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**TITLE**

Early retirement in Italy in a  
life course perspective: do  
preferences matter?

**Research paper**

**Authors**

Emanuela Struffolino  
Daniele Zaccaria

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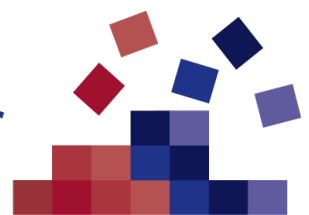
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## Authors

Struffolino, E. (1)

Zaccaria, D. (2)

## Abstract

In a life course perspective, the transition towards retirement can be seen as a process that unfolds over a particular period of time rather than being an instantaneous exit from active professional life. Previous research demonstrates that retirement timing and trajectories result from a complex interplay between individual and institutional factors. Within the debate on the progressive de-standardization of the life course, early-retirement behavior has to be studied as the outcome a voluntary choice driven by preferences given the range pension schemes available. In Italy several reforms have been implemented since the early 1990s to moderate the massive (compared to other European countries) use of early-retirement. Despite the widespread of the “early-exit” culture, no research exists for Italy on the role of individual preferences on retirement decisions. In this paper, we focus on Italy by using SHARE data to describe the relationship between early-retirement preferences and actual behaviors. We explore this association for men and women and according to educational level. Moreover, we use sequence discrepancy analysis to study the strength of the relationship between longitudinal retirement trajectories and preference for early-retirement. Our results show that the probability of early-retirement is positively associated i) with being a man instead of a woman and ii) low and medium education, as well as iii) with positive preferences for early-exit. Finally, while we did not find differences among men, we found more variability in retirement trajectories of those women who expressed negative preference for early-retirement, probably due to the prevalence of self-employees among them.

## Keywords

early retirement | retirement preferences | Italy | gender | education | SHARE data

## Authors' affiliations

(1) WZB Berlin

(2) Golgi Cenci Foundation

## Correspondence to

emanuela.struffolino@wzb.eu

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## **1. Introduction**

Among other social policy measures, early-retirement options have been widely adopted since the 1980s in many Western societies, with the intent of substituting old and obsolete workforce for younger one. Retirement represents a crucial transition over the life-course that marks a shift in social roles as well as potential changes in one's economic situation. Therefore, retirement behavior can be rather seen as the outcome of both the range of pension schemes available in a certain institutional context as well as of individual preferences for post-retirement living conditions.

The extent to which retirement patterns are de-standardized (i.e. how much they differ in the type of events and transitions—as well as their timing—individual experience) can be therefore considered as the by-product of “agency within structure” mechanisms. According to this perspective, individuals (given their characteristics, expectations, and preferences) actively shape their lives and maximize their own development in different domains of the life course within the constraints and opportunities set by the social structure (Settersten 2003; Settersten and Gannon 2005). The greater the control individuals have over their own life courses, the higher the degree of individualization of the latter (Beck, 1986). However, greater de-standardization does not imply greater de-institutionalization (Leisering, 2003; Brückner and Mayer, 2005): this is the case of early-retirement policies, which preserve a highly institutionalized environment in which retirement can occur and at the same time expand the options and therefore pave the way to increasing de-standardization of retirement pathways (Ebbinghaus, 2002).

Looking at actual retirement behavior in connection with preferences for early-retirement can therefore shed light on how the joint action of individual agency and institutional structure shape the individual life course. Moreover, the growing imbalance between workers and retired people and the economic instability affecting many European social security systems have triggered extensive revisions of the legislation on early retirement. Ebbinghaus (2006) shows that policy measures aimed at stopping and possibly reversing early-retirement trends differ according to the national contexts' characteristics. Therefore, trends tend to adjust to the traditional national characteristics of the labor market, the production regime, and the welfare system, so that any revision is likely to perpetuate old (unequal) opportunity structure.

Despite the widespread nature of the “early-exit” culture in many Continental and Southern European countries, surprisingly there is no research on the role of individual

preferences on (early)retirement decisions for non-English speaking countries (Beehr and Bennett, 2007). Moreover, the effect of gender on retirement decisions has been largely overlooked in previous studies, despite the fact that retirement is a highly gendered life course event (Talaga et al., 1995; Moen, 1996).

In this respect, the Italian case is particularly interesting because of the massive use of early retirement. In 2011, the pensions expenditure in Italy reached a very high level (31.9% of total government expenditure and 15.8% of GDP) compared to other European countries. Furthermore, the estimated old age dependency ratio for 2050 amounts to 68.3%, implying a consequent strong pressure on social security system sustainability (OECD, 2015). To face this situation, several reforms have been applied since the early 1990s to reverse the early-retirement trend. However, the financial situation remained problematic due to the extremely gradual implementation of new pension rules and the presence of many different eligibility criteria.

So far, analyses on Italian early retirement have mainly focused on male workers because of the small presence of women among the older cohorts (Barbieri and Scherer, 2011; Beckstette et al., 2006). Early retirement has indeed been mostly a male phenomenon: gender differentiated pension schemes allowed women to leave the labor market some years earlier than men by default and women's more interrupted employment careers prevent them from being eligible for early-retirement to the same extent as men. The scenario has been changing due to increasing female participation and labor market attachment, which translates into changes in gender roles within the family (Pienta, 2003). However, unlike men, women's retirement decisions can result from two mechanisms: the first relates to gendered opportunity given by structures of labor market and pension scheme, the second refers to agency and gendered preferences towards work and family commitments/obligations (Radl, 2013; Madero-Cabib et al., 2015).

We contribute to the literature by pursuing three different aims. Firstly, we describe the trends in the distribution of early-retirement preferences and gender and education over time. Secondly, we assess the association between preference for early-retirement and actual behavior for men and women. Finally, we exploit the analytical tools offered by sequence discrepancy analysis to study the strength of the relationship between preference for early retirement and actual longitudinal retirement trajectories.

## **2. Retirement preferences: individual and institutional factors**

In a life course perspective, cumulative advantages and disadvantages over the whole life span affect older workers attachment to work and their retirement timing (Reitzses and Mutran, 2004; Fasang, 2010, Buchholz et al. 2011). Previous research has demonstrated that retirement timing and trajectories are the result of a complex interplay between individual and institutional factors. In the literature, individual agency and social structure can be thought to be reflected in expectations, intentions, and preferences. The concept of retirement expectations includes different types of expectations on future life as retired person, for example views on practical aspects as well as on how the individual will experience the transition from work to retirement (van Solinge and Henkens 2008; Gee, 1999). Retirement intentions refer to when people of active age intend to retire from the labor market (van Bonsdorff et al. 2009, Henkens 1999) and consider factors affecting these prospects. The concept of retirement preferences refers to when workers prefer to retire and often are measured as preferred exit-age or preference for early-retirement in respect to minimum retirement age (Blanchet and Debrand, 2008). The domains covered by these three concepts overlap. However, when considering attitudes towards early-retirement, it has been suggested that retirement preferences better express the relationship between individual and institutional factors (Stattin, 2008; Esser, 2005).

Like other transitions over the life course, the transition from active life to retirement can be seen as a complex process that occurs over a span of time (Shanahan, 2000; Abbott, 2009) and as one that involves reflection and decisions concerning the timing and the type of retirement (Solem et al., 2014). Some evidence shows that retirement decisions come along with hesitations and doubts and that individuals frequently change decisions close to the time of actual retirement (Eckerdt et al., 2001; Solem, 1989). However, research on the consistency between retirement preferences and actual behavior remains scarce. The few studies on the topic show that longer time lags between preferences and actions increase the probability of changes in the opportunity structure, resulting in less correspondence between attitudes and actual behavior (Solem et al., 2014; Henkens and Tazelaar, 1997; van Solinge and Henkens, 2010).

### *2.1. Individual factors and preferences for retirement*

According to rational choice theory, workers directly influence the retirement process through a subjective evaluation of (pre-)retirement prospects<sup>1</sup>. Assuming that preferences are “structured, standing, rankable dispositions to choose certain states of affairs rather than others that in turn imply dispositions to act in one way rather than another under specified conditions” (Lukes, 2005:157), retirement preferences should be understood as an independent factor that contributes to the decision making process together with financial opportunities and constraints. Therefore, changing people’s attitude toward work and retirement can trigger changes in retirement patterns (OECD, 2006): this is because to preserve the consistency with own preferences it is less costly to adapt behaviors and avoid cognitive dissonance than to change the institutional opportunities (Elster, 1998).

However, the motivation for (early-)retirement has to be seen as more than a simple economic judgment. In fact, no matter how the financial incentives to retire (early) are structured, individuals can exercise their agency by remaining at work even if early-retirement is favourable because of high identification with their job, or by retiring early due to personal preferences for leisure time/care responsibilities even in the presence of adverse financial conditions (Higgs et al., 2003).

Positional factors such as educational level, gender and age, traditionally considered determinants of life course processes, also affects opportunities for early retirement (Damman et al 2011; Radl 2013; Madero-Cabib and Kaeser 2015; Visser et al. 2016). Previous research also shows that individuals with poorer health, lower social class and lower education prefer to retire early (Orestig et al., 2013). Furthermore, women prefer to retire earlier than men: women are often younger than their spouses, meaning that the preference for early-retirement could be related to the willingness to retire at the same time as the partner (Raymo et al., 2010; Dahl et al., 2003). Retirement preferences are strongly related to age: as people approach retirement age, they have a clearer knowledge of how personal characteristics (pension contributions, available exit windows, prospects of retirement wealth) change in response to the actual situation (Soidre, 2005). These findings highlight that early retirement also needs to be approached with a social stratification perspective. Social inequalities in late life persist and represent an important aspect of the social structure that could limit or promote the decision to retire early.

## *2.2. Institutional factors*

Individual level and workplace level determinants of preferences and actual retirement behavior are embedded in the institutional context that influences life course patterns through labor market regulation, production regimes, and the welfare state. Retirement and old-age pension schemes are part of this institutional framework.

Like other life-course policies, retirement policies change the structure of individual life courses by setting opportunities and constraints provided to individuals (Leisering, 2003). The strength of the regulative power of such opportunities and constraints defines more or less institutionalized settings. However, higher institutionalization does not necessarily lead to higher standardization of the retirement trajectories. In fact, a higher institutionalization of retirement normative rules can actually result in different degrees of de-standardization of the transition out of work depending on whether they allow for different or rather fewer options for retirement at different points along the employment trajectories (Brükner and Mayer, 2005).

The existing literature on retirement distinguishes between pull, push and stay institutional factors (Ebbinghaus and Hofacker, 2013). Pull factors are incentives set up by the pension systems or other “welfare state subsystems” (Guillemard and van Gunsteren, 1991) that encourage employment exit at a given age by pulling workers out of the labor force. Other institutional factors instead exert pressure on older workers and their labor market participation by “pushing” them to retire: this is the case of firms restructuring or age discrimination processes. According to this approach, retirement preferences should be understood as exogenous: in this case, individual preferences just reflect underlying structural inequalities able to predict retirement behavior (Ebbinghaus, 2006). While both pull and push factors are typical of an early-exit culture widespread in many European countries since the 1980s, in recent decades the new policy approach of active ageing has tried to enhance older workers employability to facilitate their “stay” in the labor force.

Finally, country-level characteristics might also mediate the effects of context factors at the workplace level on individual preferences (Hofacker, 2015). For example, it can be assumed that unions can only exercise their protective power where their collective bargaining power is high. Similarly, considering unemployment or the economic situation in general, preferences for early retirement may differ depending on the prevalence of unemployment or the strength of a crisis for specific categories of workers in certain sectors of production.

### **3. The Italian institutional context**

When considering the characteristics of the retirement scheme system, Italy presents the attributes of a Mediterranean welfare regime country because of i) its high level of protection for some categories of older workers, ii) its high replacement rates of pension benefits, and iii) its great variety of eligibility rules for early-retirement and consequent low rate of labor market participation after the age of 50 (Esping-Andersen, 1996; Ferrera, 1996). The polarization between protected workers (i.e. employees in the public sector and white collars) and under-protected ones (i.e. self-employed people and employees of small- and micro-firms) persist also among older workers.

Starting from the 1980s, early-retirement legislation has represented one of the most relevant labor market policies implemented in Italy. Due to the introduction of new technologies and the crisis of the traditional manufacturing industries, a large number of old workers were made redundant. The strategy followed by employers to cope with this new social risk consisted in reducing the size of the old labor force to prevent the unemployment risk in the first place: hence new institutionalized pathways to early retirement were introduced. For this reason Buchholz and colleagues (2006) define Italy as a typical example of an “employment exit regime”. The extreme de-standardized public pension system—which offers different pathways available for worker who would leave work earlier—led to widespread early-exit preferences, both among workers and employers who need to deal with the production system reorganization.

All the reforms that have taken place since the 1990s have led to a gradual transition from an earning- to a contribution-based pension scheme and at the same time the minimum retirement age gradually increased. Most of these reforms—and especially those ones implemented in the early 1990s-- preserved some special rules for selected categories of employees (i.e. civil servants or employees of big firms involved in restructuring processes), leaving room for an emerging de-standardization of pathways to retirement among workers<sup>ii</sup>.

Despite the general structure of the Italian pension scheme, the reforms implemented in recent years, remains strongly gendered. The small disparity in actual retirement age between men and women is due to male workers’ exploitation of the opportunity for early retirement, meaning before the legal age. However, the Italian pension scheme presents a substantial gender pay gap with high differences in replacement rates (Casarico and Profeta 2009; Zanier and Crespi 2015). These inequalities are mainly the results of gender differences on the labour market. Female cohorts who approached retirement in recent years were less educated



than the male ones, and consequently, they had lower occupational profiles and pension entitlements. In recent decades, the educational level of women and their participation rates rose to a great extent (Scherer and Reyneri, 2008), but inequalities persist and indeed seem to become even more evident and penalizing. In fact, women's careers are more frequently interrupted, by spells of informal or atypical work, by poor careers prospects because of "glass ceiling" effects, and by the consequent disadvantaged pre-retirement conditions (Barbieri and Scherer 2011). In addition to this, it is important to consider also the gendered dimension of care responsibilities. Although recent evidence demonstrate a lesser involvement caused by demographic trends and prolonged working career even in a typical familistic country like Italy (Da Roit 2007; Hank and Buber 2009), the care needs of dependent old parents or of grandchildren fall traditionally on women's shoulders.

#### **4. Retirement preferences and behaviors in Italian: research questions and working hypotheses.**

Most of the recent empirical evidence on the determinants of retirement decisions of Italian workers is on the fiscal incentives embedded in social security systems. This research builds mainly on the traditional assumptions of rational choice theory (Belloni and Alessie, 2009; Belloni et al., 2005; Bottazzi et al., 2006; Spataro, 2005): however, despite the aforementioned widespread character of early-exit culture, little evidence exists on the role of individual preferences in any non-English speaking countries (Beehr and Bennett, 2007).

In this research note we investigate (i) whether the relationship between early-retirement preferences and individual characteristics such as gender and education has changed over the 2000s. We then consider (ii) whether the association between preferences for early-retirement and actual behavior varies by gender and education. Finally, we look at (iii) the strength of the relationship between longitudinal retirement trajectories and preferences for early-retirement.

In countries like Italy, where long-term unemployment is high and public policies do not support the integration of weak categories of workers, such as older workers, individuals are likely to prefer to retire early compared to countries where policies facilitate employment re-entry and early exit options were reduced, so that older workers expect to work longer than they would prefer.

To understand the actual behavior of Italian workers, gender, educational level and cohort of birth are crucial. In fact, in Italy the female employment rate is among the lowest in

Europe at any age (ISTAT, 2015) and benefit to a great extent from the early-exit schemes. Moreover, the younger cohorts of workers are more affected by the reform process of the pension system regulations. In recent decades, exiting from the labor market before the “legal minimum age” was feasible by using the many ad hoc rules for workers with special requirements (i.e. workers with a minimum of years of seniority or as employed in public sector) or through a special socio-economic policy designed to limit oversupply in the adult workforce (Mirabile, 2004).

Against this scenario, education and gender, as well as their interaction, are likely to be crucial determinants of the social stratification of early retirement behavior. Several studies found that higher levels of education are associated with a low likelihood of early-exit thanks to their limited adaptation to technological and production changes (Buchholz et al., 2006; OECD, 2006). Moreover, high number of poorly educated - and thus less qualified - workers were involved in early-retirement program aimed at preventing unemployment risk at the end of career (Barbieri and Scherer, 2011). At the same time, gender and education represent factors through which the dichotomy of structure and agency can be interpreted: less educated female workers are more likely to be pushed out of labor market in absence of special early-retirement program, but they could prefer to remain active to ensure better pension benefit; high skilled women with more attachment to work who desire to working longer have to consider how to manage their care responsibilities and consequently how to adjust their preferences to the constraints of the social context.

Finally, the literature on retirement also consider job satisfaction and care responsibilities as factors that could contribute to determining the choice to exit labor market. To our knowledge, no research exists on these relationships for the Italian case. For other countries, results on the relationship between job satisfaction and employment behavior are mixed: Kosloski et al. (2001) and Reitzes et al. (1998) found positive effects on retirement planning, while Adams (1999) and Taylor and Shore (1995) reported no effect of individual job satisfaction on the decision to retire. Concerning care responsibilities, it was suggested that the timing of retirement is influenced - more for women than for men - by the presence of children or other adults to care for (Dentinger and Clarkberg, 2002; Pienta and Hayward, 2002; Szinovacs and DeViney, 2000). This is relevant when we consider the structure of Italian welfare system, which is characterized by a very low coverage of both day-care for children and home/residential facilities for older people (Da Roit, 2007; Naldini and Saraceno, 2008). Thus, in many cases, care-giving duties are arrange within the families:

since women are usually charged with these responsibilities, they could decide to leave the labor market earlier.

## **5. Data and methods**

We use the Survey of Health, Ageing and Retirement in Europe (SHARE)<sup>iii</sup>, a longitudinal dataset that reports information on employment history, living arrangements and conditions, and preferences towards early retirement among the older population (Schröder, 2011). SHARE's complex survey design is meant to collect representative samples of the population aged 50 or older.

For the first set of analyses on the evolution over time of the preferences for early retirement according to gender and educational level (primary, lower secondary, upper secondary, and tertiary education) we use waves I, II, and IV (total N. 1,541) of the SHARE Italian sample.

The second set of analyses focuses on the differential probability of early retirement (meaning before being 60 and 65 for women and men respectively according to the legislation in place in 2004) at time  $t+1$  according to individual preference for it at time  $t$ , i.e. 2004. Unfortunately, the question on preferences for early retirement was been asked retrospectively, and thus we had to select a subsample of individuals not retired and aged between 50 and 65 years old at wave I, whose actual retirement behaviors we can follow over the following two waves (II and IV). We ended up with 1,561 episodes nested in 265 individuals. We estimated a discrete time logistic regression model (Yamaguchi, 1991), in which the dependent variable was the probability of being retired early at time  $t+1$  (2005, 2006, 2007, 2008, or 2009), and the main independent variables is the preference for early-retirement at time  $t$  (yes or no). Additional independent variables are: gender; education (primary, lower secondary, upper secondary, or tertiary education); care responsibilities<sup>iv</sup> at time  $t$  (yes or no); satisfaction with the main job at time  $t$  (yes or no); age; age squared; and year of the survey. The distribution of the dependent and independent variables is displayed in Table 1. In line with our working hypotheses, in further models we estimate the differential probability of early retirement at time  $t+1$  according to preferences for early retirement interacted with gender and education. The main effects and the interaction terms of the variables of interest will be presented in graphical form in terms of average partial effects (APE) (Long and Freese, 2014). Results in tabular form are shown in Table A1 in the Appendix.

*Table 1: Distribution of the independent and dependent variables in the sample selected for the second set of analyses. Authors' calculations on SHARE data.*

	Person-year		Individuals	
	% – mean	s.d.	% – mean	s.d.
<i>Gender</i>				
Men			64.0	
Women			36.0	
<i>Education</i>				
Primary			18.5	
Lower secondary			25.7	
Upper secondary			37.8	
Tertiary			18.1	
<i>Preference for early retirement</i>				
No	42.6			
Yes	57.4			
<i>Care responsibilities</i>				
No	82.6			
Yes	17.4			
<i>Satisfaction with job</i>				
No	9.8			
Yes	90.2			
<i>Early retired</i>				
No	87.1			
Yes	12.9			
<i>Age</i>	57.3	4.6	54.6	4.3
<i>N.</i>	1.561		267	

The third set of analyses considered systematic differences in retirement pathways between those who express positive and negative to preferences for early retirement. Exploiting the longitudinal nature of the data, we adopt the sequence discrepancy analysis framework (Studer et al., 2011; Struffolino et al., 2016). We built 6-year-long sequences for the 267 individuals who were employed in 2004, by following their trajectories towards retirement until 2009. Each point in time (i.e. each year) of the sequences was coded according to individuals' position on the labor market: employee full-time, employee part-time, self-employed, unemployed<sup>v</sup>, and retired<sup>vi</sup>. The distance matrix that served as input for the discrepancy analysis was computed by using the Hamming distance algorithm, which is highly sensitive to timing mismatch (for the algorithm selection criteria see Studer and Ritschard, 2015).

Differently from the standard sequence analysis approach (Abbott, 1990; see Aisenbrey and Fasang 2010 for a review) which relies on prior clustering of the sequences and several

substantive assumptions on the internal homogeneity of the clusters Studer (2013), the sequence discrepancy analysis allows us to directly study the relationship between retirement trajectories – conceptualized as sequences of states over time – and an explanatory factor (here preference for early-retirement). The discrepancy analysis translates the ANOVA framework to sequence analysis and therefore directly measures the strength of the association between trajectories and explanatory factors using a pseudo-R2 value. The latter can be interpreted as the share of the total variability of the sequences that is accounted for by a covariate. The statistical significance of this association was assessed by using 5000 permutations on the Levene test.

## 6. Results

### 6.1. Preferences for early-retirement

We first look at the evolution of the preference for early-retirement over time. Figure 1 shows the share of individuals 40 to 65 year-old who expressed positive preference towards early-retirement: no clear trend exists between 2004 and 2011. In fact, the overall decrease from 2004 to 2006 is followed by a significant increase in 2011<sup>vii</sup>. Consistently with our expectations, gender differences are rather strong: moreover women are increasingly more likely than men to express positive preference for early-retirement. These descriptive results could result from two different processes. First, younger cohorts of female old workers could have experience less interrupted careers and thus could have reached the minimum contributions requirements to apply for early-retirement. Secondly, retirement reforms introduced a “positive” discrimination against women by allowing them to retire earlier than men (60 vs. 65) even if the threshold of minimum years of contributions (35) was not reached, and this might have indirectly institutionalized early-retirement for women.

Preferences for early-retirement are also heterogeneous according to educational level. As stated above, education represents a crucial factor with respect to probability of early exit from work, because early-retirement regulation targeted mainly low-skilled workers. Figure 1 shows that preference for early-retirement is the highest among workers with primary and lower secondary education, and—in more recent years—for women especially. Over time, reforms and policy interventions have reduced the opportunity to limit unemployment risk of less educated blue collar older workers through massive ad hoc early retirement programs. However, as mentioned, early-retirement remained a real option for those workers who

entered early in the labor market typically with upper secondary degree, and often employed in the public sector or in medium-large firms. Even though these workers can count on comparatively long and stable careers that allow them to take advantage of available early-exit windows, they are more likely to express preference for early-retirement compared to less educated workers. These results apply to both men and women. Finally, tertiary educated are the least likely to have positive orientation towards early-retirement, and women - on average - more so than men.

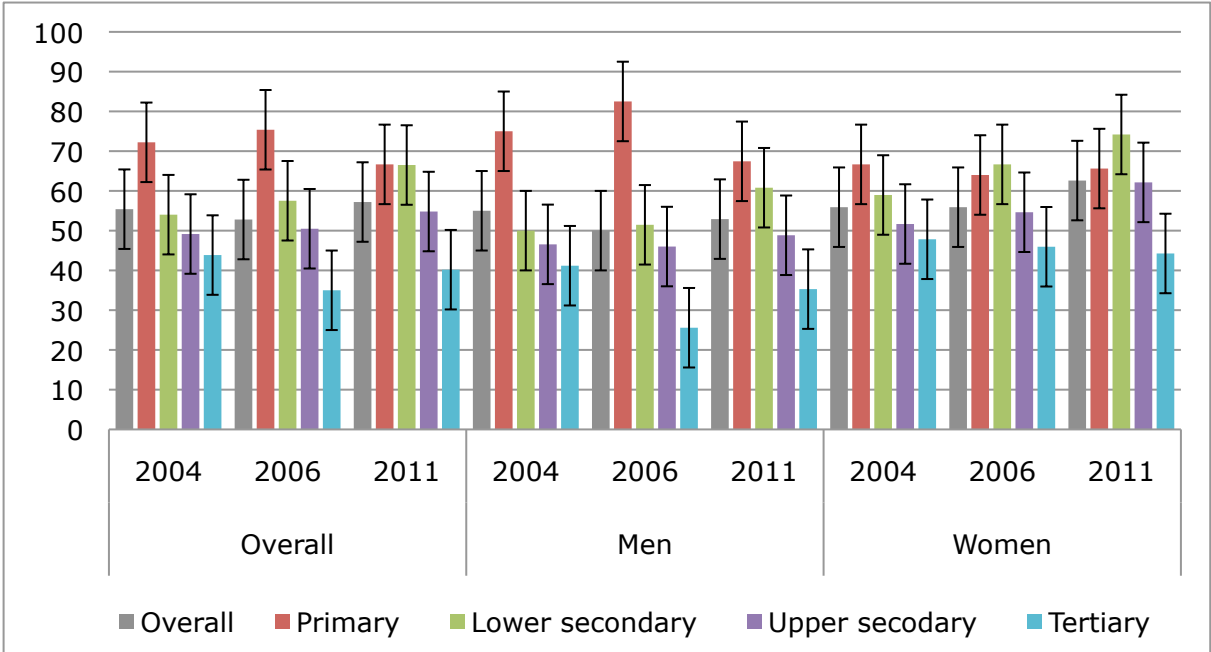


Figure 1: Positive preference for early-retirement for workers aged 40-65 according to gender and education. Authors’ calculations on SHARE data, wave 1, 2, and 4.

### 6.2. Modelling preferences and behavior of early-retirement

We now consider the consistency between early-retirement at time  $t+1$  given the preferences for it at time  $t$ . Figure 2 shows the average partial effects on the probability of early-retirement for our independent variables of interest. Having expressed a positive preference for early-retirement at time  $t$  is positively and significantly associated with a higher probability of actually exit from the labor forces. Furthermore, men are more likely to experience early-retirement than women. This finding confirms that in Italy in recent years early-retirement has been a prerogative of male workers despite the impressive changes in women’s labor market participation. Results on different probabilities of early-retirement driven by educational level are not significant, but suggest a slightly higher likelihood for mid-educated individuals.

Finally, those contingent factors - such as having care responsibilities and experiencing low job satisfaction - that could funnel workers toward early-retirement are not significantly associated with differential probability of actually experiencing it.

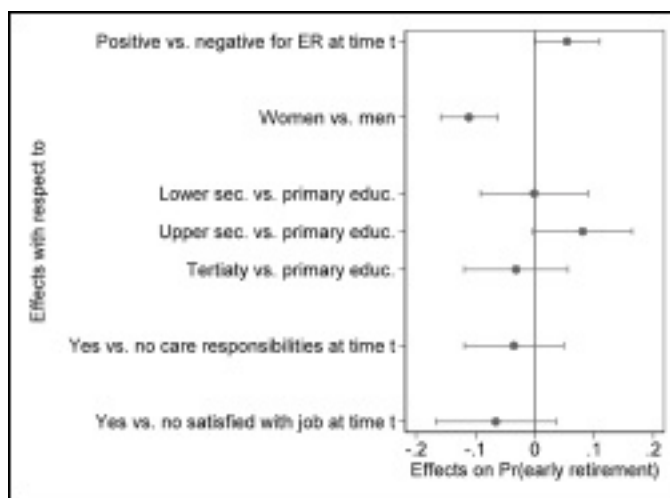


Figure 2: Discrete time logistic regression model estimating the probability of being early retired at time  $t+1$ . Average partial effects, confidence intervals 95%. Model additionally controls for age, age squared, and year of the survey. Authors’ calculation on SHARE data, wave I.

Figure 3 shows the average marginal effects on the probability of early-retirement for the interaction between preference for it and gender (plot (a)) and education (plot (b)). In the first case, a positive preference for early-retirement does not define a significantly higher

probability to experience it in the following 6 years considered. This applies to both men and women. The same is true when we look at plot (b): with the exception of primary educated, the interaction between preference and educational level show higher but not significant probability of early-retirement for those who expressed positive preference for it.

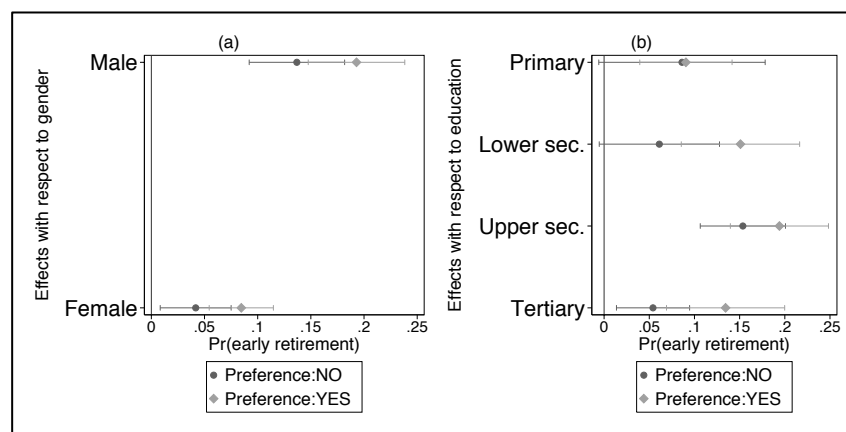


Figure 3: Discrete time logistic regression model estimating the probability of being early retired at time  $t+1$  according to the interaction between preference for early-retirement and (a) gender and (b) education at time  $t$ . Average partial effects, confidence intervals 95%. Model additionally controls for age, age squared, and year of the survey. Authors' calculation on SHARE data, wave I.

### 6.3. Retirement preferences and trajectories

While results presented in Figure 2 and Figure 3 account for the probability of the occurrence of early-retirement, Figure 4 shows full individual pathways to retirement from 2004 to 2009. All individuals in the sample were at-risk of experiencing early-retirement, being 60 or 65 for women and men respectively given the legislation in place in 2004. Retirement pathways are qualitatively different with respect to the share of time spent in the different states: full-time employment is prevalent in both subgroups of sequences, but to different extend for men and women, while self-employment is more typical for the group of women who did express negative preference for early-retirement. Those who were negatively oriented to early-retirement are also those who spent more time as self-employed: this could be a symptom of a stronger work attachment of self-employees or it could suggest some sort of adaptation of individual preferences and behavior to the available opportunity of retirement. Italy is characterized by high share of self-employment. Self-employed workers are mainly men in a relatively advanced stage of their career with prior work experience as



employees, who looked for better socio-economic conditions in the last part of their active working life. However, the Italian pension scheme is generally little generous with self-employed, and even more so in case of early retirement (Semenza, 2000; Reyneri et al., 2004). Therefore, workers with this profile can prefer staying longer at work to keep on benefiting from the improved economic well-being.

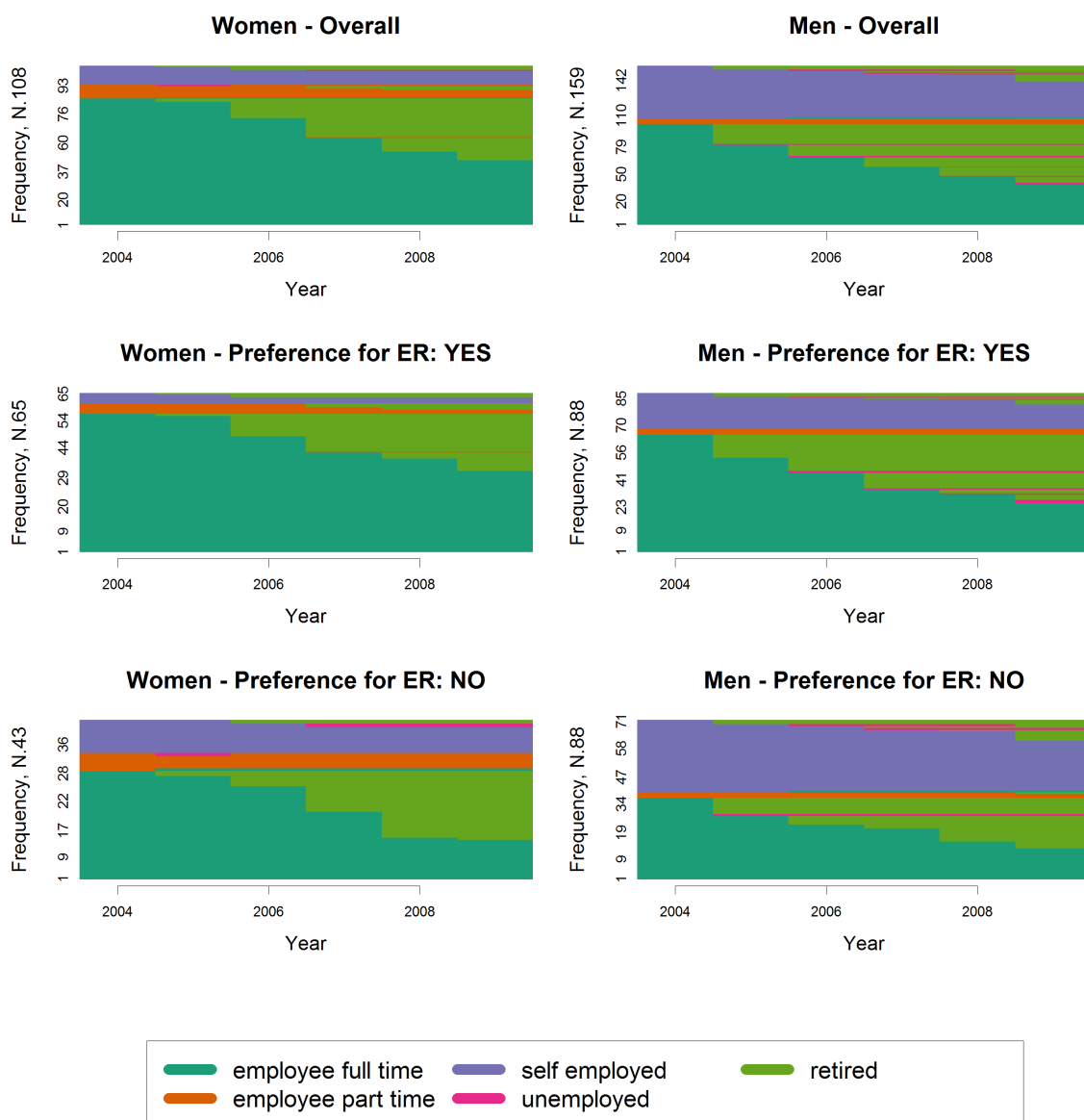


Figure 4: Individual sequences representing retirement trajectories by gender and preferences for early retirement (ER). X-axis reports the years from 2004 to 2009. Authors' calculation on SHARE data.

Table 2 shows the results from the sequence discrepancy analysis, which calculates the degree of standardization of trajectories and the share of the total variability between pathways that is accounted for by the preference for early-retirement (panel (a)). For women, retirement trajectories of those who express positive preference for early-retirement are more standardized—i.e. more similar to each other—compare to those who express negative preference (5.0 and 7.2 discrepancy value respectively). The difference in discrepancy between the two groups is statistically significant. In contrast, retirement pathways are equally standardized for men irrespective of their preference of early-retirement. Also in this case, those who were negatively oriented to early-retirement are also those who spent the last years in the active labor force as self-employed. Finally, the pseudo R2 values (panel (b) in Table 2) suggest that the preference for early-retirement explains almost 3% of the total variation between trajectories for both men and women.

*Table 2: (a) Within gender-groups discrepancy analysis of retirement trajectories according to preferences for early retirement. P-value significance of the Levene's test: \*=0.05 \*\*=0.01. (b) Pseudo R2 values from the between-groups discrepancy analysis of retirement trajectories according to gender. P-value significance of the Pseudo R2: \*=0.05 \*\*=0.01.*

(a)		
	Discrepancy	N.
<b>Women</b>		
Overall	6.1	108
<i>Preference for early retirement</i>		
No	7.2	43
Yes	5.0	65
Yes vs. No	*	
<b>Men</b>		
Overall	7.5	159
<i>Preference for early retirement</i>		
No	7.6	71
Yes	7.1	88
Yes vs. No	–	
(b)		
	Pseudo R2	N.
<i>Yes vs. No</i>		
Women	0.028*	108
Men	0.026**	159

## 7. Concluding remarks

Within the debate on the progressive de-standardization of the life course applied to the transition from work to retirement, early-retirement behavior can be conceptualized as the outcome a voluntary choice driven by preferences given the range pension schemes that institutionalized certain kind of exit from the labor forces.

In Italy several reforms have been implemented from the early 1990s to moderate the massive (compared to other European countries) use of early-retirement. Despite the widespread of the “early-exit” culture, no research exists for Italy on the role of individual preferences on retirement decisions. We aimed at filling this gap by describing the relationship between early-retirement preferences and actual behaviors in Italy. We explored this association for men and women and according to educational level and use sequence discrepancy analysis to study the strength of the relationship between longitudinal retirement trajectories and preference for early-retirement.

Our evidence shows that a positive preference is associated in particular with having a primary or a secondary degree. In fact, in the past, these workers had wider the possibility of early-retirement – and benefited greatly from it. In more recent years, also women could access to this option, arguably thanks to the combination of more stable careers of younger cohorts and special rules provided by last pension reforms. However, men are more likely to experience more traditional exit from work than women, so that early-retirement seems to persist as a male prerogative.

Our results on the probability of early-retirement show that characteristics that denote the institutional intervention on labor supply—typically gender and education—are, together with preferences, significant in explaining early-exit behaviors. In contrast, the association between behaviors and aspects linked to individual choices - such as job satisfaction and care responsibilities - was not significant.

Summing up, our results show that, despite the massive regulatory efforts of several pension scheme reforms, transition to retirement happens—especially for certain categories of workers—at early ages. As the trend of individual preferences in more recent years demonstrates, a persistent “early-exit culture” interferes with the promotion of longer working active lives.

To capture stronger evidence on the association or the discrepancy between individual preferences and retirement behaviors, the long-term consequences of changes in the

institutional configurations need to be further investigated by analyzing and comparing complete trajectories of those workers, who were no, partially, and completely affected by the new pension schemes. In this respect, future research should account for job quality and type of job to understand the micro-foundation of the persistency of early-exit preferences against negative institutional incentives.

## 8. Notes

<sup>i</sup> Rational choice theory is based on the general assumption that individuals act in ways that tend to yield beneficial results for themselves. Facing any decision an individual tends to maximize their utility function (Marini, 1992). The individual's personal intention of performing a specific behavior could be seen as a proximate determinant of that behavior, with behavioral intentions being a function of attitudes and subjective norms (Fishbein and Ajzen, 1975).

<sup>ii</sup> For a complete illustration of the Italian pension system reform process see e.g. Ferrera and Jessoula (2005).

<sup>iii</sup> This paper uses data from SHARE wave 4 release 1.1.1, as of March 28th 2013 (DOI: 10.6103/SHARE.w4.111), SHARE wave 1 and 2 release 2.6.0, as of November 29 2013 (DOI: 10.6103/SHARE.w1.260 and 10.6103/SHARE.w2.260), SHARELIFE release 1, as of November 24th 2010 (DOI: 10.6103/SHARE.w3.100).

<sup>iv</sup> The variable “care responsibilities” has been computed by merging two different variables available in SHARE dataset, which report information on whether the respondents has given support to a sick or disabled adult or to other persons outside the household during the months before the interview.

<sup>v</sup> Unemployment episodes include also inactivity, because in Italy subsidized unemployment is residual and this results in a less pronounced difference *de facto* between those who claim to be unemployed and those who define themselves as inactive. Moreover, the distinction between unemployment and inactivity has been questioned, because strongly dependent on the institutional definitions and the unemployment policies framework (Atkinson and Micklewright, 1991).

<sup>vi</sup> All the analyses on sequences were performed by using the software R version 3.2.5 (R Development Core Team, 2008). The sequence analysis has been conducted by using the R packages TraMineR and TraMineRExtras (Gabadinho and Ritschard, 2013; Gabadinho et al., 2011b, 2010, 2009) and WeightedCluster (Studer, 2012).

<sup>vii</sup> We acknowledge that the observation on 2011 followed the economic downturn following the crisis of 2008. However, in Italy the onset of the economic crisis was delayed compared to other European countries, and many macro-economic indicators started to worsen from 2010 on (OECD, 2015). Moreover, we would miss information to draw conclusion on this issue when discussing the results from the following analytical steps, for which the observational window ends in 2009. The effects of the economic crisis on retirement behavior have been studied only in terms of anticipation/expectations—rather than preferences—in the Netherlands, Ireland, and in the US (Bissonnette and van Soest, 2010; Barrett and Mosca, 2013 ; Szinovacz, Martin, and Davey, 2014). This research offers mixed results on the effects of education and not conclusive evidence on the overall effect of negative economic cycle on retirement expectation.

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## 10. Appendix

*Table A1 : Discrete time logistic regression model estimating the probability of being early retired at time  $t+1$ . Average partial effects, confidence intervals 95%. Model controls for age, age squared, and year of the survey. C.I.: confidence intervals. Authors' calculation on SHARE data, wave I.*

	APE	C.I. min.	C.I. max.
<i>Preference of early-retirement at time <math>t</math></i>			
No (ref.)	0	–	–
Yes	0.054	0.008	0.100
<i>Gender</i>			
Men (ref.)	0	–	–
Women	-0.111	-0.151	-0.071
<i>Education</i>			
Primary (ref.)	0	–	–
Lower sec.	-0.001	-0.077	0.075
Upper sec.	0.081	0.011	0.151
Tertiary	-0.032	-0.105	0.042
<i>Care responsibilities at time <math>t</math></i>			
No (ref.)	0	–	–
Yes	-0.035	-0.105	0.035
<i>Satisfied with job at time <math>t</math></i>			
No (ref.)	0	–	–
Yes	0.066	-0.020	0.151
	Predicted probability	C.I. min.	C.I. max.
<i>Gender*preference for early-retirement at time <math>t</math></i>			
Men*No	0.137	0.083	0.190
Men*Yes	0.193	0.139	0.247
Women*No	0.042	0.002	0.081
Women*Yes	0.085	0.049	0.121
<i>Education*preference for early-retirement at time <math>t</math></i>			
Primary*No	0.086	-0.024	0.196
Primary*Yes	0.091	0.030	0.151
Lower sec.*No	0.061	-0.018	0.140
Lower sec.*Yes	0.151	0.073	0.229
Upper sec.*No	0.154	0.097	0.210
Upper sec.*Yes	0.194	0.129	0.259
Tertiary*No	0.054	0.006	0.102
Tertiary*Yes	0.134	0.057	0.212
<i>N.</i>	<i>1,561</i>		