LABOUR MARKETS, FAMILY, AND SOCIAL INSURANCE: GENDER DIFFERENCES IN RETIREMENT IN CHILE AND URUGUAY[1]

Andrés Biehl – atbiehl@uc.cl

Andrea Canales – acanales@uc.cl

Viviana Salinas – vmsalina@uc.cl

Guillermo Wormald – gwormald@uc.cl

Department of Sociology, Pontificia Universidad Católica. Avenida Vicuña Mackenna 4860, Casilla 306, Correo 22, Macul, Santiago, Chile.

Abstract: This study uses the Longitudinal Social Protection Survey (LSPS) to compare retirement in Chile and Uruguay, and focuses on current people legally entitled to retire, particularly women. We analyse how labour market and family resources shape insurance by investigating the likelihood of retirement after reaching the legal age of retirement. Our main findings support labour market explanations of gender differences in retirement. Work experience, human capital, and contribution densities largely explain the chances of

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retirement among women. Further analysis reveal that they are both less likely than men to retire and to work in old age, limiting their economic autonomy.

Economic autonomy in old age: the role of family, labour markets, and gender on Latin American Pension Systems

An ageing population, underfunded pension systems, changing roles for women and an expanding but vulnerable middle class make for a daunting combination. This is precisely the scenario that is brewing across several Latin American countries (CEPAL 2017, 2018; OECD/IDB/The World Bank 2014). These transformations are affecting what many Latin American pension systems took for granted in the past, namely that low pensions and restricted inclusion into pension schemes could be compensated by the traditional role that women performed in providing care for old and young within families. In this article, we compare gender differences in retirement in two Latin American countries that are rapidly going through these wider social transformations, Chile and Uruguay.

We focus on economic autonomy in old age, the idea that the elderly should have access to independent means to sustain themselves in old age without having to recur to partners' and market incomes. In Latin America, women are less likely to conform to this modern assumption of economic autonomy given restricted access to formal work and social security throughout the life-course (Melguizo, Bosch, & Pages 2015; Madero-Cabib et al 2018). In examining gender differences we investigate mechanisms that relate to the accumulation of family and labour market resources to face old age.

To that end, this article is organised in six sections. First, we quickly go through the emerging challenges for pension systems in Latin America and what they are likely to mean for the economic autonomy of the elderly. Second, we describe the case selection in light of the main theories explaining gender differences in old age and set up the research questions

and hypotheses. Third, we present the data from the Longitudinal Social Protection Survey (LSPS) that allow us to answer our research questions along with the analytical strategy that guides this study. Fourth, we begin by studying the retirement situation for individuals that reach the legal retirement age. Women are less likely than men to retire. We go deeper into gender differences by testing labour market and family explanations of the likelihood of retirement. Labour market explanations with regards to the accumulation of human capital and insurance, largely explain gender differences. Due to data restrictions, that require longitudinal information to measure the accumulation of family resources, we are unable to provide a complete gendered life course explanation of current disadvantages faced by women entitled to retire in Chile and Uruguay. Sixth, we wrap up these findings and discuss them in relation to social security in Chile and Uruguay, together with additional analysis on the likelihood of work after reaching the legal age of retirement. A seventh section concludes and provides the key takeaways from this study.

Emerging challenges for pension systems in Latin America

Today's relatively few retirees in Latin America benefit, to some extent, from a mix of a high support ratio, the number of active workers per retiree, a traditional structure of family care and some assistance from social security institutions (CEPAL 2018; Blofield & Martínes Franzoni 2015). However, pension systems are facing four distinct challenges that could undermine their already strained financial sustainability and generosity in the future. (1) New demographic context: the demographic profile of Latin American societies has changed dramatically over the past 50 years. As fertility rates fell and life expectancy increased, populations have grown older across the region. Longer life expectancy means that future retirees will live longer, demanding more benefits from the pension system

while contributing less. The population aged 65 or over is expected to grow from roughly 48 million today to over 151 million by 2050; that is close to 25 per cent of its projected population and equivalent to current levels in the oldest countries in Europe (UN 2017).

(2) New institutional context: current pension systems are characterised by low density – years of contribution relative to years of work – particularly affecting younger workers and women, and coverage – the amount of workers entitled to a pension (CEPAL 2017, 2018; Melguizo, Bosch, & Pages 2015; OECD/IDB/The World Bank 2014). Accordingly, retirees' pensions will be a low fraction of their wages (a low replacement rate) and will not include all the elderly (except in countries with minimum non-contributory pensions). Systems are complex given competition between private and public providers and legacies of past reforms (Melguizo, Bosch, & Pages 2015).

(3) New family and gender context: families are getting smaller, single-parent families are on the rise and women continue their rapid incorporation into the labour market. These changes are empowering women and improving their contribution density, potentially enhancing autonomous access to social security in old age. But these changes are also affecting the capacity of families to take care of the old, the default option of care in many Latin American countries (Provoste 2013; Blofield & Martínez Franzoni 2015; CEPAL 2018). Women informal careers, co-residency, and transitions between formal and informal employment among partners remain essential strategies of support (OECD/IDB/The World Bank 2014).

(4) New social context: in the last 20 years, Latin America witnessed the fast emergence of a vulnerable middle class that is weakly included in the benefits of growth and security (OECD/IDB/The World Bank 2014; Torche & Lopez-Calva 2012). Although access and generosity vary across the region, in general the poor receive targeted benefits and the rich

enjoy a variety of financial and economic resources to finance old age, leaving emergent middle classes neither protected by the state nor the market, and vulnerable to uncertainty (Ocampo & Gómez-Arteaga 2017).

The dynamics of population ageing and underfunded pension systems have struck Latin American countries in a unique way. Reforms in the 1980s and 1990s sought to compensate for fragile public systems by introducing private providers of insurance and individualising risk (Haggard & Kaufman, 2008; Melguizo, Bosch, & Pages, 2015). Yet, as labour markets remained largely informal, marked by low wages and an itinerant workforce, these reforms fell short of their goals. Latin America has inadequate private and public tools to institutionally address the challenges of an ageing population under new labour market, family, and institutional scenarios.

This new setting is particularly important for the economic autonomy of women when reaching retirement age. Women comprise the majority of the Latin American elderly but their formal and long-term incorporation in the labour market is more recent. Hence, they often depend on market income and partners' social security. In return, they often perform most domestic chores including the care of both old and young household members (CEPAL 2018). In order to understand gender differences, then, we need to delve into labour market and family explanations of retirement.

Economic autonomy in old age: the role of labour markets and families

Guaranteeing the economic autonomy of women in retirement is a growing challenge for Latin American pension systems. Women access to independent sources of income in old age are limited by weaker access to labour markets that reduce their participation in contributory pension schemes, and a traditional role of care provision

within their households (CEPAL 2018). This gives rise to gender differences in the likelihood of retiring. But beyond comprehensive descriptive information provided chiefly by international organisations, we know little of the mechanisms producing gender gaps in post-retirement life trajectories.

Using longitudinal datasets that follow the same individuals over time, literature covering post-industrial nations provides at least two alternative explanations for gender differences in retirement (Krüger & Levy 2001; Madero-Cabib & Fasang 2016; Riekhoff & Järnefelt 2017). The first explains the more restricted autonomy of women in old age as a result of a gendered life course. A gendered life course should manifest itself in inequalities in various life dimensions such as work, security, and education. According to this view, women are less likely to remain attached to the labour market as they exit the workforce to give birth, rear children, and provide care. This attachment varies according to pension systems and social security arrangements that can facilitate or restrict the capacity of women to re-enter the labour market. Non-contributory pension systems, for instance, might strengthen the attachment to the labour market without compromising future welfare given that workers do not need to contribute towards a pension. Alternatively, contributory systems might require women to enter the workforce later in life as a result of income loss or economic necessity as they could not save enough for a pension. This type of explanation relates to family resources accumulated through the life course and current family strategies to provide welfare in old age (see Madero-Cabib & Fasang 2016).

The second stream of explanations relate to the labour market, particularly to stratification dynamics (see Radl 2012). According to this view, several structural and socioeconomic situations explain gender gaps. For instance, attachment to the labour market would be a function of the accumulation of individual resources such as education,

health, and work experience that place men and women in a different footing when facing retirement. This would particularly be the case in systems where access to the labour market determines contribution density and the likelihood of receiving an adequate pension. Inclusion into the labour market would be associated to socioeconomic differences rather than gendered life choices.

As a consequence, the effect of human capital and stratification is not straightforward (Riekhoff & Järnefelt 2017). A good economic position along with skills, education and health could lead to longer working careers that ultimately encourage work after reaching retirement age as a result of strong attachment to the labour market. The elderly are living longer, hence they use the labour market as a source of both material subsistence and meaningful social interactions as they stay active later in life (Graham, 2014). However, economic needs together with lower human capital could also be associated to work after reaching retirement age as a result of market income loss or low savings, particularly in those economic sectors that, at least in more developed nations, incentivise early retirement due loss of dynamism (e.g. agriculture and manufacturing). In one case, work after retirement is a consequence of strong attachment; in the latter case is the result of income compensation.

Naturally, these sets of explanations operate at different scales. The decision to take up retirement is mediated by individual, couple, and household dynamics. In terms of economic autonomy, it also varies according to welfare regime posing new challenges for future policy (see Esping-Andersen 2000, 2009). Welfare states that anchor the provision of security in the state, often allow families to rely on tax-funded pensions and subsidies with autonomy from market mechanisms. On the contrary, systems that rely heavily on the subsidizing of family care, implicitly anchor the production of welfare to the market, as

families need to seek care through private providers (Glucksmann & Lyon 2006). In this context we can justify the case selection and set up our questions and hypotheses.

Why Chile and Uruguay?.

We select Chile and Uruguay following considerations of comparative methods. Both countries are relatively wealthy with a proven record of institutional stability. They have reached similar levels of economic development and of labour market formality (World Bank 2017). Among Latin American countries, they have gone further in the transformations discussed earlier. They are ageing fast and are the oldest countries in the region. Their ratio of population aged above 65 is expected to grow from 10 to 24 per cent, and from 14 to 22 per cent respectively in the next 20 years (UN 2017:246–53). They have the more comprehensive systems of social security in the region (Ocampo & López Arteaga 2017), and over 75 per cent of women in retirement age receive some form of pension (CEPAL 2018). Women have gradually entered the labour market. Female workers as a ratio of the total labour force increased from around 31 to 41 per cent in Chile between 1990 and 2015, in Uruguay from 39 to 45 per cent (World Bank 2017).

However, starting from similar levels of publicly funded social security, Chile and Uruguay have followed different paths to reform. By the 1970s only the most industrialised European countries surpassed Chilean and Uruguayan levels of social spending and coverage (Mesa-Lago 1985). Yet, these systems were underfunded, prone to crises, and excluded a large part of the informal working force and women. These comparable systems began to diverge through reforms in the 1980s and 1990s (Castiglioni 2005). In the early 1980s, Chile overhauled this largely public system by introducing mandatory savings and private pension providers. Only public servants and the armed forces were allowed to stay

in the public system. The system individualised risk by making pensions a function of individual savings and the returns of private fund administrators. After three decades, the inequalities of the system together with old age poverty among those who could not contribute became apparent. In 2009, a non-contributory pillar was introduced. It targeted poverty and focalised support on those who could not contribute (e.g. elderly women, widows, housewives, and poor workers).

In stark contrast, Uruguay was slow to introduce market principles into its pension system. Reforms were attempted in the 1980s but defeated in a referendum. In 1996 a private savings fund was introduced but it was only mandatory for wealthier workers, those earning above US$ 800 per month (Haggard and Kaufmann 2004). Accordingly, its private pillar is among the smallest in the region.

Hence, even if Chile and Uruguay possess the most integral systems of social protection in terms of solidarity, access, and social spending in the region (Ocampo & Gómez-Arteaga, 2017), they face similar challenges but with different emphasis. Given reliance on market mechanisms, the Chilean system has come under scrutiny because low contribution densities and replacement rates, amid recognition of inequality and threats faced by middle classes. The more state-centred Uruguayan shares some of those problems, but the system is under strain given ageing and mounting expenditures. Accordingly, Chile and Uruguay are going through two key discussions (vulnerability and demographic change) that many Latin American countries will soon face. The centrality of state and market also bears on gender differences in retirement, as contributory pension systems, like the Chilean, penalizes informal and short-term working careers, restricting retirement options for women.

Contributors to the Chilean pension system are almost entirely concentrated in mandatory private pension funds. However, 40 per cent of current beneficiaries receive a non-contributory public pension, highlighting social inequalities. Although contributors to private and public pension funds in Uruguay are distributed evenly, beneficiaries are found largely in the public system.

Our empirical strategy controls for country effects, and in consequence, we cannot test for institutional differences to explain gender differences between countries. Yet, the fact that Chilean and Uruguayan welfare regimes are anchored in the market and the state respectively, will allow us to advance a few hypotheses and frame the discussion with regards to gender differences in retirement in each country.

It is worth noting that Latin America has defied traditional categorizations of market-centred or state-centred welfare regimes, given the role that families play in providing insurance (Marcel & Rivera, 2008). A dominant idea is that Latin America resembles welfare regimes found in Southern Mediterranean countries (Ferrera, 2010; Huber & Bogliaccini, 2010). But unlike welfare states that formally support families to provide insurance, Latin American states do little to help families that take care of the old. The role of families is often implicit and invisible. Within families, even in Chile and Uruguay, it is women that take up the brunt of the tasks of care in contexts of low pensions and savings (Palacios, 2017; Provoste, 2013), a system of 'gendered familialism' (Leitner, 2003). This source of gender inequality is largely invisible but is becoming problematic as women enter the labour force and families diminish in size. By studying gender differences in retirement in two of the more generous Latin American social security systems, we can investigate how the provision of care and labour markets affect the chances of economic autonomy among women.

Questions and Hypotheses.

We explore labour market and family are related to gender differences in retirement's probability. What is the likelihood of actual retirement after reaching the legal retirement age in both countries? Are the probabilities of retirement different for men and women? What could explain them?

In general, the likelihood of retirement should improve among those with relatively better contribution densities, family resources, and human capital – particularly among men. We can formalize those ideas in relation to gender differences in retirement.

Family resources

H1: The likelihood of retirement is conditional on having access to autonomous resources. Hence, having a partner, not being head of household and being in charge of family members would decrease the likelihood of retirement among women compared to men. We might find variation between Chile and Uruguay given that Uruguayan women have been entering the workforce more rapidly and because of Uruguayan state centrality in welfare provision. In this regard, marital status, particularly divorce among women will lower the chance of retirement given need to work to compensate for loss of income in old age. Contrarily, women head of households should have higher chances of retirement given their attachment to the labour market and their economic autonomy from partners' incomes.

Labour market stratification

H2: Lower participation in the labour market among women would reduce their chances of retirement compared to men. This means that less working experience should reduce chances of retirement among women, given a more limited contribution history and weaker attachment to labour market.

H3: Lower education attainment among women would diminish their chances of retirement as compared to men. Those with better education are likely to have better contribution histories given greater access to good jobs.

The objective of this study is to understand how individuals are using and are likely to use these different resources in labour markets, institutions and families to provide insurance. The Longitudinal Social Protection Survey (LSPS) opens a window into individual decisions in different Latin American settings, making it possible to fulfil this objective and test our two streams of explanations. We turn next to the data, variables, and analytical strategy.

Data and analytical strategy

Data are taken from the LSPS, a biannual or triennial longitudinal survey carried out in six Latin American countries. It is administered to a nationally representative and randomly selected sample of each country's population and follows a panel in each subsequent wave. These data comprise detailed information about those above 18 years of age living both in urban and rural areas, with regards to socio-demographics, human capital (including contributory history to the pension system), and family/household characteristics, among others.

At present, data for Uruguay is limited to only one wave. Consequently to improve comparisons, we employ cross sectional data from Chile and Uruguay. Specifically, we use the most recent Chilean (2015) and Uruguayan (2013) waves. We linked both waves by including all respondents who had complete data in the administrative records. We restricted our analysis to individuals within the legal retirement age in their countries: Chilean and Uruguayan women and Uruguayan men of 60 plus years of age, and Chilean

men of 65 plus years. As a consequence of this strategy and list wise deletion of missing data, the analytical sample corresponds to 9,655 respondents, from which 6,190 are from Uruguay and 3,465 from Chile.

Our analysis examines one main dependent variable, a dummy for retirement status, that is, if the respondent has retired from the labour market in contrast to other possible statuses (i.e. retiree vs. the rest). In additional analyses, we also investigated whether respondents were occupied and worked after reaching the legal age of retirement. We refer to those analyses in our discussion section. The distinction between receiving a pension (retirement) and remain occupied illuminates two forms of living through old age as a function of the resources accumulated during the life course in pensions and labour markets.

Our main predictors follow family resources and labour markets explanations of gender differences in retirement. To that end, we include socio-demographic, human capital, and family characteristics. In total, we employ three socio-demographic indicators in our analysis: a dummy variable for gender, a categorical variable for the respondent's age, and finally an indicator identifying whether the respondent receives subsidies to check for institutional support. In all models, we include respondent's age as a control variable. In Uruguay age is asked in intervals, and we recoded Chilean age information accordingly to maximize the comparison.

Family resources map into the relationship between family and labour markets, denoting a gendered life course. We include three measures in all models. The first variable is an indicator of the respondent's civil status. This is categorical variable indicating whether the respondent is married, cohabitating, separated/divorced, widow or single. In the models, we employ a binary variable indicating whether the respondent permanently

lives with a partner (married or cohabiting) or not (single, divorcee or widow). The second is a set of variables to know whether the respondent lives in a household with children, whether other dependents also live in the household, and a composite of both (binary for having dependents regardless age). The third identifies whether the respondent is the head of the household (dummy variable). These three indicators are proxies of family resources. We also try the interaction of household characteristics and being female to assess whether women are more likely to provide care within the household.

Labour market explanations refer to the accumulation of economic advantages/disadvantages, attachment to the labour market, and work history. We consider a wide array of human capital predictors which include measures about educational attainment, working experience, and contribution history. Our first human capital indicator is respondent's educational qualification. Education was coded following the International Standard Classification of Education (ISCED) by UNESCO. In particular, we use the 1997 ISECD classification, comprising 6 levels of educational attainment. To investigate the effect of health as a component of human capital, we tried different measures and settled for a dummy of disability as a control in all the models.

The second and third variables measure resources in the labour market. The second, occupational status is a dummy variable indicating whether the respondent is economically active (working or looking for a job) or not. A third variable is the amount of years the respondent was active in the labour market (years worked). A fourth variable corresponds to the density of contributions as a measure of social security accumulated in the labour market through the working life. This indicator is a ratio of years of contribution to the pension system divided by years worked. This allows us to document the accumulation of savings towards a pension throughout the working life. Given restrictions in the data,

contribution density is computed yearly for Uruguay (years contributed divided by years worked) and monthly for Chile (months contributed divided by months worked). We included contribution density as an interval variable in terms of its quantile distribution.

Descriptive information.

Table 1 provides descriptive information of the variables used throughout the analysis. The legal framework for retirement varies in both countries: women and men in Uruguay can retire after reaching 60 years of age just like their female counterparts in Chile, but Chilean men have to wait until 65. Hence, the samples show more retirees in Uruguay than in Chile despite a very similar age structure.

About 80 per cent of men retire in Chile and Uruguay but only around 60 per cent of women. Puzzlingly, lower retirement for women does not translate or is not compensated by occupation. Over a quarter of men in both countries are occupied in contrast to around 15 per cent of women. Differences are marginally smaller in Uruguay. Hence, gender gaps in both retirement and occupation are prevalent and could be detrimental to the economic autonomy of women. The age structure of the country-samples is similar, although the majority of Chilean men hovers around the 65-69 age group. A well-known fact, that women constitute the majority of the elderly in Latin American countries (CEPAL 2018) is also captured in the data.

Education and family resources could become important individual and social assets to provide welfare in old age. Family and household variables offer some interesting country and gender differences. Men are more likely to be married in both countries in contrast to women, and widowhood is the main status of Uruguayan women. This information might provide clues about family resources such as care or income provided by

a partner. Most of both samples declare to have no dependents and children at home, although this also varies by country and gender. Dependents and children are more present in Chilean households. Women in both countries, particularly Chile, are more likely to declare to have dependents at home, but there are no gender differences in terms of children within each country. Finally, around half Chilean men and women, and Uruguayan women declare to receive some subsidy while most Uruguayan men claim to receive no public benefits.

Some of the more interesting differences are observed in the labour market and human capital variables. Men in both countries, but particularly in Uruguay, exhibit larger contribution densities and years of work experience. The distribution of education seems more comparable although Chileans are more likely to have complete secondary education than Uruguayans.

(TABLE 2 HERE)

Despite these gender differences, we know that women in Chile and Uruguay have access to pensions and subsidies to face old age. Above 75 per cent of women entitled to retire receive some form of contributory or non-contributory pension and subsidy in both countries. Taking women and men above 65 years, and including all subsidies and pensions, the rate is near 90 per cent and the gender gap disappears in both countries, with a slight difference favouring Chilean women (CEPAL 2018: 177). As this study shows however, coverage and access are not enough to guarantee economic autonomy for elderly women, as they are less likely to retire than men.

Analytical strategy.

On the basis of our analytical sample, we investigate how the elderly are living their retirement, focusing on gender differences. In particular, we are interested in assessing how socio-demographics, human capital, and families shape old age. To that end, we assess gender differences in the chances of being retired or not. As seen in the descriptive information, women retire less than men after reaching the legal age to receive a pension.

To address research questions with binary dependent variables, we conduct a series of logit regressions with being retired as the dependent variable. These regressions take the following form:

$$y_i = Bo + sociodemographic_i\ B_1 + human\ capital_i\ B_2 + family\ _i\ B_3 + X_{1i}\ B_4 + \mu_k \qquad (1)$$

The outcome variable y_i is a dummy for being retired or not. The equation includes sociodemographic, labour market, and family variables as the main parameters of interest. Vector Xi contains control variables and, finally, Uk denotes fixed effects for countries. Firstly, we conducted the analyses with country fixed effects and, later we estimated the models for Uruguay and Chile separately. In addition, models include interaction terms between gender and family, and gender and labour market measures. To ease the interpretation of results, we calculate and exhibit marginal effects. To interpret interaction terms, we employ average marginal effects (AME), which are unresponsive to differences in unobserved heteroscedasticity across groups (Hoetker 2007; Mood 2010). AME are presented as discrete differences, corresponding to the expected change in the probability of choosing the outcome associated with a one unit change in the covariate, averaged across all observations in the analytic sample.

After estimating these initial models, we conducted additional analyses of the chances of being occupied and work after retirement. They follow the same method and strategy as the models predicting retirement (y_i is replaced with an indicator for being occupied or not). Given that women have only recently increased their participation in the labour market, and that they are less likely to retire than men, we want to know whether they are forced to work later in their lives. Those findings will allow us to better interpret gender differences in retirement and are evaluated in the discussion.

Gender Differences in Retirement

To understand how the elderly are living 'retirement' we want to know whether they can actually retire or whether they remain active. This information is crucial to formulate hypotheses about the accumulation of family, institutional and labour market resources to face old age and how they shape gender inequalities. In this section we provide a general analysis of the chances of retirement.

Firstly, we conduct logit regression analyses with country fixed effects for the probability of retirement. Then, we estimate the models for each country separately. Both analyses are summarised in tables A1 and A2 of the appendix. These analyses provide a first glimpse into how labour market and family resources shape gender differences in retirement.

Overall, findings reveal that women have lower chances of retirement than men, after taking into account labour market, family and socio-economic factors. Hypotheses regarding the family, mainly marital status and a gendered life course such as having to care for dependents, only receive partial support. We observe that women with dependents and living with a partner have slightly better odds of retirement than their counterparts from

households where there are no dependents or a partner. These two results would lend support to an income compensation argument, i.e. a female household head would have to work to compensate for material needs (being head of household would not mean, in this case, the accumulation of resources during the working life). In contrast, having dependents could be associated to higher chances of retirement precisely as a household strategy whereby women provide care in the household and rely on the income of other members.

Women still have about half the odds of men of retirement when we control for family characteristics. Women's odds of retiring look even grimier when we introduce work experience, education, and contribution history, and interactions between labour market stratification and women (tables A1 and A2). These findings can be refined by looking at country differences. In table A2 we explore how labour markets and family resources shape the chances of retirement for women in Chile and Uruguay. In relation to men, the odds of women in Uruguay are lower than women in Chile. However, labour market explanations again seem better able to explain these differences. Not surprisingly, work is associated with lower chances of retirement (notably among Uruguayan women). Interestingly, women with more work experience in Chile have higher odds of retiring than men. Contrary to expectations, contribution history makes a difference for women in Uruguay, where women in the third and fourth quartiles of the contribution density distribution are around five and four times than men to retire. The effect of contribution density does not make a difference for Chilean women. In Chile, in contrast, contribution history makes a big difference for retirement regardless gender. Interestingly however, education ceases to have an effect on the chances of retirement.

Our analyses also include interactions terms between gender and our main parameters of interest. To better interpret interactions effects between gender and our main

predictors, we estimated marginal effects that are exhibited in tables 2 and 3. Whilst Table 2 reports average marginal effects of gender on the probability of retirement, Table 3 displays marginal effects of family and labour market measures on the probability of retirement for males and females separately. In other words, Table 2 focuses on inter-gender differences, whereas Table 3 focuses on intra-gender differences.

Table 2 reveals that being female constrains family and labour market resources in certain ways that could explain gender differences in retirement. For instance, women have fewer chances of selecting themselves into categories with family and economic advantage. The table illustrates the negative effects of being a woman on the odds of retirement. The main finding from our family hypothesis corresponds to a strong effect of not having a partner or living alone. Being alone, on the chances of retirement, is worse for women than for men, and this is consistent in both countries. In a way, having a partner protects the economic position of women and allows them to retire; the fact that they remain active when not having a partner could be related to a compensation mechanism whereby they need to work in order to access welfare in old age.

Table 2 also suggests that stratification dynamics play a crucial role. The gender gap progressively recedes as individuals accumulate human capital in terms of years of work experience, education, and contribution density. As women stay longer in the labour market, the differences chances of retirement with men are reduced. A woman with university education has practically the same probability of retirement than a man. Although having few contributions is worse for women than men for their chances of retirement, once women accumulate enough contributions they seem to have the same odds of retirement than men (except in Uruguay).

(TABLE 2 HERE)

In table 3 we go through marginal effects from the opposite direction, from family and labour market structures that could define different situations for men and women. These results complement the findings of table 2. Being a household head increases the chances of retirement for both men and women, along with our initial hypothesis, but particularly for men. This result differs between countries, the effect is important for Uruguayan men and although it is positive for Chilean women the magnitude of the effect is negligible. In the same vein, living with a partner increases the chances of retirement among women but punishes the chances of men. Income compensation could be operating here, being particularly problematic for the retirement opportunities of those without a partner. Living with children is harmful for the chances of retirement of both men and women; the two countries seem comparable in this respect. Living with dependents other than children lessens the opportunities of retirement for men.

 (TABLE 3 HERE)

Labour market dynamics deeply shape gender differences in retirement and offer some interesting comparisons between countries. Human capital in terms of years of experience and working status boost women's chances of retirement, whereas lower educational attainment harms their probability of retirement. Work experience improves the chances of retirement among women but not men. In Uruguay the effect is positive for both men and women while Chile is only positive for women. These results lend support to the hypotheses that a longer work career helps individuals to accumulate enough savings and

resources to retire, whereas lower qualifications, a shorter work career, diminish these chances.

A final labour market resource, contribution density, greatly affects the probability of retirement for both women and men. Those with better densities are always more likely to take up retirement when compared with individuals with little contributions in their work trajectory. The effect is strong, being in the highest quantile of the contribution density distribution compared to the lowest quantile, increases the chances of retirement around 20 per cent for both men and women. However, these chances are greatly improved for women in the upper quantiles, adding weight to labour market explanations that stress a smaller gender gap as we improve economic opportunities and the accumulation of resources during periods of activity. In Uruguay, better contributions make a difference only for women, in Chile for both men and women but the gender gap somewhat declines or disappears. In other words, in this setting, the few women that are able to contribute constantly during their working life are on a more equal footing with men in a comparable situation.

Discussion: Current Insurance and Work in Old Age

In the last section, we observed how women are less likely than men to retire. People can work after reaching the legal retirement age for a variety of reasons. Economic advantage could lead to a healthy old age where attachment to the labour market is sought as means for meaningful interactions and vocation (Graham 2014). In contrast, economic disadvantage along with vulnerable late life careers could lead to work as a means to compensate loss of income. It could be feasible then, that given fewer chances of retirement and/or access to adequate pensions, women in Chile and Uruguay would be forced to work

in old age. Are women then more likely to remain in the labour market after reaching retirement age? Is paid work in the labour market a feasible strategy to compensate for fewer chances of retirement? Is this the main strategy for economic autonomy?

As seen in table 2, we know women are less likely to take up paid work after reaching retirement age than men. Analyses of occupation after retirement, in table A3, run parallel and look remarkably similar to those investigating retirement. The models of occupation show an important gender gap. Women are always less likely to work. This concurs with information that suggests that Latin American elderly women take up most of household chores and provide care to their partners as well as young and old dependents (CEPAL 2017, 2018; Palacios 2017). This situation particularly affects Chilean women who are 65% less likely to be occupied compared to men. One possible answer is that the incorporation of women in the labour market has been slower in Chile than Uruguay. As expected, disability hurts the occupational prospects of the elderly, and the effect is again stronger in Chile. In terms of human capital, having less education only reduces the likelihood of occupation for the elderly in Uruguay.

In order to provide some explanation of gender differences in occupation, figures 1 and 2 summarise the probability of occupation after reaching the legal age of retirement by gender and contribution density. As the graphs show, the probabilities of remaining in the labour market are always higher for men, particularly those with better contribution histories. This would support, in a way, the idea that people are remaining in the labour market as they are living longer and develop a strong attachment to work; a status they want to maintain. Indeed, the gender gap in both countries begins to diminish, but does not disappear, as we move up the contribution density distribution. Women with better

densities accumulate enough labour market resources associated with a strong attachment to the labour market in old age.

 (FIGURES 1 AND 2 ABOUT HERE)

A similar story resulted from analysing retirement. Access to labour market and human capital resources improve the chances of both men and women, while women with few resources are both less likely to retire and work, reducing their autonomy. Indeed, the effect of labour market institutional resources strikes as unusual. Those with lower contributions are less likely to be occupied. This could of course relate to elderly that stay at home, cannot work, and have traditionally been inactive (hence they have lower contributions), or perform most of the household chores. Interestingly however, those that are in the first, second and third quantiles of the contribution density distribution are more likely to be occupied than those in the first quantile. Perhaps those in quantiles 2 and 3 need to work because their pensions are insufficient. The effect disappears for the fourth quantile in Chile, suggesting that perhaps those in this group can actually remain outside the labour market. The effects of contribution density are stronger in Uruguay but begin to decrease as contribution history improves. Behind these aggregate patterns, different dynamics or mechanisms might be operating for those with good and bad contribution histories, reflecting a need for active retirement or for material comfort because the paucity of pensions.

The elderly then are confronted with important choices when deciding to retire or to remain/enter the labour market after reaching retirement age. These choices are constrained by demographic, family, labour market, and institutional factors. Women still face

difficulties both to work in the labour market and retire, suggesting fewer resources to live through their old age.

Occupation then, seems to complement or confirm retirement dynamics rather than open up a compensation mechanism. It offers no alternative pathway to economic autonomy in old age given fewer chances of retirement. The previous results lend support to labour market and stratification explanations of gender differences in retirement. Work experience, as a measure of accumulation of labour market resources, has the opposite effect, as expected, to occupation status. This could mean that individuals that cannot retire need to remain in the labour market to sustain themselves and improve their incomes. Although human capital and a longer work career boost both the chances of occupation and retirement in old age, our models ground retirement in the accumulation of contributions, education, and years of experience.

Women encounter steep obstacles to retire, work, and to contribute towards a pension. These dynamics might change in the future given more access to work. Indeed, women with better (i.e. fewer periods of inactivity) employment histories and contribution densities seem to have the same advantages as men and are equally equipped with human capital and savings to face retirement. This holds at least in Chile, but in Uruguay contributions do make a difference for women retirement chances when compared to men's.

The analyses would benefit from detailed information of work history and economic sector. Comparative literature highlights the effect of manufacture and agriculture in promoting earlier retirement (for a good summary, see Riekhoff & Järnefelt 2017). In countries with contributory systems these sectorial dynamics might increase both retirement and work at the same time, given the necessity to compensate for the loss of income.

Results not always conform to expectations and leave many black boxes. The effect of family resources is not easily discernible in this study, since we are employing cross-sectional data. Marriage and cohabitation seems to protect the old from occupation and boost retirement, especially in comparison with singles and widowers.

A second black box is the relationship between contribution densities and retirement in old age. We find that better contribution densities are associated to improved odds of being retired, particularly in the second, third and fourth (in Chile) quantiles of the distribution. Longitudinal analysis might illuminate how the elderly enter, exit, or remain in the labour market under material strains. Mechanisms might be different for those in the upper and lower parts of the contribution density distribution, with individuals with low densities being forced to work given meagre pensions and with individuals with better densities working for personal fulfilment.

Together with the 'black boxes', these results open new questions. Longitudinal and comparative information might suggest pathways to explore the relationship between structural constraints and individual choices further. Data restrictions mean we are unable to flesh out gendered life course and vulnerability of late careers dynamics. Cross-sectional data measure one point in time and we are observing people at the end of their careers. Hence, human capital and labour market information with regards to the accumulation of resources can provide some information to reconstruct working careers, but family indicators do not allow us to examine the production of care by women in the household. Future studies exploiting in full the future waves of the LSPS might investigate these dynamics. Our few results with regards to women and care are still important, but data limitations will not allow us to go deeper into them.

Conclusion

This article uses the LSPS, a novel longitudinal social survey carried out in six Latin American countries, to compare gender differences in retirement in Chile and Uruguay. Given that the whole region is going through important discussions about their pension systems amid demographic and social changes, our analysis centres on two countries that seem further ahead in these debates.

The paper reviews gender differences in retirement through the lenses of family and labour market explanations. Men always have higher odds of retiring than women, and this disadvantage is particularly acute when looking into labour market and stratification explanations. Better chances of retirement for men are not compensated by higher chances of remain occupied among women. Hence, women face steep obstacles to secure autonomous income in old age.

Our main findings support labour market mechanisms that shape the probabilities of retirement for both men and women. Longer working careers, increased education, and a good record of contribution densities allow women to face retirement in a more equal footing than men. In other words, the gender gap begins to recede as individuals accumulate advantages through work, experience, education and pension savings. In contrast, the lack of family resources harms women in a distinct way, reducing their chances of retirement. Only better longitudinal data adding more years of observation will allow us to see how family resources and changing family events shape the chances of retirement for women. This paper looks into cross-sectional data to maximize the country comparison, but as the first waves of the LSPS start to be available, they offer a good prospect for life course analyses tracking the accumulation of advantages and disadvantages within families and labour markets.

References

Blofield, M. & Martínez Franzoni, J. (2015). "Maternalism, Co-Responsibility and Social Equity: A Typology of Work – Family Policies." *Social Politics* 22(1):38–59.

Castiglioni, R. (2005). *The politics of social policy change in Chile and Uruguay: retrenchment versus maintenance, 1973-1998*. New York and London: Routledge.

CEPAL (2017). *Panorama Social de América Latina 2016*. Santiago: Naciones Unidas.

CEPAL (2018). *Panorama Social de América Latina 2017*. Santiago: Naciones Unidas.

Esping-Andersen, G. (2000). The sustainability of welfare states into the twenty-first century. *International Journal of Health Services*, *30*(1), 1–12. http://doi.org/10.2190/H6PN-9R5J-MD9X-P10T

Esping-Andersen, G. (2009). *The Incomplete Revolution: Adapting to Women's New Roles*. Cambridge: Polity Press.

Ferrera, M. (2010). The South European Countries. In S. Leibfried & F. G. Castles (Eds.), *Oxford Handbook of Welfare Regimes* (pp. 616–629). Oxford, England: Oxford University Press. http://doi.org/10.1093/oxfordhb/9780199579396.001.0001

Glucksmann, M. & Lyon, D. (2006). Configurations of Care Work: Paid and Unpaid Elder Care in Italy and the Netherlands. *Sociological Research Online* 11(2):31–49.

Góra, M. (2014). Redesigning pension systems. *IZA World of Labor*, (May), 1–10. http://doi.org/10.15185/izawol.51

Graham, C. (2014). Late-life work and well-being. *IZA World of Labor*, (November), 15185. http://doi.org/10.15185/izawol.107

Haggard, S., & Kaufman, R. R. (2008). *Development, Democracy, and Welfare States: Latin America, East Asia, and Eastern Europe*. Princeton and Oxford: Princeton

University Press.

Hoetker, G. (2007) The use of logit and probit models in strategic management research: Critical issues. *Strategic Management Journal*, 28(4): 331-343

Huber, E., & Bogliaccini, J. (2010). Latin America. In F. G. Castles, S. Leibfried, J. Lewis, & H. Obinger (Eds.), *Oxford Handbook of Welfare Regimes* (pp. 644–655). Oxford: Oxford University Press. http://doi.org/10.1093/oxfordhb/9780199579396.001.0001

Krüger, H. & Levy, R. (2001). Linking Life Courses, Work, and the Family: Theorizing a Not So Visible Nexus between Women and Men. *The Canadian Journal of Sociology* 26(2):145–66.

Leitner, S. (2003). Varieties of familialism: The caring function of the family in comparative perspective. *European Societies*, *5*(4), 353–375. http://doi.org/10.1080/1461669032000127642

Madero-Cabib, I. & Fasang, A. E. (2016). Gendered Work–family Life Courses and Financial Well-Being in Retirement. *Advances in Life Course Research* 27:43–60. http://dx.doi.org/10.1016/j.alcr.2015.11.003

Madero-Cabib, I., Biehl, A., Bertranou, F., Sehnbruch, K., & Calvo, E. (2018). *Pension Regimes with Precarious Labour Foundations: Lessons from a Longitudinal Study in Chile.* Mimeo.

Marcel, M., & Rivera, E. (2008). Regímenes de Bienestar en América Latina. In E. Tironi (Ed.), *Redes, Estado y Mercados: Soportes de la Cohesión Social Latinoamericana*. Santiago, Chile: Uqbar Editores.

Melguizo, A., Bosch, M., & Pages, C. (2015). Better pensions, better jobs: status and alternatives toward universal pension coverage in Latin America and the Caribbean. *Journal of Pension Economics and Finance*, *16*(August 2015), 1–23.

http://doi.org/10.1017/S1474747215000190

Mesa-Lago, C. (1985). "El Desarrollo de La Seguridad Social En América Latina." *Estudios e Informes de la CEPAL*, 43.

Mood, C. (2010) Logistic Regression: Why We Cannot Do What We Think We Can Do, and What We Can Do About It. *European Sociological Review*, Volume 26 (1): 67–82,

Ocampo, J. A., & Gómez-Arteaga, N. (2017). Los sistemas de protección social, la redistribución y el crecimiento en América Latina. *Revista de La Cepal*, *122*, 8–33.

OECD/IDB/The World Bank. (2014). *Pensions at a Glance: Latin America and the Caribbean*. OECD Publishing.

Palacios, J. (2017). *Elderly care in Chile: Policies for and experiences of family caregivers*. Unpublished PhD Dissertation. University of Rennes, Rennes.

Provoste, P. (2013). Protección social y redistribución del cuidado en América Latina y el Caribe: el ancho de las políticas. In C. Calderón (Ed.), *Redistribuir el cuidado: el desafío de las políticas* (pp. 127–170). Santiago, Chile: CEPAL.

Radl, J. (2013). Labour Market Exit and Social Stratification in Western Europe: The Effects of Social Class and Gender on the Timing of Retirement. *European Sociological Review* 29(3):654–68.

Riekhoff, A-J. & Järnefelt, N. (2017). "Gender Differences in Retirement in a Welfare State with High Female Labour Market Participation and Competing Exit Pathways." *European Sociological Review* 33(6):791–807.

Torche, F., & Lopez-Calva, L. F. (2012). Stability and Vulnerability of the Latin American Middle Class. *Working Paper No . 2012 / 98*. Helsinki: UNU-WIDER.

United Nations Department of Economic and Social Affairs. (2017). *World Population*

Prospects 2017 Revision. Volume I (Vol. I). New York: United Nations.

https://esa.un.org/unpd/wpp/Publications/Files/WPP2017_Volume-I_Comprehensive-

Tables.pdf

World Bank. (2017). World Development Indicators. http://data.worldbank.org

TABLES & GRAPHS

Table 1: Descriptive statistics of population aged 60 and above. Source: Own calculations

using LSPS (2013, 2015)

	Uruguay 2013		Chile 2015		Total		
	Men	Women	Men	Women	Men	Women	Total
Dependent Variables							
Retirement							
No	0.21	0.36	0.16	0.39	0.19	0.37	0.3
Yes	0.79	0.64	0.84	0.61	0.81	0.63	0.7
Being occupied							
No							0.81
Yes							0.19
Age							
60 - 64 years old	0.22	0.21	-	0.26	0.14	0.23	0.19
65 - 69 years old	0.24	0.21	0.33	0.24	0.27	0.22	0.24
70 - 74 years old	0.21	0.19	0.26	0.18	0.23	0.19	0.2
75 - 79 years old	0.16	0.15	0.20	0.13	0.18	0.14	0.16
80 - 84 years old	0.12	0.14	0.12	0.10	0.07	0.12	0.12
85 >	0.06	0.10	0.09	0.09	0.09	0.09	0.09
Gender							
Women		0.61		0.6			0.61
Men		0.39		0.4			0.39
Working Experience							
Years of experience	0.42	0.28	0.25	0.13	0.36	0.23	0.27
Density of Contributions							
Density	0.74	0.52	0.65	0.45	0.71	0.49	0.58

Education							
No education	0.04	0.04	0.06	0.06	0.05	0.05	0.05
Primary education	0.6	0.56	0.54	0.52	0.58	0.55	0.56
Secondary Education	0.26	0.27	0.31	0.33	0.27	0.29	0.28
Tertiary education (non-university)	0.02	0.07	0.02	0.03	0.02	0.06	0.04
Tertiary education (university)	0.08	0.06	0.07	0.06	0.08	0.06	0.07
Civil Status							
Married	0.56	0.29	0.65	0.38	0.65	0.32	0.43
Cohabitation	0.05	0.03	0.06	0.05	0.06	0.04	0.04
Separated/Divorced	0.14	0.15	0.06	0.11	0.11	0.13	0.12
Widow	0.17	0.46	0.15	0.31	0.16	0.41	0.31
Single	0.08	0.08	0.07	0.15	0.08	0.11	0.09
Have dependants at home							
No	0.88	0.75	0.70	0.62	0.81	0.75	0.77
Yes	0.12	0.25	0.30	0.38	0.19	0.25	0.23
Head of the household							
No	0.05	0.32	0.07	0.38	0.06	0.34	0.23
Yes	0.95	0.68	0.93	0.62	0.94	0.66	0.77
Have Children (at home)							
No	0.86	0.87	0.77	0.76	0.83	0.83	0.83
Yes	0.14	0.13	0.23	0.24	0.17	0.17	0.17
Work condition							
Occupied	0.25	0.14	0.26	0.16	0.26	0.15	0.19
Unemployed	0.01	0.01	0.02	0.02	0.01	0.01	0.01
Looking for job by first time	-	0.01	-	-	-	0.01	0.00
Inactive	0.74	0.85	0.72	0.82	0.73	0.84	0.8
Recipient of subsidies							
No	0.82	0.48	0.49	0.55	0.70	0.50	0.58
Yes	0.18	0.52	0.51	0.45	0.30	0.50	0.42
Disability							
No	0.87	0.81	0.83	0.85	0.85	0.82	0.84
Yes	0.13	0.19	0.17	0.15	0.15	0.18	0.16

Note: results are weighted.

Table 2: Marginal Effects of Gender on the probability of retirement by males and females.
Source: Own calculations using LSPS (2013, 2015):

	All Sample	Uruguay	Chile

Family and care responsabilities

Head of the household

No	-0.047**	-0.016	-0.061
	(0.016)	(0.039)	(0.073)
Yes	-0.088***	-0.101***	-0.095**
	(0.010)	(0.020)	(0.031)

Have/Live with a partner

No	-0.116***	-0.101***	-0.126**
	(0.009)	(0.024)	(0.038)
Yes	-0.041***	-0.051**	-0.046
	(0.002)	(0.025)	(0.041)

Have Children at home

No	-0.077***	-0.079***	-0.081**
	(0.001)	(0.018)	(0.033)
Yes	-0.071**	-0.051	-0.094*
	(0.024)	(0.033)	(0.055)

Have dependents at home

No	-0.092***	-0.066***	-0.106**
	(0.013)	(0.018)	(0.036)
Yes	-0.044***	-0.090**	-0.044
	(0.010)	(0.033)	(0.043)

Labour market status

Years of working experience

< =10 years of experience	-0.148***	-0.149***	-0.161***
	(0.003)	(0.034)	(0.038)
< =20 years of experience	-0.096***	-0.123***	-0.088**
	(0.014)	(0.022)	(0.031)
< =25 years of experience	-0.072***	-0.110***	-0.052
	(0.021)	(0.019)	(0.033)
< =35 years of experience	-0.025	-0.086***	0.017
	(0.037)	(0.016)	(0.047)

Being occupied

Inactive	-0.134***	-0.142***	-0.139***
	(0.019)	(0.016)	(0.030)
Occupied	-0.011	0.019	0.070
	(0.023)	(0.037)	(0.072)

Educational Attainment

Primary Education	-0.125***	-0.111***	-0.142***
	(0.005)	(0.018)	(0.036)
Secondary Education completed	-0.147***	-0.153**	-0.157**
	(0.016)	(0.046)	(0.058)

	All Sample	Uruguay	Chile
University Education	-0.010	-0.137**	0.008
	(0.063)	(0.044)	(0.088)
Density contribution			
Lowest contribution	-0.112**	-0.277***	-0.114**
	(0.038)	(0.042)	(0.052)
Highest contribution	-0.085***	-0.043*	-0.100**
	(0.007)	(0.021)	(0.034)

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table 3: Marginal Effects of Family and Human capital on the probability of retirement by males and females. Source: Own calculations using LSPS (2013, 2015)

	All Sample	Uruguay	Chile
Family and care explanations			
Head of the household (ref. no head)			
Male	0.092***	0.095**	0.091
	(0.004)	(0.038)	(0.070)
Female	0.050***	0.010	0.057*
	(0.010)	(0.026)	(0.033
Having a partner (ref. not living with partner)			
Male	-0.017***	-0.031	-0.019
	(0.002)	(0.021)	(0.037)
Female	0.058***	0.018	0.060*
	(0.005)	(0.027)	(0.033)
Have Children at home (ref. no children)			
Male	-0.035**	-0.022	-0.024
	(0.013)	(0.024)	(0.048)
Female	-0.029*	-0.006	-0.037
	(0.012)	(0.021)	(0.032)
Have dependents at home (ref. no dependents)			
Male	-0.050***	-0.01	-0.057
	(0.011)	(0.028)	(0.041)

Female	-0.003	-0.034*	0.005
	(0.013)	(0.021)	(0.029)

Labour market explanations
Years of working experience

Male	0.0002	0.003***	-0.002
	(0.002)	(0.0008)	(0.002)
Female	0.005***	0.005***	0.005**
	(0.0007)	(0.0007)	(0.001)

Being occupied (ref. inactive)

Male	-0.280**	-0.465***	-0.192***
	(0.101)	(0.028)	(0.054)
Female	-0.156**	-0.303***	-0.123**
	(0.059)	(0.026)	(0.040)

Educational Attainment
Secondary education completed (ref. sec. Education incomplete)

Male	0.082***	-0.018	0.093*
	(0.027)	(0.039)	(0.053)
Female	0.007	-0.044	0.011
	(0.007)	(0.033)	(0.043)

University Education (ref. sec. Education incomplete)

Male	0.017***	0.021	0.018
	(0.001)	(0.033)	(0.073)
Female	0.079*	0.011	0.100*
	(0.03)	(0.037)	(0.055)

Highest Density contribution (ref. lowest density contribution)

Male	0.198***	0.019	0.208***
	(0.029)	(0.037)	(0.045)
Female	0.224***	0.025***	0.222***
	(0.008)	(0.035)	(0.038)

Note: Standard errors in parentheses *** $p<0.01$, ** $p<0.05$, * $p<0$.

Figure 1: Adjusted predictions of occupation in Chile by contribution density and gender.

Source: Own calculations using LSPS (2013, 2015)

Adjusted Predictions of gender*density contribution for Chile
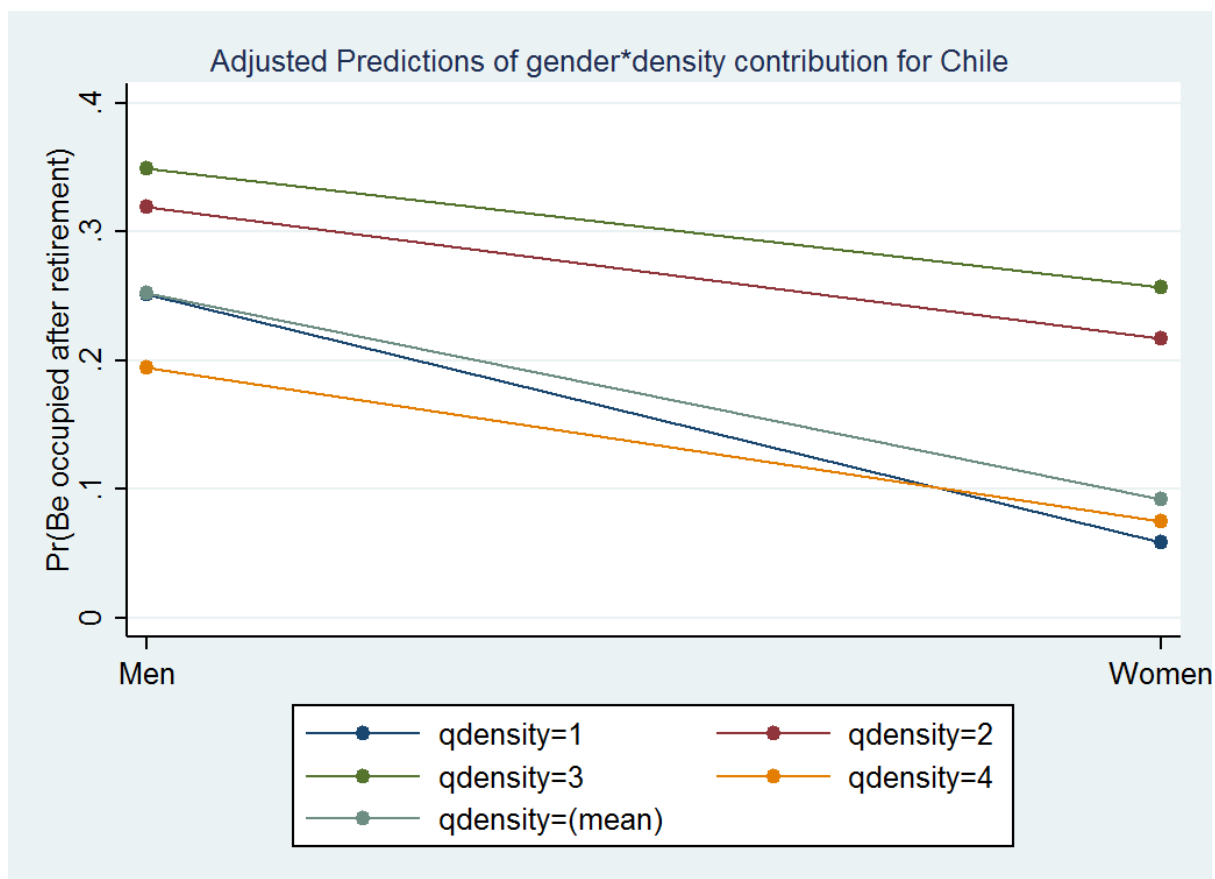
Figure 2: Adjusted predictions of occupation in Uruguay by contribution density and gender.

Source: Own calculations using LSPS (2013, 2015)

Adjusted Predictions of gender*density contribution for Uruguay
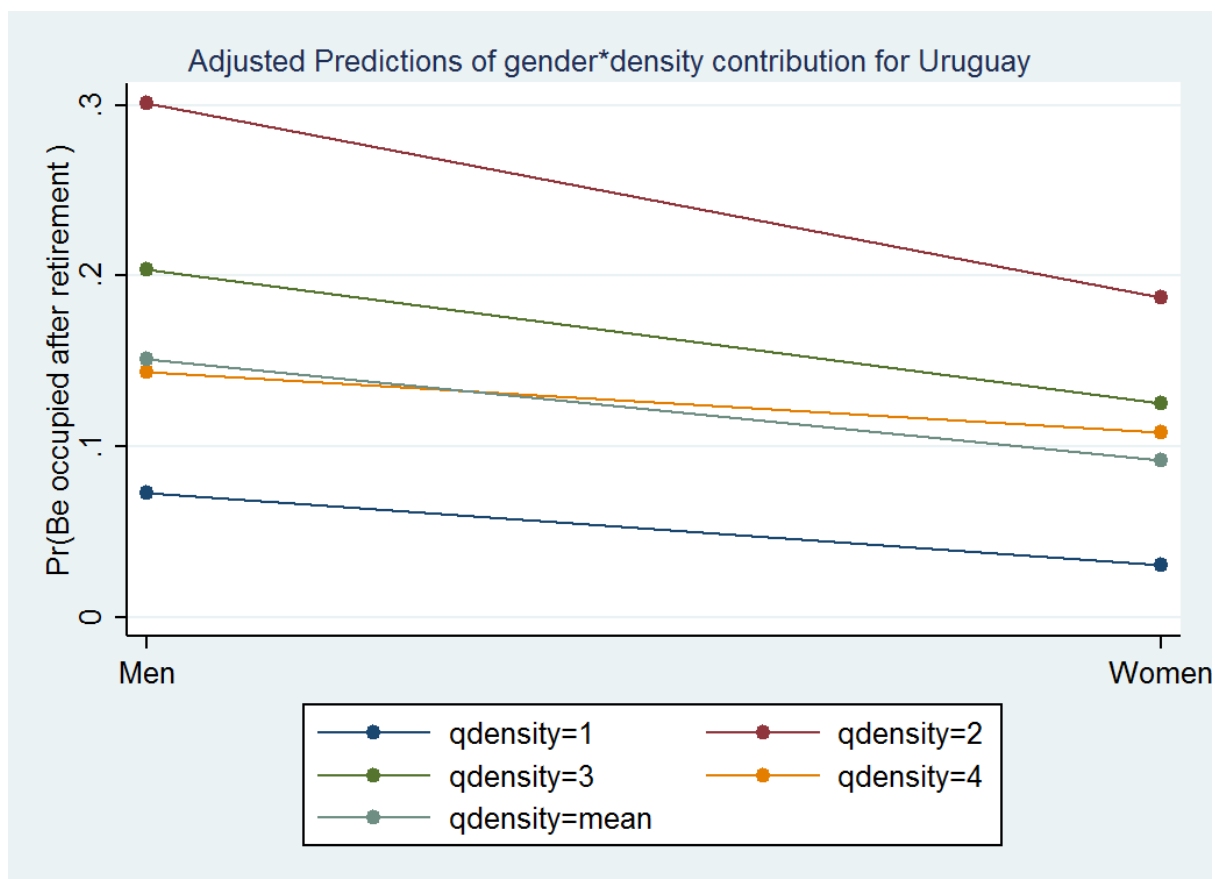
APPENDIX

Table A1: Logistic regression for predicting to be retired after reaching legal retirement age.

Source: Own calculations using LSPS (2013, 2015)

	Family and care	Human Capital	Family, care and human capital	Family and care gender interactions	Human capital gender interactions
Female	0.447***	0.548***	0.615***	0.564***	0.300***
		(0.00431	(0.00559		
	(0.0471)	)	)	(0.0551)	(0.0437)
Family and care responsibilities					
Household head	1.284***		1.248***	1.689***	1.311***
	(0.0757)		(0.0458)	(0.0618)	(0.0262)

	(1)	(2)	(3)	(4)
Live with a partner (ref. single or widow)	1.173*** (0.0467)	1.179*** (0.00608)	0.901*** (0.00937)	1.319*** (0.0236)
Children	0.786*** (0.0266)	0.826*** (0.0106)	0.812** (0.0651)	0.850*** (0.0127)
Other dependants at home	0.857** (0.0463)	0.889** (0.0346)	0.744*** (0.0415)	0.903** (0.0351)
Family and care*gender interactions				
Household head*female			0.770** (0.0638)	
Live with a partner * female			1.508*** (0.0407)	
Children * female			1.054 (0.144)	
Other dependants * female			1.325* (0.164)	
Human capital				
Experience (in years)	1.022*** (0.00641)	1.020** (0.00691)	1.021** (0.00661)	1.001 (0.0140)
Educational Attainment (ref. secondary ed. incomplete)				
Primary education	1.135* (0.0678)	1.146* (0.0677)	1.131* (0.0686)	1.403*** (0.136)
Secondary Education	1.172** (0.0622)	1.225*** (0.0732)	1.211** (0.0710)	1.650*** (0.00104)
Tertiary education (non-university)	2.507*** (0.427)	2.536*** (0.381)	2.516*** (0.421)	1.818*** (0.0435)
Tertiary education (university)	1.336*** (0.0966)	1.317*** (0.101)	1.301*** (0.0834)	1.075 (0.142)
Working	0.292** (0.117)	0.291** (0.116)	0.296** (0.119)	0.218** (0.123)
Contributions (Ref. Q1)				
Q2	1.882*** (0.290)	1.910*** (0.279)	1.936*** (0.291)	1.997** (0.425)
Q3	4.770*** (0.0424)	4.847*** (0.0541)	4.927*** (0.0306)	4.824*** (0.703)
Q4	3.337*** (0.0770)	3.446*** (0.0522)	3.503*** (0.0451)	3.545*** (0.295)
*Human capital*gender interactions*				
Working Experience*female				1.026** (0.0101)
No education*female				0.715** (0.0873)

Primary Education *female					0.615**
					(0.0492)
Tertiary education *female					1,264
					(0.462)
Tertiary education * female					1,399
					(0.274)
Working*female					2.020**
					(0.497)
Q2*female					0.830**
					(0.0473)
Q3*female					0.879
					(0.279)
Q4*female					0.866
					(0.123)
Country dummy		0.825***	1.411***	1.401***	1.396***	1.315*
		(0.0146)	(0.108)	(0.121)	(0.110)	(0.165)
Constant		1.273	0.310***	0.249***	0.232***	0.362***
		(0.171)	(0.0340)	(0.0227)	(0.0361)	(0.0405)
Observations		9,597	8,714	8,699	8,699	8,699
ll		-1.924e+06	-1.699e+06	-1.688e+06	-1.685e+06	-1.668e+06

Note: Controlling for age, disability and subsidies. Estimates are odd ratios (exponentiated beta). Robust Standard Errors in parentheses. ***p<0.001, ** p<0.01, * p<0.05

Table A2: Logistic regression for predicting to be retired after reaching legal retirement age in Chile and Uruguay. Source: Own calculations using LSPS (2013, 2015)

	Family and care		Human Capital		Family, care and human capital		Family and care gender interactions		Human capital gender interactions	
	U	CH	U	CH	U	CH	U	CH	U	CH
Female	0.523***	0.411***	0.511**	0.536***	0.538**	0.599**	0.728	0.525	0.103**	0.371*
	(0.0476)	(0.0538)	(0.0538)	(0.0756)	(0.0674)	(0.0936)	(0.254)	(0.232)	(0.0333)	(0.155)
Family and care responsabilities										
Household head	1.180	1.339*			1.105	1.280	2.037**	1.654	1.144	1.324
	(0.1	(0.17			(0.1	(0.18	(0.5	(0.60	(0.1	(0.19

	24)	2)		48)	4)	53)	8)	61)	3)
Live with a partner (ref. single or widow)	0.978	1.201		1.017	1.178	0.784	0.894	1.101	1.332*
	(0.0905)	(0.144)		(0.124)	(0.152)	(0.129)	(0.194)	(0.140)	(0.176)
Children	0.758**	0.806		0.941	0.823	0.847	0.870	0.982	0.850
	(0.0707)	(0.102)		(0.107)	(0.114)	(0.158)	(0.240)	(0.114)	(0.117)
Other dependants at home	0.786**	0.888		0.802	0.912	0.927	0.722	0.789*	0.926
	(0.0728)	(0.106)		(0.0936)	(0.115)	(0.199)	(0.168)	(0.0935)	(0.118)
Family and care*gender interactions									
Household head*female						0.526*	0.810		
						(0.170)	(0.329)		
Live with a partner * female						1.443	1.524		
						(0.355)	(0.421)		
Children * female						1.231	0.951		
						(0.289)	(0.303)		
Other dependants * female						0.855	1.421		
						(0.216)	(0.390)		
Human capital									
Experience		1.033***	1.016*	1.032***	1.015*	1.032***	1.015*	1.029***	0.985
		(0.00451)	(0.00646)	(0.00445)	(0.00648)	(0.00443)	(0.00644)	(0.00785)	(0.0125)
Educational Attainment (ref. secondary ed. incomplete)									
No education		2.045**	0.791	2.036**	0.828	2.021*	0.804	1.106	1.097

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	(0.554)	(0.180)	(0.561)	(0.190)	(0.562)	(0.184)	(0.448)	(0.477)
Primary education	1.350**	1.091	1.362**	1.101	1.368**	1.086	1.413	1.451
	(0.157)	(0.158)	(0.158)	(0.160)	(0.159)	(0.156)	(0.300)	(0.399)
Secondary Education	0.781	1.204	0.800	1.264	0.802	1.249	0.859	1.808
	(0.137)	(0.230)	(0.140)	(0.240)	(0.141)	(0.234)	(0.274)	(0.617)
Tertiary education (non-university)	3.588***	2.227*	3.553***	2.285*	3.704***	2.239*	1.439	2.047
	(0.825)	(0.770)	(0.831)	(0.781)	(0.861)	(0.767)	(0.571)	(1.452)
Tertiary education (university)	1.178	1.412	1.159	1.398	1.165	1.368	1.203	1.108
	(0.222)	(0.391)	(0.221)	(0.392)	(0.222)	(0.387)	(0.356)	(0.472)
Working	0.0889***	0.378***	0.0887***	0.377***	0.0895***	0.384***	0.0624***	0.344***
	(0.0109)	(0.0645)	(0.0109)	(0.0637)	(0.0110)	(0.0647)	(0.0106)	(0.0917)
Contributions (Ref. Q1)								
Q2	1.096	2.067***	1.128	2.086***	1.114	2.117***	0.353*	2.267**
	(0.229)	(0.363)	(0.234)	(0.368)	(0.231)	(0.371)	(0.155)	(0.664)
Q3	4.655***	4.717***	4.754***	4.785***	4.820***	4.885***	1.299	5.149***
	(0.971)	(0.940)	(0.989)	(0.948)	(1.003)	(0.965)	(0.511)	(1.599)
Q4	3.815***	3.312***	3.888***	3.441***	3.945***	3.502***	1.197	3.742***
	(0.674)	(0.513)	(0.681)	(0.526)	(0.688)	(0.532)	(0.407)	(1.020)
*Human capital*gender interactions*								
Experience*female							1.006	1.040**
							(0.00929)	(0.0153)

No education*female								2.163	0.649
								(1.149)	(0.328)
Primary Education *female								1.025	0.668
								(0.261)	(0.212)
Secondary Education*female								0.870	0.586
								(0.333)	(0.239)
Tertiary education * female								2.833*	1.007
								(1.336)	(0.816)
Tertiary education *female								0.893	1.574
								(0.343)	(0.835)
Working*female								2.466***	1.543
								(0.567)	(0.525)
Q2*female								3.512*	0.808
								(1.747)	(0.293)
Q3*female								5.409***	0.736
								(2.505)	(0.294)
Q4*female								3.914***	0.797
								(1.532)	(0.261)
Constant	1.229	1.195	0.365***	0.465**	0.354**	0.365**	0.239**	0.354*	1.207	0.493
	(0.205)	(0.296)	(0.0656)	(0.120)	(0.0934)	(0.121)	(0.0794)	(0.163)	(0.426)	(0.227)
Observations	6,164	3,433	5,288	3,426	5,275	3,424	5,275	3,424	5,275	3,424
Ll	-345	-1.56	-236	-1.44	-236	-1.43	-235	-1.42	-230	-1.41

	726	5e+06	947	2e+06	015	3e+06	337	9e+06	060	4e+06
df_m	12	12	18	18	22	22	26	26	32	32
chi2	667.0	217.6	944.6	376.5	937.4	399.2	936.4	411.0	101.5	433.7
Aic	.	.			.	.	.	.		

Note: Controlling for age and subsidies. Estimates are Odd Ratios (exponentiated beta). Standard Errors in parentheses. Robust see form in parentheses. *** p<0.001, ** p<0.01, * p<0.05

Table A3: Logistic regression for predicting to be occupied after reaching retirement age. Source: Own calculations using LSPS (2013, 2015)

Predictors	M1 Demographics		M2 Human Capital		M3 Family		M4 Full Model	
	U	Ch	U	Ch	U	Ch	U	Ch
Female	0.516***	0.291***					0.605***	0.353***
	(0.051)	(0.046)					(0.075)	(0.066)
Subsidies	0.848	0.824					0.897	0.851
	(0.096)	(0.104)					(0.109)	(0.108)
Disability	0.492***	0.247***					0.491***	0.253***
	(0.083)	(0.0546)					(0.082)	(0.056)
Contribution to pensions (Ref. Q1)								
Q2	7.054***	2.915***					6.872***	2.686***
	(1.362)	(0.568)					(1.319)	(0.531)
Q3	4.600***	3.517***					4.236***	3.151***
	(0.871)	(0.627)					(0.795)	(0.567)
Q4	3.677***	1.173					3.075***	1.094
	(0.657)	(0.204)					(0.555)	(0.191)
Less than secondary educ.			0.541***	0.596***			0.606***	0.842
			(0.045)	(0.076)			(0.068)	(0.118)

		)				)		
Civil status (ref. Married)								
Cohabitation					1.699***	1.312	1.510*	1.537
					(0.272)	(0.278)	(0.299)	(0.358)
Separated / Divorced					1.221	0.868	1.202	0.885
					(0.133)	(0.162)	(0.166)	(0.218)
Widow					0.254***	0.337***	0.768	0.781
					(0.027)	(0.057)	(0.119)	(0.166)
Single					0.597***	0.891	0.800	1.332
					(0.091)	(0.153)	(0.164)	(0.266)
Children					2.101***	1.254	1.624***	1.092
					(0.200)	(0.155)	(0.191)	(0.149)
Household head					1.945***	2.735***	1.487***	2.006***
					(0.192)	(0.389)	(0.210)	(0.376)
Constant	0.330***	1.291	0.412***	0.368**	0.171***	0.139**	0.308***	0.833
	(0.062)	(0.306)	(0.030)	(0.040)	(0.016)	(0.017)	(0.074)	(0.242)
N	5,293	3,435	6,183	3,465	6,162	3,463	5,280	3,433
log likelihood	-212279	-1.080e+06	-316919	-1.330e+06	-295814	-1.279e+06	-207529	-1.063e+06

Note: Controlling for age. Estimates are Odd Ratios (exponentiated beta), Standard Errors in parentheses.