

## Repositório ISCTE-IUL

---

Deposited in *Repositório ISCTE-IUL*:

2019-03-20

Deposited version:

Post-print

Peer-review status of attached file:

Peer-reviewed

Citation for published item:

Saint-Maurice, A. & Pintassilgo, S. (2018). Ethnic differences in results of fertility and mother's health care: Portuguese population and Cape Verdeans living in Portugal. *Journal of Population Research*. 35 (2), 131-150

Further information on publisher's website:

10.1007/s12546-018-9204-0

Publisher's copyright statement:

This is the peer reviewed version of the following article: Saint-Maurice, A. & Pintassilgo, S. (2018). Ethnic differences in results of fertility and mother's health care: Portuguese population and Cape Verdeans living in Portugal. *Journal of Population Research*. 35 (2), 131-150, which has been published in final form at <https://dx.doi.org/10.1007/s12546-018-9204-0>. This article may be used for non-commercial purposes in accordance with the Publisher's Terms and Conditions for self-archiving.

---

### Use policy

Creative Commons CC BY 4.0

The full-text may be used and/or reproduced, and given to third parties in any format or medium, without prior permission or charge, for personal research or study, educational, or not-for-profit purposes provided that:

- a full bibliographic reference is made to the original source
- a link is made to the metadata record in the Repository
- the full-text is not changed in any way

The full-text must not be sold in any format or medium without the formal permission of the copyright holders.

---

## **Ethnic differences in results of fertility and mother's health care: Portuguese population and Cape Verdeans living in Portugal**

### **Abstract**

This paper pursues a comparison between sociographic profiles and birthcare conditions related to the Portuguese and Cape Verdean mothers living in Portugal, considering the cultural and ethnic variables as determinants to possible distinctions.

Based on the live birth Survey, the Fertility Survey results and the Population Census (official statistics produced by the National Statistics Institute), a statistical analysis was performed, namely, a K-means Cluster Analysis and a Multiple Correspondence Analysis (MCA). We adopted a longitudinal and comparative perspective in the 1995-2013 period. Furthermore, a synchronic analysis approach has been underlined, thoroughly exploring the database of entries of live births for the year 2013.

Despite the fertility rate being lower in the Portuguese population, there is a tendency for convergence between the fertility patterns of both populations, which reveals a porosity of the the Cape Verdean population by incorporating a different fertility model from the one that exists in their country of origin.

Fertility occurs later in the Portuguese women compared with the Cape Verdeans. Differences were also observed in both populations, regarding the sociographic profiles, the birthcare conditions and, finally, the marital *status* and family structure.

### **Keywords**

Fertility; Birthcare Conditions; Immigration; Ethnic and Social Differences; Portuguese; Cape Verdeans

## Introduction

The Portuguese population is presently characterized by strong demographic aging that began in the second half of the twentieth century and which is due, among other reasons, to a progressive reduction in fertility levels (Bandeira 2014).

The recent reconfiguration of fertility patterns corresponds to named Second Demographic Transition, consisting of the births postponement, changing the fertility intensity results (*quantum*) and calendar (*tempo*). Compared to other countries in the Western context, the Portuguese case had a late, but accelerated, transition process (Van de Kaa 2002; Lesthaeghe 2010; McDonald 2000).

In 2014, the average women age at first birth was 30 years and 31.5 years, regardless of birth order. In the same year, the fertility rate was 1.23 children per woman, the lowest in Europe (Eurostat 2016).

According to the latest results survey on fertility in Portugal, which was conducted in 2013, there is a progressive separation between the desired and the achieved fertility levels, supported by a rigorous management of reproductive career during the childbearing years, namely, through the use of modern contraceptives (INE 2013; Cunha 2005).

The theory of the Second Demographic Transition emphasizes the role of behavioral and regulatory changes on reproductive trajectories. In fact, the evolution of fertility in Portugal in recent decades comes from profound changes in the Portuguese social fabric. Examples include increasing female education, diversification of family structures, the secularization of society, the repositioning of the child's social role, and access to modern contraception, all of which define new social contours and imbalances.

In this sense, the *tempo* and *quantum* results show clear inequalities associated with other characteristics of individual life styles, in particular, generational belonging, educational, occupational and marital paths. Moreover, the reproductive career management, the fertility results and the birthcare conditions, themselves, differ depending on the sociodemographic profile of the fertile population (INE 2013; Cunha 2005; Mendes 2012; Almeida et al. 2002, 2004; Bandeira 1996).

The characteristics of the most represented women in the fertile female population, compared to the total female population, are higher education levels, higher skilled occupations. In the same way, that population reveal a tendency to adopt a formalized conjugal option (marriage), to postpone the decision of giving birth and choose an institutionalized and medicalized care patterns at birth (Almeida et al. 2002; INE 2013; Pintassilgo 2014; Yu, 2007).

It is also known that the citizenship and country of birth and its influence on culture is a key variable of fertility characteristics, influencing expectations and fertility results (INE 2013).

In different countries, several studies have revealed differences in the fertility results of the immigrant population compared to the host country population. To explain these differences some factors are mentioned: religion, cultural specificities and other characteristics of the countries of origin (Coleman and Dubuc 2010; McQuillan 2004; Reed 2015; Child Trends Databank 2015; Newman and Hugo, 2006; Toulemon, 2004).

Ethnicity, associated with country of birth, thus arises as a sensitive and permeable factor in determining fertility levels of a population. The factor seems to assume greater importance the greater the ethnic diversity. Also, immigrant status and socio-demographic characteristics have an impact on fertility levels. In this sense, the younger age structure of the immigrant population tends to increase fertility levels of the host country. Furthermore, the path and length of immigration influences the *tempo* and *quantum* of fertility. For example, there is an increment of fertility in the post-arrival period (Toulemon, 2004; Lanzieri, 2013).

Despite this fact, the same studies evidence the progressive convergence between the fertility levels of immigrant and host population. This convergence is related to the length of stay of the immigrant population in the country. However, it is not linear. In this regard, previous researches have emphasized the importance of the origin and destination environments of migrant population on their fertility path (Kulu, 2005; Sobotka, 2008).

Some studies in Portugal consider ethnicity in the analysis of different dimensions implied in the motherhood experiences. Martins (2008) focuses its analysis on the role of health beliefs in the welfare of Cape Verdean immigrant women, as well as the behaviors and ways to experience their pregnancies; Challinor (2010) uses a qualitative approach, to understand the meanings attributed to maternity taking into account the identity belonging of Cape Verdean immigrant women in Portugal. According to this author, “motherhood immigration situations force women into a constant renegotiation of the relationship between themselves, those closest to them, ‘others’ and the State” (Challinor 2010: 3).

On the other hand, a more institutional and social policy focused perspective is presented by Conceição (2001). That author develops research on the access of pregnant women to health care, differentiated by the immigrant condition (coming from African Countries of Portuguese Official Language – PALOP). Machado (2007) investigated the care of maternal and child health in the immigrant population.

So, there are several approaches that use cultural and ethnic belonging as an explanatory variable, for both health behaviors and respective meanings, or relationships with the institutions that promote healthcare.

Once Portugal is a country with strong immigration, we wonder whether cultural and ethnic and social contrasts influence the dominant fertility and birthcare patterns. Hence, this study compares sociographic profiles of the fertile Portuguese population to the immigrant population with a longer length of stay in Portugal – the fertile Cape Verdean population.

The presence of the Cape Verdean population in different European countries, including Portugal, intensified during the second half of the twentieth century. The first migratory wave was led mainly by men (Saint-Maurice 1997). Nevertheless, the census information shows an increase in the Cape Verdean female population in Portugal since the 1980s. In 1991, there were 7,134 Cape Verdean women living in Portugal. By 2001, there were 16,151 and in 2011, there were 19,383 women of Cape Verdean nationality (Censuses 1981, 1991, 2001, 2011). This development corresponds to a more than twofold increase of that population in two decades.

This growth reflects, simultaneously, a reversal of the sex ratio (the ratio between male and female population) of that population. From 1991 to 2011, the percent of the female Cape Verdean population living in Portugal rose from 45.4% to 52.3%, exceeding the percent of men.

The feminization of immigration flows reveals the importance that women have assumed in both countries. That importance arises either in economic and social levels, in family structure and material and symbolic reproduction. In turn, this reality results in a progressive reduction of the gender inequality of the migrant population.

This brings about the importance, in theory, of cultural and ethnic variables in anchoring any distinctions in fertility profiles and behaviors (Saint-Maurice, 1997). In that sense, we propose to analyze the explanatory role of social class and ethnicity indicators on the configuration of: i) the fertile behavior (with regard to the *quantum* and *tempo* results); ii) family structure and conjugality; iii) and birthcare conditions.

## **Sources and Methods**

The data sources used in this paper are the databases of live births, from 1995 through 2013, being 2013 the year of reference in the analysis. These databases are made available by National Institute of Statistics

(INE). They are based on information collected in the reports of live births, which are filled in by the conservatories of the civil registry. These records are required by law to be reported up to 20 days after birth (Decree-Law No. 131/95, of June 6, art. 96) and therefore almost guarantee an exhaustive coverage of the events occurred. The reports include variables that allow calculating fertility indicators by nationality and also identifies the sociodemographic and family characteristics of the fertile population.

Data from the last three available Portuguese censuses (1991, 2001 and 2011) was also used. INE produces the mentioned databases.

The Total Fertility Rate provided by INE for both nationalities is adopted. This indicator is calculated by adding the summarized Age Specific Fertility Rates (ASFR) obtained for annual periods. The ASFRs are provided by the ratio between live births of the fertile female population of an age group, of a particular nationality, and the total female population of this age group and the same nationality (specific rates of 2nd category) (Bandeira 2004; Preston et al. 2001).

The calculation of the average age of mothers at childbirth was made from the live births database individual microdata, which includes the age of the mothers (annually) at the date of birth of the child, for women of both nationalities considered.

The total number of cases considered in the statistical analysis is 76,559 live births of both Portuguese and Cape Verdean women combined, for the year 2013.

Statistical analysis was performed using the statistical package SPSS and included:

- a) Crosstabs in order to distinguish the two populations regarding sociography; fertility behavior; birthcare conditions; family structure;
- b) K-means Cluster Analysis to identify relatively homogeneous groups of cases based on selected characteristics namely, "age at childbirth", "number of children" (operationalized by "joint previous live births", "mother's previous live births", "fathers's previous live births" and "live birth order"). These were the variables that presented a high variability between the groups (cluster mean square) and simultaneously, a smaller variability within the group (error mean square). Thus, these variables revealed strong discriminatory potential between clusters. We divided all the cases obtained by the clusters, and the best partition of the n cases was the one that optimized the chosen criterion. The K-means Cluster Analysis was performed for each of the populations given the disparity between them (Portuguese: 59700; Cape Verdean 776). Thus, three clusters were obtained for each of these universes, Portuguese and Cape Verdean. Finally,

a new categorical variable, named "types", was created, which joins the three clusters of each universe, obtaining six types.

- c) Multiple Correspondence Analysis (MCA) allows to synthesize at the same level the six women's clusters classified in the variable "Types" and social class indicators ("occupation", "employment *status*" and "education level"). MCA represents categories or objects as points in subspace with the minimum number of dimensions (axes or factors) possible, in particular, bidimensional graphs. The socioeconomic characteristics closest to each type are those that best describe them and distinguish them from other types. It is not intended is not an exhaustive description but to find distinctive features of each type. In the Results section, the output of this multivariate analysis is examined.

## **Results**

### *Comparison and evolution of fertility patterns between Cape Verdean and Portuguese female population*

Considering the most recent census year (2011), the most represented age groups throughout the Cape Verdean female population living in Portugal, in 2011, were between 15 and 54 years (39,1% of the total population). Even so, this proportion is much lower than in the female Portuguese population (52,4%).

Despite of the less weight of Cape Verdean women in childbearing ages living in Portugal, they assume an important contribution to fertility levels in the country. They represent 3,6% of the total fertile population in Portugal, while their proportion in the total women living in Portugal is 1,1%. These results will be the first indicator of the contribution of the Cape Verdean population to fertility in Portugal.

Age Specific Fertility Rates (ASFR) for both population reveal a higher frequency of fertility for Cape Verdean female population in all age groups. Simultaneously, the difference between those results is more significant in younger age groups, meaning earlier calendars of fertility in Cape Verdean population (Figure 1).

### **Please Insert Figure 1**

The evolution of the fertility indicators, synthesizing those frequencies are examined below.

### *Fertility indicators*

A first comparative approach to the Total Fertility Rate (TFR) suggests that there is some porosity in the fertility results of the Cape Verdean female population, in the sense that these women fertility incorporates fertility patterns of the host population.

Indeed, the TFR data reveals an approximation of the intensity of fertility of Cape Verdean women living in Portugal compared to the Portuguese population, distancing themselves from the values recorded in the country of origin. In this sense, in 2013, only Cape Verde (ie the country of origin of the migrant population analyzed) fertility levels are above the threshold of replacement of generations.

**Please Insert Figure 2**

The Cape Verdean and Portuguese population fertility shows, for that year, the closest values concerning the number of children per woman. This supports the previous assertion concerning the Cape Verdean population porosity/susceptibility in incorporating a fertility model different than what is characteristic of their origin country. There is an even sharper approximation in TFR values in recent years, marked by the economic crisis.

Concerning calendar indicators, the average age at birth of children, in 2013, clearly points to later fertility calendars in the case of Portuguese women (30.8 years) compared with the Cape Verdean women (26.4 years).

On an evolutionary approach, we consider the average age at first birth for both population between 1995 and 2013. The curves reveal distinct trends. The Portuguese population tend to postpone the age of first childbirth, while Cape Verdean women have earlier calendars and their fertility behaviours are less linear (Figure 3).

**Please Insert Figure 3**

*Social fertility profiles*

The population of Cape Verdean women covered in this study lies in the bottom of the social structure pyramid when classified according to the social class indicators: education; *status* in employment and occupation. A large part is out of the labor market (18,2% unemployed and 38,1% domestic and retired) and, when included, mostly works in elementary occupations (53.5% against 6.6% of Portuguese) and even occupations classified as services (maids) and sales workers (26.3%), as shown in Table 1.

**Please Insert Table 1**



Moreover, for the Cape Verdean women, the levels of education with greater numerical expression are basic education (1st to 3rd cycle) and secondary education. There is a very weak presence of Cape Verdean women with higher education (6,6% versus 38,8% of Portuguese) (Table 1).

In contrast, the Portuguese women have higher levels of education (Post Secondary and Tertiary Education). They are mostly included in the labor market (69% versus 43,6% of Cape Verdean women) and employed in skilled occupations. Thus, the Portuguese have a higher numerical expression in the professionals (30,9% versus 2,5% of Cape Verde), clerical support (22,2%) and services and sales workers (19,9%) categories (Table 1).

In short, the most distinctive social characteristics of the two study populations are represented in Table 2.

**Please Insert Table 2**

*Characteristics of live births and birthcare conditions*

Hospital birth was generalized in Portugal in the 90s, representing, currently, around 99% of the total births. So, in 2013, almost all the births of Portuguese and Cape Verdean women occurred in hospitals, therefore, this is not a differentiating factor between the fertility characteristics of the two populations under analysis.

The average length of pregnancy (gestational age at birth) is 38,65 weeks for the Portuguese population and 38,8 weeks for the Cape Verdean population, thus pregnancy being longer for the Cape Verdean population. The standard deviation of this variable is 1,8 weeks for the Portuguese population and 2,12 weeks for the Cape Verdean population.

Regarding birth attendants, doctors are the most prevalent in both populations, but with a clearly higher prevalence for the Portuguese population – 70,5% were attended by doctors *versus* 53,5% in the case of Cape Verdean women. For the latter, the attendants in almost 46% of cases were nurse midwives (Table 3).

**Please Insert Table 3**

Introducing class position analysis, the most obvious differences between women of both nationalities strengthens in more skilled groups.

The ethnicity is more important than the resources for the birth assistance choice for Cape Verdean women. For example, in the most qualified professions and higher education, they distributed almost

equally between the assistance by doctors and nurses. In the case of Portuguese women with more educational and professional resources, the assistance by doctors is more representative than the assistance by nurses. This means that the variable ethnicity is stronger in the options of Cape Verdean mothers and social class is more determinant in the case of the Portuguese mother (Table 3).

The class position emerges, throughout the study, as an element that structures the distinct characteristics of the Cape Verdean and Portuguese fertile population. Are there other differentiating factors, namely, family characteristics explaining the fertility rates?

#### *Family structure and conjugality*

The indicators concerning the number of children common to the couple, previous children from only the mother, and only the father will be analyzed. These are indicators for scrutinizing the two populations at the level of family structure and conjugal differences. Indeed, among the Portuguese, the average number of children common to the couple (0,45 children) is higher than among the Cape Verdeans (0,32 children). Another indicator of the predominance of more stabilized families for Portuguese women is that the number of children from only the father is significantly lower among Portuguese women when compared with the Cape Verdean women: 0,15 *versus* 0,6 children. This is further corroborated by the number of children from only the mother (0,13 *versus* 0,43 children, respectively).

Thus, more stable family structures, predominantly formed by father, mother and children of both, are more prevalent among Portuguese fertile women (Table 1). This idea is reinforced by the fact that the majority of Portuguese have their children in a conventional marriage. In fact, 53% are formally married *versus* 11,1% of Cape Verdeans. This means that about 90% of the fertile Cape Verdeans, in 2013, lived in partnership or in single-parent situation. Only 14% of Portuguese women fit in the latter category.

Mothers who do not live with the father of the children are mainly women without skills or with low skills (ISCED Levels 1 and 2) and younger (average age of Portuguese is 28,3 years and 25 years for Cape Verdeans).

In short, the prevailing conjugal models between Cape Verdeans are guided by the informality of the links and / or single parenthood. At the opposite pole, the Portuguese conjugal models are mostly nuclear families and formal marriages.

The analysis of the length of marriage highlights, again, the greater stability of the family structure for the Portuguese women studied (Figure 4). The percentage of the Cape Verdean fertile population is higher in shorter marriage durations. Of all fertile women in 2013, 29% had a child within one year of marriage. In the case of the fertile female population of Portuguese nationality, there is a greater distribution of fertility over the different years of marriage duration.

**Please Insert Figure 4**

#### *Nationality, social characteristics and fertility profiles*

The sociodemographic profiles were measured by the variable "Types". As explained in methodological section, this variable was calculated from K-means Cluster Analysis based on selected characteristics namely, "age at childbirth", "number of children" (operationalized by "joint previous live births", "mother's previous live births", "fathers's previous live births" and "live birth order"). Thus, the six types of women are:

**Please Insert Table 4**

In order to characterize each of the types, bivariate analyzes were performed. The main conclusions were as follows:

- Type 1. The mean age at birth of these women is 22 years old; the majority (91%) do not have children of both spouses and only 8% have one child of both spouses; the majority of cases (87%) refers to fertility of first order and 18,1% refers to fertility of second order.
- Type 2. The mean age of this group is 28,6 years; the majority do not have children of both spouses and only 19% have one child in common. In this cluster, 44% of the cases refer to fertility of first order, a naturally lower value than in the previous group. In 32% of the cases classified in this type, the fertility is of second order and, in 14% of the cases, it refers to the third child.
- Type 3. This is the group of older Cape Verdean fertile women, with a mean age of 37,5 years. It is curious to note that more than half of these women (55%) do not have children of both spouses; only 14% have one child common to the couple, 9,2% have two common children and 11% have three common children. It reveals, on the one hand, a framework of unstable conjugality - single-parent or re-arranged families and, on the other hand, a high fertility intensity. Only 6% of the

women in this group are having their first child, 25% have had one previous child, more than 27% had two children, 22% had three children, and 12% had four previous live births.

- Type 4. The average age in this group of younger Portuguese fertile women is 22 years, close to the mean age at birth of the younger Cape Verdeans; more than 80% of these women do not have children common to the couple and about 15% have a child of both spouses. This figure is much higher than the figure for Cape Verdeans of Type 1. In this group, 75% of the women did not have previous children, and about 20% had one previous child.
- Type 5. This group of intermediate ages has a mean age of 29,4 years, higher than that of the intermediate group of Cape Verdeans. About 24% have one child common to the couple, a value that is also higher than that of Cape Verdeans, type 2. In 64% of cases fertility is of first order, differently than in Type 2 Cape Verdeans (44%).
- Type 6. The third group of Portuguese fertile women presents a mean age of 36 years, clearly below than that observed for older Cape Verdeans (37,5 years). Almost half (49%) of these women do not have children common to the couple, 40% have one common child and 8,1% have 2 common children. These figures (relative to the common children) are significantly different from those for Cape Verdeans, Type 3. About 40% are having the first birth (contrasting to 6% for Cape Verdeans), 44% had one previous child, 12% had two children, and only 3% had three previous children. This figure is seven times lower than the Cape Verdeans with the same age profile.

In relation to the variable related to the previous children only of the father, the highest values are found in the three Types of Cape Verdean fertile women, increasing the value according to age. There is a pattern of father's behavior, in relation to these women, based on previous relationships from which they have other children.

The K-means Cluster Analysis, identified the variable "age" with a higher explanatory value for the definition of clusters. Thus, taking into account the percentages in Table 4, the most evident conclusion is the more rejuvenated demographic profile of the Cape Verdean fertile population. The age structure of this population follows the pattern of immigrant populations with strong weight of individuals of working age. Analyzing the percentages related to Portuguese women (Types 4, 5 and 6) the late calendar is significant, especially with the weight of women over 30 years.

Through a Multiple Correspondence Analysis (MCA), these fertility profiles were related to socioeconomic indicators “mother’s education level”, “employment *status*” and “occupation” from which resulted the following figure (Figure 5).

**Please Insert Figure 5**

The "discrimination measures" points to a strong explanation of the four variables from the main plane (axis 1 / axis 2), with particular weight/relevance for the education level. The education background and the access to information associated with it, seems to be prominent in the relations established between social profiles and fertility behaviors, as can be seen in the figure that results from this analysis (Figure 6).

Figure 6 shows the above-identified groups highlighting for each one the most statistically significant values of the conjugal, birthcare conditions, education and occupation indicators.

**Please Insert Figure 6**

Younger women with early fertility calendars, still with few children, in cohabitation, excluded from the labor market and with intermediate levels of schooling, do not distinguish between nationality. It seems to be a generational rather than a cultural issue.

Among the oldest and with more children we can distinguish the Cape Verdeans from Portuguese mothers. Cape Verdeans have low levels of education, low-skilled professions and are also differentiated by the conditions of care in childbirth: the majority are assisted by nurses. Conversely, Portuguese women have high levels of education and qualifications and are, mostly, assisted by doctors.

Women in intermediate categories, age and fertility levels, present distinct profiles. Cape Verdean mothers have at most secondary education, are in elementary occupations and, in terms of childbirth care, are divided between doctors and midwives.

The Portuguese women are at the top of the social structure pyramid, are mostly married and are assisted by doctors.

## **Discussion and Conclusion**

The study presented fits into a fertility context that can be approached considering the Second Demographic Transition. The postponement of motherhood in Portugal did not follow the start of fertility decline, but the calendar adjustment, afterwards, contributed to reinforce the fertility levels. So, the Total Fertility Rate has been decreasing since the 1970s, and stabilized in the early 1980s. In 1982, it was no longer possible to

ensure the replacement of generations and TFR assumed a value of less than 2,1 children per woman. In the 1990s, there was a progressive delay in the fertility calendar (resulting mainly from the postponement of the second child), a trend that characterized the following decades and was reinforced in the context of the economic crisis prevailing in recent years. Thus, the combination of *tempo* and *quantum* results seems to illustrate the preference or, above that, the adjustments of expectations to a more restricted number of children.

The introduction of the ethnic factor brings some variants to the fertility evolution in Portugal, but also shows the incorporation of values that determine the fertile behaviors of the migrant population.

The main differences in the patterns present among the fertile female population of Portuguese and Cape Verdean residents in Portugal are clearly focused on the calendar results but also on the TFR.

In the case of Portuguese women, the existence of late maternity calendars is shown, associated not only with the progressive education of women and the feminization of the labor market, but also with gender identity revaluation, pointing to the existence of Malthusian behavior from the couples (Bandeira 2004; Malthus 2015[1798]). On the other hand, safer diagnostics are reducing the risk of later childbirth, also contributing to the above-mentioned trend.

The motivations for female migration from Cape Verde to Portugal are economic in nature, family reunification and for the youngest, school education (Grassi 2006; Daley 1996). These motivations contribute to younger average age of mothers.

The identified overrepresentation lies precisely in the age groups corresponding to the fertile period, which suggests that the decision to emigrate is accompanied by family and fertility projects, whose impact is stronger with the increase in female population (Toulemon, 2004). Furthermore, as Sobotka (2008) also observed in his study about the impact of migration in the results of fertility in European regions, Cape Verdean female population presents longer periods of fertility, which results from an earlier start in the reproductive career.

On the other hand, different authors (Toulemon, 2004; Sobotka, 2008; Dubuc's, 2009) also identified the tendency of the migrant population to incorporate the patterns of fertility of the host population, depending on the length of stay in the host country.

In this sense, the youth of the most represented age groups can act as a catalyst factor towards the incorporation of the social values and standards of the host country. So, starting from the different fertility standards of the origin and host countries, which are anchored in specific and distinct cultural reasons, the

question addressed was in what manner the migration context shaped the fertility patterns of the Cape Verdean female population to the Portuguese reality.

The analysis has shown an approximation in the TFR values for women of both nationalities, which still remains higher for the Cape Verdean population. Despite the approximation of the fertility *quantum*, Cape Verdean women reveal earlier average ages at first birth, which may indicate expectations of more children, although not realized. In this sense, the distance between desired fertility and actual (IFF 2013) appears to be greater within the Cape Verdean population versus the Portuguese population.

From a second demographic transition perspective (Van de Kaa 2002; Lesthaeghe 2010), the Portuguese population seems to have already covered the two main steps in changing fertility standards (reduction of *quantum* and *tempo* postponement). However, the Cape Verdean population living in Portugal is still in the process.

The demographic effect of the fertility patterns seems to be based on criteria that go beyond that aspect of the analysis, particularly of a social nature, which the residence in the same country does not clearly neutralize (McQuillan 2004). This does not mean that the fertility model of the immigrant population is not affected by demographic patterns of the countries where the Cape Verdean diaspora is present and, more than that, that it is not affected by trends generated by post-modernity. Identities are dynamic and are molded to contexts of variable geometries that fit individuals, groups, societies, nations (Coleman and Dubuc 2010).

From the analysis of social fertility profiles arises a close link between social and economic power and the decision to expand the family. There seems to be a need for good economic and professional stability in the case of Portuguese women, aspects that are not crucial to the Cape Verdean women decision to have children. In this population, the decision to have children has criteria other than the indispensable and essential condition of economic resources and professional career. This other criteria are anchored in a culture where the concept of extended family and traditional family values are strongly structuring of identity and remain over time (Coleman and Dubuc 2010; McQuillan 2004; Reed 2015).

Nationality has been shown as a distinguishing element of the social profiles of the fertile population. It is also known that the birthcare characteristics of the resident population in Portugal differs according to social belonging (Pintassilgo 2014). The social profiles influence in birthcare conditions is reinforced with the introduction of a nationality factor.

With regard to the birthcare context in which births occur, social class (education level, employment *status* and occupation) seems to explain some distinctions (Moser et al. 2008; Pintassilgo 2014). Indeed, birthcare provided by medical professionals is clearly more frequent for the population with more educational and professional resources. On the contrary, women in unskilled occupations and without formal education are the least attended by doctors.

Combining the social class and the ethnic effects, ethnicity gains primacy. For the Cape Verdean women, the attendance at birth does not vary according to class, in contrast to Portuguese women. Whatever the resources, they are assisted either by doctors or nurses.

The cultural references - that influence concepts of health and disease, relationship with the body, pregnancy and birth - are not absent from the differences between African and Portuguese women. Indeed, "in minority groups where traditional medicine has a strong influence in treatment and cure, health behaviors adopted often depend on the norms and values of their membership group" (Conceição 2001, cited in Martins 2008:9). Thus, cultural factors seem to influence the shape and the frequency with which this group uses the National Health System (SNS), and it can act as a barrier that differentiates attitudes, behavior and perception of health among the Portuguese population and the African (Martins 2008).

The differential features that determine distinct fertility patterns in terms of *tempo* and *quantum* also influence the fertility and birth experiences. A higher social position will be decisive in the choice of more "controlled" births under medical supervision that reflect further birthcare specificities, in particular, the institutional nature of the birthplace and the characteristics of the birth itself. Differences in the length of pregnancy, which are more 'normalized' in the Portuguese case, can be an indicator of this specificity.

The combination of a shorter and more homogeneous pregnancy of the Portuguese nationality population suggests a greater control of pregnancy and childbirth and their respective calendars.

Comparing a group of European women with African women implies differences in what the family represents, the family structure and hence conjugal forms. The extended family dominates the Cape Verdean culture, whereas the nuclear family is predominant in European cultures.

When assessing the influence of marital and family structures on the decision to have children it is found that, despite the decrease in marriage frequency, it still stands out as a reference institution for fertility behaviors, with variations related to socio-cultural contexts (Almeida et al. 2002). Accordingly, the conjugality behaviors are connected to the decision to have children, the fertility results, plus the family structures in which the births occur.



Fertile Portuguese women reveal to have stable family structures: long-term marriage; existence of previous children common to the couple; parenting formalized by marriage. On the contrary, Cape Verdean women reveal a prevalence of single-parent families or informal cohabitation with the spouse; existence of previous children by only the mother or by only the father; fewer children common to the couple; shorter length of marriage.

The relation between conjugality and class position demonstrate that women with the highest education levels tend to choose a more conventional frame of union. On the contrary, women with lower education live, predominantly, in non-marital partnership, that is to say, non-formal ties.

Another class indicator correlated with education level – the mother's occupation – was explored. It was verified that the higher the occupation levels, the greater the occurrence of formally married women. On the other hand, those with non-formal marital ties are in lower skilled occupations.

Conversely, when observing only the Cape Verdean women, the relationship between social class and marital *status* ceases to exist. Being married or living in a non-marital partnership is independent of education level and occupation.

Thus, some identity traits of a Cape Verdean culture can be highlighted. Male domination (Bourdieu 1998) strongly structures the social relations, affecting the family structures and defining the gender roles.

The history of Cape Verde, in particular the process of settlement and miscegenation that crossed European white men with local women, slave or free, done with the Church covenant, still explains current conjugality behaviors. It is very common for Cape Verdean men to have children with different women and then leave the children under the mother's care. On the other hand, concubinage, a prevailing practice in the early establishment of the Cape Verdean society, leaves a likely indelible trace, that also structures the current family models and decisions (Saint-Maurice 1997).

This work embodies a first foray into the fertile ground of fertility, disregarding the obvious pleonasm, rich in theoretical and empirical questions that come forward in the disciplinary intersection of Sociology - in particular the Sociology of Birth and Sociology of Culture - with Demography. At this intersection, different dimensions that strongly structure the social reality under study, such as ethnicity and social class, embrace themselves. Cultural heritage and ethnicity are summoned to scrutinize the marital and family structures where the births occur, as well as the educational and socioeconomic capital to detect distinct fertility behavior.

This quantitative analysis identified the importance of the culture of origin in the decisions of fertility. The culture is presented simultaneously as a resistance factor, as well as assimilation to host country standards. The references of origin and host countries define choices, decisions, and experiences. It is now important to develop a research in a qualitative methodological perspective, in order to: i) understand the complexity present in each of the analytical dimensions that make up the family and its representation; ii) understand the idealization of fertility patterns that arise from the social representations of family and motherhood; iii) capture the (re)definition of identity and gender from the birth and motherhood experiences, among other issues.

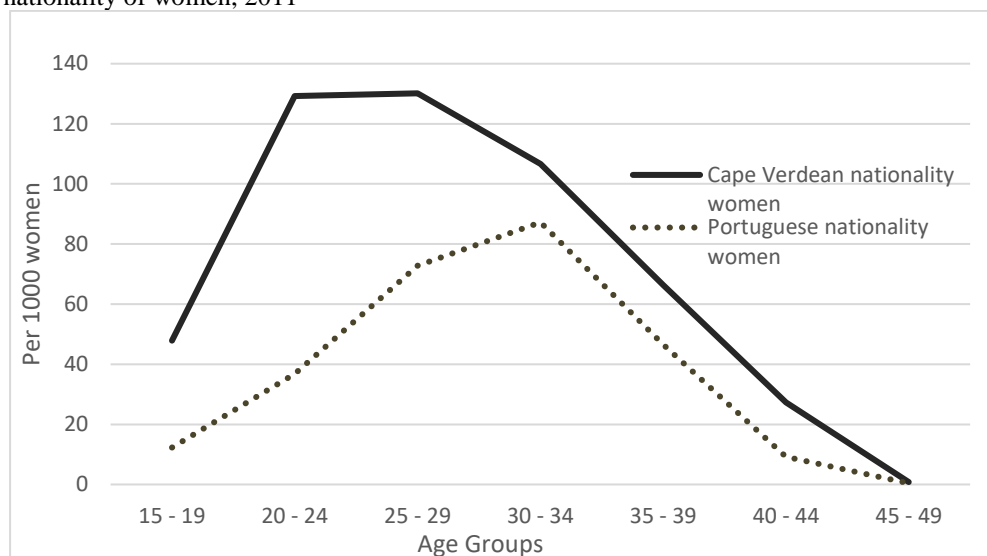
## References

- Almeida, A.N., André, I., & Lalanda, P. (2002). Novos padrões e outros cenários para fecundidade em Portugal. *Análise Social*, 163, 371-409.
- Almeida, A.N., Vilar, D., André, I., & Lalanda, P. (2004). *Fecundidade e contraceção - percursos de saúde reprodutiva das mulheres portuguesas*. Lisboa: Instituto de Ciências Sociais.
- Bandeira, M.L. (1996). *Demografia e Modernidade. Família e Transição Demográfica em Portugal*. Lisboa: Imprensa Nacional Casa da Moeda.
- Bandeira, M.L. (2004). *Demografia: Objecto, teoria e métodos*. Lisboa: Escolar Editora.
- Bandeira, M.L. (coord.) (2014) *Dinâmicas demográficas e envelhecimento da população portuguesa (1950-2011): evolução e perspectivas*. Lisboa: Fundação Francisco Manuel dos Santos.
- Bourdieu, P. (1998). *La Domination Masculine*. Paris: Éditions du Seuil.
- Challinor, E. (2010). *Maternidade e Identidade em Contexto de Imigração*. Working Paper 6. Lisboa: Centro em Rede de Investigação em Antropologia.
- Child Trends Databank (2015). Fertility and birth rates. <http://www.childtrends.org/?indicators=fertility-and-birth-rates>. Accessed 25 July 2016.
- Coleman, D.A., & Dubuc, S. (2010). The fertility of ethnic minorities in the UK, 1960s-2006. *Population Studies*, iFirst Article, 1-23.
- Conceição, A. (2001). *Acesso das Grávidas aos Cuidados de Saúde. O caso das mulheres oriundas dos PALOP's e das mulheres portuguesas no Concelho de Águeda*. Master's Thesis in Management and Economy of Health. Coimbra: Faculty of Economics, Coimbra University.
- Cunha, V. (2005). A Fecundidade das Famílias, in Wall, K. (ed.) *Famílias em Portugal - Percursos, Interações, Redes Sociais*. (pp. 395-464). Lisboa: Imprensa de Ciências Sociais.
- Daley, P. (1996). 'Black-Africans: students who stayed'. *Ethnicity in the 1991 Census. Volume 2 the ethnicity minority population of Great Britain*. (pp. 44-65). London: C. Peach, HMSO 2.
- Dubuc, S. (2009). Fertility by ethnic and religious groups in UK, trends in a multi-cultural context. *IUSSP International Population Conference*. Marrakech.
- Eurostat (2016). Fertility Indicators, Total Fertility Rate, Database on Population and Social Conditions. <http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do>. Accessed 27 July 2016.
- Grassi, M. (2006). *Cabo Verde pelo Mundo: o Género e a Diáspora Cabo-Verdiana*. Lisboa.
- INE (2013). *Inquérito à Fecundidade*. Lisboa: Instituto Nacional de Estatística (INE), Fundação Francisco Manuel dos Santos (FFMS).
- Kulu, H. (2005). Migration and Fertility: Competing Hypotheses Re-examined. *European Journal of Population*, 21, 51-87.
- Lanzieri, G. (2013). Towards a 'baby recession' in Europe? Differential fertility trends during the economic crisis, *Statistics in focus*, 13/2013. Eurostat.
- Lesthaeghe, R. (2010). The unfolding story of the second demographic transition. *Population and Development Review*, 36, 211-251.
- Machado, M., Santana P., Carreiro H., et al. (2007). Cuidados de saúde materna e infantil a uma população de imigrantes. *Revista Migrações*, 1, 103-127.
- McQuillan, K. (2004). When does religion influence fertility? *Population and Development Review*, 30(1), 25-26.

- Malthus, T. (2015) [1798]. *An Essay on the Principle of Population and Other Writings*. London: Penguin Books.
- Martins, A. (2008). *Crenças de Saúde em Minorias Étnicas: a gravidez em Mulheres Africanas em Portugal*. Master's Thesis in Social Psychology of Organizations. Lisboa: ISCTE-IUL.
- McDonald, P., (2000). Gender Equity, Social Institutions and the Future of Fertility. *Journal of Population Research*, 17(1), 1-16.
- Mendes, M.F. (2012). Declínio da Fecundidade, adiamento e número ideal de filhos em Portugal: o papel das medidas de política. *Roteiros do Futuro – Conferência 'Nascer em Portugal'* (91-109). Lisboa: Imprensa Nacional da Casa da Moeda.
- Moser, K., Stanfield, K.M., & Leon, D.A. (2008). Birthweight and gestational age by ethnic group, England and Wales 2005: introducing new data on births, *Health Statistics Quarterly*, 39, 22-32.
- Newman, L.A., J. Hugo, G., (2006). Women's Fertility, Religion and Education in a Low-fertility Population: evidence from South Australia. *Journal of Population Research*, 23(1), 41-66.
- OECD, European Union, UNESCO Institute for Statistics (2015). *ISCED 2011 Operational Manual: Guidelines for Classifying National Education Programmes and Related Qualifications*. OECD Publishing.
- [Http://dx.doi.org/10.1787/9789264228368-en](http://dx.doi.org/10.1787/9789264228368-en). Accessed 27 July 2016.
- Pintassilgo, S. (2014). *O Risco e as Condições Sociais e Assistenciais da Maternidade em Portugal*. PhD Thesis in Sociology. Lisboa: ISCTE-IUL.
- Preston, S.H., Heuveline, P. & Guillot, M. (2001). *Demography: Measuring and Modeling Population Processes*. Oxford: Blackwell.
- Reed, C. (2015). UNO Study: Fertility Rate Gap between Races, Ethnicities is Shrinking. *News*, University of Nebraska.
- Saint-Maurice, A. (1997). *Identidades reconstruídas: cabo-verdianos em Portugal*. Oeiras: Celta Editora.
- Sobotka, T. (2008). The rising importance of migrants for childbearing in Europe, *Demographic Research*, Special Collection 7, Vol. 19, Article 9, 225-248.
- Toulemon, L. (2004). Fertility among immigrant women: new data, a new approach, *Populations and Societies*, 400, 1-4.
- Van de Kaa, D.J. (2002). The idea of a Second Demographic Transition in industrialized countries, *Sixth Welfare Policy Seminar of the National Institute of Population and Social Security*. Tokyo, Japan, January 29.
- Yu. P. (2007). Births, Debts and Mirages: the impact of the higher education contribution scheme (HECS) and other factors on Australian fertility expectations. *Journal of Population Research*, 24(1), 73-90.

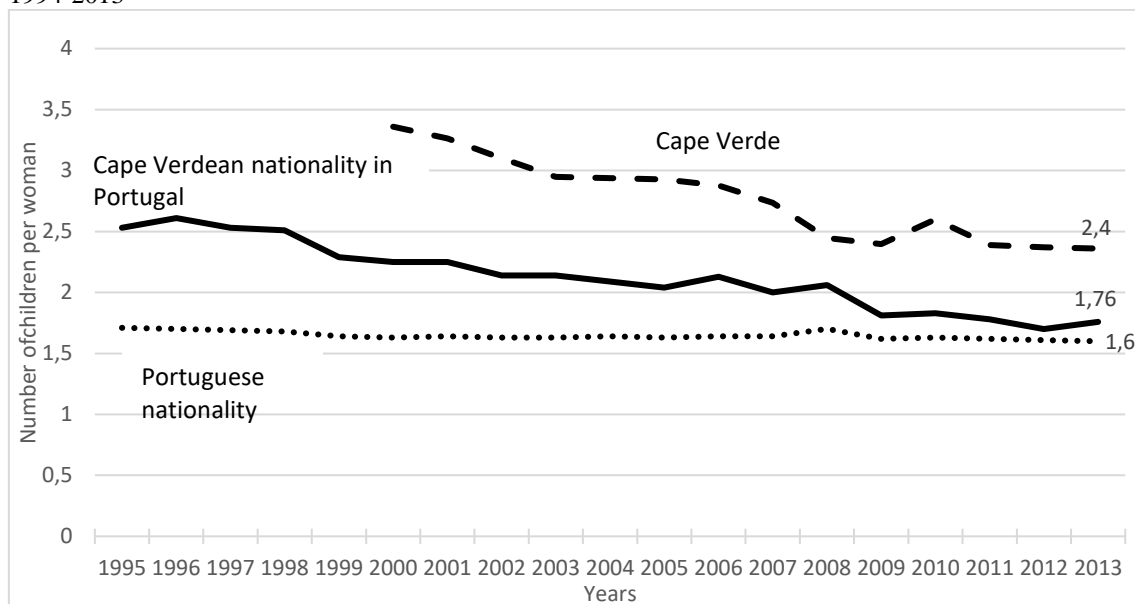
## Tables and Figures

Fig1. Age Specific Fertility Rates (ASFR) (%) in Portugal, by Cape Verdean and Portuguese nationality of women, 2011



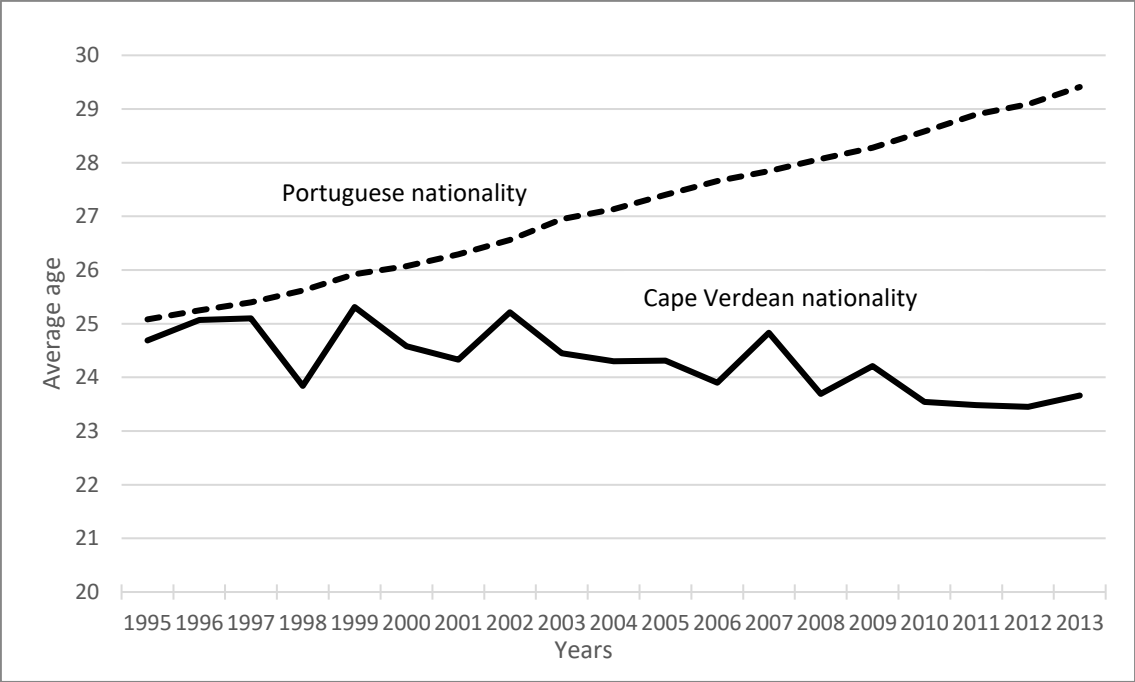
Source: General Population Census 2011 (own calculations); INE, database of live births in 2011 (own calculations)

Fig2. Total Fertility Rate in Portugal (by Cape Verdean and Portuguese nationality) and in Cape Verde, 1994-2013



Source: INE, database of live births, 1995-2013 (own calculations), Cape Verde INE, Demographic Statistics, 2000-2013

Fig3. Average age of mothers at first birth in Portugal, by Cape Verdean and Portuguese nationality of the mother, 1995-2013



Source: INE, database of live births, 1995-2013 (own calculations)

Table 1. Socioeconomic background of mothers by nationality (Cape Verdean and Portuguese), Portugal, 2013

	Cape Verdean	Portuguese
<i>Fertility indicators (mean)</i>	N = 949	N = 75610
Mother's age	26.37	30.84
Joint previous live births	0.31	0.45
Mother's previous live births	0.43	0.13
Father's previous live births	0.61	0.15
Live birth order	1.76	1.60
<i>Occupational categories* (%)</i>		
Armed forces	0.4	0.6
Managers	1.1	3.5
Professionals	2.5	30.9
Technicians and associate professionals	1.7	8.7
Clerical support staff	10.5	22.2
Service and sales workers	26.3	19.9
Skilled agricultural, forestry and fishery workers	0.6	0.9
Craft and related trade workers	3.2	5.1
Plant and machine operators and assemblers	0.2	1.6
Elementary occupations	53.5	6.6
<i>Education Level (ISCED) (%)</i>		
Until Level 1 – Primary Education	9.8	3.6
Level 2 – Lower Education	18.6	8.7
Level 3 – Upper Education	30.6	19.4
Level 4 – Post Secondary non-tertiary Education	34.4	29.5
Tertiary Education	6.6	38.8
<i>Marital Status (%)</i>		
Married	11.1	53.0
Not married with cohabitation	44.8	32.6
Not married or cohabiting	44.2	14.4

\* International Labour Organization ISO-8 categories.

Table 2. Sociographic profile of the fertile female population of Cape Verdean and Portuguese nationalities, 2013

Cape Verdean	Portuguese
- Low employment rate	- High employment rate
-Elementary occupations; service and sales workers	- Professionals; clerical support staff; service and sales workers
- Basic and post secondary non-tertiary education	- Higher and secondary education

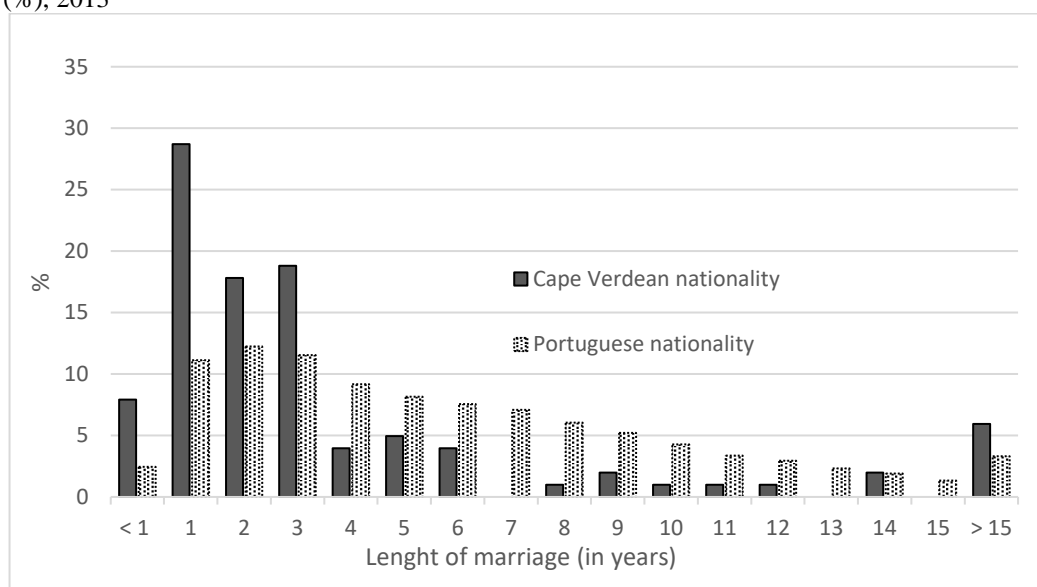
Source: INE, database of live births in 2013 (own calculations)

Table 3. Birth characteristics of mothers by nationality (Cape Verdean and Portuguese), Portugal, 2013

	Cape Verdean		Portuguese	
<i>Birth attendant (%)</i>	Doctor	Nurse midwife or other	Doctor	Nurse midwife or other
Total	53.5	46.5	70.5	29.5
<i>Birth attendant by Occupational categories (%)</i>	N = 475		N = 57383	
Armed forces	50.0	50.0	77.9	22.1
Managers	60.0	40.0	78.4	21.6
Professionals	41.7	58.3	79.1	20.9
Technicians and associate professionals	62.5	37.5	78.9	21.1
Clerical support staff	64.0	36.0	71	29
Service and sales workers	52.8	47.2	64.4	35.6
Skilled agricultural, forestry and fishery workers				
Craft and related trade workers	36.8	63.2	68.8	31.2
Plant and machine operators and assemblers				
Elementary occupations	60.4	39.2	60.7	39.3
<i>Education Level (ISCED) (%)</i>	N = 925		N = 73138	
Until Level 1 – Primary Education	57.1	42.9	57.4	42.6
Level 2 – Lower Education	49.4	50.6	59.4	40.6
Level 3 – Upper Education	52.7	47.3	63.1	36.9
Level 4 – Post Secondary non-tertiary Education	53.1	46.9	68.5	31.5
Tertiary Education	55.7	44.3	78.2	21.8

Source: INE, database of live births in 2013 (own calculations)

Fig4. Live births within marriage, according to length of marriage of the parents, by mother's nationality (%), 2013



Source: INE, database of live births in 2013 (own calculations)

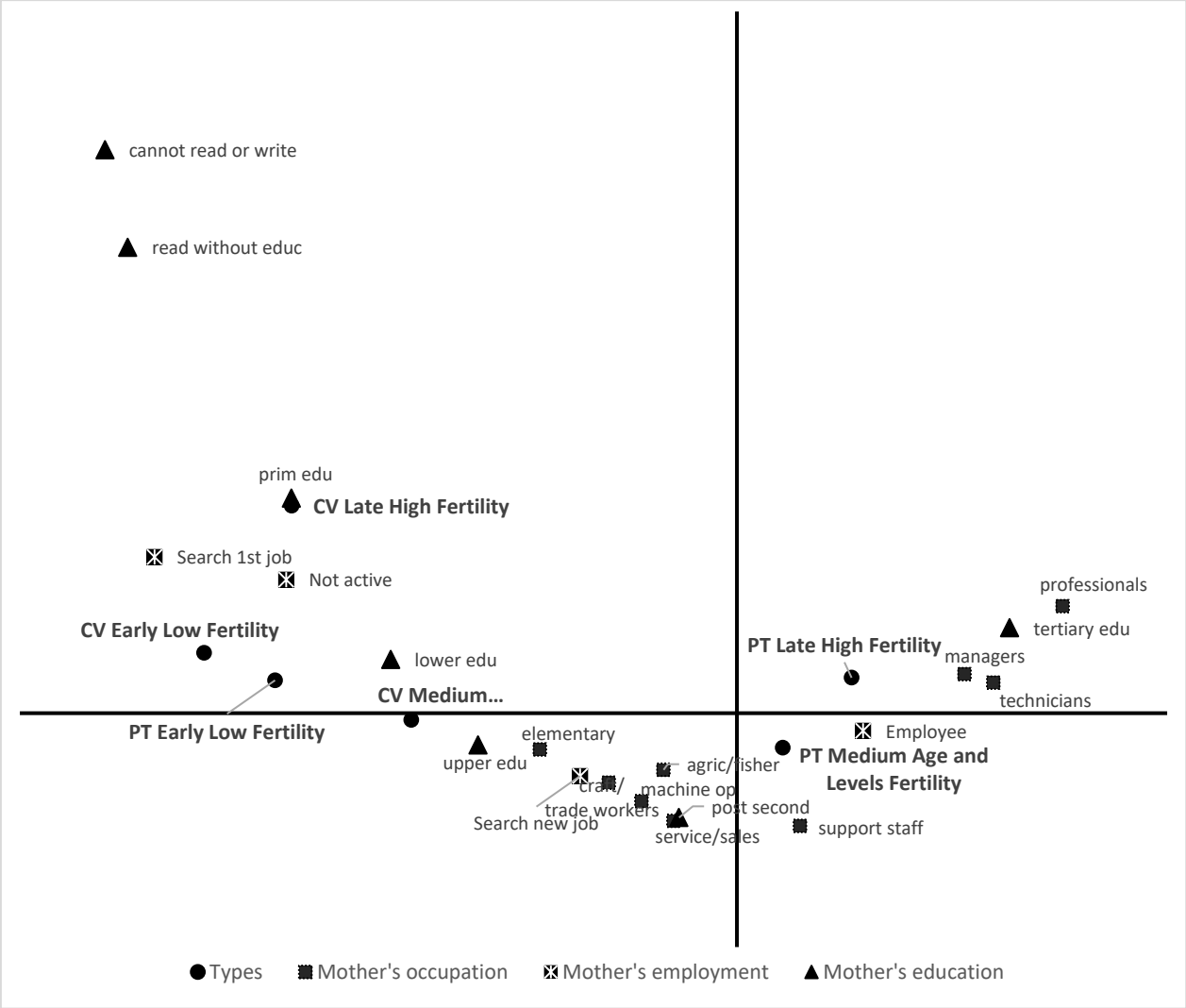
Table 4. Sociodemographic characteristics of the types, Portugal, 2013

Types	%	Mother's age	Joint previous live births	Mother's previous live births	Fathers's previous live births	Live birth order
1 – Cape Verdean / young / early fertility / low fertility levels	54,0	21,97	0,11	0,15	0,45	0,25
2 – Cape Verdean / middle age / intermediate fertility calendars / intermediate fertility levels	33,4	28,63	0,36	0,56	0,67	0,93
3 – Cape Verdean / high age / late fertility / high fertility levels	12,6	37,5	1,09	1,23	1,02	2,33
4 – Portuguese / young / early fertility / low fertility levels	18,2	21,92	0,22	0,08	0,15	0,31
5 – Portuguese / middle age / intermediate fertility calendars / intermediate fertility levels	42,5	29,37	0,36	0,11	0,12	0,46
6 – Portuguese / high age / late fertility / high fertility levels	39,3	36,04	0,65	0,20	0,18	0,85

Source: INE, database of live births in 2013 (own calculations)



Fig5. Social characteristics and fertility profiles according to nationality



Source: INE, database of live births in 2013 (own calculations)

Fig6. Socio-family and birthcare characterization of the fertile Cape Verdean and Portuguese population profiles in Portugal, 2013

