

Quality of Working Life during the Recession: The Case of Croatia

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Abstract

The quality of working life depends on the extent to which aspects of the job enable employees to satisfy important psychological needs. In this paper we describe two studies exploring the quality of working life in Croatia during the economic crisis that started in 2008. Within the first study, independent samples of employees recruited by psychology students were asked to self-report quality of their jobs on four occasions between 2008 and 2010. In the second study, we tried to replicate the findings of Study 1, using employees drawn from nationally representative samples of citizens between 2008 and 2011. Results of both studies showed that the quality of working life in Croatia deteriorated during the recession. The decline was mainly related to extrinsic job aspects such

as adequate pay, fair pay, and job security. The most hardly hit by the recession were lower educated employees.

Keywords: quality of working life, recession, psychological needs, job satisfaction, Croatia

JEL classification: J28, J80

1 Introduction

During recessions, the focus of the public and government is directed towards saving workplaces and coping with the unemployment problem. At the same time, motivation and well-being of those who remained employed are often neglected. This seems odd considering that the active workforce is regarded as one of the main strengths that should pull an economy out of recession. Paradoxically, during recessions government, employers and the whole society expect from employees to show more work engagement and put in more effort, in many cases for lower rewards and in more unfavorable working conditions in comparison to the time before crisis. This is reasonable to expect only if employees are strongly motivated for their jobs and see value in their efforts.

One way we can explore the tenability of this assumption is by studying employees' perception of their working situation. This paper describes research exploring perceived quality of working life of Croatian employees during the economic crisis that started in 2008.

1.1 Quality of Working Life: Definition of Construct

The concept of working life quality or job quality attracted attention in social sciences during the 1970s (Lawler, 1982), and with changing interest has been the subject of many studies conducted by researchers from various backgrounds.

Although there has been a tendency to narrow the discussion about job quality to objective data about earnings, working hours and job security (Clark, 2010) or data about job satisfaction (e.g., Handel, 2005), most researchers agree that quality of working life is a complex and multifaceted construct (Green, 2007; Martel and Dupuis, 2006; Sirgy et al., 2001). Usually the definition and components of this construct are based on psychological need-satisfaction theories, and rely on participants' self-reports. According to these theories, people have some basic needs they seek to fulfill in their jobs. The quality of working life depends on the extent to which the characteristics of their jobs meet those needs. Thus, the more the employees' needs are met, the higher the quality of their working life.

The question about the number of needs people satisfy in their jobs has differed between theoretical approaches on human motivation (Maslow, 1954; McClelland, 1961; Herzberg, 1966; Alderfer, 1972). Although any conceptualization is partly arbitrary, and in many of them authors have balanced "conceptual richness against practical convenience" (Warr, 2007: 727), there has been a growing consensus that on the most general level employees' needs can be categorized in three broad clusters: existence, relatedness and growth needs (Landy and Conte, 2007).

When we ask employees why they work, one of the most often received answers is – pay (Jurgensen, 1978). In order to have decent housing, be able to buy food, pay bills and participate in social activities, individuals need money. In contemporary society, the most usual way of providing funds for a desirable living standard is regular payment that workers receive from their employers. This payment is used to buy goods needed for satisfaction of the basic existence needs.

But employees do not work only because of money. According to a large Gallup survey from 1997 (Spector, 2008), 58 percent of citizens of the United States would continue working even if they won 10 million dollars in the lottery. More convincing, a recent study among real lottery winners showed that 85.5 percent of them continued working, even though they did not have an economic

need to work (the average winning among them was US\$ 2.59 million) (Arvey, Harpaz and Liao, 2004). In addition to earning for life, employees satisfy in their jobs the needs for relatedness and growth. People have a fundamental need to form, participate in and maintain interpersonal relations (Baumeister and Leary, 1995). They satisfy these needs more or less successfully at the workplace by having friendly relationships with their coworkers and supervisors. Finally, needs for self-esteem and positive self-development are usually satisfied through accomplishments experienced at work. “We gain self-esteem when we do something worthwhile, not when we mouth psychobabble slogans about our importance in the cosmos: our job provides the most frequent source of accomplishments” (Hulin, 2002: 7). At the workplace, satisfaction of growth needs mostly depends on the responsibility and autonomy employees have, and opportunity to use their potential when performing work tasks (Benz and Frey, 2004; Hackman and Oldham, 1980; Lange, 2012).

Therefore, the quality of working life depends on the extent to which job characteristics satisfy employees’ existential, relatedness and growth needs. Existential needs are satisfied by extrinsic job aspects such as pay, job security and working conditions, and relatedness needs by quality of interpersonal relationships with coworkers and supervisors (social aspects). Satisfaction of growth needs depends on the intrinsic aspects of the job, i.e., employees’ opportunity to feel responsibility, autonomy and use their potential when accomplishing their tasks. Conceptualization of job quality similar to ours has been used in several recent studies (e.g., Clark, 2005, 2010; Sirgy et al., 2001).

1.2 Quality of Working Life during the Crisis: Empirical Studies

Research on the quality of employees’ working life during recessions is very scarce and inconclusive. Studies that used general job satisfaction as an indicator of workers’ well-being showed that in the period of crisis it remained relatively stable, showing only a slight trend of decline (Green and Tsitsianis, 2005; Handel,

2005). Studies that explored the relationship between macroeconomic conditions and perception of specific aspects of the working situation focused on extrinsic job aspects. These studies showed that unfavorable economic circumstances were usually related to lower quality of working life. For example, Green and Tsitsianis (2005) showed that unemployment rates were related to perceived job insecurity: the higher the unemployment rate was, the more employees feared job loss. Earlier, Habich and Riede (1989) showed that the economic recession at the beginning of the 1980s was related to a decline in family income satisfaction. Recently, Clark (2011) reported unexpected findings. Using 17 waves of the British Household Panel Survey (1991-2006) he showed that pay satisfaction and job security satisfaction fell during recession. Contrary to expectations, within this study overall job satisfaction and satisfaction with the content of work increased during the economic crisis.

Studies exploring effects of the economic crisis that started in 2008 are still mainly limited to the reports of market research and specialized human resources agencies. For example, a survey reported by Gallup (Robison, 2010) indicated negative trends in workers' evaluations of social and intrinsic job aspects in the United States. Knowing what is expected, opportunity to do what they do best, and opportunities to learn and grow were rated lower than before the crisis. Similarly, the Chartered Institute of Personnel and Development (2010) showed that employees' attitudes towards management in the United Kingdom had a trend of decline. Moreover, this study revealed that employees experienced increased workload and work under pressure during the crisis. Although indicative, these reports have questionable scientific validity. Observed job aspects were selected without specific theoretical rationale, and some aspects of the methodology raise doubts about the generalizability of the conclusions to the working population (e.g., the Chartered Institute of Personnel and Development data rely on online samples).

1.3 Context of the Study

After the period of continuous economic growth between 1994 and 2007 marked by a significant annual increase in GDP and real net wages (Nestić, 2009), at the end of 2008 Croatia entered recession. The drop in GDP in 2009 in comparison to 2008 was 5.8 percent (The Institute of Economics, Zagreb, 2010), and negative economic trends continued during 2010 and 2011. The influence of economic conditions on the society was overwhelming. The unemployment rate rose significantly according to both the data about the registered number of unemployed (Croatian Employment Service, 2011) and the Labor Force Survey (Croatian Bureau of Statistics, 2011). At the same time, the large majority of Croatian citizens experienced a significant drop in the standard of living and perceived quality of life. According to a survey about the consequences of recession conducted by a Croatian market research agency in March 2010, 84 percent of households experienced some negative consequences of recession. During the crisis, about two thirds of households lowered their clothes expenditures, and 39 percent saved on food and hygienic products (GfK, 2010). It is reasonable to expect that the crisis was reflected also at the workplace, in the quality of working life of Croatian employees.

1.4 The Present Study

The goal of our study was to explore the changes in the quality of working life during the economic recession that started in Croatia at the end of 2008. The quality of working life in Croatia has been covered in several earlier studies. Maslić Seršić and Šverko (2000) collected self-reported estimates of working life quality during the period of transition and socioeconomic crisis (1993-1997). Respondents, both from public and private sectors, estimated extrinsic, social and intrinsic aspects of their jobs during the five-year period. The obtained results indicated profound deficits in perceived need-satisfaction in all job aspects, and therefore, low quality of working life.

The same research group continued to follow the quality of working life in Croatia in the period 2000-2004 (Maslić Seršić, Šverko and Galić, 2005) and further between 2005 and 2008 (Šverko and Galić, 2009). Both these studies revealed an increase in the quality of working life, mainly related to improvements of extrinsic work characteristics (such as pay or working conditions) that followed economic growth during the observed periods. However, the perceptions of the intrinsic job aspects remained unfavorable. Even in the last study (Šverko and Galić, 2009), a large proportion of Croatian workers reported that their jobs were not interesting, had no perspective of advancement and development, and, in respect to participation in decision making, they felt completely marginalized.

In this paper we describe two interrelated studies within which both quality of working life and general job satisfaction were observed. Within the first study, we used the identical methodology as that described in Maslić Seršić and Šverko (2000), Maslić Seršić, Šverko and Galić (2005) and Šverko and Galić (2009). In our Study 1, large convenience samples of Croatian workers were interviewed by psychology students using a questionnaire first described in Maslić Seršić and Šverko (2000). This enabled us to compare our findings regarding quality of working life to those reported earlier. However, given that such methodology relied on the samples of convenience, the generalizability of these findings to the working population is bound to be limited. Moreover, considering that self-reported data related to well-being are strongly influenced by the immediate context of data collection (Kahneman and Krueger, 2006), conclusions would be much stronger if they were confirmed in different circumstances and on other research samples. Within the second study, we tried to replicate our findings from Study 1 on employees drawn from nationally representative samples of citizens using the same instrument.

In both studies the change in quality of working life was observed separately for employees with different educational backgrounds. We based this decision on the findings of earlier studies which showed that the less educated employees are, the more often they have low quality and poorly paid jobs (Morgeson and

Humphrey, 2006) with significant threat of job loss (Kinnunen et al., 1999). Moreover, recent labor market data clearly indicate that the crisis did not have equal effect on the whole labor market: the most hardly hit by the crisis are low skilled workers (Vaughan-Whitehead, 2011).

2 Study 1

2.1 Participants and Procedure

The study had four study waves with the first coinciding with the beginning of the crisis (December 2008), and the final in June 2010. The study's waves were set approximately six months apart. Data were collected by psychology students who were instructed to find and interview employees of both genders, different ages, and different educational levels working in various sectors of the economy. In total 1,027 respondents participated in the study (46.9 percent male). The average age within the sample was 38.13 (SD=12.33). Among the respondents, 64.5 percent worked for private firms, 23.5 percent for state owned companies, 7.8 percent for government financed institutions, and 4.5 percent for other employers (e.g., NGOs). Although we had convenience samples in all study waves, their structures were similar in terms of gender, age or sector of the economy, making their comparisons possible. Educational structure of participants in the study's waves is shown in Table 1.

Table 1: Description of the Sample in Study 1

Level of education	<i>Study's wave</i>				Total
	December 2008	May 2009	December 2009	May 2010	
Secondary school or lower	160	88	115	158	521
Postsecondary	132	88	124	162	506
Total	292	176	239	320	1,027

2.2 Instrument

Quality of Working Life

Attitudes towards nine job characteristics were assessed. In exact wording of the questionnaire, participants were asked if they had on their jobs:

- *adequate salary* which enables a decent life;
- *fair pay*, according to individual's merit;
- *good working conditions* (comfortable and clean surroundings, without excessive noise or extreme temperature, etc.);
- *secure job* with no threat of job loss;
- *pleasant and supportive coworkers* who show mutual understanding and provide social support;
- *good management*, capable in business and taking care of people;
- *interesting, stimulating and enjoyable job*;
- possibilities for *advancement and personal development*;
- opportunity for *participation in decision making* concerning one's job and working life in the company.

The participants were asked to indicate on a five-point scale to what extent these characteristics were attained in their workplace (1=I don't have it in my job, 5=I do have it). In addition, they rated the importance of these job characteristics (1=unimportant, 5=important).

The attainment estimates were used for assessment of the working life quality and therefore represent our main instrument. In order to examine its construct validity, we conducted exploratory factor analyses of the nine job aspects separately for secondary and postsecondary educated workers on the data pooled across

all study waves. The analyses conducted under the principal component model revealed one significant component for both samples which explained 43.52 percent of variance within secondary or lower educated and 42.97 percent within postsecondary educated participants. Within secondary educated participants, the factor loadings ranged from 0.46 (“pleasant and supportive coworkers”) to 0.75 (“fair pay”), and for employees with postsecondary education between 0.45 (“job security”) and 0.77 (“fair pay”). Therefore, the results of factor analyses revealed that the factor structure of our instrument was reasonable and in accordance with our theoretical expectations that quality of working life is a unitary construct which is reflected in a set of indicators. Moreover, the structure was identical within both subsamples making their comparison possible.

General Job Satisfaction

General job satisfaction was measured with a one-item measure. Participants were asked to take into consideration all the advantages and disadvantages of their jobs and then indicate general satisfaction on a scale ranging from 1 (very unsatisfied) to 5 (very satisfied). Pearson correlations between general job satisfaction and attainment estimates for the nine job aspects ranged from 0.31 (“good working conditions”) to 0.59 (“interesting job”) within the secondary school sample and between 0.21 (“job security”) and 0.55 (“interesting job”) within the postsecondary sample. These results suggest that general job satisfaction and the attainment estimates of the nine job aspects are related but distinct constructs.

2.3 Results

Before analyses of the changes in the working life quality, we explored to what extent participants found the measured job aspects personally important. The results of our analyses showed that on a five-point scale average importance ratings for the total sample were above 4. The lowest was the importance rating

for “advancement and personal development” in December 2008 (4.16), and the highest for “pleasant coworkers” also in December 2008 and “adequate salary” in May 2010 (both 4.78). These results indicate that the job aspects derived from the need-satisfaction theories are also perceived as highly important by our participants.

Average attainability ratings of the job aspects in the four study waves for the total sample are shown in Figure 1. The attainability ratings for all job aspects are lower than the importance ratings of these characteristics; most of them are well below 4. The most favorably rated job aspects are “good working conditions” and “pleasant coworkers”. The lowest ratings were obtained for the two intrinsic job characteristics: “opportunity for advancement/development” and “participation in decision making”. General job satisfaction was relatively high and quite stable during the whole study; it ranged between 3.67 (May 2010) and 3.80 (December 2010). The percentage of participants satisfied with their job (i.e., those who gave ratings of 4 and 5 to the general job satisfaction question) ranged between 65.9 percent (May 2010) and 72.3 percent (December 2010).

In order to test for the changes in working life quality and job satisfaction during the crisis, we conducted ten two-way analyses of covariance (ANCOVA) where one independent factor was the study’s wave and the second was level of education (secondary vs. postsecondary). Age and gender of participants were used as covariates in order to control for the differences in working life quality between the study waves that could result from differences in the sample structure. This is important considering that these two variables show a systematic correlation with work attitudes (e.g., Lefkowitz, 1994; Ng and Feldman, 2010). Differences below a $p=0.05$ level were considered as statistically significant, and those between 0.05 and 0.10 as marginally significant. Results of these analyses are shown in Table 2.

Figure 1: Attainability of the Nine Job Aspects and General Job Satisfaction during Study 1 (N=1,027)

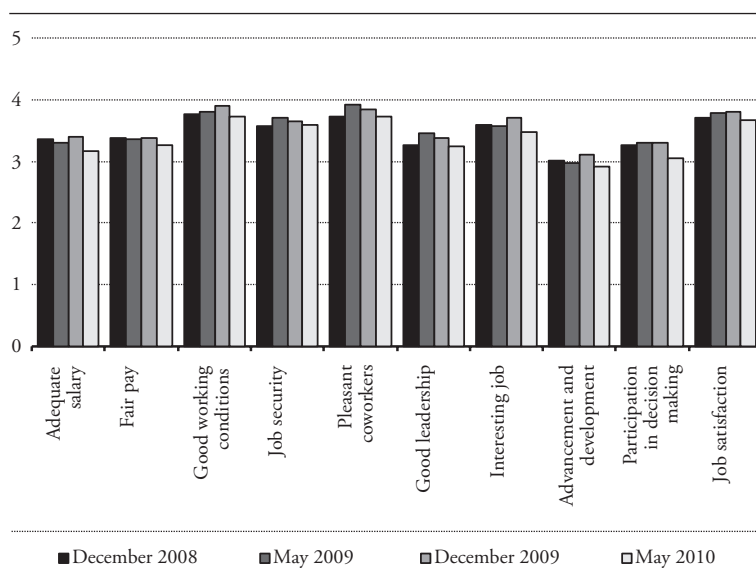


Table 2: Results of the Two-Way ANCOVAs for the Nine Job Aspects and General Job Satisfaction in Study 1

Job aspect	Factors			Covariates	
	Study's wave	Level of education	Wave x level of education	Gender	Age
Adequate salary	2.55*	31.61***	1.80	12.76***	0.26
Fair pay	0.64	7.11***	2.51*	7.36***	2.33
Good working conditions	1.14	49.62***	1.39	20.31***	2.49
Job security	0.55	13.29***	2.45*	0.44	2.05
Pleasant coworkers	1.79	0.05	0.12	0.37	3.66*
Good leadership	1.80	6.21**	1.38	0.01	4.26**
Interesting job	2.05	101.92***	0.25	0.93	0.87
Advancement and development	1.32	85.75***	0.58	10.39***	6.62*
Participation in decision making	2.73**	46.15***	1.86	0.74	5.51**
General job satisfaction	1.37	41.25***	0.14	1.65	0.08

Note: ***p<0.01; **p<0.05; *p<0.10.

As can be seen in Table 2, a significant effect of the study's wave is observed for "participation in decision making" and a marginally significant effect for "adequate salary". Marginally significant interaction terms are found for "fair pay" and "job security". A significant main effect of the level of education was observed for eight job characteristics (the effect was insignificant only for "pleasant coworkers") and general job satisfaction (all $p < 0.05$). In all situations self-ratings indicated higher quality of working life among higher educated workers. Significant and marginally significant effects of the period and interaction of period and level of education are shown in Figures 2 to 5.

The results shown in Figures 2-5 indicate a trend of decline in working life quality during the crisis among workers whose level of education is secondary school or lower. At the same time, ratings of higher educated workers are relatively stable, even with some trends of slight improvement in the second or third wave of the study.

Figure 2: Ratings of "Adequate Salary" Attainability during Study 1 (Adjusted Means)

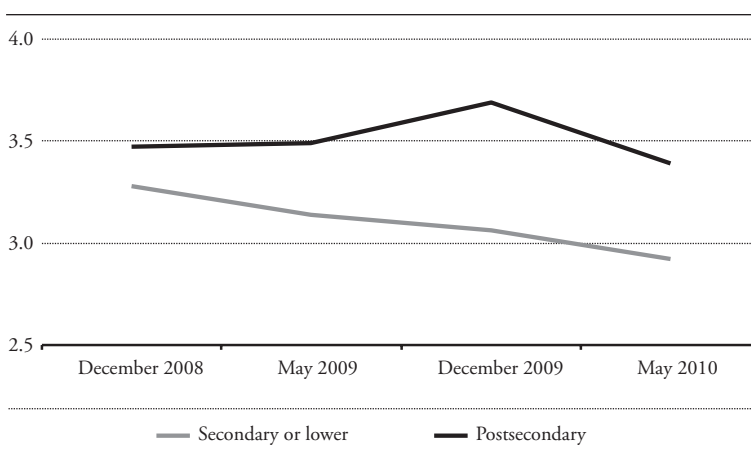


Figure 3: Ratings of “Participation in Decision Making” Attainability during Study 1 (Adjusted Means)

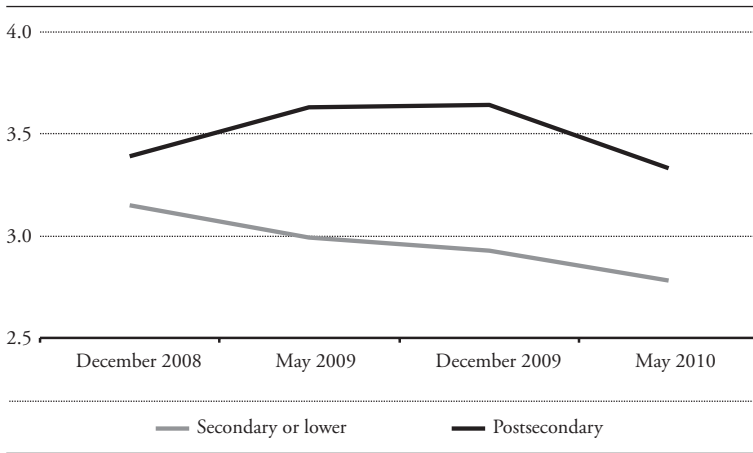


Figure 4: Ratings of “Fair Pay” Attainability during Study 1 (Adjusted Means)

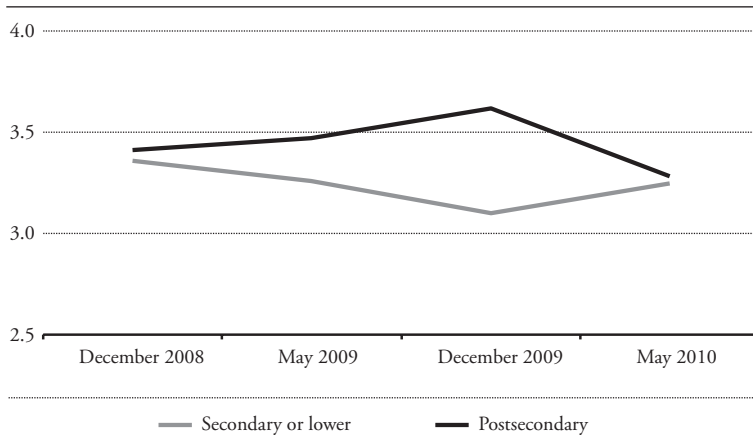
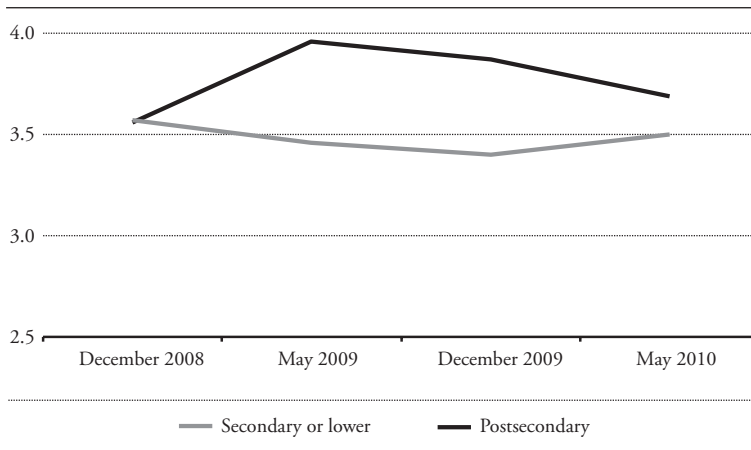


Figure 5: Ratings of “Job Security” Attainability during Study 1 (Adjusted Means)



Therefore, the results of our analyses indicate that the trend of continuous improvement in working life quality in Croatia observed in earlier studies (Maslić Seršić, Šverko and Galić, 2005; Šverko and Galić, 2009) has not continued. On the contrary, during the recession changes in several job aspects suggested a trend of decline. The trend was mainly related to attainability of extrinsic job aspects among lower educated workers. This finding can be further supported if we compare our results with those reported by Šverko and Galić (2009). The comparison of four time periods (1993-1996; 1997-2000; 2001-2004; 2005-2008) with regard to the nine job aspects in that study revealed continuous improvement in the working life quality of Croatian workers between 1993 and 2008. In Figures 6 and 7 we compare attainability ratings for the nine job aspects from Šverko and Galić’s (2009) last time period (2005-2008) with the first (December 2008) and the last (May 2010) wave of our study. Before comparisons are made, it should be stressed that there was no overlap between the two data sets; 2008 data from Šverko and Galić’s (2009) study were collected during the first half of the year, and data from our study in December. The comparisons shown in Figures 6 and 7 suggest conclusions similar to those based

exclusively on the Study 1 data. For secondary educated workers, the trend of growth observed by Šverko and Galić (2009) continued to the first wave of our Study 1 which could be explained by the fact that it coincided with the beginning of recession and that it takes time for macroeconomic changes to be felt at an individual level. But the trend reversed in May 2010, the last wave of Study 1. The trend of improvement between the last period from Šverko and Galić's (2009) study and December 2008 was also observed for postsecondary educated workers. However, although the differences between the first and the last wave of Study 1 did not reveal any systematic pattern of change in working life quality, it is obvious that the trend of growth did not continue.

Figure 6: Comparison of Quality of Working Life Data from Šverko and Galić (2009) with Data from Study 1 (Secondary School or Lower Educated Participants)

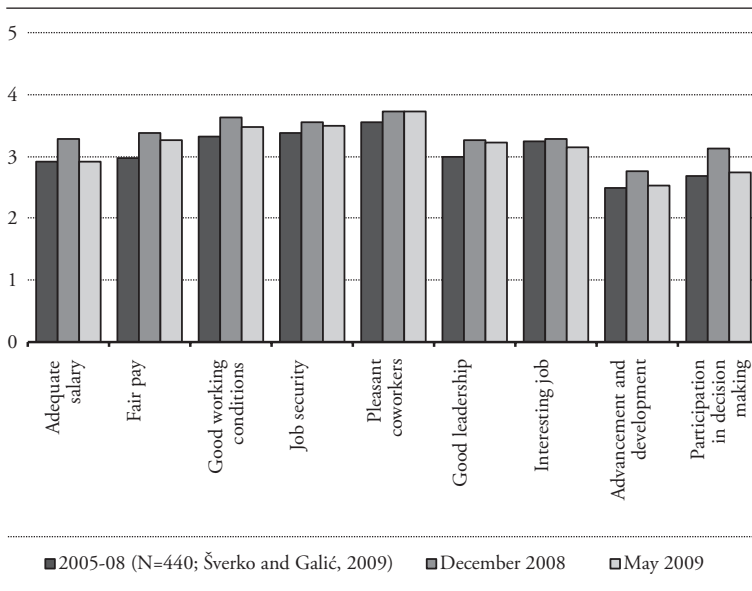
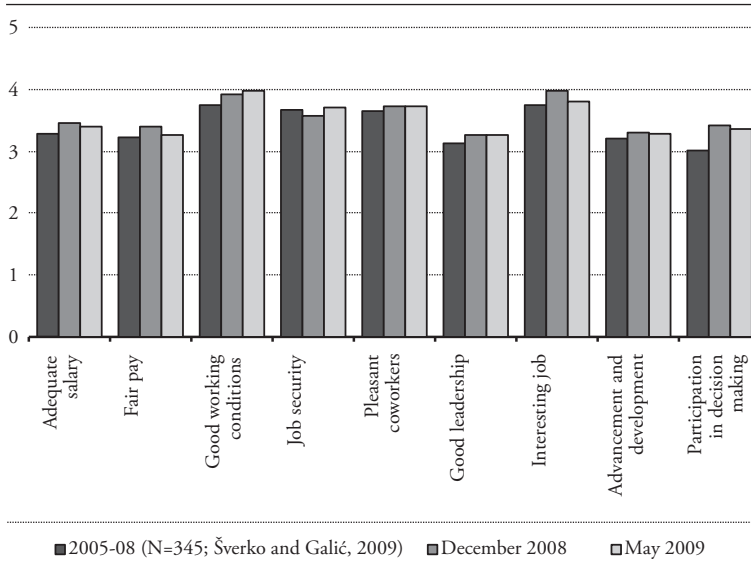


Figure 7: Comparison of Quality of Working Life Data from Šverko and Galić (2009) with Data from Study 1 (Postsecondary School Educated Participants)



Yet, the observed differences and reached conclusions are not without objections. First, the observed effects of the study's wave from our two-way ANCOVAs are marginally significant or significant at a $p < 0.05$ level. They indicate trends and are not straightforward. For example, while secondary educated participants showed a trend of decline, attainability ratings of postsecondary educated workers showed both deterioration and improvement during the course of the study. This was also obvious when we conducted one-way ANCOVAs separately by education level where the study's wave served as an independent variable and age and gender as covariates. For the lower educated group, significant or marginally significant effects of the study's wave were observed for "adequate salary" ($p < 0.05$) and "participation in decision making" ($p < 0.10$). At the same time, for the higher educated group, (marginally) significant effects were observed for "job security" ($p < 0.05$) and "participation in decision making" ($p < 0.10$). This could probably be attributed to the fact that estimates are collected with one-item measures that

have questionable reliabilities. Second, the analyses were conducted on samples of convenience, biased towards better educated workers. Considering that our conclusion would merit from replication, we conducted the second study on more heterogeneous samples of employees that better represented the Croatian workforce.

3 Study 2

3.1 Participants and Procedure

Within the second study, the data were also collected on four occasions: in September 2008, March 2009, March 2010, and June 2011. The first study wave occurred before the recession started, and the last just before the first signs of economic recovery were reported (The Institute of Economics, Zagreb, 2011).

The sample consisted of employed persons selected from nationally representative samples of citizens older than 15. Data were collected within an omnibus survey conducted by a large Croatian market research agency. Field pollsters interviewed respondents in their households. In the sample, 41.7 percent of participants were male. Average age of participants in all study waves was 38.11 (SD=11.14). Unfortunately, data about employment sector were not recorded in all study waves.

Considering that participants were selected from representative samples of Croatian citizens, the sample was less biased towards better educated employees than the one used in Study 1. This made it possible to obtain a more diverse perspective on the working life quality depending on the educational level of participants. Within this study participants were divided in three educational groups: unskilled, semiskilled and skilled (Group 1), secondary school education (Group 2), and postsecondary education (Group 3). Structure of participants in Study 2 according to their education is presented in Table 3.

Table 3: *Description of the Sample in Study 2*

Level of education	<i>Study's wave</i>				Total
	September 2008	March 2009	March 2010	June 2011	
Unskilled, semiskilled and skilled	120	130	123	147	520
Secondary school	274	238	221	249	982
Postsecondary	132	121	119	121	493
Total	526	489	463	517	1,995

3.2 Instrument

Quality of Working Life

The instrument used in this study was identical to the one described in Study 1. We performed again exploratory factor analyses to check the factorial validity. The principal component analyses on the data pooled across four study waves revealed one latent component within each educational group. The component explained 56.92 percent of response variance among unskilled/semiskilled/skilled participants, 52.87 percent among secondary school, and 54.08 percent within postsecondary school participants. The factor loadings ranged between 0.66 (“pleasant coworkers”) and 0.82 (“fair pay”), 0.41 (“pleasant coworkers”) and 0.64 (“fair pay”), and from 0.62 (“safe job”) to 0.82 (“fair pay”) for the unskilled/semiskilled/skilled, secondary and postsecondary subsample, respectively. Therefore, the results of exploratory factor analyses again supported our theoretical propositions.

General Job Satisfaction

A five-item scale for measurement of general job satisfaction was used (Brayfield and Rothe, 1951). The scale has five items that measure the general attitude towards one’s job (for example, “I feel fairly satisfied with my present job” or “I find real enjoyment in my work”). The participants responded on a five-point scale

where 1=completely disagree and 5=completely agree. This scale is recommended as a valid and reliable measure of general job satisfaction (Judge and Klinger, 2007). Cronbach's internal consistency coefficients in all waves of our study were above 0.88. The general job satisfaction score correlated moderately with the attainment of the nine job aspects. Within the unskilled/semiskilled/skilled sample, correlations ranged between 0.48 ("participation in decision making") and 0.66 ("interesting job"). Within the other two groups the range was between 0.45 ("advancement and development") and 0.66 ("interesting job"), and between 0.38 ("job security") and 0.74 ("interesting job") for secondary and postsecondary educated workers, respectively.

Both questionnaires were part of a large survey exploring attitudes and beliefs about various social issues.

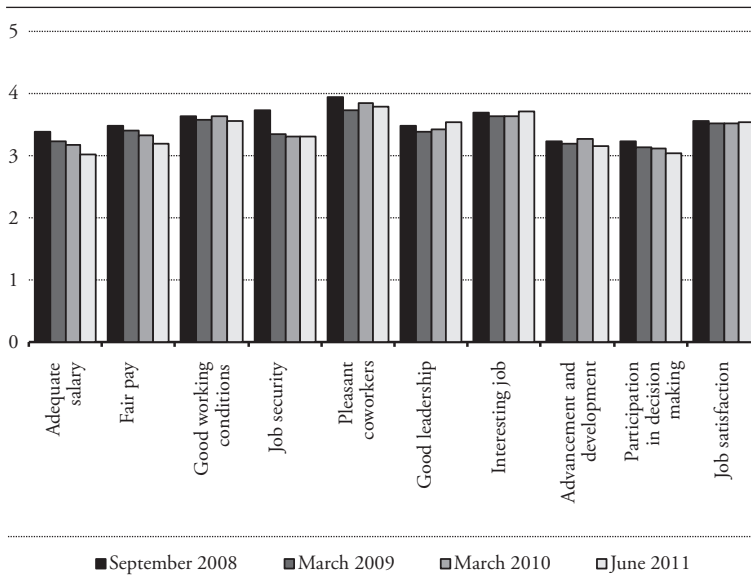
3.3 Results

We first examined perceived importance for the nine job characteristics for the total sample. Similar to the first study, obtained importance ratings were again high, and ranged between 4.28 ("participation in decision making" in March 2009) and 4.87 ("job security" in June 2011). Average attainability ratings for the nine job characteristics and general job satisfaction are shown in Figure 8.

The results shown in Figure 8 reveal similar trends as those in Study 1. Observed attainability ratings are below importance ratings and at about the same level as those obtained in Study 1. The most favorable ratings are observed for "pleasant coworkers" and "good working conditions", and the least favorable for intrinsic job characteristics ("advancement and development" and "participation in decision making"). General job satisfaction was relatively high (above 3.5) and stable during the study. In order to compare general job satisfaction results with those from Study 1, we calculated the percentages of participants who gave ratings of 4 or 5 to the item that most closely resembled the Study 1 general job satisfaction item ("I feel fairly satisfied with my present job"). The percentages

were 60.6 percent (September 2008), 62.0 percent (March 2009), 61.7 percent (March 2010) and 60.7 percent (June 2011), again revealing a majority of satisfied workers.

Figure 8: Attainability of the Nine Job Aspects and General Job Satisfaction during Study 2 (N=1,995)



The results of two-way ANCOVAs with two independent factors (wave of the study and level of education) and two covariates (age and gender of participants) for the nine job aspects and general job satisfaction are shown in Table 4. Again, differences below a $p=0.05$ level were considered as statistically significant, and those between 0.05 and 0.10 as marginally significant.

Table 4: Results of the Two-Way ANCOVAs for the Nine Job Aspects and General Job Satisfaction in Study 2

Job aspect	Factors			Covariates	
	Study's wave	Level of education	Wave x level of education	Gender	Age
Adequate salary	8.17***	33.13***	1.28	23.61***	2.45
Fair pay	5.32***	22.89***	1.54	9.00***	0.06
Good working conditions	0.90	52.95***	0.53	7.18***	0.50
Job security	15.79***	35.36***	2.37**	5.81**	6.15**
Pleasant coworkers	2.67**	8.84***	0.90	7.24***	0.10
Good leadership	0.67	18.67***	0.46	3.34*	0.75
Interesting job	1.49	42.83***	1.80	15.02***	0.12
Advancement and development	1.46	32.67***	0.10	23.43***	10.49***
Participation in decision making	0.52	38.26***	0.65	9.98***	1.37
General job satisfaction	0.17	34.13***	1.59	6.23**	3.13*

Note: *** $p < 0.01$; ** $p < 0.05$; * $p < 0.10$.

The ANCOVA results showed a significant effect of the period of data collection on three extrinsic aspects: “adequate salary”, “fair pay” and “job security” (all $p < 0.01$). A significant effect of the study’s period was also observed for “pleasant coworkers” ($p < 0.05$). A significant interaction term was found only for “job security” ($p < 0.05$). These effects are shown in Figures 9 to 11.

Figure 9: Ratings of “Adequate Salary” Attainability during Study 2 (Adjusted Means)

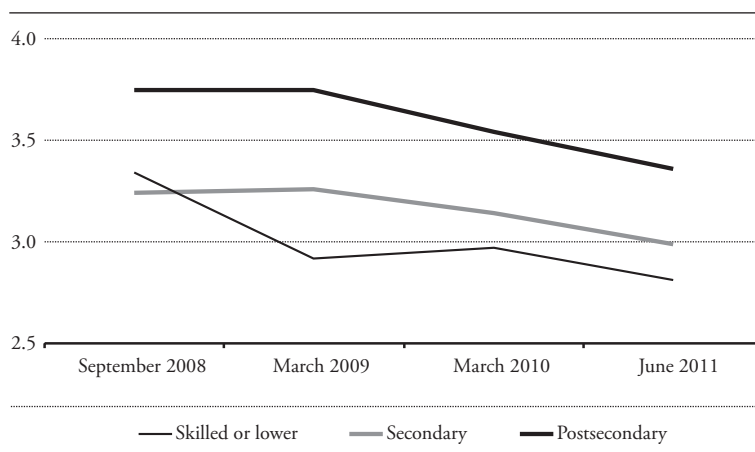


Figure 10: Ratings of “Fair Pay” Attainability during Study 2 (Adjusted Means)

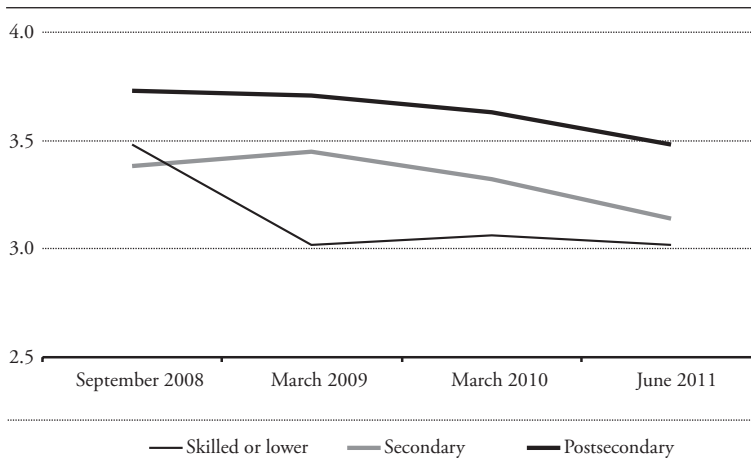
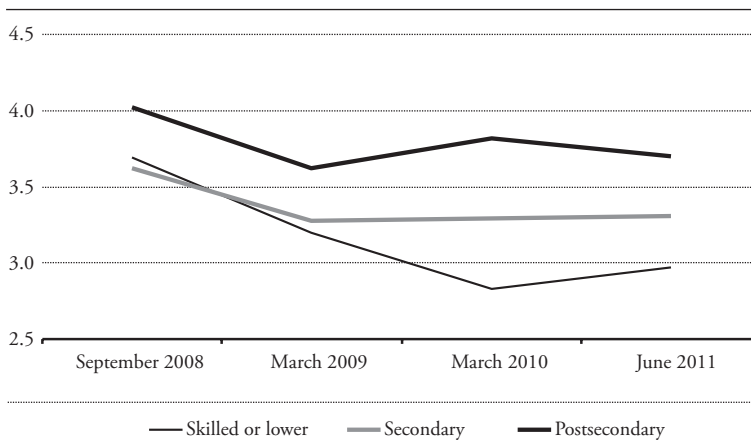


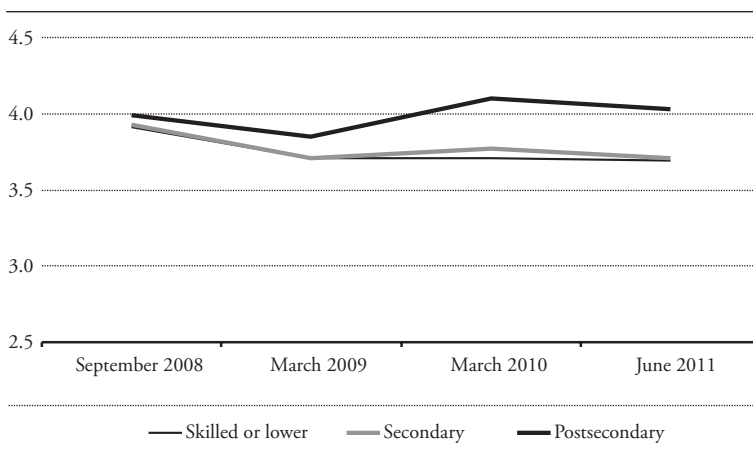
Figure 11: Ratings of “Job Security” Attainability during Study 2 (Adjusted Means)



The figures reveal a declining trend in the three extrinsic job aspects. This decline is more pronounced for less educated participants. The trend was most obvious for “job security” (Figure 11) where significant interaction between the study’s

wave and education was observed. A marginally significant effect of the study's period for "pleasant coworkers" is shown in Figure 12. This figure shows a weak decline in the job characteristics in the second period of the study, and then again slight improvement in the third and fourth study period. The effect of educational level was highly significant for all job aspects (all $p < 0.01$): all of them were more favorably described by higher educated workers. In order to better understand the obtained significant and marginally significant effects, we conducted additional ANCOVAs separately by educational level. The study's wave served as the independent variable, whereas age and gender were covariates. For the "skilled or lower" group, the effect of the study's wave on "adequate salary", "fair pay", and "job security" was significant (all $p < 0.05$). For participants with secondary education, significant changes during the study were observed for "fair pay" and "job security" (both $p < 0.05$), and marginally significant for "adequate salary" ($p = 0.07$). For postsecondary educated employees, significant effects of the study's wave were found for "adequate salary" and "job security" (both $p < 0.01$). The "pleasant coworkers" job aspect yielded specific results as a marginally significant effect of the study's wave was observed only for secondary school educated participants ($p = 0.08$).

Figure 12: Ratings of "Pleasant Coworkers" Attainability during Study 2 (Adjusted Means)



Considering that in Study 2 we had samples of employees that were drawn from nationally representative samples of citizens over 15, in order to show the current level of working life quality in Croatia more clearly, and to better understand the size of significant effects, we calculated the percentage of participants deprived of one or more job aspects. As such we defined only those participants who gave ratings of 1 or 2 on the five-point attainability scale. The deprivation indicators for all job aspects and all study waves are shown in Table 5.

The results support conclusions obtained in earlier studies on the working life quality in Croatia. On average during the whole study, the highest percentages of deprived participants are found for intrinsic job aspects (“advancement and development” and “participation in decision making”) and the lowest for a social aspect (“pleasant coworkers”). However, as our ANCOVAs had shown, the quality of working life depended on employees’ educational level, and changed during the course of our study. For example, for the “adequate salary” job aspect, percentages of deprived workers reveal large changes during the study. Within the skilled or lower educated group the percentage of deprived workers was 21.6 percent in the first study wave (September 2008) and as high as 41.1 percent at the end of the study (June 2011). The percentages among secondary and postsecondary educated workers were 25.6 and 13.3 percent (September 2008), and 30.8 and 23.8 percent (June 2011). Relatively large changes were observed for “fair pay” and “job security”. At the beginning of the study, the percentage of deprived participants in the “fair pay” aspect was 17.1 for skilled or lower, 21.5 for secondary, and 14.1 for postsecondary educated participants. At the end of the study percentages were 33.8, 29.4, and 21.3 percent, respectively. As for the “job security” aspect, in the first study wave 20.3 percent of skilled or lower, 14.0 percent of secondary, and 6.2 percent of postsecondary educated participants were deprived. At the end of our study the percentages were much higher, especially for lower educated groups (37.7 percent of skilled or lower, 25.5 percent of secondary and 14.8 percent of postsecondary educated participants).

Table 5: Deprivation Indices: Percentages of Participants with Ratings of 1 or 2 on Attainability Ratings Scale for the Nine Job Aspects in Study 2

Job aspect	September 2008			March 2009			March 2010			June 2011		
	Skilled or lower	Secondary	Postsecondary	Skilled or lower	Secondary	Postsecondary	Skilled or lower	Secondary	Postsecondary	Skilled or lower	Secondary	Postsecondary
Adequate salary	21.6	25.6	13.3	35.9	21.9	13.4	29.6	24.3	15.1	41.1	30.8	23.0
Fair pay	17.1	21.5	14.1	36.6	17.2	10.1	25.8	19.0	11.8	33.8	29.4	21.3
Good working conditions	22.9	16.6	6.2	23.7	15.9	7.6	17.6	16.2	2.5	25.3	18.7	9.8
Job security	20.3	14.0	6.2	26.7	24.4	17.6	37.6	23.4	13.4	37.7	25.5	14.8
Pleasant coworkers	9.4	8.7	8.5	9.9	12.1	6.7	7.2	10.9	5.0	12.4	12.0	7.4
Good leadership	12.8	17.7	12.5	26.0	18.8	13.4	20.0	17.2	10.9	21.9	20.4	12.3
Interesting job	12.0	12.0	10.1	21.4	11.3	7.6	16.0	12.7	6.7	16.4	10.6	8.2
Advancement and development	27.1	28.6	14.7	38.2	31.3	17.6	31.2	21.6	12.6	31.2	21.6	12.6
Participation in decision making	31.0	28.6	14.7	37.4	29.5	19.3	43.2	30.2	15.3	43.2	33.6	21.3

4 Discussion

The results of our studies revealed that the economic crisis influenced the quality of working life in Croatia. Both our studies indicated that the recession mostly affected the perception of extrinsic job aspects such as adequate pay, fair pay and job security. These findings are not unexpected considering that recent studies have showed that the main way firms coped with the crisis were cuts in employment and wages (Franičević, 2011). Employees with lower educational levels seem to be working in the most unfavorable circumstances. Their starting position regarding working life quality was less favorable to begin with, and it further declined during the recession. Again, this is expected considering that labor market data show that the most hardly hit by the recent recession are unskilled and lower educated workers (Vaughan-Whitehead, 2011). Thus, it seems that deteriorated working conditions translated directly to feelings of loss in employees' well-being.

According to Clark (2011) there are at least two reasons why it is important to explore working life quality. First, policy should be concerned about the distribution of well-being across the economy. Employees who have high quality jobs have greater chances of living productive and satisfying lives. Our data show that a significant proportion of Croatian workers are deprived on their jobs which probably undermines their chances of living fulfilled lives. Second, the analysis of the level of well-being helps us understand labor market behavior. There is a lot of evidence that the things people say about their jobs are relatively strong predictors of their future behaviors (Judge and Klinger, 2007). Attitudes towards one's job predict behaviors such as voluntary turnover, absenteeism, and counterproductive work behavior such as low work effort and theft. Therefore, if a declining trend of working life quality is observed, it is unreasonable to expect employees to put more work effort in their jobs. In fact, it is interesting to note that the data about the working life quality in Croatia resemble the famous Davies (1962) J-curve model relating economic deprivation to rising discontent. According to that model, social unrest most likely occurs when a period of

economic and social development is followed by a short period of reversal. In the described studies, the period of continuous progression in working life quality in Croatia is followed by a significant decline. By the time this study was written, the trend did not produce any significant social problems. However, it could be that the decline in the conditions was still not strong enough to produce significant discontent. If further deterioration in working life quality should follow, collective actions might be possible.

One specific aspect of our findings merits special attention. It concerns measurement of working life quality and has important implications for future studies. In our study we used two sets of indicators of workers' well-being during the crisis. The first were specific indicators of working life quality derived from the need-satisfaction framework, and the second general job satisfaction measures. In both studies, the need-satisfaction indicators revealed a significant number of deprived workers and showed sensitivity to the macroeconomic conditions. On the other hand, the percentage of participants satisfied with their jobs was relatively high and stable during the observation periods. The pattern of results was identical in both studies, irrespective of the fact that different job satisfaction scales were used in the two studies. For example, in the second study, where the representative samples were used, the percentage of participants who agreed with the statement (ratings of 4 or 5 on the five-point scale) "I feel fairly satisfied with my present job" was above 60 percent during the whole study. This is consistent with thousands of studies on job satisfaction which have showed that in almost any circumstances the majority of people are generally satisfied with their jobs (Schultz and Schultz, 2006). This probably reflects the fact that job satisfaction levels depend on employees' psychological characteristics (personality traits) (Judge, Heller and Mount, 2002) and a tendency of people not to hold a negative attitude towards the activity within which they spend a significant proportion of their lives (Festinger, 1957).

However, general job satisfaction indicators are often used as the measures of job quality. The studies relating aggregated economic variables such as pay

inequality, unemployment rate, or GDP to general job satisfaction often result in negative findings. For example, Hamermesh (2001) showed that changing inequality of pay in the US or Germany did not have any obvious implication for the mean level of job satisfaction. Similarly, Handel (2005) showed that neither mean nor standard deviation of job satisfaction changed over the period 1989-1998, regardless of the changing economic conditions. Moreover, mixed findings about the relationship between job satisfaction and macroeconomic conditions are observed in some other studies (Green, 2007; Clark, 2010). If general job satisfaction is taken as a job quality indicator, we could conclude that changes in economic conditions do not influence working life quality. Based on the results of our study, we opt for specific indicators of working life quality. These indicators seem more sensitive to the changing economic conditions than general job satisfaction, and probably better reveal the situation at the workplace.

In conclusion, the results of our research indicate that the trend of improvement in working life quality in Croatia observed in earlier studies (Maslić Seršić, Šverko and Galić, 2005; Šverko and Galić, 2009) did not continue. Not especially high at the beginning of our study, the quality of working life deteriorated during the recession. This is reflected in a significant proportion of employees who reported profound deprivation in need satisfaction at their jobs, especially among lower educated workers. In order to improve motivation and well-being of their employees and to avoid manifestations of dissatisfaction, employers should take steps towards improvement of working life quality. Although it is not reasonable to expect that some extrinsic aspects such as adequate pay or job security will improve without significant economic growth, even in the recession employers could enhance some aspects of working life quality and, thus, raise the motivation of their employees. For example, they should ensure that their employees perceive outcomes that follow their work efforts as fair and distributed according to individual merits. Moreover, they should include employees in the process of decision making about the issues that are important for the organization and work process. Even if these issues involve unpopular moves such as pay cuts or

downsizing, the participation could give them an opportunity to satisfy their seriously deprived psychological needs.

At the end, we will quote the Declaration for Decent Work by the European Association of Work and Organizational Psychology (EAWOP): “In the aftermath of the financial/economic crisis the economic rationality seems to override issues of job security, health and well-being, and environmental issues. If we want our society to prosper, now and in the future, we need to make sure that working conditions and employment meet the current standards of decency” (Bakker and Zijlstra, 2011).

5 Scope for Future Research

Our study has several limitations and related suggestions for future research. First, although Study 2 was conducted on samples of employees that were drawn from a nationally representative sample of citizens older than 15, it should be mentioned that male and older workers were underrepresented in comparison to the data reported by administrative sources (Croatian Bureau of Statistics, 2001). Replications of our conclusions about quality of working life on samples that more closely resemble the workforce in Croatia would be useful.

Second, in our study we did not explore whether the crisis affected public and private sector workers differently. Considering that the labor market data suggest that the private sector was more hardly hit by the crisis than the public sector (Franičević, 2011), this should also be reflected in perceptions of working life quality. Future research exploring this rather sensitive issue is needed.

Finally, our conclusions about the changes in working life quality are based on self-reports. Because the nine job aspects and job satisfaction were estimated by each participant, the obtained data are subject to common method bias (consistency motif) (Podsakoff et al., 2003). The fact that effects of the study’s period were observed for different job aspects, and that very similar conclusions followed

from the two studies that slightly differed in the data collection procedure (a “stand-alone” instrument in Study 1 vs. part of a large survey in Study 2), makes us believe that common method bias should not have significantly influenced our conclusion. However, findings about the observed changes in extrinsic job aspects would be substantiated if other data indicating working life quality related to these job aspects were collected (such as monthly net payment as a salary indicator, or the number of permanent contracts as a job security indicator).

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