



ESPN Thematic Report on retirement regimes for workers in arduous or hazardous jobs

Croatia

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workers in arduous or
hazardous jobs**

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Summary/Highlights

In Croatia there is no special retirement system for workers in arduous or hazardous jobs (hereafter WAHJ), but there is special treatment for such workers within the general pension system, based on a special legislative framework consisting of several laws.

Under current legislation, there are hundreds of jobs and occupations that are considered to be arduous and hazardous. WAHJ have a double advantage within the general pension system: 1) accrual of additional years/months of service due to an enhanced pension insurance period, in the form of a higher accrual rate for each period of contribution, and 2) a lower retirement age. The average retirement income of WAHJ is around 27% higher than general average pensions.

Since 2013 the Government of Croatia has been planning changes to the preferential pension treatment of WAHJ. Experts in the Croatian Institute for Health Protection and Safety at Work are finalising a report on suggested changes. Their preliminary analysis suggests that almost one-half of the jobs and professions currently treated as arduous or hazardous should be removed from the special regime. Legislative amendments to this end are planned for the end of 2016, with a view to reducing the number of jobs and occupations classified as arduous and hazardous, as well as reviewing the right of WAHJ to an earlier retirement age. Since the current twofold preferential system has been in place for a very long time, it is likely that the reform will be disputed by key interest groups and the social partners.

Currently, Croatian policy does not fare well in terms of striking the necessary balance between (on the one hand) prolonging working lives and (on the other) facilitating early exits for frail workers. Any policy change needs to be evidence-based and well planned. Policy recommendations include:

- The double advantage system for WAHJ (enhanced insurance period and lower retirement age) should be reconsidered.
- The Croatian Pension Insurance Institute (CPII) and the responsible ministry should make calculations and estimates before reforming the system in order to verify whether the additional contribution rates are sufficient to cover all of the increased expenses of the pension system for WAHJ. Overall it would be necessary to improve records on WAHJ and such pensioners within the CPII, but also to initiate record-keeping within the Croatian Employment Service (CES) regarding their unemployment entry and exit patterns.
- The number of jobs, occupations and people covered by the preferential pension regime should be reduced and the right to a lower retirement age should be reviewed and restricted.
- More targeted measures for maintaining the employability of WAHJ should be planned and adopted. WAHJ should be stimulated to remain longer at work in other jobs rather than by favouring their early retirement.
- The introduction of partial retirement should be considered, with the same right to a reduced amount of pension as is currently the case with partial invalidity pension benefit.
- Third-pillar pensions (from voluntary defined-contribution funded schemes) could be used to reduce the risk of WAHJ falling into poverty in cases where they become unemployed.

1 Overall description of the policy mix targeted at workers in arduous or hazardous jobs

In Croatia there is no special retirement system for workers in arduous or hazardous jobs (hereafter WAHJ), but there is more favourable treatment of such workers within the general pension system.¹ In general they have a double advantage: 1) an additional reckonable period of service, due to an enhancement of their pension insurance period, and 2) a lower retirement age for old-age pension (see section 2). Moreover, during their working lives, some WAHJ may also have been protected by short-time work (*skraćeno radno vrijeme*), i.e. reduced working hours in proportion to the harmful effects of their job (effects that could not have been prevented by the implementation of health and safety measures).²

The legislative framework regulating the special pension provisions for WAHJ consists of a number of laws. The basic law is the Act on Insurance Periods Counted with Increased Duration,³ which provides definitions and lists of jobs in specific sectors, as well as general occupations, that are considered to be arduous or hazardous.⁴ Article 4 refers to 'jobs particularly difficult and hazardous for the health and working ability on which the insurance period is calculated with increased duration', and defines them as 'workplaces where there are harmful effects on the health and working ability of the employee, despite having applied general and special health and safety protection measures'. Further on, the same article lists 92 relevant jobs or groups of jobs in a total of 28 sectors.⁵ Article 5 of the same Act lists 11 groups of occupations in which physiological function declines with age. These are: 1) dancer of classical ballet and modern dance, ballet master, 2) opera singer-soloist, 3) dancer-singer in professional ensembles of folk dance, 4) airplane pilot and helicopter pilot, 5) teacher of motorized aircraft and gliders, 6) skydiving teacher, 7) radio operator (pilot), flight navigator and aircraft mechanic (flier), 8) diver, diver for sponges and corals and diving instructor, 9) various types of air traffic controllers, 10) chimney cleaner and chimney sweep master (cleaning high factory chimneys), and 11) air traffic tower controller with valid authorization. Additions to or removals from the list of arduous or hazardous jobs can be proposed by organisations including employers, trades unions and the Croatian Pension Insurance Institute (CPII). Decisions are based upon technical documentation and expert opinion provided by the Croatian Institute of Health Protection and Safety at Work.

Apart from this general regulation, there are many other laws prescribing jobs considered to be arduous or hazardous, for which the reckonable pension insurance period is enhanced. These include: 1) ship crew members,⁶ 2) workers exposed to asbestos,⁷ 3)

¹ For more on the Croatian pension system see: Vukorepa, I. (2015), 'Lost between Sustainability and Adequacy: Critical Analysis of the Croatian Pension System's Parametric Reform', *Revija za socijalnu politiku* (Croatian Journal of Social Policy), Vol. 22, No. 3, 2015, pp. 279-308, (<http://www.rsp.hr/ojs2/index.php/rsp/article/view/1307>).

² Art. 64 of the Labour Act (*Zakon o radu*), Narodne novine 93/2014 (this provision existed in older legislation as well) in connection with Art. 6 of the Act on the Insurance Periods Counted with Increased Duration.

³ Act on the Insurance Periods Counted with Increased Duration (*Zakon o stažu osiguranja s povećanim trajanjem*, NN 71/1999, 46/2007, 41/2008, 61/2011).

⁴ The law also covers people with a disability such as blind people and people with multiple sclerosis and poliomyelitis: but these are omitted from this report since they have special rights on the basis of their disability and not because they are employed as WAHJ.

⁵ Coal mines, steel mills, production of lead-acid batteries, production of ferroalloys and electrodes, foundries, production of non-metals, refractory materials, glass production, shipbuilding, oil production, production of fertilizers, production of building materials, construction industry, geological and mining research, rail and road transport, communal activities (household chimney cleaners), forestry, maritime fishing, processing hemp and jute, production of polyvinyl chloride, production and processing of rubber compounds, textile industry, processing of heavy machinery parts and machine tools, agricultural aviation, installation of industrial plants, leather-processing industry, production of rock wool, and quarrying.

⁶ Art. 129a of the Maritime Code (*Pomorski zakonik*, NN 181/04, 76/07, 146, 08, 61/11, 56/13, 26/15).

workers in de-mining,⁸ and 4) firefighters (professionals and volunteers).⁹ Accordingly these have all been included in this report, including in relevant data.

There has been an upward trend in recent years in the number of WAHJ. Currently, WAHJ make up around 2.2% of the total number of insurees within the pensions system. From the end of 2009 to the end of 2015 their number increased by 13.77%, while in the same period the total number of insurees dropped by 7.62%. At the end of 2015 there were 30,062 WAHJ, out of a total of 1,413,637 insurees (CPII: for more details see Table 5 in the Annex).¹⁰

Since 2013 the Government has been planning changes to the preferential pension treatment of WAHJ, as many jobs have become more automated and less arduous. So far, experts in the Croatian Institute for Health Protection and Safety at Work have reviewed more than 100 jobs and occupations. Preliminary results suggest that almost one-half of these should be removed from the special regime. Legislative amendments are planned for the end of 2016, with a view to reducing the number of jobs and occupations classified as arduous and hazardous, as well as reviewing the right of workers in such jobs to a lower retirement age.¹¹ Since the current twofold preferential system has been in place for a very long time (in its current form since 1998, based largely on the regime from 1976),¹² it is reasonable to expect that the reform will be disputed by key interest groups and social partners.

In addition, in line with the need to increase the retirement age within the general pension system¹³ and to review the right of WAHJ to a lower retirement age, measures aimed at prolonging working life and job mobility would be advisable (e.g. a ballet dancer becoming a dance teacher, and so on). In addition to employment incentive measures for unemployed people, the Croatian Employment Service (CES) may also adopt training programmes for employed people to maintain their employability:¹⁴ but such measures have been very few in number so far,¹⁵ targeting employers rather than employees, and none has been adopted or planned for WAHJ.¹⁶

⁷ Act on the conditions for entitlement to old-age pension for workers occupationally exposed to asbestos (*Zakona o uvjetima za stjecanje prava na starosnu mirovinu radnika profesionalno izloženih azbestu*, NN 79/07, 149/09, 139/10).

⁸ Act on Anti-Mine Action (*Zakon o protuminskom djelovanju*, NN 110/15), as well as the previous Law on Humanitarian De-mining, (*Zakonu o humanitarnom razminiranju*, NN 153/05, 63/07, 152/08) and the Act on Special Pension Rights for Employees in De-mining (*Zakon o posebnim pravima iz mirovinskog osiguranja zaposlenika na poslovima razminiranja*, NN 153/2005, 152/2008).

⁹ Art. 25 of the Act on Firefighting (*Zakon o vatrogastvu*, NN 106/99, 117/01, 36/02, 96/03, 139/04, 174/04, 38/09, 80/10).

¹⁰ In line with the guidelines for this thematic report (p. 4-5), the following have been excluded from the number of WAHJ: people employed in services of public interest, military personnel, police officers and some other authorized officials (e.g. customs officials, judges adjudicating in corruption and organized crime cases) and high officials of the Office for Combating Corruption and Organized Crime. Some of these also perform strenuous and hazardous jobs, and all of them fall under the current privileged regime.

¹¹ Croatian Government (2016). National Reform Programme 2016, April 2016, adopted on 28 April 2016, p. 39; Plan on Normative Activities in 2016. All available at <https://vlada.gov.hr/sjednice/17-sjednica-vlade-republike-hrvatske-18896/18896> (accessed 3 May 2016).

¹² Baloković, S. (2014), 'Staž osiguranja s povećanim trajanjem – institut neprimjeren kombiniranom mirovinskom sustavu', *Radno pravo*, No. 12, 2014, pp. 40-41.

¹³ Currently the Pension Insurance Act provides for a gradual increase in the old-age retirement age from 65 to 67, and in the early-retirement age from 60 to 62, over the period 2031-2038; However, the new Government Plan for 2016, adopted on 28 April 2016, envisages an accelerated increase in retirement age during the period 2024-2027. This plan will be discussed in our forthcoming Country Report. For more on the retirement-age problem see: Vukorepa (2015), p. 294-298.

¹⁴ Art. 35(5) of the Act on Employment Mediation and Unemployment Rights (*Zakon o posredovanju pri zapošljavanju i pravima za vrijeme nezaposlenosti*, NN 80/08, 94/09, 121/10, 25/12, 118/12, 12/13, 153/13).

¹⁵ Six measures were adopted: 1) 'Staying in employment' – aid for employment with another employer for people over 50 or for people with disabilities; 2) 'Knowledge is valuable' – co-financing of employee education regarding the introduction of new technologies, higher standards and changes in the employer's production programme; 3) 'Support for education and training of workers'; 4) 'Support for the shortening of working time';

Regarding the possibility of job handovers,¹⁷ the Croatian system does not allow for partial old-age retirement (partial retirement is only allowed in the case of partial disability). However, since 2014, old-age pension beneficiaries have been allowed to work part time (up to 20 hours per week): they continue to pay pension contributions, and have the right to a full pension.¹⁸ On the other hand, pensioners hired on the basis of a contract for service (*ugovor o djelu*)¹⁹ and hence receiving so-called 'other income', need not pay pension contributions, whereas pension benefit is paid to them in full.²⁰ In this context, the lower retirement age for some current WAHJ is also problematic from the point of view of the pension system's sustainability.

2 Pension rules for workers in arduous or hazardous jobs

In Croatia, WAHJ are treated under separate pension rules with a double advantage. Firstly, they have a *right to an enhanced (imputed extra years/months of service) pension insurance period, on which pension benefit is calculated*. The maximum pension insurance period within a year is normally 12 months, whereas for WAHJ each 12-month contribution period is counted as 14, 15, 16 or 18 months, depending on the occupation performed and the working conditions encountered (giving a coefficient of 1.1666, 1.25, 1.333 or 1.5). A *pro-rata* enhancement applies to shorter service periods. This has the effect of a higher pension accrual rate for each period of contribution, since the amount of pension benefit is calculated also on the basis of the pension insurance period.²¹ Most WAHJ fall under the category of insurees whose extension coefficient is 1.25 (for more details see Table 6 in the Annex).

The second advantage is a *lower qualifying age for an old-age pension* (a type of risk-related early retirement). Currently, the statutory pension age is 65 for men (subject to a minimum 15 years qualifying period), while the regular early-retirement window is five years (requiring a much longer qualifying period, of 35 years). For women the retirement age is gradually being equalised with that for men, by three months per year during a 2011-2030 transitional period.²² For WAHJ the statutory pension age is lower, depending on two elements: 1) the years worked in hazardous jobs and arduous occupations, and 2) the degree of service enhancement.²³ Hence, the pension age for WAHJ is reduced as follows:

- by one year for every six years of work in jobs or professions in which the insurance period of 12 months is counted as 14 months,
- by one year for every five years of work in jobs or occupations in which the insurance period of 12 months is counted as 15 months;
- by one year for every four years of work in jobs or professions in which the insurance period of 12 months is counted as 16 months,

5) 'Permanent seasonal workers' – co-financing of contributions for enhanced pension insurance period for permanent seasonal workers; 6) 'Work after the summer' – aid for employment in tourism.

¹⁶ Author's conclusion based on the currently available programmes and measures adopted by the CES, <http://www.hzz.hr/default.aspx?id=11728>, and <http://mjere.hzz.hr/> (accessed 15 May 2016).

¹⁷ Job handovers refers to situations when an older worker has access to full or partial retirement or a reduced working time, and in exchange a younger worker is hired through a special track combining training and work.

¹⁸ Art. 99(2) of the Pension Insurance Act (Zakon o mirovinskom osiguranju, NN 157/13, 151/14, 33/15, 93/15). Arts 19 to 26 of the Contributions Act (Zakon o doprinosima, NN 84/08, 152/08, 94/09, 18/11, 22/12, 144/12, 148/13, 41/14, 143/14).

¹⁹ A contract for services is an agreement whereby a person is engaged as an independent contractor (such as a self-employed person, vendor or freelancer) carrying out an assignment or providing a service.

²⁰ Art. 209(1)(15) of the Contributions Act; Art 99(2)(6) of the Pension Insurance Act.

²¹ For more see: Vukorepa, I. (2015), op. cit., pp. 289.

²² The law currently prescribes a gradual increase in the retirement age to 67, and in the early-retirement age to 62, during the period 2031-2038. However, the most recent Government plan from 2016 envisages an accelerated increase during the period 2024-2027.

²³ Art. 8(2) of the Act on the Insurance Periods Counted with Increased Duration.

- by one year for every three years of work in jobs or professions in which the insurance period of 12 months is counted as 18 months.

Significantly lower pension ages have been prescribed for some specific jobs:

- 1) for ship crew members – 60 years of age, provided the person achieved at least 15 years of service on board as a crew member;
- 2) for workers in de-mining – no age limit, provided they have a pension insurance period at least 25 years, of which a minimum of eight years were spent in de-mining and related hazardous jobs or in service during the Homeland War;²⁴
- 3) for workers who were directly or indirectly exposed to asbestos:
 - people with asbestosis – immediate entitlement to a pension, regardless of age or the number of qualifying years. For other workers it depends on how long they have been working in jobs exposed to asbestos and on the number of qualifying years (hence the pension age can vary from 45 to 48 for women and from 50 to 53 for men);
 - it should be noted that there are no more workers registered as professionally exposed to asbestos; all of the current retirees who were exposed to asbestos, a total of 809, are already beneficiaries of old-age retirement benefits. However, the average duration of their pension benefit payment is very short, only around five years.²⁵

Apart from these early exits, WAHJ as well as all other insurees within the mandatory pension system in Croatia are entitled to improved rights if the death and disability was caused by an accident at work or by an occupational disease. In these cases, invalidity pension and other benefits are calculated assuming a minimum 40 years insurance period, regardless of the actual years of service.²⁶

Regarding funding, the regular pension insurance contribution rate for the mandatory pension system is 20%, paid from employee wages (or from the pension insurance base for the self-employed). People covered only by the pay-as-you-go (PAYG) scheme pay all contributions to the first pillar, while people insured under the two-tier mandatory scheme (PAYG defined-benefits pillar and funded defined-contributions pillar) pay 15% to the first pillar and 5% to the second pillar.²⁷ For WAHJ, employers must pay additional contributions to the state budget, depending on two elements: 1) worker's participation in a single-tier or two-tier mandatory pension system, and 2) the pension insurance period enhancement.²⁸

²⁴ Art. 2 of the Act on Special Pension Rights for Employees in De-mining.

²⁵ Based on data at 13 May 2016 obtained from the CPII on 18 May 2016.

²⁶ Vukorepa (2015), op. cit., p.290.

²⁷ Regarding participation rights in a multi-pillar system, there are three situations that should be differentiated: 1) all people under the age of 40 (either at the time of the 2002 reform or at the time of becoming an insuree) have to participate in the two-tier mandatory system; 2) people aged between 40 and 50 at the time of the reform could choose between staying within the single-tier PAYG scheme or joining the new two-tier mandatory system, and 3) people over 50 had to remain within the first pillar only. See: Vukorepa (2015), op. cit., p. 287-288.

²⁸ Arts. 13 and 17 of the Contributions Act (*Zakon o doprinosima*). Narodne novine, br. 84/2008, 152/2008, 94/2009, 18/2011, 22/2012, 144/2012, 148/2013, 41/2014, 143/2014.

Table 1: Additional contribution rates for WAHJ

Pension insurance period enhancement: from 12 months to	Additional contribution rate for WAHJ if single-tier insurees	Additional contribution rate for WAHJ if two-tier insurees	
		For 1st pension pillar	For 2nd pension pillar
14 months	4.86%	3.61%	1.25%
15 months	7.84%	5.83%	2.01%
16 months	11.28%	8.39%	2.89%
18 months	17.58%	13.07%	4.51%

It is generally assumed that these additional contributions are not sufficient to cover all the increased expenses of the pension system in respect of WAHJ.²⁹ Unfortunately, exact calculations have never been done, and it would be very useful if the CPII and the responsible ministry were to make such estimates before reforming the system.

Finally, third-pillar pensions (from voluntary defined-contribution funded schemes) can be paid out at an age lower than the statutory retirement age (currently at 50 rather than 65). Although such a big difference in retirement age between mandatory and voluntary pensions should be reconsidered, voluntary schemes with a lower retirement age can be seen as a way to reduce the risk of poverty for WAHJ in the event of being made unemployed.

3 Retirement patterns and retirement income of workers in arduous or hazardous jobs

There are no available data regarding labour market exit patterns for WAHJ, and thus we cannot estimate whether and for how long they remain unemployed before retirement.

Regarding **retirement patterns**, a significant number of WAHJ, regardless of the type of job, now retire on an old-age pension rather than a disability pension (see Table 2), although this varies according to job and occupation.

The **effective retirement age** for WAHJ is, for reasons explained above, lower on average than for other workers. For most WAHJ the retirement age during 2009-2015 was between 60 and 62. The lowest average retirement age was found among workers in de-mining (around 45 years and 8 months with an old-age pension, and between 38 and 42 years with a disability pension), workers who were exposed to asbestos (56 for old-age pensions), and ship crew members (60 for old-age pensions).³⁰

Currently there are 88,189 pensioners who were WAHJ (CPII data at 13 May 2016), while the total number of all pensioners, including some privileged groups, was 1,231,471 at the end of March 2016 (1,138,530 regular pensioners; 13,891 pensioners who were active military personnel, police officers and other authorized public officials; and 72,200 pensioners defined as Croatian Homeland War veterans and 6,851 as members of Croatian Defence Council operating in Bosnia-Herzegovina).³¹

²⁹ Baloković (2014), op. cit., p. 51.

³⁰ Author's estimates based on data obtained from the CPII (CPII 2016 b).

³¹ CPII, Review of key information on the current situation in the pension insurance system, April 2016: data refer to 31 March 2016, http://www.mirovinsko.hr/UserDocsImages/en/pension_insurance/2016/osnovnipodaci2016_04EN.pdf (accessed 19 May 2016).

The yearly share of WAHJ among new pensioners under the CPII has ranged between 6% and 8% in recent years. Most new pensioners, including WAHJ, enter retirement through old-age or early retirement, rather than on a disability pension.

Table 2: Retirement patterns for new pensioners

Year of retirement	New pensioners – WAHJ only			New pensioners under CPIA32 (including WAHJ but not some other privileged groups)				% of WAHJ in new pensioners
	Old-age and early retirement	Disability pensions	Total ³³	Old-age and early retirement	Disability pensions	Survivor's pension	Total	
2009	1,513	1,906	3,419	28,649	13,139	15,182	56,970	6.00 %
2010	2,476	1,337	3,813	38,650	9,257	12,762	60,669	6.28 %
2011	2,442	1,093	3,535	29,714	7,878	12,863	50,455	7.01 %
2012	2,780	604	3,384	30,805	3,616	13,038	47,459	7.13 %
2013	3,479	465	3,944	33,644	2,706	12,411	48,761	8.09 %
2014	4,046	389	4,435	36,258	3,475	11,793	51,526	8.61 %
2015	2,975	154	3,129	35,631	2,102	11,523	49,256	6.35 %

Source: Author's calculations based on CPII data (data for WAHJ pensioners obtained on 18 May 2016, while general data under the Croatian Pension Insurance Act (CPIA) are available online, Statistical Information Series). Note: data do not cover pensioners who were active military personnel, police officers, Homeland War veterans etc.

Regarding the **relative income situation** of pensioners who were WAHJ, it should be pointed out that their pension benefits (old-age, invalidity and survivor's pension) are 27.7% higher than those of other pensioners under the general pension system. In practice, the difference in favour of WAHJ is even higher because all CPII's publicly available averages also include WAHJ. Higher pensions can be partially explained by enhancements to their reckonable periods of insurance. Unfortunately, no data are available from the CPII on *net replacement rate*³⁴ and *net pension wealth*.³⁵

³² Croatian Pension Insurance Act (Zakon o mirovinskom osiguranju).

³³ No data available for survivor's pensions for new pensioners.

³⁴ The *net replacement rate* is defined as the individual net pension entitlement divided by net pre-retirement earnings, taking into account personal income taxes and social security contributions paid by workers and pensioners. It measures how effectively a pension system provides a retirement income to replace earnings, the main source of income before retirement. This indicator is measured as a percentage of pre-retirement earnings by gender (OECD definition).

³⁵ *Net pension wealth* is the present value of the flow of pension benefits, taking account of the taxes and social security contributions that retirees have to pay on their pensions. It is affected by life expectancy and by the age at which people take their pensions, as well by indexation rules. This indicator is measured as a multiple of annual gross earnings by gender (OECD definition).

Table 3. Pension income situation of WAHJ compared to other regular pensioners

Type of pension benefit	Average pension amounts		Difference
	For analysed group of WAHJ (data on 13 May 2016), in HRK	For all pensioners under CPIA, including also WAHJ (data for March 2016), in HRK	
Old-age pension (including early age pension)	3,092.21	2,422,03	+27.67%
Total invalidity pension	3,459.91	1,846.60 (note: this average pension amount refers to all types of invalidity pensions)	+87.36%
Partial invalidity pension	2,201.41		+19.21%
Survivors pension	2,293.40	1,881.55	+21.88%
Total average pension	2,857.86	2,245.49	+27,27%

Source: Author's calculations based on CPII data. Data for WAHJ pensioners obtained on 18 May 2016. General data under the CPIA are available online, *Statistical Information 1/2016*, p. 11 and 44. Notes: (1) All data exclude pensioners who were active military personnel, police officers, homeland war veterans etc.; (2) 1 EURO = 7.5 HRK.

It should be noted that, on average, **WAHJ enjoy pension benefits for a shorter period than other pensioners** (13 years for old-age and early old-age pensions, compared with 20 years for all pensioners, according to CPII statistics). On the other hand, survivor's pension is paid for much longer to family members of WAHJ. In both cases this could be explained by a lower life expectancy for WAHJ: however, no reliable data are available. More detailed data are presented in Table 4.

Table 4: Average years of entitlement to pension benefit

Years of entitlement to pension benefit	For analysed group of WAHJ (data from 13 May 2016), (yy mm dd)	For all pensioners under CPIA, including WAHJ (data for March 2016) (yy mm dd)
Old-age and early old-age	13 02 09	20 11
Total invalidity	10 04 27	18 07 (refers to both types of invalidity pensions)
Partial invalidity	11 09 20	
Survivor's	23 11 09	17 11

Source: CPII data. Data for WAHJ pensioners obtained on 18 May 2016. General data under CPIA are available online, *Statistical Information 1/2016*, p. 35. Note: Data do not cover pensioners who were active military personnel, police officers, homeland war veterans etc.

In conclusion, Croatian policy does not currently fare well in terms of striking the necessary balance between (on the one hand) prolonging working lives and (on the other) facilitating early exits for frail workers. Any policy change needs to be evidence-based and well planned. Policy recommendations include:

- The double advantage system for WAHJ (enhanced insurance period and lower retirement age) should be reconsidered.
- The CPII and the responsible ministry should make thorough calculations and estimates before reforming the system in order to verify whether the additional

contribution rates are sufficient to cover all of the increased expenses of the pension system in respect of WAHJ. Overall it would be necessary to improve records on WAHJ and such pensioners within the CPII, but also to initiate record-keeping within the CES regarding their unemployment entry and exit patterns.

- The number of jobs, occupations and people covered by the preferential pension regime should be reduced and the right to a lower retirement age should be reviewed and restricted.
- More targeted measures for maintaining the employability of WAHJ should be planned and adopted. WAHJ should be stimulated to remain longer at work in other jobs rather than by favouring their early retirement.
- The introduction of partial retirement should be considered, with the same right to a reduced amount of pension as is currently the case with partial invalidity pension benefit.
- Third-pillar pensions (from voluntary defined-contribution funded schemes) could be used as a way of reducing the poverty risk for WAHJ in the event that they become unemployed.

References

Articles

- Baloković, S. (2014), 'Stož osiguranja s povećanim trajanjem – institut neprimjeren kombiniranom mirovinskom sustavu' (The insurance period with increased duration – Institute inappropriate for mixed pension system), *Radno pravo (Labour Law Review)*, No. 12, 2014, pp. 38-52.
- Turković-Jarža, L. (2015). 'Pravo na staž osiguranja s povećanim trajanjem (beneficirani staž)' (Right to insurance period with increased duration), *Računovodstvo revizija i financije*, No 11, 2015, pp. 93-103.
- Turković-Jarža, L. (2012). 'Plaće radnika koje ostvaruju pravo na staž osiguranja s povećanim trajanjem (beneficirani staž)' (Salaries of workers who have the right to insurance period with increased duration), *Računovodstvo revizija i financije*, No 2, 2012, pp. 115-124.
- Učur, M. (2012). 'Propise o stažu osiguranja treba osuvremeniti i usklađivati s pravnom stečevinom Europske unije' (Regulations on insurance period with increased duration should be updated and harmonized with the *acquis communautaire*), *Hrvatska pravna revija*, Vol. 12, No. 12, 2012, pp. 57-65.
- Vukorepa, I. (2015), 'Lost between Sustainability and Adequacy: Critical Analysis of the Croatian Pension System's Parametric Reform', *Revija za socijalnu politiku (Croatian Journal of Social Policy)*, Vol. 22, No. 3, 2015, pp. 279-308 (also available at <http://www.rsp.hr/ojs2/index.php/rsp/article/view/1307>).

Legal sources and other government materials

- Act on Anti-Mine Action (Zakon o protuminskom djelovanju, NN 110/2015).
- Act on Employment Mediation and Unemployment Rights (Zakon o posredovanju pri zapošljavanju i pravima za vrijeme nezaposlenosti, NN 80/2008, 94/2009, 121/2010, 25/2012, 118/2012, 12/2013, 153/2013)
- Act on Firefighting (Zakon o vatrogastvu, NN 106/1999, 117/2001, 36/2002, 96/2003, 139/2004, 174/2004, 38/2009, 80/2010).
- Act on the Insurance Periods Counted with Increased Duration (Zakon o stažu osiguranja s povećanim trajanjem). Narodne novine, br. 71/1999, 46/2007, 41/2008, 61/2011.
- Act on Special Pension Rights for Employees in De-mining (Zakon o posebnim pravima iz mirovinskog osiguranja zaposlenika na poslovima razminiranja, NN 153/2005, 152/2008).
- Contributions Act (Zakon o doprinosima). Narodne novine, br. 84/2008, 152/2008, 94/2009, 18/2011, 22/2012, 144/2012, 148/2013, 41/2014, 143/2014.
- Croatian Government (2016). National Reform Programme 2016, April 2016, adopted on 28 April 2016, retrieved from <https://vlada.gov.hr/sjednice/17-sjednica-vlade-republike-hrvatske-18896/18896> (in English available at: http://ec.europa.eu/europe2020/making-it-happen/country-specific-recommendations/index_en.htm; http://ec.europa.eu/europe2020/pdf/csr2016/nrp2016_croatia_en.pdf).
- Labour Act (Zakon o radu), Narodne novine 93/2014.
- Maritime Code (Pomorski zakonik, NN 181/2004, 76/2007, 146/2008, 61/2011, 56/2013, 26/2015).

Pension Insurance Act (Zakon o mirovinskom osiguranju, NN 157/2013, 151/2014, 33/2015, 93/2015).

Statistical and data sources

Croatian Pension Insurance Institute (CPII). *Statistical Information* [data files from 2003 onwards]. Available from the CPII web site at: <http://www.mirovinsko.hr/default.aspx?ID=723>

Croatian Pension Insurance Institute (CPII 2016a). Data on workers in arduous or hazardous jobs (data prepared following a special request by the author of this report, data obtained on 9 May 2016 from Mrs. Vesna Dejanović, head of Pension Insurance Department at the CPII).

Croatian Pension Insurance Institute (CPII 2016b). Data on pensioners in arduous or hazardous jobs (data prepared following a special request by the author of this report, data obtained on 11 and 18 May 2016 from Mr. Dražen Šlibar, head of Department on Pension Entitlements at the CPII).

Interviews

Baloković, Snježana, head of Sector for coordination of social security systems, Ministry of Labour and Pension System, Zagreb, 13 April 2016.

Popović, Milenko, head of Pension Insurance Sector, Ministry of Labour and Pension System, Zagreb, 13 April 2016.

Dejanović, Vesna, head of Pension Insurance Department, Croatian Pension Insurance Institute, Zagreb, 24 March 2016.

Šlibar, Dražen, head of Department for the Acquisition of Rights, Croatian Pension Insurance Institute, Zagreb, 24 March 2016.

Annex

Table 5: Number of WAHJ insurees compared with total number of insurees

Year (end of period)	Number of WAHJ insurees	Total number of insurees	% of WAHJ in the total number of insurees
2009	26,423	1,530,233	1,727%
2010	26,889	1,475,363	1,823%
2011	28,470	1,468,133	1,939%
2012	29,550	1,432,740	2,062%
2013	29,726	1,400,631	2,122%
2014	29,624	1,397,400	2,120%
2015	30,062	1,413,637	2,127%

Source: Author's calculations based on data obtained from CPII.³⁶

Note: People employed in services of public interest (police etc.) are excluded from the WAHJ figure.³⁷

Table 6: Number of WAHJ insurees, by year and amount of extension

Amount of extension in months	12 as 14		12 as 15	12 as 16	12 as 18	Total	
Extension coefficient	1.1666			1.2500	1.3333	1.5000	
Year (end of period)	2009	7,692		14,065	3,750	916	26,423
	2010	7,792		14,505	3,632	960	26,889
	2011	7,729		16,045	3,657	1,039	28,470
	2012	7,298		16,415	3,498	2,339	29,550
	2013	7,431		16,791	3,276	2,228	29,726
	2014	7,462		17,079	2,926	2,157	29,624
	2015	7,235		17,786	2,869	2,172	30,062

Source: Author's calculations based on data obtained from CPII.³⁸

Note: People employed in services of public interest (police etc.) are excluded from WAHJ figure.

³⁶ Based on a special request by the author, data on WAHJ were obtained from the CPII (Ms. Vesna Dejanović). Other data on the total number of insurees were obtained from the CPII *Statistical Information* [data files from 2003 onwards], available from the CPII website: <http://www.mirovinsko.hr/default.aspx?ID=723>.

³⁷ In line with the guidelines for this thematic report (p. 4-5), the following have been excluded: employees in services of public interest (military personnel, police officers and some other authorized officials, e.g. customs officials, and judges adjudicating in corruption and organized crime cases; and high officials of the Office for Combating Corruption and Organized Crime). Nevertheless, some of these also perform strenuous and/or hazardous jobs and all of them fall under the privileged regime.

³⁸ See Note 33 above.

