a religious wedding and the presence of self-reported health problems - which were anticipated to have respectively a positive and a negative impact on fertility rates did not have any impact at all upon the fertility rates of women (Table 2). Either religion has no impact any more (e.g. extensive practice of abortion and birth control in Catholic and Orthodox countries in S. Europe), or the index used has only a ritualistic significance and cannot measure the true meaning and the impact of religion on fertility behavior.

In regard to health problems, the absence of a negative impact contradicts the outcome of the qualitative analysis (Table 5). The second most common reason given by both samples of women - the migrant returnee and the non migrant women - for not having as many children as they desired, involved the problems of health of one of the spouses. This suggests that

health problems did play a restraining role which however is not demonstrated in the quantitative analysis. Perhaps, there is a need to use more specific and objective indices of health problems or to do a country analysis of the impact of health problems on fertility.

IV. Summary and conclusions

The present paper used the insights of demographic theory (e.g. the income, opportunity cost and social variables hypotheses, etc), as well as the observations of previous fertility studies of Greek women, both abroad and in Greece, to interpret the fertility behavior of Greek return migrant women.

Specifically, the various hypotheses were evaluated using the fertility data from a survey of 1837 return migrant and 704 non-migrant Greek women. The non-migrant women sample served two purposes. First, it was used as a comparison group to assess the impact of emigration on the fertility behavior of return migrant Greek women. Second, it was used as a basis for comparison with the results from other studies of Greek women's fertility behavior.

Results were assessed, using the SPSS linear regression analysis, for the total sample of return migrant women, for sub samples of return migrant women by country of immigration and finally for the total sample of return migrant and non-migrant Greek women for three age subcategories. The age category analysis was done without the cycle of migration variables in order to obtain comparability with the non-migrant women sample.

Focusing first on the outcomes regarding the **total return migrant sample,** no statistically significant ($p<0,05$) impacts were observed regarding region of immigration, the duration of stay in the country of immigration, the respondent's attitudes concerning the household division of labour, a religious indicator (performance of a religious wedding) and the reported presence of health problems. Some of these non-findings (e.g. regarding sex -role attitudes, the indicator of religion and health problems) should be accepted with caution as they may be a function of limitations in the indices. Others, such as area of immigration and duration of stay are global variables. Possibly, there is a need for a more specific country analysis to have significant impacts.

In regard to the socioeconomic indicators (e.d. education, occupation, income etc.), no significant effects were noted for house ownership, the father's and mother's education, and the husband's and woman's occupation

after return (i.e. their "current occupation"). A significant and negative impact was noted for the woman's occupation abroad, as expected (non-manual occupations, less fertility). However, contrary to expectation, husband's occupation abroad was positively associated with the wife's fertility (non-manual, higher fertility) suggesting perhaps that the opportunity cost factor operates for women as anticipated. Along the same lines, total family income had a positive income on the woman's fertility behavior, as anticipated. The income results were also supported by the qualitative analysis, where limited economic opportunities played an important role in suppressing fertility. Finally, and as anticipated, a negative and significant impact was observed for woman's work status abroad, as well as for her level of education - suggesting again the operation of the opportunity cost factor in addition perhaps to the availability of greater knowledge regarding birth control methods.

Some of the "independent" factors (e.g. **level of urbanization)** had an inconsistent impact, depending upon the operational definition. Thus, the level of urbanization of the return migrant woman's **birthplace** had no impact whatsoever on her fertility behavior. On the other hand, the level of urbanization of the **place she was living at the time of emigration** had a significant negative impact, as expected. This perhaps is consistent with general theory regarding the more relevant impact of the place of residence during one's formative years. Level of urbanization of **current place** of **residence** had also a negative impact upon fertility, as anticipated, although questions are raised pertaining to causal direction. Do return migrant women with fewer children settle in urban areas or do return migrant women develop small families after resettlement in urban centers. The presence of return migrant women students in the sample may justify the latter inter-pretation.

With regard to the **country analysis of fertility behavior** of return migrant women, the outcomes were divergent, persisting in some cases, vanishing in others and depending upon the country of immigration in others. **Duration of stay** remained non-significant for most countries of immigration, but emerged as significant and negative as expected for the return migrant women from the United States. Whether this reflects the operation of selection regarding return migration or the impact of U.S. demographic policies remains to be shown. In regard to **urbanization,** urbanization at departure loses its significant impact in all countries, while urbanization of current residence retains its significant impact only in the case of the return

migrant women from Germany. In regard to **education,** the parent's and the husband's education remain non-significant in all the country analyses, whereas the woman's own education remains negative and significant in the case of the women returnees from Germany and becomes positive but not significant in the case of the women returnees from Canada. In the case of **occupation,** the positive effect of the husband's occupation on woman's fertility remains positive only for the returnees from Canada; The woman's occupation and her work status abroad retain generally their negative impact in most of the countries but lose their statistical significance. In regard to total **family income,** the effects are positive for all countries, but statistically significant only in the case of the women returnees from Germany. Finally, significant impacts emerge for woman's occupation and work status **after** return for the returnee women from Canada. The impacts regarding Canada contrast somewhat from those in other countries. This is difficult to interpret, especially when the overall regression F for Canada was not significant. Also, the non-significant impacts in the country samples, though in the same direction as the regression analysis on the total, may be a function of the reduced number of cases.

In the regression analysis of the fertility of **return migrant woman** by **age subcategory** (which does not include the cycle of migration variables), most of the initial impacts continue in the age subgroups, although they are not always statistically significant. In other cases (husband's education, woman's return/ current work status, urbanization of birthplace etc.), new significant trends emerge which however may be tied to the elimination of the cycle of migration variables. Finally, in some cases, the initial significant impacts remain significant in some age subgroups, but disappear in others, suggesting perhaps the operation of some generation (historical) effects which need to be further investigated.

Finally, with regard to the **non-migrant women's fertility,** most of the outcomes were in accord with the outcomes of the return migrant women analysis and those of previous Greek studies under comparable conditions (e.g. in regard to the impact of women's age, woman's occupation and work status, urbanization and total family income). In contrast, however, in the non-migrant sample, the mother's level of education emerges as a more significant factor in the fertility behavior of women, whereas in the return migrant women's sample the woman's own level of education has a more decisive impact. Possibly, this is due to the fact that the return migrant women sample also includes the women student's who studied abroad; these

women had made a greater investment in their own education (exchange etc), and perhaps were confronted with greater opportunity costs upon return.

Although the results of the present study tend to corroborate the theory and are also generally in accord with the outcomes in other surveys of Greek women's fertility behavior, it is a fact that much of the "variance" still remains unknown. Perhaps, predictability could increase if another model of analysis (e.g. non-linear) or another combination of independent factors were used or if some other statistical adjustments were made-some of which may be still be done in the final analysis. Also, the present study has another limitation: it does not include in the analysis the control group of Greek women who remain abroad. Future studies must also incorporate this control group, in order to arrive at more definite conclusions regarding selective return migration processes. Finally, there is a need to concentrate the analysis on specific countries, which have more homogeneous cultural, economic, political and policy conditions. Perhaps, if all these factors had been taken into consideration, the outcomes would have been more illuminating, for research purposes and also for policy considerations.

Notes

1. Statistical Yearbook of Greece, National Statistical Service, 1994, 1995, p. 41.

2. G. Siampos, Demographic trends in post-war Greece. In B. Gotzamanis et al., Proceedings of Demographic Conference, Oct. 5-6, 1992, (In Greek) National Center for Social Research, pp. 71-99 and Ch. Simeonidou, Socioeconomic factors in Greek fertility, (In Greek), National Center for Social Research, Athens, 1997, p. 247.

3. H. Liebenstein, The Socioeconomic fertility theories and their relevance to population policy, International Labour Review, Vol. 109, Nos. 5-6, May-June 1974, pp. 443-457.

4. Statistical Yearbook of Greece, National Statistical Service, 1994, 1995, p. 43(?)

5. N. Petropoulos et al., Research program on emigration and return migration of Greeks, Vol. B, Return migration: The results of the micro census, 1985-86, National Center for Social Research and General Secretariat for Greeks Abroad, Athens, 1992, p. 22 (See methodological note for the micro census).

6. Petropoulos et al., The Return Migration: the results of the micro census, p. 194.

7. For the general and exceptional outcomes, see for example D.A. Coleman, "Trends in fertility and intermarriage among immigrant populations in Western Europe as measures of integration", Journal of Biosocial Science, 26 (1) Jan. 1994, pp. 107-136; J.J. Card, The malleability of fertility - related attitudes and behavior in a Filipino migrant sample, Demography 15(4) Nov. 1978, pp. 459-476 and S. Hwang, Emancipation of Chinese women

from China's one-child policy. Dept. of Sociology, Univ. of Alabama, Birmingham (e-mail: shwang@sbs.sbs.uab.edu)

8. OECD, "Evolution of fertility of foreigners and nationals in OECD countries" in in Migration and demographic aspects, OECD, Paris 1991, pp. 32-36.

9. D. Balourdos, Demographic dimensions of income distribution. National Center for Social Research, 1997, pp. 70-92.

10. See Ch. Symeonidou, Work and fertility of women in the capital area (In Greek), National Center for Social Research, 1990; Ch. Symeonidou, V. Douligeris, Ch. Kappi, M. Magdalinos, L. Maratou, D. Balourdos, P. Pappas and M. Samartzi, Socioeconomic Determinants of fertility in Greece (in Greek), National Center for Social Research, Vol. A (Analysis of fertility patterns in the capital), Athens, 1992; and Ch. Simeonidou et al, Socioeconomic determinants of fertility in Greece, Vol. D (Analysis of fertility patterns by region of Greece), National Center of Social Research, Athens, 1997.

11. See Ch. Symeonidou, Socioeconomic determinants of fertility Vol. B (Analysis by region of Greece, pp. 242).

12. The researchers are aware of this unanticipated finding. It is not clear if this is due to real sociological processes or is a methodological artifact. (See Ch. Simeonidou et al, Socioeconomic determinants of fertility, Vol. B (Analysis by region), pp. 214-223, 242.

13. Possibly, duration of marriage would be a better control variable. This variable was computed for the non-migrant group (1988 minus the date of first marriage), but was not available for the return migrant sample since the date of first marriage was inadvertently not included in the subset of data used for this report. As one would expect, for the non-migrant group there was a high person correlation (0.90) between the duration of marriage and age. Age is used as a control variable, to control for possible differences in the sampling of the RM and the NM samples, as well as to check for possible developmental interactions between age and the various independent variables.

14. See N. Petropoulos, Research Program on Emigration and Return Migration: Return Migration... Vol B, pp. 194-195.

15. Using the National Statistical Service Occupational Classification, the occupations were classified into non-manual (01 to 49) and manual (50 to 99). The non-manual include the professional, administrative, commercial and sales occupations, and the manual, the service, industrial and agricultural occupations.

16. The present study - in contrast to the 1983 - 1985 fertility studies - also includes the single women in the analysis. In the RM women sample, the single women constituted only a small proportion (4.3%) of this 1837 in the regression analysis and are not expected to affect the overall results. In the non-migrant sample a larger percentage (11.6%) of the 704 women were single women and may influence the outcomes, making the earlier and present surveys less comparable.

17. Symeonidou et al, Socioeconomic determinants of fertility in Greece, Vol. B (An analysis by region), p. 242.

18. Theory has it that when alternative resources and services are available, work is not necessarily incompatible with higher fertility rates. The general data base also includes

information on the type of help and child care services that were available to emigrants for their children abroad and those left at home. This information has not been included in the present data subset. Plans are to incorporate it in the final analysis and to evaluate its comparative effects on fertility.

19. A "domestic equality index" that was based on all the eight items in the questionnaire - was used as a dichotomized dummy variable in a regression analysis of the non-migrant women fertility data (not shown). The impact (-0.040) was in the expected negative direction but was not statistically significant.

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