

Why are there so many disability pensions beneficiaries in Croatia?

Bađun, Marijana

Source / Izvornik: **Newsletter : an occasional publication of the Institute of Public Finance, 2011, 13, 1 - 9**

Journal article, Published version

Rad u časopisu, Objavljena verzija rada (izdavačev PDF)

Permanent link / Trajna poveznica: <https://um.nsk.hr/um:nbn:hr:242:432416>

Rights / Prava: [Attribution-NonCommercial-NoDerivatives 4.0 International/Imenovanje-Nekomercijalno-Bez prerada 4.0 međunarodna](#)

Download date / Datum preuzimanja: **2025-03-15**



Repository / Repozitorij:

[Institute of Public Finance Repository](#)



Why are there so many disability pensions beneficiaries in Croatia?

MARIJANA BAĐUN Institute of Public Finance

In March 2011, 320,018 people drew disability pensions, that is, 27% of all pensioners. The shares of disability pensions in GDP and in total expenditures for pensions are higher in Croatia than the EU average. The objective of this newsletter is to attempt to find out why there are so many beneficiaries of disability pensions in Croatia. Possible factors leading to the numbers of people with disability pensions are provided: health indicators, conditions of work, socio-economic status, war, the regulations and corruption. The newsletter also gives the characteristics of disability pension users and recommendations for policy makers.

1. THE TREND IN THE NUMBER OF BENEFICIARIES OF DISABILITY PENSIONS

In March 2011, Croatia had 328,018 beneficiaries of invalidity pensions (HZMO, 2011). Most of them – 255,358 – claimed their invalidity pension according to the Retirement Insurance Law (ZOMO in the Croatian abbreviation), while the remaining 72,660 are beneficiaries of disability pensions from the Croatian Army (8,746), the Croatian Defence Council (HVO) (6,358) and Croatian Defenders (57,556) in terms of the Law on the Rights of Croatian Defenders from the Homeland War and of Members of Their Families (the abbreviation for which is ZOPHBDR). In the total number of pensions beneficiaries, disability pensions recipients comprised 21%, or 27% when the disability pensions of the previously mentioned three groups are added to the beneficiaries of disability pensions under ZOMO (Retirement Insurance Law).

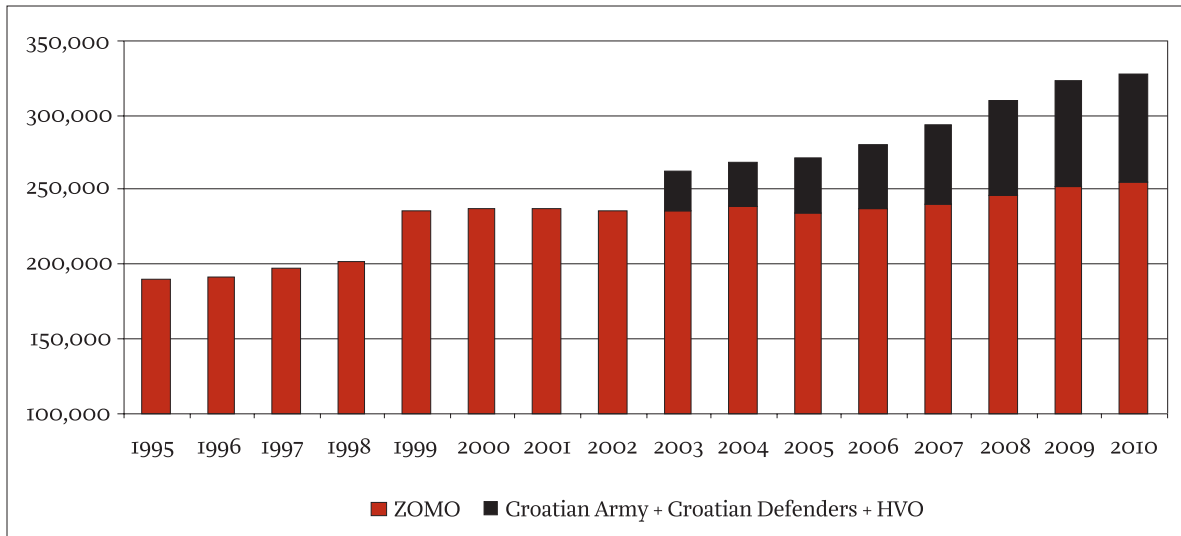
Graph 1 shows the trend in the number of beneficiaries of disability pensions from 1995 to 2010. The greatest

rise occurred in 1999, because the new Retirement Insurance Law was passed. On this occasion the previous work-disabled, recipients of disability-related benefits, were “translated” into recipients of disability pensions. Since that time, the number of beneficiaries of disability pensions defined according to ZOMO has been relatively stable, with the proviso that this number rose by 8% from 2005 to 2010. On the other hand, the number of beneficiaries of the HRVI (Croatian wartime military disabled) status, that is, defenders’ or veterans’ disability pensions in terms of ZOPHBDR rose almost three times in the period from 2003 to 2010.¹ The greatest rise was recorded in 2007, for then 5,500 defenders who had received benefits for incapacity to work were translated into recipients of disability pensions.

From a look at the trends of just the new beneficiaries of disability pensions according to ZOMO (Graph 2), still

¹ According to this Law, a Croatian wartime military disabled person from the Homeland War is defined as a Croatian defender whose organism is at least 20% impaired because of a wound or injury obtained defending the sovereignty of the Republic of Croatia, or as a prisoner in prison or enemy camp. It is considered that the impairment of the organism of a captive in an enemy camp is at least 20% permanent. A HRVI (Croatian wartime military disabled) is a Croatian defender whose organism is at least 20% impaired because of illness, and the illness, or deterioration of the illness or the occurrence of the illness is an immediate consequence of involvement in the defence of the sovereignty of the Republic of Croatia in the Homeland War. HRVI rights can also be claimed by a person (medical personnel, war reporters, members of fire-fighting units, sailors, crew members of ships of the merchant marine and other persons) whose organism is at least 20% impaired because of a wound or injury obtained in the performance of military or other duties at the order of the competent bodies of government of the Republic of Croatia in the defence of the sovereignty of the Republic of Croatia in the Homeland War or as a captive in an enemy camp in the Homeland War.

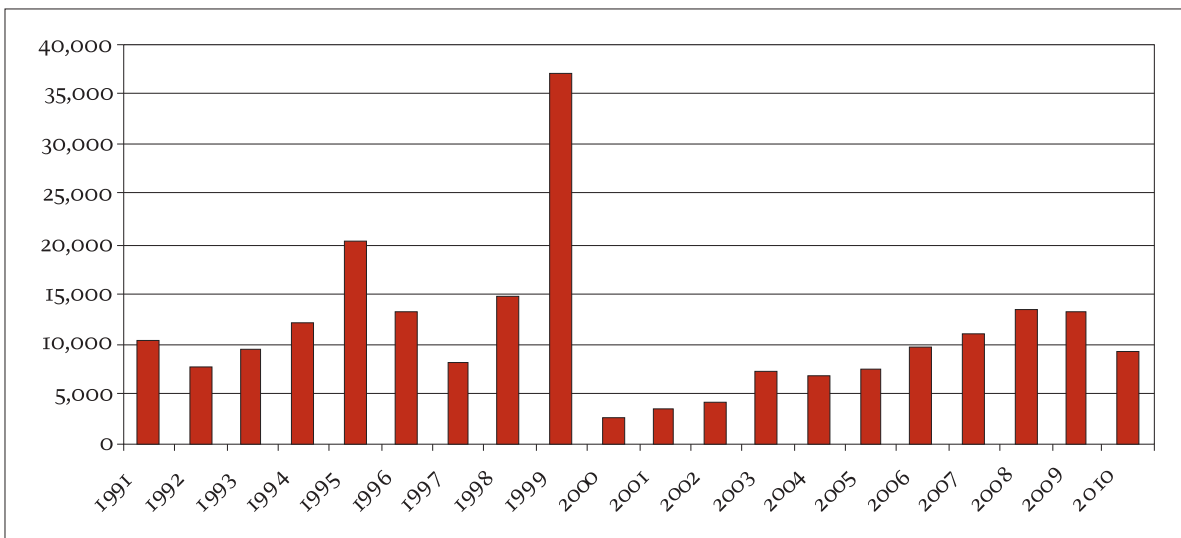
Graph 1
Trends in the number of beneficiaries of disability pensions



Note: In HZMO publications data for the Croatian Army and defenders before 2003 are not available, and HVO pensions have been awarded since 2008.

Source: HZMO

Graph 2
Trends in the number of new beneficiaries of disability pensions according to ZOMO



Source: HZMO

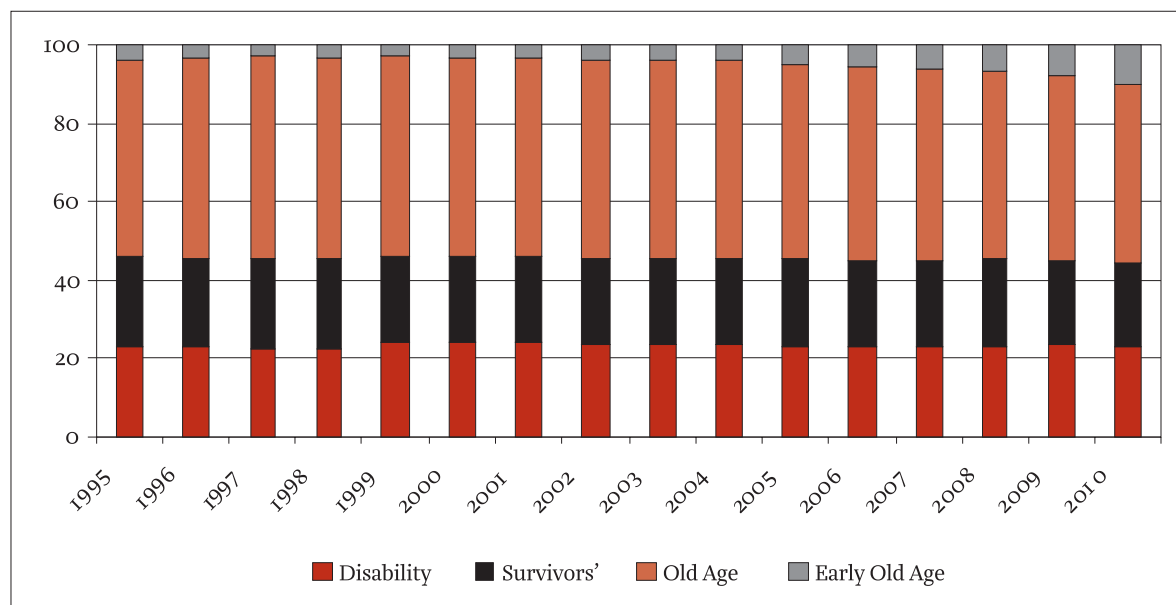
more obvious is the sudden rise in 1999 of 37,112 new beneficiaries, which was 45% of total new beneficiaries in that year. Also salient is 1995, because of the war, and quite large rises are also perceptible in 1998, 2008 and 2009. The economic crisis brought about a rise in the number of beneficiaries of disability pensions, and a still greater rise in the number of beneficiaries of early retirement pensions.

Graph 3 shows the proportions of individual categories in the total number of pensions beneficiaries according to

ZOMO (these figures do not include the Croatian Army, the HVO and defenders in terms of ZOPHBDR). The proportion of survivors' and disability pensions has not changed considerably over the course of time, but a rise in the proportion of early retirement pensions is observable: in 2000 there were 3% of them, in 2010 as many as 10%. At the end of 2010, along with 10% of early retirement pensions, there were 46% of old age pensions, 23% of disability pensions and 21% of survivors' pensions. It can be expected that since early retirement is now discouraged by financial penalties, the pressure on disability pensions will rise.

Graph 3

Proportions of individual categories in the total number of pensions beneficiaries according to ZOMO (in %)



Source: HZMO, author's calculations

The structure of pensions beneficiaries is imaged in the central government budget. According to the plan of the budget for 2011, 50% of expenditure for pensions related to old age pensions, 19% pensions under preferential conditions², 17% to disability and 14% to survivors' pensions (Ministry of Finance, 2010). Expenditure for disability pensions as a proportion of GDP in Croatia in 2005 was 2.7%, while in the EU27 it was 2.1% (Marušić, 2011). On the other hand, expenditure for old age and survivors' pensions as a proportion of GDP in Croatia was 7.6%, and in the

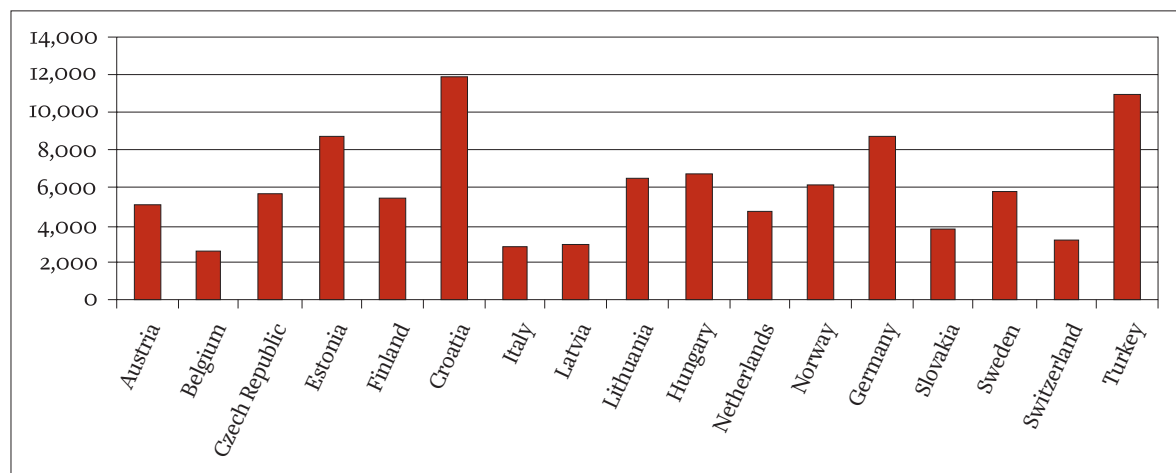
² This concerns thirteen categories of pensions claimed under special regulations, which can also be old age, disability and survivors' pensions. See Newsletter no. 44: <http://www.ijf.hr/newsletter/44.pdf>.

EU27 11.1%. The difference between the EU27 and Croatia with respect to disability pensions (for 2005) is still more marked when the proportion of expenditures for disability pensions in total pensions expenditures is compared: 15.9% as against 26.2%, respectively. This percentage includes all disability pensions, and so also those that are in the category of privileged conditions.

Unfortunately, no international figures are available concerning the proportion of beneficiaries of disability pensions in the total number of pensions beneficiaries. However, WHO does collect information about the number of claimants of disability rights per 100,000 inhabi-

Graph 4

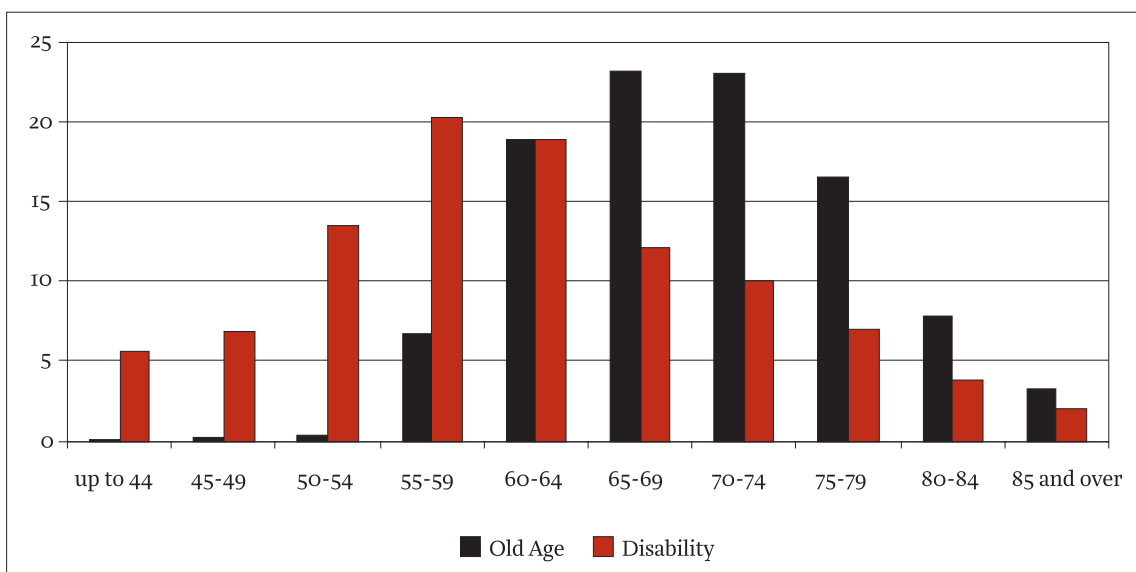
Number of claimants of disability rights per 100,000 inhabitants (2008)



Source: WHO, 2011

Graph 5

Age structure of beneficiaries of disability and old age pensions, in % (ZOMO, December 31, 2010)



Source: HZMO

tants. Data for 2008 show that Croatia, among European countries (those for which data are available) is in the lead in terms of number of claimants of disability rights (about 12,000 per 100,000 inhabitants), the data including defenders (Graph 4).

2. THE CHARACTERISTICS OF BENEFICIARIES OF DISABILITY PENSIONS

Beneficiaries of disability pensions have particular characteristics as compared with other pensions beneficiaries, and they also differ within the group. From Graph 5 it can be seen that beneficiaries of disability pensions are younger than old age pensioners (43% of them are aged up to 59), and also that in the population older than 65 there is a far smaller percentage of disability pensions than of old age pensions. The average age of old age pension beneficiaries according to ZOMO in 2010 was 70 years and 5 months, while that of holders of disability pensions was 61 years and 10 months. Invalidity pensions beneficiaries take pensions earlier than beneficiaries of old age pensions: the average age for the former at retirement is 52 years and 6 months, for the second 63 years and 11 months (data for new beneficiaries in 2010). They also have a shorter contributions record: 23 years and 5 months as compared with 31 years and 8 months. Still, in spite of retiring earlier, invalidity pension beneficiaries on average use their pensions only a year longer (19 years) than old age pensioners (18 years). From this it can be concluded that the health problems of beneficiaries of disability problems considerably shorten their life spans.

The next crucial feature is the average amount of pensions. The average disability pension paid out in April 2011 for beneficiaries according to ZOMO came to 1,925 kuna,

while the old age pension came to 2,374 kuna. However, beneficiaries of disability pensions who acquired the right to a pension up to 1999 have an average pension of 2,206 kuna, while beneficiaries who achieved that status after 1999 get 1,681 kuna. In April 2011, 19% of disability pensioners from the first group received pensions of up to 1,500 kuna, and from the second group, a high 42%. When we look at these groups together, then 57% of beneficiaries are in the 1,500 to 3,000 kuna bracket. The average HRVI (defender) pension in April came to 4,926 kuna, with the proviso that 45% of them have an average pension of more than 5,000 kuna, while among ZOMO-classified disability pension beneficiaries, only 1% received pensions in excess of 5,000 kuna.³

Unfortunately the Croatian Institute for Retirement Insurance (HZMO) does not publish records of beneficiaries of disability pensions according to groups of disabilities. In the EU, the structure is as follows (Marušić, 2011): mental disability (27.6%); skeleto-muscular disabilities (21.7%); vascular diseases (11.8%); neoplasms (10.5%); congenital disabilities (0.8%) and other disabilities (27.6%). However, the Croatian Institute for Public Health (HZJZ) does publish the most common diagnoses for the causes of the disabilities of persons claiming disability rights via the HZMO. At the end of 2010, 333,367 persons claimed disability rights via HZMO, a number that does not include defenders. HZJZ obtains information about defenders from the Ministry of the Family, Defenders and Intergenerational Solidarity.

³ People in the HRVI category claim their disability pensions according to ZOPHBDR. In the calculation of their pension, the general pension formula is used, but the points used depend on the basis for rank and establishment post, a special initial factor is stipulated, and personal points are enlarged by 45%, while a contributions record of 40 years is granted.

Table 1

Most common diagnoses of the causes of disability of persons who claim their disability rights via HZMO

Diagnoses	Number of persons	%
Skeleto-muscular disorders	40,444	35.2
Depressive episodes	18,427	16.0
Essential (primary) hypertension and hypertensive cardiac conditions	13,154	11.4
Reactions to severe stress and adjustment disorders	10,298	9.0
Organic mental disorders	6,508	5.7
Cerebrovascular disorders	6,294	5.5
Diabetes mellitus	5,748	5.0
Alcohol-related mental disorders	5,065	4.4
Cardiomyopathy	4,627	4.0
Schizophrenia	4,493	3.9
Total	115,058	100

Source: HZJZ, 2011; author's calculation

Table 1 can lead to the conclusion – after all forms of mental sickness and disorders are aggregated – that the structure of beneficiaries of disability pensions per disability group is similar to that of beneficiaries of disability pensions in the EU. Mental illnesses and disorders dominate; after that come skeleto-muscular illnesses and disorders of the vascular system. HZJZ also keeps records of the most common causes of physical impairments to persons who claim disability rights via HZMO. Dominant is “total loss of one segment of the cervical region after fracture of the spine”, then “total loss of function of one segment of the lumbar region” and “limited mobility of the hip joint”. Of all the persons who claim disability rights via HZMO, as many as 60% are in the active working period, 60% of them men, and 40% women.

3. FACTORS THAT AFFECT THE NUMBER OF BENEFICIARIES OF DISABILITY PENSIONS

The choice of factors that affect the number of beneficiaries of disability pensions in this article is partially related to earlier scientific research (mainly from Scandinavian countries) in which the emphasis is placed on health indicators, working conditions and socio-economic status.⁴ The other three factors (the regulations, war and corruption) were arrived at from a study of data for Croatia, that is, from its specific features.

HEALTH INDICATORS

It would seem logical to hypothesise, and it is proved by

⁴ See Kivimaki et al., (2004), Krokstad, Johnsen and Westin (2002), Sørensen et al., (1999).

scientific research, that persons who suffer from chronic diseases and who are in general in a poor state of health have a greater likelihood of becoming beneficiaries of disability pensions. Accordingly we will adduce certain health indicators and risk factors. At the beginning, it is the most important to bring out the expectancy of healthy years of life at birth. The average for the EU15 in 2002 came to 71.3 years, for Croatia 66.6 (WHO, 2011). Then, in 2002, only 55% of men in Croatia were considered to be in good health, and only 48% of women. In Scandinavian countries, for example, this number is about 80%.

It was said earlier that among users of disability rights, cardiac patients represent a high percentage. In Croatia in 2009, the age-standardised mortality rate for all ages per 100,000 inhabitants for ischaemic heart conditions came to 201 for men and 124 for women. In the EU15 the average for men was 96, and for women 49 (WHO, 2011). As for the issue of mortality rate for mental disorders and disorders of the nervous system, as well as for malignant neoplasms, the values are very similar in Croatia and in EU15 countries. This shows that in sicknesses that can be alleviated by an appropriate care for one's own health, such as cardiac conditions, there is a greater gap between Croatia and the EU. According to 2005 figures, in Croatia 21.6% of the population over the age of 20 was overweight, while in EU15 countries the corresponding figure is 15.3%. In 2006, 38.5% of the population over 15 were smokers, and in the EU15 36% – but with the rider that Greece raised the average, since 63.4% of Greeks smoke. Croatia has a greater average annual consumption of alcohol per capita (WHO, 2011): 15.1 litres as against 12.4 litres in the EU15 (2005 figures).

Since 2002, HZJZ has kept a Croatian Register of Persons with Disabilities, but the first data only became available for 2009, because of the time needed to organise the Register and collect data.⁵ At the end of 2010 there were 529,103 persons in the Register with disabilities, 60% of them men and 40% women (HZJZ, 2011). According to this, the prevalence of disability in the Republic of Croatia amounts to 11.9%, while according to UN estimates the problem of disability is much more widespread than is commonly supposed: out of ten inhabitants in any country, at least one is to a certain extent an invalid. Table 2 shows data from the Register according to kind of impairment. Among persons with disabilities, conditions of the locomotor system dominate, impairment to other organs, mental disorders and multiple disabilities.

⁵ According to the Law concerning the Croatian Register of Persons with Disability, disability is a permanent limitation, reduction or loss of capacity (deriving from impaired health) to perform some physical activity or psychic function appropriate to the age of the person and that relate to capacities, in the form of complex activities and conduct universally accepted as essential components of everyday life.

Table 2

Presentation of the kinds of impairment that lead to disability or as comorbidity diagnoses contribute to the degree of functional impairment of the organism

Kinds of impairment (2010)	% of total number of persons with disabilities	Prevalence 1000 inhabitants
Impairment of the locomotor system	28.7	34
Impairment of other organs	23.3	28
Mental disorders	23.2	28
Impairment of the central nervous system	18.6	22
Mental retardation	4.1	5
Impairment of sight	3.5	4
Impairment of hearing	2.5	3
Impairment of the peripheral nervous system	2.4	3
Speech and communication disorders	2.7	3
Congenital anomalies and chromosopathy	1.6	2
Autism	0.2	0.2
Multiple impairments	27.8	33

Source: HZJZ, 2011

CONDITIONS OF WORK

Conditions of work also affect the likelihood that someone will become a beneficiary of a disability pension. As can be seen from Table 3, the number of average absences from work because of an accident at work was constantly on the rise from 2002 to 2007. Unfortunately, no more recent figures are available. The Statistical Chronicle for 2010 of the Croatian Bureau of Statistics (DZS) says that from 2008 records about accidents at work are kept by the Croatian Institute for Health Insurance of Health Protection at Work (HZZOZZR), but this has been abolished, and from January 1, 2011, its responsibilities have been taken over by HZZO.

The number of injuries at work rose from 68,360 in 2002 to 73,384 in 2007 (DZS, 2011); on the other hand, employment rose too. From 2002 the number of injuries at work was

Table 3

Average daily absences from work

	2002	2003	2004	2005	2006	2007	2008
Because of accidents at work	4,850	5,288	5,387	6,039	6,346	6,904	„
Because of sickness	46,303	43,864	42,895	46,293	48,023	52,710	56,073
To take care of a family member	1,894	1,742	1,596	1,590	1,474	1,718	1,723
Total	53,047	50,894	49,878	53,922	55,843	61,332	57,796

Source: DZS, 2011

recorded from the monthly reports of primary health care physicians, who were in the first contact with the injured. However, from 2008, employers reported injuries at work to HZZOZZR, and in 2009 there were 16,118 injuries at work and in 2010 13,588 (Croatian Institute for Health Protection and Safety at Work – HZZZSR, 2010). According to DZS, data about injuries at work before 2002 are deficient; in 2001 for example, there were 12,491. Records of injuries at work reveal a total statistical chaos – because of the various changes it is not possible uniformly over the course of time to follow the number of injuries at work. Research has shown that blue collar workers are more liable to injury than white collar workers; in Croatia injuries are most common in manufacturing, construction and commerce, and yet these branches at the same time employ a great number of people (HZZZSR, 2010).

SOCIO-ECONOMIC STATUS

Persons with lower education are more probable beneficiaries of disability pensions. According to data from the Register, almost 70% of persons with disability did not complete elementary school or completed only elementary school, 24% have secondary qualifications and only 3% had tertiary qualifications (HZJZ, 2011). Croatia has in general a lower standard of education; according to the census of 2001, 40% of the population are educated only to elementary level, or have less than complete elementary education, or no education at all. Unemployment also has an influence on the greater likelihood of taking disability pensions, and it is known that in Croatia unemployment is one of the greatest economic problems.

WAR

Both World War II and the Homeland War increased the number of beneficiaries of disability pensions in Croatia. In the Register of Persons with Disability at the end of 2010 there were 59,266 veterans with disabilities, of whom in April 2011 57,556 were receiving pensions. Eighty seven per cent of HRVI pensioners receive disability pension because of general incapacity to work. The Register has data about the most frequent diagnoses of veterans with disabilities (Table 4), but not about the numerical structure of veterans per diagnosis.

Table 4
Most frequent diagnoses of veterans with disability

Diagnoses
Post-traumatic stress disorder (PTSD) as a result of captivity or trauma of war
Major muscular injuries with functional handicaps
Clinically established neuroses and psychoses
Disc hernia after trauma
Impairment of nerves in the lower extremities
Scars that hinder the functions of the organs or parts of the body
Consequences of skull injuries with or without fractures with neurasthenic symptoms
Post-traumatic spondylosis with impaired functioning of the vertebral column and neurological incidents
Restricted knee mobility
Restricted foot mobility

Source: HZJZ, 2010

However, data are available about veterans with disabilities in terms of percentage impairment to the organism (Table 5). About 80% of veterans with disabilities have 20-40% impairments of the organism, and 1.4% have 100% impairment. To be precise, 861 HRVI veterans have 100% impairment, the most common causes of disability being: fractured spinal column, amputation of one or both legs above the knee, serious impairment of the sight, amputation of one or both legs below the knee and the results of damage to the nerves of the lower extremities. Most of them are aged between 35 and 44 (393), after which come those aged from 45 to 54 (323).

Table 5 shows a comparison of veterans with disability and beneficiaries of invalidity benefits via HMZO in terms of percentage of impairment of the organism. While in the case of veterans there are most beneficiaries with 20% impairment, in the case of beneficiaries of disability rights via HZMO those with 70% impairment dominate. According to the Regulations for the Determination of the Percentage of Impairment of the Organism of HRVI veterans of the Homeland War, PTSD represented less than 20, or 20 or 30 or 40% impairment, and it can be assumed that most of the veterans with disabilities have “only” PTSD or PTSD with an additional diagnosis that represents a relatively small impairment of the organism. About 60% of HRVI pensions beneficiaries are between 40 and 55, while in the case of beneficiaries of disability pensions according to ZOMO, about 25% are in this age group. In addition, the average contributions record period of HRVI veterans is 20 years and 45 months, while in the case of ZOMO-classified disability pensions beneficiaries, it is 3 years longer.

In spite of the longer contributions record, the greater age and the average greater degree of impairment of the

organism, in the case of beneficiaries of disability pensions according to ZOMO, their average pension is about 2.5 times smaller than a HRVI pension. Here one should once again remark that – unfortunately – no data about physical impairment of the beneficiaries of disability pensions exist, rather of disability rights, but most claimants actually receive a pension.⁶ It is also important to add that the percentage of physical impairment is set for only 40% of the persons who claim their disability rights via HZMO (HZJZ, 2010), while in the case of veterans with disability the percentage of physical impairment is determined for all.

Table 5
Percentage of impairment of the organism in defenders with disabilities and claimants of disability rights via the HZMO

Organism impairment percentage	Proportion of total number of veterans with disabilities (in %)	Proportion of beneficiaries who claim disability rights via HZMO (in %)*
100	1.4	7.5
90	0.7	0.4
80	1.6	0.7
70	2.6	38.6
60	4.7	2.8
50	8.0	5.0
40	18.1	15.6
30	25.7	29.4
20	37.2	0
Total	100 (59,266 persons)	100 (135,599 persons)

* Percentage of physical impairment is established for about 40% of the persons who claim disability rights via HZMO.

Source: HZJZ, 2010

Croatia also has 12,903 disabled veterans of World War II and civilian disabled of the war and post-war period. Almost 70% of them are older than 70, with the proviso that most persons have an impairment rated at 30%, while there is about same percentage of persons with 40-60% impairment. The most frequent diagnoses are: major muscle injury, impairment of sight, and scarring that disturbs organ function.

6 As stated above, according to HZJZ data of the end of 2010, 333,367 persons claimed disability rights via HMZO. These figures are exclusive of veterans. At the same time, according to HZMO figures in December 2010 254,555 beneficiaries received ZOMO-based disability persons. Unluckily, in HZJZ publications the structure of claimants of disability rights is not given according to kind of right, and from HZMO publications the number of 333,367 cannot be clearly reconstructed. According to HZMO (2011:31) “other rights deriving from pensions insurance” are a protective supplement, a compensation for physical injury and compensation for help and nursing. The protective supplement is paid in concert with a pension, and the other rights either with the pension or as an independent right.

REGULATIONS

Here we shall not list all the provisions that have had an effect on the number of beneficiaries of disability pensions in Croatia, only recall the sudden jump in the number of pensions according to ZOMO in 1999, and the increase in the number of HRVI pensions in 2007. In both cases, changes in regulations were involved. Similarly, regulations (i.e. ZOPHBDR) determine the way in which pensions are calculated in the case of HRVI veterans. The amount of a pension certainly motivated veterans who could meet the conditions for a disability pension to seek pensioning and in this way settle their need to make a living without remaining in the labour market – if the physical impairment was relatively small.

The statutory arrangement and implementation of retirement insurance also has a great effect on the number of pensions beneficiaries, and also on the differences in outlays on disability pensions among countries (Marušić, 2011). In concrete terms, countries can have: a) different definitions of disability and conditions for claiming rights; b) differently defined minimum degree of reduced working capacity that provides the right to a disability pension; c) different arrangements for obtaining expert medical opinions; d) differences in vocational rehabilitation; e) different pensions formulae; f) differences in whether pensions are provided only for those insured in the pensions system or to other groups as well, and so on.

CORRUPTION

There is a great deal of talk about corruption in the case of disability pensions, but little in the way of evidence. Pursuant to USKOK's actions Diagnosis I in Split and Diagnosis II in Osijek in 2008 and 2009, 18 persons were indicted (USKOK, 2011). In both cases it was the illegal acquisition of HRVI status that was concerned. In Split bribes from 4,200 to 6,500 euros were paid; most were taken by HZMO expert physicians and by expert physicians in the Commission for the Review of Disability Rating in the Ministry of Defenders of the Republic of Croatia. In Osijek, bribes amounted to from 5,000 to 8,000 euros, and the damage to the budget was estimated at 3.2 million kuna. Corruption related to disability pensions could be suppressed in several ways. One would be the establishment of a single body for the assessment of disability and residual working capacity. Then it is possible to bring anonymous assessment into the system – in which a potential beneficiary of disability pensions does not know by whom he/she is to be examined. It is also possible to have several levels of assessment: the first level anonymous, then a known examiner, and after that additional control.

4. CONCLUSION AND RECOMMENDATIONS

The pensions system is in a sense a mirror image of Croatia, which is particularly well seen in the case of disability pensions. To be more precise, most of the leading problems faced by the country are reflected in the pensions system. The ill-considered legislative framework, the consequences of the war, the poor educational structure, the high unemployment, poor conditions of work, inequality of rights, the relatively poor state of health of the general population and lack of care for one's own health as well as widespread corruption have led to there being a large number of beneficiaries of disability pensions (27% of all pensions), and these are the problems that Croatian has to settle, irrespectively, in the pensions system. Apart from that, from the example of disability pensions the poor coordination of administrative bodies can be seen, as well as an inadequately elaborated and harmonised data base. From the analysis of the problem, certain recommendations can be drawn:

- better consideration of changes to the legislation, for it is hard to make up for errors after the event,
- improvement of conditions of work and health status, particularly the care of individuals for their own health;
- improvement of the educational structure;
- suppression of corruption;
- equalisation of rights deriving from disability;
- reduction of unemployment;
- improving the databases, this primarily relating to records of beneficiaries of disability pensions according to groups of diseases;
- elaboration of a uniform and single list of physical impairments and the establishment of a single evaluation commission.

REFERENCES

- Bađun, M., 2009.** "Pension beneficiaries who have been granted pensions under more favourable conditions" [online]. *Newsletter*, No. 44. Available from: [<http://www.ijf.hr/eng/newsletter/44.pdf>].
- DZS, 2011.** *Statistički ljetopis 2010*. Zagreb: Državni zavod za statistiku.
- HZJZ, 2010.** *Hrvatski zdravstveno-statistički ljetopis za 2009. godinu*. Zagreb: Hrvatski zavod za javno zdravstvo.
- HZJZ, 2011.** *Izješće o osobama s invaliditetom u Republici Hrvatskoj za 2010. godinu*. Zagreb: Hrvatski zavod za javno zdravstvo.
- HZMO, 2011.** *Statističke informacije*. Zagreb: Hrvatski zavod za mirovinsko osiguranje.

- HZZZSR, 2010.** *Analiza ozljeda na radu – Privremeno izvješće* [online]. Zagreb: Hrvatski zavod za zaštitu zdravlja i sigurnost na radu. Available from: [<http://www.hzzzsr.hr/?what=content&ID=90&cat=71>].
- Kivimaki, M. [et al.], 2004.** “Sickness absence as a risk marker of future disability pension: the 10-town study”. *Journal of Epidemiology and Community Health*, 58 (8), 710-711.
- Krokstad, S., Johnsen, R. i Westin, S, 2002.** “Social determinants of disability pension: a 10-year follow-up of 62000 people in a Norwegian country population”. *International Journal of Epidemiology*, 31 (6), 1183-1191.
- Marušić, Lj., 2011.** *Institut invalidnosti u mirovinskom osiguranju* [online]. Round table presentation “Invalidske mirovine: Jesu li Hrvati shrvani krizom ili bolešću”. Available from: [<http://www.bankamagazine.hr/Projekti/Analizamirovinskogsustava.aspx>].
- Ministarstvo financija, 2010.** *Državni proračun za 2011. godinu* [online]. Available from: [<http://www.mfin.hr/hr/drzavni-proracun-2011-godina>].
- Pravilnik** o određivanju postotka oštećenja organizma HRVI iz Domovinskog rata, NN 45/05. Zagreb: Narodne novine.
- Sørensen, F. [et al.], 1999.** “Risk indicators of disability pension: A 15 year follow-up study”. *Danish Medical Bulletin*, 46 (3), 258-262.
- USKOK, 2011.** *Priopćenja* [online]. Zagreb: Ured za suzbijanje korupcije i organiziranog kriminaliteta. Available from: [<http://www.dorh.hr/Default.aspx?sec=18>].
- WHO, 2011.** *European Health for All Database* [online]. Available from: [<http://data.euro.who.int/hfad/>].
- Zakon** o Hrvatskom registru o osobama s invaliditetom, NN 64/01. Zagreb: Narodne novine.
- Zakon** o mirovinskom osiguranju, NN 02/98, 127/00, 109/01, 147/02, 117/03, 30/04, 177/04, 92/05, 43/07, 79/07, 35/08, 40/10, 121/10. Zagreb: Narodne novine.
- Zakon** o pravima hrvatskih branitelja iz Domovinskog rata i članova njihovih obitelji, NN 174/04, 92/05, 107/07, 65/09, 137/09, 146/10. Zagreb: Narodne novine.