PREDICTORS OF EARLY RETIREMENT INTENTIONS IN CROATIA

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In this paper, we use the SHARE (Survey of Health, Ageing and Retirement in Europe) Wave 6 dataset to look into the socio-demographic, health, well-being, financial and work--related predictors of intended early retirement in Croatia. We estimate logit regression models. Based on our research, early retirement seems to be more appealing to people who work in the private sector, who have poor quality of life, who are less educated, or report poor health status. Amending the pension system in terms of making early retirement a less attractive choice is not enough. Many Croatian employees would be ready to work longer if they had better jobs, education, and health. These are the policy areas where Croatia needs large improvements.

Keywords: early retirement, pension system, ageing, Croatia, SHARE

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INTRODUCTION

More than one out of four old-age pension (OAP) beneficiaries in Croatia entered early retirement (HZMO, 2016).[1] The share of early old-age pension (EOAP) beneficiaries has been steadily increasing. This was especially pronounced during the 2009–2014 economic crisis. At the same time, the employment rate of workers aged 55-64 in Croatia is the second lowest (following Greece) in the European Union. In 2016, it stood at 38%, whereas the EU average was 55% (Eurostat, 2017). The

European Commission (2018) has been continuously emphasizing the need to take measure to discourage early retirement in Croatia.

The entitlement to the EOAP for men in Croatia is acquired with 60 years of age and 35 years of the qualifying period. In 2017, women could obtain the right to the EOAP with 56 years and nine months of age (in addition to 31 years and nine months of the completed qualifying period), whereas the age and qualifying period requirements will increase by three months each year until 2030 (60 years of age). From 2031 to 2037, the age limit will be extended by three months each year for both men and women. Starting from 2038, the right to the EOAP will be obtained with 62 years of age (and required qualifying period), regardless of sex.

The EOAP benefit decreases for each month of retirement before the old age limit (65 for men and 61 years and 9 months for women in 2017). The deduction ranges from 0.1% to 0.34% per month depending on the completed qualifying period. Starting from 2015, the EOAP without deductions is authorized to insurees with 60 years of age and 41 years of the qualifying period. The same goes for an insuree, who, after the termination of his/her insurance because of bankruptcy that took place before the conditions for an EAOP are met, stays registered with the employment agency for at least two continuous years.

Apart from EOAPs, another pathway to early retirement in Croatia are disability pensions. A disability pension can be acquired if an insured person has one of two potential types of disability: occupational or general incapacity for work, along with a completed qualifying period. The former is considered total disability and the latter partial. Nearly one quarter of Croatia's retired population is receiving a pension based on disability, which is higher than the EU average, even without taking into account war veterans (Bađun, 2017). When adding EOA and disability pensioners, we find that 39% of all pensioners entered early retirement. The average age of pensioners who entered early old-age retirement in 2016 was 59.2, whereas the average age for disability and old-age pensioners was 53.8 and 63.8, respectively (HZMO, 2016). Apart from war veterans, there are several other groups entitled to pensions under more favorable conditions (special regulations), i.e. to an earlier exit from the labor market.

Many European countries have stimulated different models of early exit from the labor force, with principal instruments being unemployment insurance, prolonged access to sickness and disability benefits, or development of particular pre-retirement programs (Van Bavel & De Winter, 2013). Higher national wealth correlates with a lower probability of early retirement, whereas an increasing unemployment rate gener-

ates more early retirement (Fischer & Sousa-Poza, 2006). Countries dealing with economic recessions and having strict employment protection legislation tend to push individuals towards 'involuntary' retirement (Dorn & Sousa-Poza, 2010).

Even though 'involuntary' retirement is an outcome of a worker's rational choice, the choice is limited by the lack of employment options. This is usually accompanied by general early retirement provisions that make 'involuntary' early retirement more appealing. Employers may also push workers to retire early with additional compensation. The explanation for large shares of 'involuntary' early retirement in Eastern European countries (namely Hungary, Slovenia and Poland) was found in their industrial restructuring and economic transition (Dorn & Sousa-Poza, 2010). In the 1990s, the costs of transition were shifted to the pension system through mass early retirement (Polanec, Ahčan, & Verbič, 2013), which was the case in Croatia as well (Vehovec, 2003; Rutkowski, 2007). Many elderly workers who lost their jobs and lacked skills to find new ones withdrew from the labor force through early retirement.

The decision to stop working before the legal retirement age (around 65 in most developed countries) is affected by an array of factors. The importance of institutional and macroeconomic factors in the large number of early retirees in Croatia was recognized by Rutkowski (2007), Nestić and Rašić Bakarić (2008), Baloković (2011), Vukorepa (2015) and Bađun (2017). In sum, the design of the Croatian pension system (low statutory retirement age, lax rules governing eligibility for disability pensions, relatively weak penalties for early retirement and hence relatively small differences in pension benefits between early and regular retirement, special pension regulations for various groups) has strongly affected the low employment rate among older workers.[2]

In this paper, we use the 'Survey of Health, Ageing and Retirement in Europe' (SHARE) Wave 6 data to look into the socio-demographic, health, well-being, financial and work-related predictors of intended early retirement in Croatia. We try to go beyond the institutional setting and look into retirement intentions of the employed population, men aged 50-64 and women aged 50-61. This is the first attempt to use individual-level data in order to analyze retirement issues in Croatia.

PREDICTORS OF EARLY RETIREMENT: PREVIOUS RESEARCH

Exit from the labor market before OAP is affected by so-called push and pull factors (van den Berg, Elders, & Burdorf, 2010). Pull factors are positive considerations and boost an employee's interest in early retirement, whereas push factors are negative issues which encourage people toward early exits. There is vast literature that examines a great number of push and pull factors, but they can be broadly summarized in five groups:

institutional, health-related, work-related, socio-demographic and financial factors.

The availability of institutional early retirement options most probably functions as a pull factor; labor inactivity among the elderly is likely to be particularly high in countries in which early retirement programs have been heavily advocated (Gómez-Léon & Miret-Gamudi, 2014). On the other hand, making early retirement less generous and rewarding individuals for postponing retirement induces workers to delay retirement (Euwals, van Vuuren, & Wolthoff, 2010).

Institutional changes also have spillover effects. For example, two pension reforms that increased the early retirement age in Austria increased employment among high-wage and healthy workers, whereas low-wage and less healthy workers went on retiring early via disability benefits or overpassed the gap to the early retirement age via unemployment benefits (Staubli & Zweimüller, 2013). Likewise, a Dutch policy reform that introduced job-search requirements in unemployment insurance (UI) for persons aged 57.5+ discouraged older people from entering unemployment; the probability of self-employment as an exit route to retirement increased relative to UI, but not relative to paid-employment (Been & Knoef, 2017). If there are incentives to retire fully at relatively young ages, even the scope for gradual retirement (various paths out of the labor force where individuals do not leave their jobs abruptly, but in a stepwise fashion) is limited (Bloemen, Hochguertel, & Zweerink, 2016).

De Wind et al. (2013) explain that poor health, a push factor, can influence early retirement because employees are: a) unable to work, b) believe their ability to work will decline in the future, c) are afraid that their health will deteriorate further or d) feel pushed out by their employer, even though they do not experience reduced working ability. They furthermore show that good health also influences early retirement because people want to enjoy life while their health still allows them.

Many studies confirm that poor health is a strong predictor of early retirement (e.g. Bonsdorff, Huuhtanen, Tuomi, & Seitsamo, 2010; Dwyer & Mitchell, 1999; van den Berg et al., 2010, etc.). This holds for both objective health measures and self-rated health (SRH). In addition, specific diseases bear a higher risk of early retirement. This has, for example, been shown for depression (Karpansalo et al., 2005), diabetes (Vijan, Hayward, & Langa, 2004), cancer (Carlsen, Oksbjerg Dalton, Frederiksen, Diderichsen, & Johansen, 2008), circulatory disorders (Dwyer & Mitchell, 1999). Functional limitations in activities of daily living (ADLs) and instrumental activities of daily living (IADLs) also result in earlier expected retirement (Dwyer & Mitchell, 1999).

Various dimensions of work quality strongly correlate with early retirement (Bonsdorff et al., 2010; Dal Bianco, Trevisan, & Weber, 2015; Lund & Villadsen, 2005; Siegrist, Wahrendorf, von dem Knesebeck, Jürges, & Börsch-Supan, 2007; van den Berg et al., 2010). The type of work is also an important factor (Dorn & Sousa-Poza, 2005). Furthermore, Schils (2008) notes that self-employed individuals might have higher preference for work and might face lower early retirement probabilities as compared to employees in more sheltered sectors, e.g. the public sector. It is important to mention that unemployment is also a factor that pushes people towards early retirement (Bould, 1980).

Many socio-demographic characteristics likewise influence the decision to retire. Early retirement is usually associated with increasing age because entitlement to early retirement programs is more likely, but there are exceptions (see e.g. Bonsdorff et al., 2010). Highly educated individuals are less likely to retire early (Gómez-Léon & Miret-Gamudi, 2014; Siegrist et al., 2007). Retirement intentions are also gender-dependent, with mixed evidence (Bonsdorff et al., 2010; Dahl, Nilsen, & Vaage, 2003). The same holds for marital status and characteristics (see e.g. van den Berg et al., 2010; Bonsdorff et al., 2010; Dahl et al., 2003; Danø, Ejrnæs & Husted, 2005). Furthermore, it seems that entering retirement is a joint decision made by couples (Szinovacz & Deviney, 2000; de Wind et al., 2014), not only individuals. Interestingly, it is also influenced by marital satisfaction: spouses living in unhappy marriages tend to postpone retirement (Kubicek, Korunka, Hoonakker, & Raymo, 2010). Becoming a grandparent speeds up retirement (Hochman & Lewin-Epstein, 2013) and the effect has been found stronger for women by Van Bavel & De Winter (2013) but not by the previously mentioned authors.

Lower socio-economic position increases the odds for early retirement (Lund & Villadsen, 2005). On the other hand, de Wind et al. (2014) find that in the Netherlands the financial possibility to stop working before the age of 65 predicts early retirement. Hochman & Lewin-Epstein (2013) believe that economic factors are not significant in retirement preferences, but are in actual retirement decisions. Finally, Fischer & Sousa-Poza (2006) have found that the influence of pension wealth accrual on early retirement is stronger than the gross replacement rate. What matters is the opportunity cost of retiring early.

DATA AND METHODS

We investigate the early retirement intentions (ERI) of employed Croatians, using the SHARE Wave 6 database.[3] SHARE is a multinational and multidisciplinary panel database of micro data on health and well-being, socioeconomic status and social and family networks of the population aged 50+.

It is modelled on the Health and Retirement Study (HRS) and the English Longitudinal Study of Ageing (ELSA), which are similar longitudinal surveys in the United States and England. SHARE Wave 6 database contains more than 68,000 face--to-face interviews collected in 18 countries in 2015 (Börsch--Supan, 2017).[4] Croatian participation in SHARE started in Wave 6. Data collection took place from June to November 2015, resulting in 2,494 individual interviews. SHARE data collection is based on computer-assisted personal interviewing (CAPI). The SHARE target population consists of all persons aged 50+ at the time of sampling who have their regular domicile in the respective SHARE country. In Wave 6, all household members born 1964 or earlier were eligible for an interview, whereas current partners living in the same household were interviewed regardless of their age (Börsch-Supan, 2017).

We too support the finding that the intention to retire is a strong indicator of the actual event of retirement, and usually precedes the decision to withdraw permanently from employment (Bonsdorff et al., 2010). The *outcome variable ERI* has been assessed using the following question: 'Thinking about your present job, would you like to retire as early as you can from this (main) job?'. In the full cross-sectional sample of 2,494 respondents included, 493 respondents reported themselves as working, 1,411 as retired, 232 as homemaker, 213 were unemployed, 40 of them were permanently sick or disabled, and for 105 the reported current job situation was 'other' or unknown. In the next step, we restricted the sample to employed or self-employed men aged 50-64 and women aged 50-61, i.e. below the statutory retirement age. After exclusion of sporadically missing values for other variables, 432 observations were included in the analysis.

In accordance with previous empirical results, we chose a set of covariates for the analysis. *Age* was calculated by deducting interview month and year from month and year of birth, and three age groups account for possible age-specific differences. *Education level* was measured according to International Standard Classification of Education (ISCED-97), and categorized into low (ISCED 0-2), medium (ISCED 3-4) and high (ISCED 5-6) education. Furthermore, dummies for *gender* and *marital status* were created taking value 1 if respondent is female and married and living with a spouse. A dummy variable was used to indicate if the respondent *looked after grandchildren* without the presence of the parents.

Self-rated health (SRH) was measured by a single question (US version of SRH where self-reported general health status is measured using a scale ranging from 1 for Excellent to 5 for Poor), and five answer options were dichotomized into 'less than very good', and 'very good and excellent'. SRH is a very

informative measure of health status (Idler & Benyamini, 1997), and is widely used as a predictor of morbidity, disability or mortality among the elderly (see e.g. Jylhä, 2009). Respondents were asked about *chronic diseases*, and we used a dichotomous variable indicating two or more chronic diseases. The CASP-12 scale was used to measure *quality of life* (QoL). The so-called CASP-12 measure is comprised of 12 Likert-type questions grouped in four dimensions that reflect QoL – Control, Autonomy, Self-realization and Pleasure. We used CASP index ranging from 12 to 48 where a higher score indicates better QoL, and followed the strategy presented by Siegrist et al. (2007), who defined participants in the lowest tercile as those having poor QoL.

In SHARE Wave 6, respondents who participated in the previous SHARE waves answered a battery of questions related to work quality. However, respondents in Croatia who participated in the SHARE for the first time did not answer these questions. Nevertheless, we could employ other work-related variables, i.e. we use a dummy for *private sector employee and self-employed*, as well as the *type of contract*. Financial situation is obtained by summarizing all individual income components at the household level. Income is presented in *income quintiles*, and in cases where income components were missing, it was based on imputation (see De Luca, Celidoni, & Trevisan, 2015). Variables used in the analysis are presented in Table 1.

⟳ TABLE 1
Variables used in
empirical analysis

Early retirement intentions (ERI)[5]	1 if respondent reported intention to retire as soon as possible from main job, 0 otherwise
Gender	1 if respondent is female, 0 if male
Age	Categorical variable with age groups 50-54, 55-59 and 60-64
Married	1 if married and living with spouse, 0 otherwise
Child(ren)	1 if child(ren) aged 0-18 is living in the household
Look after grandchildren	1 if respondent looked after grandchildren
Education	Categorical variable, value 1 for low, 2 for medium and 3 for high education
Poor SRH	1 if respondent reported less than very good health status (good, fair, and poor), 0 otherwise (excellent, very good)
Chronic diseases	1 if respondent reported 2 or more chronic diseases, 0 otherwise
Poor QoL	1 if respondent is in the lowest tercile, 0 otherwise
Private sector	1 if respondent is private sector employee or self-employed, 0 if public sector employee
Permanent contract	1 if respondent has permanent contract, 0 if short-term
Income quintile	Categorical variable for adjusted household income quintiles

Note: ERI variable in the SHARE dataset indicates whether the respondent is looking for early retirement if their current job status is 'employed' or 'self-employed'. We defined it as 'before the statutory retirement age'.

We use the logit model to estimate the probability of ERI (dichotomous outcome variable). Our goal is to predict the probability of the form P (Y = 1| X1,...,Xn), i.e. we predict the possibility of realization of the outcome variable (Y with 0/1 outcome) depending on combinations of values of the predictor variables (X). Although regression models were not weighted, we used Huber-White corrections for standard errors to account for clustering at the household level.

RESULTS

Descriptive findings

Figure 1 reveals proportions and the mean age of employed persons interviewed in SHARE Wave 6 who intended to retire as soon as possible. We restricted the sample to those aged from 50 to 64, which, according to Siegrist et al. (2007), is considered as an age period with higher chances for an early retirement decision. The highest share of employed individuals aged 50-64 with ERI is found for Slovenia, Italy and Poland (> 60%), and the lowest for Israel, Estonia and Switzerland (< 35%). Croatia can be placed in the group of countries with the lower share of workers with ERI (36.3 %), their mean age being among the lowest (56 years).

⟲ FIGURE 1
Respondents aged 50-64 who intend to retire as soon as possible (in %), and their mean age (*right scale*), *n* = 14,622
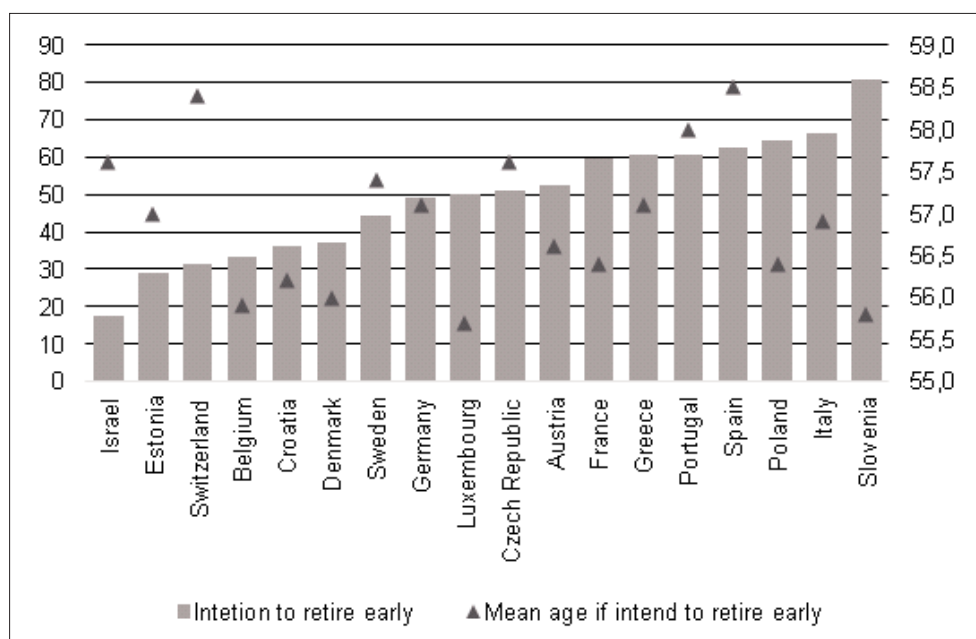
In Table 2 we classify 432 employees according to socio--demographic, health, well-being and work-related characteristics in two distinct groups: those who intend to retire as soon as possible (before the statutory retirement age) and those

who do not intend to retire early. Some 159 respondents or 37% of the sample reported they would like to retire early. Almost four out of ten respondents with ERI were female, whereas males were more likely to report ERI than females (39% vs. 34%, but not presented in Table 2). Almost four in five individuals were married and living with a spouse or partner, but this does not seem to be associated with ERI. One of two respondents was in the age group 55-59, and even though age does not seem to affect ERI, it becomes more probable in the age group 60-64. A statistically significant difference according to ERI was found for the level of education. The probability of ERI decreases with the increase in the level of education. In addition, no statically significant difference according to ERI was detected for respondents who were looking after grandchild(ren) or living with minor child(ren) in the household.

Overall, one of two respondents from the sample reported poor SRH, and there was a significant statistical difference between two groups according to their ERI intentions. One in five individuals reported two or more chronic diseases, and one in four of those who were thinking about early retirement. The pattern is also clear for QoL, i.e. poor QoL is significantly correlated with ERI.

⟳ TABLE 2
Descriptive statistics of socio-demographic, health, well-being, financial and work--related characteristics

		All respondents ($n = 432$)	Intend to retire early ($n = 159$)	Do not intend to retire early ($n = 273$)	Significance[a]
Gender	Female	40.4	37.3	42.3	ns
Age	50-54	38.8	38.2	38.9	ns
	55-59	46.5	45.2	47.6	
	60-64	14.7	16.6	13.5	
Married		80.2	80.5	80.1	ns
Child(ren)		9.8	10.4	9.4	ns
Look after grandchildren		17.1	19.3	15.7	ns
Education	Low	34.5	45.0	28.3	***
	Medium	40.6	39.6	41.2	
	High	24.9	15.4	30.6	
Poor SRH		51.4	60.9	45.8	**
Chronic diseases		22.0	25.2	20.0	ns
Poor QoL		36.6	44.3	32.0	**
Private sector		57.9	66.9	52.8	**
Permanent contract		87.9	85.9	89.1	*
Income quintile	1st	27.4	26.6	27.8	ns
	2nd	9.5	11.5	8.6	
	3rd	11.1	13.0	10.0	
	4th	17.5	16.2	18.4	
	5th	34.5	32.7	35.3	

Note: descriptive statistics deployed above are computed using individual weights, totals (n) are unweighted, ns: not significant, $*p < 0.1$, $**p < 0.05$, $***p < 0.001$, [a]Wilcoxon rank-sum test.

Respondents in the private sector account for 67% of those who intend to retire early from their main job, and 53% of those who do not. There is also a statistically significant difference between the two groups according to the variable indicating the sector of employment. Of the respondents in the ERI group, a slightly lower proportion (86%) have a permanent employment contract compared to the reference group (89%). Finally, one of three respondents who intend to retire early is in the highest income quintile, similar to the reference group. For the income variable, we could not find a significant difference between the two groups.

Inferential findings

Table 3 summarizes estimated coefficients of the binary logistic regression. The results are presented in three separate models. In the first model, the analysis is restricted to socio-demographic variables, and only the variable *education* is statistically significant. The education variable has a negative coefficient indicating that respondents with a higher level of education are less likely to report ERI. We can observe that respondents who have a higher level of education, compared to the reference category (low education), have a 37% lower probability to report ERI. The rest of the variables in this model were statistically insignificant.

In model II, three variables of well-being were introduced. Variables *poor SRH status* and *poor QoL* both have positive coefficients, as we expected, and are statistically significant. Respondents who reported poor health status or have poor QoL have a higher probability of thinking about early retirement, 62% and 63% respectively. The coefficient of the variable *chronic diseases* has a negative sign, i.e. individuals with two or more chronic diseases tend to think less about early retirement compared to the reference group, although the relationship is insignificant. This finding is in line with that of Miah & Wilcox-Gök (2011) who explained this with lower asset accumulation of individuals with chronic illness.

The third, final model included variables for the sector of employment, type of contract and income quintile of respondents. Variables for education, poor SRH and poor QoL remained statistically significant with the expected signs of the variable coefficients. If we set the covariates at their mean, we can say, e.g. that a hypothetical employee with poor SRH who intends to retire as soon as possible and who is average in all the other covariates, will have a 13% higher probability of ERI than a hypothetical employee with very good or excellent SRH. Equally, we can say that employees with poor QoL who are average on covariates, are 11% more likely to report ERI than respondents in the second or third CASP tercile. In addi-

○ TABLE 3
Logit marginal effects
on the probability of
early retirement
intentions (*n* = 432)

tion, we can see that employees in the private sector and the self-employed have a statistically significant and higher probability (about 64%), or nearly 1.8 times greater odds of thinking about retreating from their current job. Having a permanent employment contract, and thus better job security, lowers the probability of reporting ERI, but we could not obtain statistically significant evidence on this. Furthermore, the higher the income quintile the respondent belongs to, the higher the probability of reporting ERI.

| Variables | Model | | |
	I	II	III
Gender	-0.027	-0.106	-0.108
	(0.210)	(0.217)	(0.221)
Age	0.014	0.028	0.016
	(0.163)	(0.165)	(0.167)
Married	-0.081	-0.084	-0.111
	(0.301)	(0.306)	(0.312)
Child(ren)	0.117	0.168	0.136
	(0.397)	(0.401)	(0.411)
Look after grandchildren	0.253	0.255	0.279
	(0.274)	(0.278)	(0.279)
Education	-0.536***	-0.471**	-0.429**
	(0.147)	(0.149)	(0.152)
Poor SRH		0.478**	0.552**
		(0.234)	(0.242)
Chronic diseases		-0.009	0.027
		(0.111)	(0.111)
Poor QoL		0.520**	0.464**
		(0.221)	(0.221)
Private sector			0.566**
			(0.234)
Permanent contract			-0.411
			(0.344)
Income quintile			0.027
			(0.071)
Mc. Faddens Adj. R²	*0.030*	*0.052*	*0.067*

***$p < 0.001$, **$p < 0.05$, standard errors in parentheses

DISCUSSION

Our findings regarding early retirement predictors in Croatia are similar to international evidence. However, gender, marital status and income are not statistically significant. The main weakness of our research is a relatively small sample size, which reflects the low employment rate of the observed pop-

ulation. In addition, insufficient attention is given to work-related factors due to SHARE data unavailability. Our result that individuals working in the private sector are two times more likely to think about early retirement as compared to those whose main job is in the public sector, points to a divide between Croatia's public and private sector. Nestić, Rubil, and Tomić (2015) have shown that employees in the public sector, whose share in total employment was around 40% in 2012, are, on average, better educated and better paid. Public sector comprises employees in the sectors of health, education, public administration and in government-owned companies, except in previously mentioned sectors, whereas the rest are private sector employees. In 2012, the share of employees older than 50 was 46% in the public sector and less than 30% in the private sector.

It is important to mention that in Croatia, because of the application of the minimum pension, net replacement rate increases with age/career length but falls with earnings (Nestić & Rašić Bakarić, 2008). Hence, retirement means a bigger relative loss of income to high-wage than to low-wage workers. In other words, early retirement should be more attractive to low-wage workers but in our analysis income was not a statistically significant variable. As already pointed out by Nestić & Rašić Bakarić (2008), workers could find their future pension benefit too low in cases of both early and regular retirement (since the difference is relatively small) and therefore are not motivated to stay in regular employment after becoming entitled to an EOAP. According to a survey carried out in Croatia in 2015, one third of Croatians believe that retired individuals are most likely to work on an undeclared basis compared with other employment statuses (Franic & Williams, 2017). It can be a neat way of combining income security by receiving a pension and earning opportunities by taking casual jobs.

Work quality also matters. Based on the Fifth European Working Conditions Survey (EWCS) carried out in 2010, Šverko & Galić (2014) find that CEE countries lag behind Western European countries in the perceived quality of working life (QWL), especially in economic security. This aspect of QWL has been shown to be the key work life predictor of 'general' life satisfaction (Drobnič, Beham, & Präg, 2010). Results for Croatia are similar to those of other transition countries, although with relatively high ratings for social relations at work. Other components of QWL considered by Šverko & Galić (2014) are meaningfulness of work and autonomy and participation in decision-making. Unfortunately, it seems that in terms of job quality, based on EWCS 2015 data, Croatia again lags behind other transition economies. In Croatia, 32%

of workers had jobs of poor quality, whereas the EU28 average was 20%. At the same time, only 8% of workers had 'high flying' jobs, compared to the EU28 average of 21% (Eurofound, 2017). It is highly probable that older workers are even worse off in terms of job quality.

In a recent study, Ameriks et al. (2017) showed that older Americans have a strong desire to work, even those who have long been retired. The authors concluded that demand-side factors play a very important role in explaining the late-in-life labor market; older citizens would like to work longer if there were acceptable job opportunities, especially jobs with a flexible schedule and with similar characteristics to the last job they had. They would even be willing to take a significant wage reduction if such an opportunity occurred. However, employers do not find it profitable to hire older workers on part--time schedules.

Eurobarometer data show that one third of Europeans currently in work would like to continue working after they become entitled to a pension (European Commission, 2011). In addition, the older they get, the more likely they would be willing to continue working longer. According to the EWCS carried out in 2015 (Eurofound, 2017), the share of participants aged 56+ who felt they could do their job in five years' time in Croatia was similar to the EU28 average (around 70%). Interestingly, in Croatia the percentage of women who declared they would be able to do their job in five years' time was higher than the percentage of men, whereas the opposite holds for the EU28 average.

The main reason why individuals aged 50+ in the SHARE Wave 6 participating countries retired is the fact that they became eligible for a pension, either public or private (see Table 1 in the Appendix). However, two countries stand out: Croatia and Denmark. Only approximately half of the respondents in these countries retired because they became eligible. Almost 19% of all respondents in Croatia retired because they were 'offered an early retirement option/window with special incentives or bonus', which is the highest share among all participating countries. This confirms that Croatia too is among countries where 'involuntary' retirement is widespread. Another equally important reason for retirement in Croatia was ill health (20% of respondents), whereas only Austria and Portugal had a higher percentage in this category. In case of Denmark, around 30% of respondents retired because they wanted to enjoy life. The same motive was also strong in Sweden (22%) and Switzerland (16%), whereas on average it had a small role in other countries. In Croatia, only 1% of the respondents retired because they wanted to enjoy life.

CONCLUSION

Based on our research, early retirement in Croatia seems to be perceived as a shelter for people who work in tougher working conditions with lower economic security (private sector), who have poor QoL, are less educated (hence also, on average, have worse working life quality) or report poor health status. Amending the pension system by making early retirement a less attractive choice is not enough. Many Croatian employees would be ready to work longer if they had better jobs, better education, better health, and better QoL. These are the policy areas where Croatia needs large improvements, and SHARE could help us deliver evidence for reforms that will extend working life. It would be extremely valuable to link SHARE data with administrative data, i.e. the Croatian Pension Insurance Institute database.

Policy makers must recognize heterogeneity among older workers when implementing further reforms. Furthermore, although individual factors are indeed important, policy makers should take into account that entering early retirement in Croatia is often caused by poor economic restructuring. Decreasing early pension amounts even further can seem as an undeserved punishment.

NOTES

[1] At the end of 2016, the share of EOAP beneficiaries in total OAP beneficiaries was 28%. In calculating this share, disability pensions that were, by law, transformed into OAPs in 2015 have not been considered as OAPs.

[2] Average OAP benefit in December 2016 was HRK 2,482 (EUR 327) and average EOAP benefit was HRK 2,342 (EUR 308) (HZMO, 2016, p. 11).

[3] Release 6.0.0 of 31 March 2017.

[4] See Börsch-Supan et al. (2013) for methodological details, and SHARE Wave 6 documentation for the full list of participating countries.

[5] To avoid the self-selection bias we conducted additional analysis by restricting the age of respondents to early retirement conditions in Croatia in 2015, i.e. the year of interviewing in SHARE Wave 6 (56 years and 3 months for females and 60 for males). Our sample size dropped by 27%. However, our conclusions on main predictors remained stable and statistically significant.

APPENDIX

Main reasons for which individuals aged 50+ retired in the SHARE Wave 6 participating countries

Reason for retirement/Country	Austria	Germany	Sweden	Spain	Italy	France	Denmark	Greece	Switzerland
1. Became eligible for public pension	71.9	73.6	62.4	71.8	73.5	60.1	39.3	89.1	60.0
2. Became eligible for private occupational pension	0.2	6.2	23.0	0.0	17.3	16.5	16.0	0.5	12.4
3. Became eligible for a private pension	0.0	0.7	8.3	0.0	0.3	16.9	5.6	0.2	0.5
4. Was offered an early retirement option/window with special incentives or bonus	1.6	10.4	8.8	15.0	3.3	8.2	13.8	2.1	8.8
5. Made redundant (for example pre-retirement)	2.3	1.5	3.2	6.4	1.2	0.7	12.0	0.2	4.5
6. Own ill health	25.0	12.7	12.2	8.3	3.3	6.0	13.9	6.3	3.4
7. Ill health of relative or friend	0.0	1.5	0.9	0.0	0.6	2.9	0.7	0.9	0.4
8. To retire at same time as spouse or partner	0.0	1.5	3.6	0.3	0.2	1.4	4.9	0.3	3.5
9. To spend more time with family	1.0	5.0	3.7	5.0	1.3	4.5	18.8	2.5	4.1
10. To enjoy life	1.6	7.1	22.3	2.9	2.0	9.1	29.6	1.8	16.0

Reason for retirement/Country	Belgium	Israel	Czech Republic	Poland	Luxembourg	Portugal	Slovenia	Estonia	Croatia
1. Became eligible for public pension	74.2	40.3	77.3	95.3	78.8	59.8	76.1	70.5	51.5
2. Became eligible for private occupational pension	1.9	27.5	0.6	0.6	0.8	2.2	0.0	0.0	1.1
3. Became eligible for a private pension	0.2	5.6	0.2	0.0	0.4	0.0	0.0	0.0	0.6
4. Was offered an early retirement option/window with special incentives or bonus	9.2	15.6	3.6	2.0	2.9	6.2	7.9	6.0	18.6
5. Made redundant (for example pre-retirement)	6.1	5.9	4.4	0.4	0.9	9.3	2.8	7.1	4.1
6. Own ill health	6.7	8.9	10.0	1.3	9.8	20.9	13.0	12.0	20.0
7. Ill health of relative or friend	1.1	2.5	2.7	0.0	2.0	0.0	0.9	1.8	1.7
8. To retire at same time as spouse or partner	1.4	1.4	0.7	0.7	1.3	0.5	0.3	0.0	0.5
9. To spend more time with family	3.3	8.6	1.5	0.0	5.9	1.7	0.2	3.0	2.7
10. To enjoy life	6.6	6.0	3.5	0.2	2.1	0.1	0.3	3.5	1.0

Note: data in the table are weighted; respondents could select more than one answer option, i.e. the sum of the share of each reason for which the person retired exceeds 100%.

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Prediktori sklonosti ranijem umirovljenju u Hrvatskoj

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U radu se koristimo bazom podataka 6. vala "Istraživanja o zdravlju, starenju i umirovljenju u Europi" (SHARE), kako bismo modelom logističke regresije ispitali prediktore ranijeg odlaska u mirovinu u Hrvatskoj. Pritom uzimamo u obzir sociodemografska, zdravstvena i financijska obilježja

zaposlenika, kao i njihovu kvalitetu života te obilježja glavnoga posla. Rezultati našeg istraživanja upućuju na to da su ranijem umirovljenju skloniji zaposlenici koji rade u privatnom sektoru, koji imaju nisku kvalitetu života, slabije su obrazovani ili su subjektivno lošega zdravlja. Promjene mirovinskoga sustava kojima bi ranije umirovljenje bilo manje privlačno nisu dovoljne. Mnogi bi hrvatski zaposlenici bili spremni raditi dulje kad bi imali bolje poslove, obrazovanje i zdravlje. To su područja na kojima su u Hrvatskoj potrebna znatna poboljšanja.

Ključne riječi: ranije umirovljenje, mirovinski sustav, starenje, Hrvatska, SHARE