



Life Satisfaction and Job Satisfaction among University Faculty: The Impact of Working Conditions, Academic Performance and Relative Income

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Abstract

This study examines the effects of work related factors (such as mobbing, job security and job concern) and academic related factors (such as publications, time for research and pressure) and relative income effect (social comparison and self-income evaluation) on life satisfaction and overall job satisfaction of young faculty members working at leading universities located in major cities in Turkey. The analysis is based on a unique survey conducted with 1215 research assistants. Separate regressions were run for the whole sample and for gender categories. Findings of the research revealed that life satisfaction and overall job satisfaction were strongly correlated with mobbing, time for research, formal and informal pressure and subjective job security. Separate regression results revealed that the significant predictors for overall job satisfaction differed among male and female respondents. In regard to relative income effect, findings were in line with the existing literature: attaching importance to income comparison has a negative impact on life satisfaction. In addition, downward self-income evaluation for the present has a negative effect on life satisfaction, whereas upward self-income evaluation for the future (expectations) has a positive effect on life satisfaction.

Keywords Life satisfaction · Job satisfaction · Mobbing · Job security · Formal and informal pressure · Time for research · Relative income · Income comparison · Income evaluation

JEL Classification I23 · J01 · J28 · J45

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1 Introduction

This paper focuses on Subjective Well-Being, in specific; life satisfaction and job satisfaction in the academy. Scholars from various fields such as sociology and psychology have written numerous articles and books examining the determinants of Subjective Well-Being.¹ For a couple of decades, there has been a significant increase in economists' interest in the empirical analysis of subjective well-being variables.² Among empirical analyses of Subjective Well Being in economics literature, the two mostly studied research areas are (1) the analysis of life satisfaction or happiness and (2) the analysis of job satisfaction or well being at work.

By analyzing large datasets (such as the General Social Survey, British Household Survey, German Socioeconomic Panel Data etc.) scholars have gained important insights into the determinants of life satisfaction and reported levels of well-being trends (Blanchflower and Oswald 2004; Dolan et al. 2008; Frey and Stutzer 2002; Veenhoven 2016). These studies have revealed that life satisfaction depends on a wide range of social, personal, demographic, economic, institutional and environmental factors (Diener 1984, 2000; Diener et al. 1985; Frey and Stutzer 2010). Economists studying these datasets have provided insights into the relationship between main macroeconomic indicators (absolute income, relative income, inflation, unemployment) and happiness (Oswald 1997; Di Tella et al. 2001; Easterlin 1995; Frijters et al. 2004; Frey and Stutzer 1999).

Studies on satisfaction at work, on the other hand, have mostly focused on individual characteristics of workers and conditions of the workplace. The understanding of workers' Subjective Well Being and interaction between the worker (his/her individual characteristics) and his/her work environment provides an insight into understanding certain labor market behaviors. The cross-sectional and longitudinal effects between job and life satisfaction, and determinants of job satisfaction have been analyzed in a cross-national setting (Sousa-Poza and Sousa-Poza 2000a), national setting (Judge and Watanabe 1993; Clark and Oswald 1996; Rode 2004) or in various sectors such as business companies, government agencies and universities (Judge et al. 2005; Dall'Ora et al. 2015). Analyses using the data gathered from various institutions (or unique surveys applied in various sectors) have focused on the impact of several socio-demographic and work related factors such as age (Clark and Oswald 1996; Clark et al. 1996; White and Spector 1987), gender (Clark 1996, 1997; Sousa-Poza and Sousa-Poza 2000a; Scandura and Lankau 1997; Ernst Kossek and Ozeki 1998), education (Lee and Wilbur 1985; Oshagbemi 2003), union membership (Bryson et al. 2004; Clark 1996, 1997; Lee and Wilbur 1985), contract types and relative wages, income and performance pay (Clark and Oswald 1996; Lévy-Garboua and Montmarquette 2004; Winkler et al. 2015; Cornelissen et al. 2011) on job satisfaction.³

In academics, researchers have mostly examined the impact of academic related factors and working conditions on life satisfaction or job satisfaction of the faculty. Academic ranks, academic workloads, publication success, mobbing, stress and job security are widely studied topics (Feld et al. 2015; Bozeman and Gaughan 2011; Houston et al. 2006;

¹ For the leading studies in these fields please see Easterlin (1974), Veenhoven (1984), and Myers and Diener (1995).

² The number of published articles referenced in EconLit in any given year that mention happiness, life satisfaction or subjective well-being in the title or abstract has increased from 3 in 1986–1990 to 146 in 2011 (Frey and Stutzer 2013).

³ For a detailed review for job satisfaction in the early period please see Rice et al. (1980).

McKay et al. 2008; Olsen 1993; Oshagbemi 2003; Skaalvik and Skaalvik 2015); gender, age, contract types and academic ranks are the most commonly analyzed cohorts (Bender and Heywood 2006; Clark et al. 1996; Loscocco and Spitze 1990; Origo and Paganì 2009; Sloane and Ward 2001; Ward and Sloane 2000; Sabharwal and Corley 2009; Skaalvik and Skaalvik 2015).

The aim of this paper is to provide empirical evidence to ascertain the relationship between work and academic related factors, relative income and life satisfaction and overall job satisfaction in the academic labor market in Turkey. In some cases, the paper refers the term “effect”, when in fact; due to limitations of the dataset only correlations are highlighted. The main motivation is to contribute to the newly flourishing Subjective Well-Being literature in Turkey. The paper aims to do this by focusing on a rarely studied field: the academy. In addition, the study aims to contribute to the relative income literature by providing evidence from academy in Turkey.

For several decades, the number of researches on Subjective Well-Being in Turkey has been gradually increasing. Researches focus on socio economic conditions and life satisfaction (Gitmez and Morcöl 1994; Selim 2008; Duumludag 2013; Gokdemir 2015; Caner 2015, 2016; Duumludag et al. 2016; Eren and Aşıcı 2017), job satisfaction and/or life satisfaction in regard to different sectors such as health, automobile and tourism (Bilgiç 1998; Yorgun et al. 2009; Eker et al. 2004; Pelit et al. 2011; Keser 2005).

However, the number of studies on the determinants of life satisfaction or overall job satisfaction in Turkish education sector is very small and existing ones partially investigate Subjective Well-Being rather than suggesting a comprehensive model (Bas and Ardiç 2002; Küskü 2001, 2003; Saygi et al. 2011; Toker 2011; Şirin and Şirin 2015; Demirel 2014; Yetim 1993). Furthermore, this research paper targeted young faculty members: research assistants who are more exposed to formal and informal pressure in comparison to other faculty members. In addition, their contract type is temporary or renewable every year, therefore the impact of job security does not have the same effect as it has on tenure contracts.

Studying the academy has some unique features such as homogeneity with regard to motivation and education background and long periods of extended study in comparison to the general labor force. Our analysis is based on responses to questionnaires.

The organization of this paper is as follows. Section 2 discuss the theoretical approaches and define the concepts of Subjective Well-Being. Following, the survey and the descriptive statistics are described in Sect. 3. Section 4 includes the models and definition of variables. Section 5 presents the models for academic and work related factors and life satisfaction and overall job satisfaction for the full sample and subsamples of male and female. Section 6 presents the estimation results of the second model for relative income effect on life satisfaction, and following limitations and perspectives for future research Sects. 7 and 8 concludes.

2 Theoretical Framework, Concepts and Measurement of Satisfaction

According to standard economic theory, utility is objective and depends on goods and services and leisure. However, in parallel to rising interest of economics to subjective well-being, a subjective view of utility relies on the judgment of the persons directly involved and interprets this judgment as a direct measure of the utility or well-being (Frey and

Stutzer 2002).⁴ In economics models life satisfaction or happiness is used proxy as utility; whereas job satisfaction is used proxy as “utility at work” or “felt utility” which can be thought of as a type of sub-utility function (Clark and Oswald 1996; Lévy-Garboua and Montmarquette 1997).⁵

In the surveys, life satisfaction or happiness questions are mostly asked as such: If you were to consider your life in general, how happy or unhappy would you say you are on the whole? (4 very happy, 3 fairly happy, 2 fairly unhappy, 1 very unhappy) and, “Overall, how satisfied or dissatisfied are you with the way things are going in your life today? Would you say you are: very satisfied (4), somewhat satisfied (3), somewhat dissatisfied (2), or very dissatisfied (1)?”

In this study, similar to World Values Survey, life satisfaction is composed of individual responses to the question: All things considered, how satisfied are you with your life as a whole these days? Respondents were asked to indicate a score on an ordinal scale ranging from 0 (completely dissatisfied) to 10 (completely satisfied).

Job satisfaction, on the other hand, is defined as “a pleasurable or positive emotional state resulting from the appraisal of one’s job or job experiences” (Locke 1976, p. 1300) Another definition of job satisfaction has been expressed as a function of a vector of individual characteristics and a vector of job and workplace characteristics (Brown and McIntosh 1998).

However, not all disciplines or scholars agree on the concept (identified with individual well-being) and the definition of job satisfaction. For instance, Hodson (1991) criticizes the concept of job satisfaction and argues that the concept is largely irrelevant for workers’ day-to-day activities. Beyond definition, he also criticizes the concept by paying too little attention to the multitudinous states underlying individual well-being. By constructing workplace setting and the worker’s reaction to it he proposes a behavior-based classification of workers (Hamermesh 1977; Borjas 1979; Clark and Oswald 1994, 1996).

In the surveys, multidimensional aspect of job satisfaction is measured by asking several questions related to working conditions. For instance, in the British Household Panel Survey (BHPS) individuals were asked to rate their satisfaction levels with seven specific facets of their job promotion prospects, total pay, relations with supervisors, job security, ability to work on their own initiative, the actual work itself, and hours of work. Each of these criteria was to be given a number from 1 to 7, where a value of 1 corresponded to ‘not satisfied at all’; a value of 7 corresponded to ‘completely satisfied’.

Although discussions mentioned above reveal that job satisfaction has multidimensional aspect, some major surveys also include a single question on overall job satisfaction. For instance, in US General Social Surveys/General Household Surveys, job satisfaction question is formulated as: “On the whole, how satisfied or dissatisfied are you with the work you do— would you say you are very satisfied, moderately satisfied, a little dissatisfied, or very dissatisfied?” In the BHPS, individuals were asked a question: ‘All things considered, how satisfied or dissatisfied are you with your present job overall (using the same 1–7 scale

⁴ Life satisfaction is conceived as the degree to which an individual judges the overall quality of his life-as-a-whole favorably (Veenhoven 1991).

⁵ In order to conform to the ordinal utility theory, ordinal statement was converted to a cardinal scale by asking respondents (through either direct or indirect questioning or personal interview) to evaluate their feelings on a detailed Likert-type scale (Michalos 1985). Interview techniques applied in anonymous questionnaire have allowed the quantitative measurement of life satisfaction. Empirical checks of the suspicions about the validity of self-reports of life satisfaction have not revealed great distortions (Veenhoven 1991).

mentioned above)?' (Clark 1996). In this study, to be in line with 11-scale life satisfaction question, respondents were requested to indicate their satisfaction with their job on an 11-point scale ranging from (0) "completely dissatisfied" to (10) "completely satisfied".⁶

Interview techniques and available surveys do not only evaluate and measure Subjective Well-Being, but also allow researchers to examine the impact of socio-economic, socio-demographic, institutional, macroeconomic and other dimensions such as relative income and academic related concerns on life satisfaction and job satisfaction. This paper aims to analyze the relationship between work and academic related factors, relative income and satisfaction by using a unique survey that includes life satisfaction and overall job satisfaction of the respondents.

3 Survey and Descriptive Evidence for Life Satisfaction and Job Satisfaction

The sample included 1215 respondents from nine public universities which employ research assistants according to both temporary and tenure track contracts. These universities are located in major cities in Turkey.⁷ The invitation for the survey was sent to all (6623) research assistants in these universities by email; 1774 of them replied and 1215 respondents completed the survey online.⁸ However, due to missing values for at least one of the variables of interest, the total sample size was smaller for the regression analyses and descriptive tables. The data comprised 520 men and 626 women. The survey was designed at the end of 2014 and was implemented during 2015. Completing the survey lasted approximately 27 min, and there was no compensation. The survey included 40 questions concerning (1) socio-economic situation (including relative income), life satisfaction and overall job satisfaction, (2) academic and work related factors (3) and demographic background variables.

Figure 1 and Table 1 represent the distribution of life satisfaction and job satisfaction among research assistants, mean scores for the whole sample and subcategories male and female.

Table 1 shows that the mean score for life satisfaction is 6.82 for the full sample. This score is quite above average life satisfaction score (between 2006 and 2014) of 5.3 for Turkey (OECD 2016). In 2017, life satisfaction score for Turkey was 5.5 according to OECD better life index (2017). On the other hand, dataset of Turkish Statistical Office reveal that people with graduate degree has the highest life satisfaction average of 6.5 in 2014. In 2010, average life satisfaction score for this group was nearly 7.0 (Eren and Aşıcı 2016).

Mean score for job satisfaction is 6.67 for the full sample. Table 1 also demonstrates that female assistants were less satisfied with their lives and jobs in comparison to male assistants. Life satisfaction score (average) for male sample is 6.87 whereas it is 6.79 for

⁶ Throughout the text job satisfaction and overall job satisfaction is used interchangeably.

⁷ These universities are: Istanbul University, Marmara University, Yıldız Technical University, and Istanbul Technical University in Istanbul; Gazi University, Ankara University and Hacettepe University in Ankara; Ege University and Dokuz Eylül University in Izmir.

⁸ At the time of the survey applied, only universities in big cities employed assistants with different contract types such as temporary and tenure track (in specific: 50d, 33a and OYP).

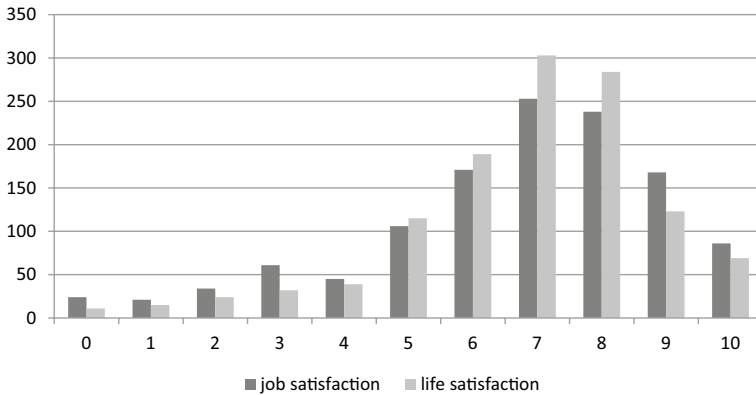


Fig. 1 Distribution of job satisfaction and life satisfaction of research assistants

Table 1 Life satisfaction and job satisfaction among gender

Categories	Life satisfaction			Job satisfaction		
	Mean	SD	Sample	Mean	SD	Sample
Full sample	6.82	1.944	1204	6.67	2.287	1210
Female	6.79	1.918	626	6.51	2.230	627
Male	6.87	1.961	520	6.94	2.276	521

female group. Average mean of job satisfaction is 6.94 for male sample and the mean score is 6.51 for female sample.

In the past, some studies reported that in the labor force as a whole female workers reported higher satisfaction than male workers although women's jobs are worse than men's in terms of hiring and firing, wages and sexual harassment (Blanchflower and Oswald 2004; Clark 1997; Meng 1990; Sousa-Poza and Sousa-Poza 2000b).

However, studies on gender and job satisfaction in the academy have mostly found the opposite: Male academics, on average, reported less satisfaction from their jobs compared to females (Bender and Heywood 2006; Kinman 1998). Hagedorn (1996) presented evidence that as gender-based wage differentials increased, global job satisfaction of female faculty decreased. Job satisfaction levels can also vary among age cohorts. For instance, Sloane and Ward (2001) found that male academics under the age of 36 had significantly higher job satisfaction than females below 36. Men over 36, however, had significantly lower satisfaction than their female academic equivalents. Similarly, Oshagbemi (2003) found that female academics at higher ranks were more satisfied than their male colleagues of comparable ranks in UK universities. In a comparison of academic versus non-academic, Bender and Heywood (2006) found that female scientists reported lower job satisfaction than males in academia but higher job satisfaction than males in the non-academic sector.

On the other hand, it can be argued that, given equal education, employment and advancement opportunities, women should not be any less satisfied than men with their jobs as proposed by Oshagbemi (2003). Similarly, Ward and Sloane (2000) showed that reports of overall job satisfaction did not vary widely by gender. The current study focuses

on a highly educated labor workforce, among whom female assistants are likely to have comparable background, working conditions and expectations to their male counterparts. The regression results in this paper revealed that gender difference is not statistically significant in all models for life satisfaction and job satisfaction.

4 Model and Variables

In the job satisfaction literature most of the studies have typically adopted a basic framework, estimating an equation in the form:

$$S_i = f(ICI, JCI)$$

Satisfaction at work depends on individual characteristics (ICi), and a vector of job and workplace characteristics, (JCI).

In its most general form, the baseline cross-section model that we employed is specified as follows:

$$S_i = \alpha + \beta_1 JSec + \beta_2 Mob + \beta_3 FPres + \beta_4 IPres + \beta_5 PNum + \beta_6 TRes + \beta_7 X_i + \epsilon_i, \quad (1)$$

The dependent variable in the regression model (1) expressed by S_i in this study is life satisfaction in estimation (1) and overall job satisfaction in estimation (2).

4.1 Work Related Variables

Among independent variables, **JSec** (job concern) represents subjective job security: "I have a concern about a suspension or losing my job at the university where I am working". Respondents answered from totally disagree to totally agree (also including neither agree nor disagree choice). In the regressions a dummy variable ((1) if choices are "agree" and "totally agree" and (0) otherwise) is used. Job security comprises objective job security (represented by contract type) as well; however, contract type of research assistants is complicated and not easily separable in regard to tenure track and temporary position.

Mob variable refers to "experienced mobbing." In the survey, first, the meaning of "mobbing" was explained briefly as: "Mobbing (psychological harassment) is a maliciously, purposely damaging attitude and behaviors including systematically continuing intimidation, pacification or suspension applied by person(s) to other person(s), and at the end it hurts the occupational and personal values and social relations and health status." Afterwards, the question was formulated as: "Regarding the definition above, have you experienced mobbing (psychological harassment)?" Respondents chose one of the following choices: "no," "slightly" and "yes." The reference group was "no".

FPres refers to formal pressure: "Have you experienced formal pressure (through an official letter) from your directors or supervisors with regard to academic publications, and if so, how do you evaluate the degree of pressure?" Respondents chose one of four choices: "no pressure," "experienced slight pressure," "experienced pressure," and "experienced high pressure." In the survey, the level of pressure was also explained with examples such as: if there is a request from the directors and/or supervisors with regard to journal type, name of the journal, number of publications and conferences attended, then this refers to high pressure. The reference group was "no pressure".

IPres refers to informal pressure and was similar to formal pressure. The question was “Have you experienced informal pressure (through requests with speeches) from your directors or supervisors with regard to making academic publications, and if so, how do you evaluate the degree of the pressure?” The four choices were the same as formal pressure and a similar explanation was given. The reference group was “no pressure”.

4.2 Academic Related Variables

PNum refers to “number of publication”. In the survey, the variable refers to the number of publications in regard to paper in journals or written (book) chapters, and book editing etc.

TRes refers to “time for research” with the question: “Approximately how much do you spend of your weekly working hours (including administrative duties, organizations etc.) on research?” The answers were “less than 25 percent”, “between 25 percent and 49 percent,” “between 50 percent and 74 percent” and “more than 75 percent.” The reference group was “between 25 percent and 49 percent” (Table 2).

4.3 Relative Income Effect and Variables

For relative income effect, the baseline cross-section model that we employed is specified as follows:

$$S_i = \alpha + \sum_{j=1}^m \left(\beta_j I_i^{Rj} + \gamma_j Y_i^{Rj} + \delta_j I_i^{Rj} Y_i^{Rj} \right) + \kappa \ln Y_i + \sum_{k=1}^p \lambda_k X_i^k + e_i, \quad (2)$$

where S_i is the life satisfaction of respondent i , I_i^{Rj} is a measure of the perceived importance of the incomes of reference group j , Y_i^{Rj} is a vector or scalar measure of the perceived household income relative to reference group j , Y_i is household income. The interaction terms of perceived importance and relative income Y_i^{Rj} are also included in the model for estimation (1). The set of reference groups that are incorporated in model (2) includes colleagues, family members, relatives and neighbors (Table 3).

4.4 Explanatory Variables

Apart from the main explanatory variables, the controls X_i included gender, age, age squared, dummies for graduate education level, union membership, marital status, household size, numbers of children and absolute income and city dummies.

The question on household income was presented in twelve income brackets of mean net household income and respondents were asked to indicate the income range of their household. The income brackets ranged from 3000 Turkish Liras (equivalent to the salary of research assistants at the time the survey was distributed) for the lowest category to above 8500 Turkish Liras monthly for the highest category.

We distinguished between four different educational categories. The first category consisted of respondents pursuing a M.A. or M.Sc. The second category had a M.A. or M.Sc. degree. The third category was pursuing their Ph.D. and the fourth category had a Ph.D. degree. The reference group was assistants pursuing their Ph.D. and a dummy variable indicated whether the respondent was a member of a union or not. Finally, the Greek symbols indicated the parameters and ϵ_i was an idiosyncratic error.

Table 2 Descriptive statistics of the variables

Variables	Mean	Range	SD
<i>Socioeconomic—sociodemographic factors</i>			
Age	29.37	22–50	3.619
Gender	0.45	0–1	0.498
Married	0.49	0–1	0.5
Household size	2.42	1–7	1.139
Number of children	0.88	0–2	0.617
Istanbul	0.40	0–1	0.489
Ankara	0.41	0–1	0.492
Izmir	0.19	0–1	0.393
Income (category)	4.91	1–12	3.636
<i>Academic related factors</i>			
Number of publications	1.13	0–9	2.048
Time for research (less than 25%)	0.38	0–1	0.083
Time for research (25–49%)	0.37	0–1	0.471
Time for research (50–74)	0.19	0–1	0.487
Time for research (more than % 75)	0.06	0–1	0.444
M.A. process	0.18	0–1	0.387
M.A. degree	0.03	0–1	0.156
PH.D. process	0.65	0–1	0.477
PH.D. degree	0.14	0–1	0.348
<i>Working conditions related factors</i>			
Formal pressure (no)	0.54	0–1	0.498
Formal pressure (low)	0.30	0–1	0.456
Formal pressure (med)	0.12	0–1	0.324
Formal pressure (high)	0.04	0–1	0.185
Informal pressure (no)	0.40	0–1	0.49
Informal pressure (low)	0.35	0–1	0.475
Informal pressure (med)	0.19	0–1	0.395
Informal pressure (high)	0.06	0–1	0.237
Job security (subjective-concern) ^a	0.38	0–1	0.484
Mobbing (no)	0.48	0–1	0.499
Mobbing (partly)	0.30	0–1	0.46
Mobbing (yes)	0.22	0–1	0.413
Union (1 yes; 0 no)	0.27	0–1	0.441
<i>Income evaluation factors</i>			
Income ladder (past)	4.40	0–10	1.733
Income ladder (present)	5.45	0–10	1.434
Income ladder (future)	6.04	0–10	1.727

^aChoices for the subjective job security question include totally disagree, disagree, neither agree nor disagree, agree and totally agree. The table represents the mean of the variable, which includes (1) for agree and totally agree and (0) otherwise

Table 3 Perceived importance of income comparison and perceived relative income for reference groups

Reference group	Colleagues	Neighbors	Relatives	Family
<i>Perceived importance of income comparison (in %)</i>				
0 (completely unimportant)	30	52	42	43
1	10	13	13	13
2	9	10	11	10
3	15	12	15	14
4	13	7	8	8
5	13	3	7	6
6 (completely important)	10	3	4	6
Mean	2.50	1.31	1.72	1.72
Standard error	2.12	1.71	1.87	1.90
Number of observations	1160	1158	1160	1160
<i>Perceived relative income (in %)</i>				
1 Much lower	0.3	5	5	7
2 Lower	9	20	18	17
3 About the same	83	31	23	29
4 Higher	7	36	46	39
5 Much higher	0.7	8	8	8
Mean	2.99	3.21	3.32	3.26
Standard error	0.45	1.03	1.03	1.05
Number of observations	1152	888	1093	1113

We estimated our cross-section model using ordinary least squares (OLS) regressions, which treated job satisfaction as a cardinal construct. We used this type of model as the results for the cardinal models which are more intuitive and easier to interpret than estimates from ordinal probit models.⁹ In addition, cardinal and ordinal analyses of life satisfaction yield, in general, similar results (Ferrer-i-Carbonell and Frijters 2004). Standard errors of the coefficient estimates were White heteroscedasticity-consistent as heteroscedasticity tests reject homoscedasticity of the residuals.

5 Estimation Results for Life Satisfaction and Job Satisfaction

5.1 Work and Academic Related Factors

In this section, for the first model, we present two estimations for the full sample. In the first estimation dependent variable is life satisfaction. Dependent variable of the second estimation is job satisfaction. Table 4 demonstrates that in estimations (1) and (2), the perceived security, mobbing, and time for research of the respondents had a significant relationship with life satisfaction and job satisfaction. Only in estimation (1) a low level of informal pressure is statistically significant and has a positive effect on life satisfaction.

⁹ Ordered probit regressions are available upon request.

Table 4 OLS Estimates of coefficients of academic and work related factors for the full sample

Dependent variable	Estimation 1		Estimation 2	
	Life satisfaction		Job satisfaction	
	Estimated coefficient	SE	Estimated coefficient	SE
Job concern (yes)	-0.577***	0.141	-0.446***	0.146
Mobbing (no)	Reference	Group	Reference	Group
Mobbing (slightly)	-0.491***	0.140	-0.793***	0.150
Mobbing (yes)	-0.796***	0.179	-1.993***	0.205
Formal pressure (no)	Reference	Group	Reference	Group
Formal pressure (low)	0.116	0.148	0.269*	0.155
Formal pressure (med)	-0.313	0.215	-0.033	0.235
Formal pressure (high)	-0.196	0.448	-0.122	0.472
Informal pressure (no)	Reference	Group	Reference	Group
Informal pressure (low)	0.248*	0.146	0.091	0.158
Informal pressure (med)	-0.027	0.192	-0.278	0.206
Informal pressure (high)	-0.007	0.363	-0.463	0.389
Publication number	0.005	0.014	0.006	0.017
Time for research (< 25%)	-0.232	0.145	-0.570***	0.161
Time for research (25–49%)	Reference	Group	Reference	Group
Time for research (50–74%)	0.342**	0.153	0.335**	0.153
Time for research (> 75%)	0.394	0.268	0.388	0.299
Observations*	924		927	
Adjusted R-squared	0.106		0.218	

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

The results of the regressions reveal that life satisfaction and satisfaction with job decrease when respondents declared not feeling secure; in addition the relationships are statistically significant. A number of studies have found that job insecurity is associated with a reduction in job satisfaction and well-being (Booth et al. 2002; De Witte and Näswall 2003; Ferrer-i-Carbonell and Van Praag 2006; Näswall and De Witte 2003).

Mobbing experience is significantly related to both life satisfaction and job satisfaction as shown in estimation (1) and estimation (2) in Table 4. In both models this relationship was at the 1 percent level statistically. Respondents that reported experiencing mobbing (slightly) were 0.491 (1) and 0.793 (2) points less satisfied than those who are not experiencing mobbing in both models (1) and (2). Besides, respondents experiencing mobbing were 0.796 (1) and 1.993 (2) points less satisfied than assistants not experiencing mobbing in estimations (1) and (2).

Research in the literature suggests that experience with mobbing, harassment and bullying at work has a negative consequence on job satisfaction and, in turn, increases workers' intentions to quit their job (Budd et al. 1996; Dougherty et al. 1992; Einarsen and Raknes 1997; Shields and Price 2002). The findings of studies on mobbing (Gül et al. 2011; Tigrel and Kokalan 2009) and on the relationship between job satisfaction and mobbing (Çivilidağ and Sargin 2013) among academics in Turkey are in parallel with other studies in the literature.

The perception of publication pressure was analyzed in two categories: formal and informal pressure. Estimations (1) and (2) represent the impact of formal pressure and

informal pressure on satisfaction domains. In estimation (1), low level of informal pressure is statistically significant and has a positive impact (0.248 points) on life satisfaction. On the other hand, regression results in estimation (2) reveal that a low level of formal pressure is statistically significant and has a positive impact (0.269 points) on job satisfaction.

How can we interpret this finding related to positive effect of informal pressure on life satisfaction? Academics are expected to publish. Pressure to publish has long been considered a fact of life among most academicians. Related to this pressure is the “publish or perish” phenomenon shared by many in academia. The effects of pressure to publish include heightened stress levels; the marginalization of teaching; and research that may lack relevance, creativity, and innovation in the end. In the literature, pressure is negatively related to the satisfaction derived from publishing for faculty (Miller et al. 2011). On the other hand, studying the impact of academic related factors of economists’ life satisfaction, Feld et al. (2015) found that a high level of publication pressure was unrelated to life satisfaction.

The results demonstrated that for research assistants a low level of formal or informal pressure may mean systematic attention, interest or support for the research and academic career and that increases their life or job satisfaction. Interestingly number of publications in terms of article, papers, reports and book chapters is not statistically significant in both models (1) and (2).

Estimations (1) and (2) have similar patterns for time for research variables. The fraction of available time for research below 25 percent was significantly related to job satisfaction and time for research between 50 and 74 percent was significantly related to life satisfaction and job satisfaction as shown in estimation (1) and (2) in Table 4. Respondents that had less than 25 percent for research time reported (0.570 points) less job satisfaction than researchers having time for research between 25 and 49 percent in estimation (2). On the other hand, respondents who used between 50 and 74 percent of their time for research were (0.342 (1) and 0.335 (2) points respectively) more likely to be highly satisfied with their life (1) and job (2) than those having 25–50 percent of research time. Having research time between more than 75 percent interestingly was not statistically significant in either estimation.

In the literature, Bozeman and Gaughan found that the hours spent on research did not have an effect on job satisfaction (2011). On the other hand, although their research focused on life satisfaction rather than job satisfaction, Feld, Necker and Frey found that Economists’ happiness increased by having more research time. Their analysis (based on a survey of professionals- mostly academic economists from European countries) revealed that the fraction of time available to do research was positively and statistically significantly related to life satisfaction (Feld et al. 2015).

The results demonstrated that research assistants are motivated to write and finish their theses and having more research time means having more time for conducting their research and writing their thesis. On the other hand, when they do not have enough time for research, they might feel concern about writing their thesis so this may negatively affect their satisfaction with their work and life.

5.2 Robustness—Male and Female Subsamples

In this section we investigate the robustness of our baseline results by restricting the estimations to subsamples of men and women. Table 5 demonstrates regression results for subsample of male group.

Table 5 OLS Estimates of coefficients of academic and work related factors for male sample

Dependent variable	Estimation 1		Estimation 2	
	Life satisfaction		Job satisfaction	
	Estimated coefficient	SE	Estimated coefficient	SE
Job concern (yes)	-0.787***	0.213	-0.463**	0.226
Mobbing (no)	Reference	Group	Reference	Group
Mobbing (partly)	-0.301	0.221	-0.733***	0.241
Mobbing (yes)	-1.002***	0.311	-2.397***	0.399
Formal pressure (no)	Reference	Group	Reference	Group
Formal pressure (low)	0.279	0.219	0.209	0.238
Formal pressure (med)	-0.547*	0.328	-0.237	0.386
Formal pressure (high)	0.397	0.820	-0.462	0.845
Informal pressure (no)	Reference	Group	Reference	Group
Informal pressure (low)	0.156	0.223	0.192	0.240
Informal pressure (med)	0.022	0.273	-0.152	0.311
Informal pressure (high)	0.657	0.571	0.242	0.591
Publication number	-0.009	0.018	0.010	0.023
Time for Research (< 25%)	-0.209	0.225	-0.918***	0.238
Time for research (25–49%)	Reference	Group	Reference	Group
Time for research (50–74%)	0.597**	0.237	-0.264	0.246
Time for research (> 75%)	0.698**	0.350	0.337	0.387
Observations*	405		406	
Adjusted R-squared	0.132		0.221	

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

The results for estimations (1) and (2) are in parallel with results for the full sample. The differences are: medium level of formal pressure is statistically significant and has a negative effect on life satisfaction with a coefficient of 0.547 points. A slight degree of mobbing has a negative impact (0.733 points) on job satisfaction whereas high degree of mobbing has a substantial negative effect both on life satisfaction (1.002 points) and job satisfaction (2.397 points). In regard to time for research, having a research time less than 25 percent has a negative effect (0.918 points) on job satisfaction. On the other hand, having research time between 50 percent and 74 percent and research time more than 75 percent variables have positive effect (0.597 and 0.698 respectively) on life satisfaction for men subsample.

Table 6 demonstrates the regression results for female subsample. Different than male subsample a low level of informal pressure is statistically significant and has a positive effect on life satisfaction with 0.385 points of coefficient. On the other hand, a high level of informal pressure has a negative and substantial (0.880 points) impact on job satisfaction for the female subsample. Interestingly different than male subsample and full sample, the number of publications (with a relatively low coefficient of 0.037) is statistically significant and has a positive impact on life satisfaction. The results demonstrate that not every pressure variable has the same or similar effect on male and female respondents. A medium level of formal pressure may discourage and in the end decrease life satisfaction of male research assistants, whereas, for female assistants a low level of informal pressure may encourage their academic career which then affects life satisfaction positively. In regard

Table 6 OLS estimates of coefficients of academic and work related factors for female sample

Dependent variable	Estimation (1)		Estimation (2)	
	Life satisfaction		Job satisfaction	
	Estimated coefficient	SE	Estimated coefficient	SE
Job concern (yes)	-0.403**	0.201	-0.396*	0.203
Mobbing (no)	Reference	Group	Reference	Group
Mobbing (partly)	-0.661***	0.187	-0.889***	0.201
Mobbing (yes)	-0.818***	0.220	-1.847***	0.246
Formal pressure (no)	Reference	Group	Reference	Group
Formal pressure (low)	-0.001	0.208	0.327	0.218
Formal pressure (med)	-0.204	0.285	0.094	0.302
Formal pressure (high)	-0.446	0.559	-0.087	0.567
Informal pressure (no)	Reference	Group	Reference	Group
Informal pressure (low)	0.385*	0.197	0.026	0.218
Informal pressure (med)	-0.105	0.266	-0.410	0.279
Informal pressure (high)	-0.402	0.489	-0.880*	0.513
Publication number	0.037*	0.021	0.005	0.026
Time for research (< 25%)	-0.261	0.193	-0.326	0.221
Time for research (25–49%)	Reference	Group	Reference	Group
Time for research (50–74%)	0.190	0.203	0.379*	0.202
Time for research (> 75%)	-0.008	0.437	0.377	0.471
Observations*	519		521	
Adjusted R-squared	0.098		0.188	

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

to time for research, only having a time for research between 50 and 74 percent variable is statistically significant. The impact of the variable is positive on job satisfaction with coefficient 0.379 points.

6 Estimations for Relative Income Effect

6.1 Income Comparison and Life Satisfaction

As generally known, social comparison consists of upward and downward comparisons. Upward comparison refers to comparing oneself with others who are doing better, whereas downward comparison refers to comparing oneself with others who are doing worse. Model (2) reveals this relation with importance of comparison and income evaluation to the reference group.

Reference groups are colleagues, family, relatives and neighbors. For the reference groups, the estimates for the dummy specifications are discussed as these seem more reliable than the rather restrictive cardinal estimates.

On the basis of previous literature on effects of perceived importance of reference groups on subjective well-being (Mayraz et al. 2009; Clark and Senik 2010; Goerke and Pannenberg 2015), we expect negative signs of the estimates of the coefficients β_j of I_i^{Rj} in

Table 7 OLS estimates of coefficients of dummy variables for reference groups

Dependent variable: life satisfaction	With interactions		Without interactions	
	Estimated coefficient	SE	Estimated coefficient	SE
Low importance of income comparison with neighbors	0.943**	0.448	0.472*	0.277
High importance of income comparison with relatives	-0.791	0.580	-0.689**	0.322
Lower income than other colleagues	-0.501	0.563	-0.653**	0.301
High importance \times lower income (family)	-1.352**	0.685	-	-
Observations*	722		722	
Adjusted R-squared	0.048		0.052	

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

model (2) for most reference groups. Attaching a high importance to income comparison with relevant others has a negative effect on the life satisfaction of respondents. In addition, low importance of income comparison has a positive effect on the life satisfaction. In regard to interactions, in line with the existing literature on relative income and happiness, in this sample, perceived household income relative to important reference groups (Y_i^{Rj}) is expected to have a positive (Mayraz et al. 2009) or zero (Goerke and Pannenberg 2015, for work-related reference groups) effect (γ_j) on life satisfaction when it is higher than the household income of the reference group and a negative effect when it is lower.

Table 7 includes estimations for relative income effect on life satisfaction for the full sample. The first estimation includes interaction terms whereas the second estimation includes only importance of comparison and income evaluation variables. To interpret the findings clearly, Table 7 demonstrates only the variables that are statistically significant due to a large number of relative income variables.

The results of the estimation (1) reveal that low importance of income comparison with neighbors has a positive impact on life satisfaction. On the other side, estimation (2) reveals that attaching a high importance to income comparison with relatives has significant and sizable effect on the life satisfaction of respondents. Among interaction terms only one variable is statistically significant: Attaching a high importance of income comparisons with the family and perceiving to have a lower household income than the family have significant and sizable negative effect on the life satisfaction of the respondents. Thus, according to the finding, research assistants are less satisfied with their life when they compare their income with their family members and find this comparison very important rather than moderately for them.

6.2 Income Ladder and Life Satisfaction

In relation to relative income, the survey also includes questions on income evaluations of the respondents. In order to evaluate the effect of income evaluations (general ranking) the responses to the following questions are used: "Please imagine a 10-step ladder, on the bottom of which, on the first step, stand the poorest 10 percent people in our country, and on the highest step, the tenth, stand the richest 10 percent of people in our country. On which step of the 10 is your household today?" "Now, imagine the same 10-step ladder 4 years

Table 8 OLS estimates of coefficients of self-income evaluation variables for full sample, female and male subsamples

Dependent variable	Full sample		Female		Male	
	Estimated coefficient	SE	Estimated coefficient	SE	Estimated coefficient	SE
Life satisfaction period						
Income ladder down past	-0.089	0.157	-0.191	0.202	0.095	0.252
Income ladder middle past	Reference	Group	Reference	Group	Reference	Group
Income ladder up past	-0.016	0.172	0.012	0.228	-0.035	0.265
Income ladder down present	-0.448**	0.224	-0.461	0.340	-0.463	0.305
Income ladder middle present	Reference	Group	Reference	Group	Reference	Group
Income ladder up present	0.136	0.156	0.165	0.213	0.077	0.236
Income ladder down future	-0.234	0.266	-0.373	0.386	-0.146	0.370
Income ladder middle future	Reference	Group	Reference	Group	Reference	Group
Income ladder up future	0.295	0.191	0.124	0.264	0.485*	0.276
Observations*	994		548		446	
Adjusted R-squared	0.059		0.062		0.049	

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

ago. On which step was your household at that time?" "Finally, where on the ladder do you believe your household will be 4 years from now?"

Concerning the income ladder question, a number of dummy variables were created: income ladder down is a dummy variable that takes the value 1 for people who position themselves under the 5th step and 0 otherwise; and income ladder up is a dummy that takes the value 1 if the respondents declare their position to be higher than the 5th step. This categorization is made also for rankings for 4 years ago (evaluation of the past) and for 4 years later (evaluation of the future).

Table 8 demonstrates the regressions results for income comparison effects on life satisfaction for all sample (1), for women (2) and men (3). The results for the whole sample reveal that among comparison variables, only downward evaluation (for the present) is statistically significant and it has a negative effect (0.448) on life satisfaction. In model (2), for female sample, none of economic evaluation variables are statistically significant. For male sample, only upward income evaluation is statistically significant and has a positive impact on life satisfaction with a coefficient 0.485. Leaving out the significance, unfavorable evaluations have a more significant (negative) impact on life satisfaction than when evaluations are favorable (except for the future evaluations of whole sample and for male subsample).

The findings, to a certain degree in parallel with similar studies examining the impact of income comparison on life satisfaction with a representative sample for Turkey. Dumludag (2013) and Dumludag et al. (2016) revealed that income comparisons do seem to exert an impact on subjective well-being for Turkish case. "Internal benchmarks" "external benchmarks" are important; however self-ranking on an economic ladder prove to be more influential than local comparison to parents and household evaluation. According to Dumludag (2013) unfavorable comparisons, in most cases, are more powerful than positive ones on life satisfaction. Comparisons are asymmetric: in most cases, under-performing internal benchmark is more important than out-performing it, which is also in line with Easterlin (1974) hypothesis.

7 Limitations and Perspectives for Future Research

This paper provides evidence for the correlations between satisfaction and work, academic related factors and relative income among research assistants in the academic labor market in Turkey.

However, due to nature of dataset (cross section) the study has some limitations. First, in order to control for spurious correlations between comparison, work and academic related variables and life satisfaction via time-invariant omitted variables like personality characteristics, dataset do not provide sufficient variables. Second, we use the term "effect" when in fact we only found correlations. We assume that causality runs from the importance and relative income and other variables towards life satisfaction. However there is a potential problem of reverse causality from life satisfaction to the comparison importance and relative income variables. For example, respondents may find it more important to compare their household income with others if they are less satisfied with their life.

Analyzing the relative income effect, Mayraz et al. (2009) attempted to test for reverse causality by regressing each of their cardinal relative income variables on life satisfaction, an interaction of life satisfaction with the perceived importance of the relative income comparison concerned, and the other control variables, and by examining whether the

interaction effect is significantly positive. However, in our view this procedure is not a valid reverse-causality test, but only tests whether the correlation between each relative income variable and life satisfaction depends on the perceived importance of the relative income comparison, conditional on the other control variables.

On the other hand, as mentioned in Sect. 1, the literature of life satisfaction and job satisfaction is relatively new and has been flourishing rapidly. The results of the regression analyses provide substantial information between work and academic related factors and life satisfaction and job satisfaction. In addition, the current study provides information on the relationship between relative income and life satisfaction in the academy. Thanks to the design of the unique survey, it analyzes the relationship by using relative income formula composed of income comparison, relative income and interactions.

Finally, the explanatory power of the models is hindered by the nature of data and lack of individual characteristics in the survey. However, the findings of the current study may lead researchers to focus on satisfaction in academy and develop new techniques and datasets to deal with endogeneity, causality and spurious correlation concerns. In addition, increasing panel datasets in Turkey may enable scholars to deal with the causality concerns. With the collaboration between scholars and research institutes, ministries, municipalities and other institutions, it is expected that research and literature on Subjective Well Being in Turkey will flourish.

8 Conclusion

The purpose of this paper is to provide evidence in subjective well-being literature. The study does it by focusing on the relationship between work and academic related factors and life and overall job satisfaction academy in Turkey. The paper also investigates the relationship between relative income and life satisfaction in the academy.

The results of the regression analyses indicated that job security, mobbing experience, some degree of publication pressure and time for research were significant predictors of the level of the research assistants' overall satisfaction with life and satisfaction with job. However, the regression results for subsamples revealed that predictors for life satisfaction and job satisfaction might differ for male and female respondents with regard to significance. In regard to life satisfaction, a medium level of publication pressure was only significant for the male subsample; while a low level of informal pressure was only statistically significant for the female subsample. Concern with losing one's job at the university, mobbing, and research time were statistically significant for both subsamples. In regard to job satisfaction, high level of informal pressure has a substantial negative effect on job satisfaction for female sample different than male subsample. On the other hand, for male subsample having few time (and even slightly higher time) for research has a negative effect on job satisfaction.

In regard to relative income effect, the results of the estimation are in parallel with the existing literature on comparison and happiness. Attaching a high importance on comparison has a negative effect on life satisfaction (and vice versa). However, this relationship exists not for all comparison and income evaluation terms. The findings are in parallel with the existing literature and may contribute to the general discussion on the design of economic policies, which pay attention to relative concerns (such as income distribution) as well.

Higher education in Turkey has undergone some changes in which several regulations have emerged one after the other. The main purpose has been to increase the number of publications and research of faculty at the university. A number of universities have adopted these strategies in order to achieve higher positions in the international rankings. Newly introduced (by some universities) publication (papers, conferences or paper submissions) demands from graduate students are one of these efforts.

Therefore, as the performances are closely related with job satisfaction, the findings of this paper may be useful for the departments who want to introduce new measures in their strategies. For instance, some may consider that any level of formal pressure may have a negative effect on job satisfaction, however, the findings of this paper revealed that a low level of informal pressure had a positive effect on satisfaction at work. In addition, the impact of publication pressure differed among male and female subsamples. In regards to job satisfaction, male research assistants were positively affected by a medium level of formal pressure. The findings suggest that departments of the universities may pay attention to the fact that the impact of academic predictors (and their dosage) may differ between genders.

References

- Bas, T., & Ardiç, K. (2002). A comparison of job satisfaction between public and private university academicians in Turkey. *METU Studies in Development*, 29(1), 27.
- Bender, K. A., & Heywood, J. S. (2006). Job satisfaction of the highly educated: The role of gender, academic tenure, and earnings. *Scottish Journal of Political Economy*, 53(2), 253–279.
- Bilgiç, R. (1998). The relationship between job satisfaction and personal characteristics of Turkish workers. *The Journal of Psychology*, 132(5), 549–557.
- Blanchflower, D. G., & Oswald, A. J. (2004). Well-being over time in Britain and the USA. *Journal of public economics*, 88(7), 1359–1386.
- Booth, A. L., Francesconi, M., & Frank, J. (2002). Temporary jobs: Stepping stones or dead ends? *The Economic Journal*, 112(480), F189–F213.
- Borjas, G. J. (1979) Job satisfaction, wages, and unions. *The Journal of Human Resources*, 14(1), 21.
- Bozeman, B., & Gaughan, M. (2011). Job satisfaction among university faculty: Individual, work, and institutional determinants. *The Journal of Higher Education*, 82(2), 154–186.
- Brown, D., & McIntosh, S. (1998). *If you're happy and you know it... job satisfaction in the low wage service sector*. Centre for Economic Performance, London School of Economics and Political Science.
- Bryson, A., Cappellari, L., & Lucifora, C. (2004). Does union membership really reduce job satisfaction? *British Journal of Industrial Relations*, 42(3), 439–459.
- Budd, J. W., Arvey, R. D., & Lawless, P. (1996). Correlates and consequences of workplace violence. *Journal of Occupational Health Psychology*, 1(2), 197.
- Caner, A. (2015). Happiness, comparison effects, and expectations in Turkey. *Journal of Happiness Studies*, 16(5), 1323–1345.
- Caner, A. (2016). Happiness and life satisfaction in Turkey in recent years. *Social Indicators Research*, 127(1), 361–399.
- Çivilidağ, A., & Sargin, N. (2013). Academics' mobbing and job satisfaction levels. *Online Journal of Counseling & Education*, 2(2), 55–66.
- Clark, A. E. (1996). Job satisfaction in Britain. *British Journal of Industrial Relations*, 34(2), 189–217.
- Clark, A. E. (1997). Job satisfaction and gender: Why are women so happy at work? *Labour Economics*, 4(4), 341–372.
- Clark, A. E., & Oswald, A. J. (1994). Unhappiness and unemployment. *The Economic Journal*, 104(424), 648–659.
- Clark, A. E., & Oswald, A. J. (1996). Satisfaction and comparison income. *Journal of Public Economics*, 61(3), 359–381.
- Clark, A., Oswald, A., & Warr, P. (1996). Is job satisfaction U-shaped in age? *Journal of Occupational and Organizational Psychology*, 69(1), 57–81.

- Clark, A. E., & Senik, C. (2010). Who compares to whom? The autonomy of income comparisons in Europe. *Economic Journal*, *120*, 573–594.
- Cornelissen, T., Heywood, J. S., & Jirjahn, U. (2011). Performance pay, risk attitudes and job satisfaction. *Labour Economics*, *18*(2), 229–239.
- Dall'Ora, C., Griffiths, P., Ball, J., Simon, M., & Aiken, L. H. (2015). Association of 12 h shifts and nurses' job satisfaction, burnout and intention to leave: findings from a cross-sectional study of 12 European countries. *British Medical Journal Open*, *5*(9), e008331.
- De Witte, H., & Näswall, K. (2003). Objective'vssubjective' job insecurity: Consequences of temporary work for job satisfaction and organizational commitment in four European countries. *Economic and Industrial Democracy*, *24*(2), 149–188.
- Demirel, H. (2014). An investigation of the relationship between job and life satisfaction among teachers. *Procedia-Social and Behavioral Sciences*, *116*, 4925–4931.
- Di Tella, R., MacCulloch, R. J., & Oswald, A. J. (2001). Preferences over inflation and unemployment: Evidence from surveys of happiness. *The American Economic Review*, *91*(1), 335–341.
- Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, *95*(3), 542.
- Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a national index. *American Psychologist*, *55*(1), 34.
- Diener, E. D., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, *49*(1), 71–75.
- Dolan, P., Peasgood, T., & White, M. (2008). Do we really know what makes us happy? A review of the economic literature on the factors associated with subjective well-being. *Journal of Economic Psychology*, *29*(1), 94–122.
- Dougherty, L. M., Bolger, J. P., Preston, D. G., Jones, S. S., & Payne, H. C. (1992). Effects of exposure to aggressive behavior on job satisfaction of health care staff. *Journal of Applied Gerontology*, *11*(2), 160–172.
- Dumludag, D. (2013). Life satisfaction and income comparison effects in Turkey. *Social Indicators Research*, *114*(3), 1199–1210.
- Dumludag, D., Gokdemir, O., & Giray, S. (2016). Income comparison, collectivism and life satisfaction in Turkey. *Quality & Quantity*, *50*(3), 955–980.
- Easterlin, R. A. (1974). Does economic growth improve the human lot? Some empirical evidence. *Nations and Households in Economic Growth*, *89*, 89–125.
- Easterlin, R. A. (1995). Will raising the incomes of all increase the happiness of all? *Journal of Economic Behavior & Organization*, *27*(1), 35–47.
- Einarsen, S., & Raknes, B. I. (1997). Harassment in the workplace and the victimization of men. *Violence and Victims*, *12*(3), 247–263.
- Eker, L., Tüzün, E. H., Daskapan, A., & Sürenkök, Ö. (2004). Predictors of job satisfaction among physiotherapists in Turkey. *Journal of Occupational Health*, *46*(6), 500–505.
- Eren, K. A., & Aşıcı, A. A. (2016). Subjective well-being in an era of relentless growth: The case of Turkey between 2004 and 2014. *Journal of Happiness Studies*, *19*, 1–25.
- Eren, K. A., & Aşıcı, A. A. (2017). The determinants of happiness in Turkey: Evidence from city-level data. *Journal of Happiness Studies*, *18*(3), 647–669.
- Ernst Kossek, E., & Ozeki, C. (1998). Work–family conflict, policies, and the job–life satisfaction relationship: A review and directions for organizational behavior–human resources research. *Journal of Applied Psychology*, *83*(2), 139.
- Feld, L. P., Necker, S., & Frey, B. S. (2015). Happiness of economists. *Applied Economics*, *47*(10), 990–1007.
- Ferrer-i-Carbonell, A., & Frijters, P. (2004). How important is methodology for the estimates of the determinants of happiness? *The Economic Journal*, *114*(497), 641–659.
- Ferrer-i-Carbonell, A., & van Praag, B. M. (2006). *Insecurity in the Labor market: The impact of the type of contract on job satisfaction in Spain and the Netherlands*. Amsterdam: University of Amsterdam.
- Frey, B. S., & Stutzer, A. (1999). Measuring preferences by subjective well-being. *Journal of Institutional and Theoretical Economics (JITE)*, *9*, 755–778.
- Frey, B. S., & Stutzer, A. (2002). What can economists learn from happiness research? *Journal of Economic Literature*, *40*(2), 402–435.
- Frey, B. S., & Stutzer, A. (2010). *Happiness and economics: How the economy and institutions affect human well-being*. Princeton: Princeton University Press.
- Frey, B., & Stutzer, A. (2013). *Recent developments in the economics of happiness*. Cheltenham: Edward Elgar Publishing.

- Frijters, P., Haisken-DeNew, J. P., & Shields, M. A. (2004). Money does matter! Evidence from increasing real income and life satisfaction in East Germany following reunification. *The American Economic Review*, *94*(3), 730–740.
- Gitmez, A. S., & Morcöl, G. (1994). Socio-economic status and life satisfaction in Turkey. *Social Indicators Research*, *31*(1), 77–98.
- Goerke, L., & Pannenberg, M. (2015). Direct evidence on income comparisons and subjective well-being across reference groups. *Economics Letters*, *137*, 95–101.
- Gokdemir, O. (2015). Consumption, savings and life satisfaction: the Turkish case. *International Review of Economics*, *62*(2), 183–196.
- Gül, H., İnce, M., & Özcan, N. (2011). The relationship between workplace mobbing and burnout among academics at a Turkish university. *Research Journal of International Studies*, *18*(1), 118–134.
- Hagedorn, L. S. (1996). Wage equity and female faculty job satisfaction: The role of wage differentials in a job satisfaction causal model. *Research in Higher Education*, *37*(5), 569–598.
- Hamermesh, D. S. (1977). *Economic aspects of job satisfaction. Essays in Labor Market Analysis* (pp. 53–72). Wiley: New York.
- Hodson, R. (1991). Workplace behaviours: Good soldiers, smooth operators and saboteurs. *Work and Occupations*, *18*, 271–290.
- Houston, D., Meyer, L. H., & Paewai, S. (2006). Academic staff workloads and job satisfaction: Expectations and values in academe. *Journal of Higher Education Policy and Management*, *28*(1), 17–30.
- Judge, T. A., Bono, J. E., Erez, A., & Locke, E. A. (2005). Core self-evaluations and job and life satisfaction: the role of self-concordance and goal attainment. *Journal of Applied Psychology*, *90*(2), 257.
- Judge, T. A., & Watanabe, S. (1993). Another look at the job satisfaction–life satisfaction relationship. *Journal of Applied Psychology*, *78*(6), 939.
- Keser, A. (2005). The relationship between job and life satisfaction in automobile sector employees in Bursa Turkey. *İş Güç Endüstri İlişkileri ve İnsan Kaynakları Dergisi*, *7*(2), 52–63.
- Kinman, G. (1998). *Pressure points: A survey into the causes and consequences of occupational stress in UK academic and related staff*. London: Association of University Teachers.
- Küskü, F. (2001). Dimensions of employee satisfaction: A state university example. *METU Studies in Development*, *28*(2), 143.
- Küskü, F. (2003). Employee satisfaction in higher education: the case of academic and administrative staff in Turkey. *Career Development International*, *8*(7), 347–356.
- Lee, R., & Wilbur, E. R. (1985). Age, education, job tenure, salary, job characteristics, and job satisfaction: A multivariate analysis. *Human Relations*, *38*(8), 781–791.
- Lévy-Garboua, L., & Montmarquette, C. (1997). *Reported job satisfaction: What does it mean?* (p. 0497). Cahier: CIRANO.
- Lévy-Garboua, L., & Montmarquette, C. (2004). Reported job satisfaction: What does it mean? *The Journal of Socio-Economics*, *33*(2), 135–151.
- Locke, E. A. (1976). The nature and causes of job satisfaction. In *Handbook of industrial and organizational psychology*.
- Loscocco, K. A., & Spitze, G. (1990). Working conditions, social support, and the well-being of female and male factory workers. *Journal of Health and Social Behavior*, 313–327.
- Mayraz, G., Wagner, G. G., & Schupp, J. (2009). *Life satisfaction and relative income: Perceptions and evidence*. IZA discussion paper no. 4390. IZA, Bonn.
- McKay, R., Arnold, D. H., Fratzi, J., & Thomas, R. (2008). Workplace bullying in academia: A Canadian study. *Employee Responsibilities and Rights Journal*, *20*(2), 77–100.
- Meng, R. (1990). The relationship between unions and job satisfaction. *Applied Economics*, *22*(12), 1635–1648.
- Michalos, A. C. (1985). Multiple discrepancies theory (MDT). *Social Indicators Research*, *16*(4), 347–413.
- Miller, A. N., Taylor, S. G., & Bedeian, A. G. (2011). Publish or perish: Academic life as management faculty live it. *Career Development International*, *16*(5), 422–445.
- Myers, D. G., & Diener, E. (1995). Who is happy? *Psychological Science*, *6*(1), 10–19.
- Näswall, K., & De Witte, H. (2003). Who feels insecure in Europe? Predicting job insecurity from background variables. *Economic and Industrial Democracy*, *24*(2), 189–215.
- OECD, (2016). *OECD regional well-being: A user's guide*. <http://www.oecdregionalwellbeing.org>.
- OECD, (2017). <http://www.oecdbetterlifeindex.org>.
- Olsen, D. (1993). Work satisfaction and stress in the first and third year of academic appointment. *Journal of Higher Education*, *64*, 453–471.
- Origo, F., & Pagani, L. (2009). Flexicurity and job satisfaction in Europe: The importance of perceived and actual job stability for well-being at work. *Labour Economics*, *16*(5), 547–555.

- Oshagbemi, T. (2003). Personal correlates of job satisfaction: Empirical evidence from UK universities. *International Journal of Social Economics*, 30(12), 1210–1232.
- Oswald, A. J. (1997). Happiness and economic performance. *The Economic Journal*, 107(445), 1815–1831.
- Pelit, E., Öztürk, Y., & Arslantürk, Y. (2011). The effects of employee empowerment on employee job satisfaction: A study on hotels in Turkey. *International Journal of Contemporary Hospitality Management*, 23(6), 784–802.
- Rice, R. W., Near, J. P., & Hunt, R. G. (1980). The job-satisfaction/life-satisfaction relationship: A review of empirical research. *Basic and Applied Social Psychology*, 1(1), 37–64.
- Rode, J. C. (2004). Job satisfaction and life satisfaction revisited: A longitudinal test of an integrated model. *Human Relations*, 57(9), 1205–1230.
- Sabharwal, M., & Corley, E. A. (2009). Faculty job satisfaction across gender and discipline. *The Social Science Journal*, 46(3), 539–556.
- Saygi, H., Tolon, T., & Tekogul, H. (2011). Job satisfaction among academic staff in fisheries faculties at Turkish universities. *Social Behavior and Personality: An International Journal*, 39(10), 1395–1402.
- Scandura, T. A., & Lankau, M. J. (1997). Relationships of gender, family responsibility and flexible work hours to organizational commitment and job satisfaction. *Journal of Organizational Behavior*, 18(4), 377–391.
- Selim, S. (2008). Life satisfaction and happiness in Turkey. *Social Indicators Research*, 88(3), 531–562.
- Shields, M. A., & Price, S. W. (2002). Racial harassment, job satisfaction and intentions to quit: Evidence from the British nursing profession. *Economica*, 69(274), 295–326.
- Şirin, H. D., & Şirin, E. F. (2015). The relationship between life satisfaction levels and work alienation in physical education teachers. *Asian Journal of Instruction*, 3(2), 1.
- Skaalvik, E. M., & Skaalvik, S. (2015). Job satisfaction, stress and coping strategies in the teaching profession—What do teachers say? *International Education Studies*, 8(3), 181.
- Sloane, P. J., & Ward, M. E. (2001). Cohort effects and job satisfaction of academics. *Applied Economics Letters*, 8(12), 787–791.
- Sousa-Poza, A., & Sousa-Poza, A. A. (2000a). Well-being at work: A cross-national analysis of the levels and determinants of job satisfaction. *The Journal of Socio-Economics*, 29(6), 517–538.
- Sousa-Poza, A., & Sousa-Poza, A. A. (2000b). Taking another look at the gender/job-satisfaction paradox. *Kyklos*, 53(2), 135–152.
- Tigrel, E. Y., & Kokalan, O. (2009). Academic mobbing in Turkey. *International Journal of Behavioral, Cognitive, Educational and Psychological Sciences*, 1(2), 91–99.
- Toker, B. (2011). Job satisfaction of academic staff: an empirical study on Turkey. *Quality Assurance in Education*, 19(2), 156–169.
- Veenhoven, R. (1984). *Conditions of happiness*. Dordrecht: D. Reidel.
- Veenhoven, R. (1991). Questions on happiness: Classical topics, modern answers, blind spots. In F. Strack, M. Argyle, & N. Schwarz (Eds.), *International series in experimental social psychology* (Vol. 21, pp. 7–26). Subjective well-being: An interdisciplinary perspective Elmsford, NY: Pergamon Press.
- Veenhoven, R. (2016). *Happiness in nations world database of happiness*, Erasmus University Rotterdam, The Netherlands. Accessed on 20 July 2016. http://worlddatabaseofhappiness.eur.nl/hap_nat/nat_fp.php?mode=1.
- Ward, M. E., & Sloane, P. J. (2000). Non-pecuniary advantages versus pecuniary disadvantages; job satisfaction among male and female academics in scottish universities. *Scottish Journal of Political Economy*, 47(3), 273–303.
- White, A. T., & Spector, P. E. (1987). An investigation of age-related factors in the age-job-satisfaction relationship. *Psychology and Aging*, 2(3), 261.
- Winkler, E., Busch, C., Clasen, J., & Vowinkel, J. (2015). Changes in leadership behaviors predict changes in job satisfaction and well-being in low-skilled workers: A longitudinal investigation. *Journal of Leadership & Organizational Studies*, 22(1), 72–87.
- Yetim, Ü. (1993). Life satisfaction: A study based on the organization of personal projects. *Social Indicators Research*, 29(3), 277–289.
- Yorgun, S., Keser, A., & Yılmaz, G. (2009). The relationships of job and life satisfaction with intention to leave among unionized hotel employees in Turkey. *İşgüç Endüstri İlişkileri ve İnsan Kaynakları Dergisi*, 11(2), 55–67.