The Effect of Income and Working Conditions on Job Satisfaction

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People investigate many different aspects of a job when choosing a career. Hopefully, the job chosen is the one that yields the most satisfaction. However, it seems that many important factors are given an inappropriate amount of weight or are simply overlooked. This causes workers to become unhappy with their jobs and sometimes quit, which can be costly both to employees and employers. Using data from the 2014 General Social Survey, this study examines income, individual, and work-related factors impacting job satisfaction. Better understanding the determinants of job satisfaction can lead to improved labor market policies and outcomes.

Introduction

It is generally believed that higher pay leads to higher job satisfaction. Many people attend college in the hopes of obtaining a high paying job. After getting the job, many college graduates find themselves disliking it for a variety of reasons. An accountant, for example, may be drawn to the allure of a big four accounting firm. After working there for a time, the accountant may realize that the high wage is not worth the amount of time necessary to maintain said job. He then may decide to find employment at a smaller firm. This requires the worker to search for a new job and the firm to search for a new employee. Had the worker started at a small firm immediately after college, this dilemma would not arise. It would have been better for everyone involved if the accountant worked at a small firm.

Lawyers and doctors, careers typically associated with high salaries, have surprisingly high rates of unhappiness which stem from their career paths. Despite their high income, "lawyers are almost four times more likely to experience depression than the general population," (Mounteer, 2004, p. 2). Physicians also have a surprisingly high suicide rate. "Physicians' suicide rates have repeatedly been reported to be higher than those of the general population or other academics" (Schernhammer & Colditz, 2004, p.1). It is commonly argued in economics that higher wages compensate for poor working conditions and the opportunity costs associated with further schooling. While theoretically sound, it does not seem that compensating wages are able to completely account for working conditions.

Many college students believe that pay one of the most important factors to take into account when looking for work. These students will find and apply for jobs that offer the highest salaries without taking other factors into account. It turns out that several of the companies offering these jobs have high turnover rates due to low job satisfaction. Many college graduates

quit after working for only a few years due to other aspects of their jobs that affect job satisfaction.

What are the factors that affect job satisfaction? It seems that the influence of income, along with several other factors, on job satisfaction has not been researched as extensively as it should be. Doing so would reduce turnover rates for many firms while increasing the happiness of workers. Wages do not seem to be compensating for working conditions. Such a study could prove to be useful to policymakers, firms, and individuals. Policymakers and firms will be granted insight into an aspect of the labor market, and individuals will gain a better understanding of the factors that influence job satisfaction to help in their job search.

Literature Review

Many economists are wary of subjective variables like job satisfaction. Subjective variables measure a preference based on what a respondent says he will, or would do, in a given situation. There are several instances where people do not do what they say they would in a given situation. Because of this, economists generally prefer objective variables. Unlike subjective variables, objective variables measure preferences that have already been expressed. Many economists, even those who support self-reported measures, believe that these measures should be taken with a grain of salt. These measures are not always accurate for a variety of reasons. Some survey participants may not truly understand their feelings regarding the survey, some may be unable to accurately predict their actions in a given situation, and others may simply lie. Either way, economists understand there is a difference between what people say and what they do.

Despite the perceived drawbacks of using subjective variables, both Freeman (1978) and Kahnemann & Krueger (2006) found that measurements of subjective well-being are useful for

predicting future behavior. Using the National Longitudinal Survey (NLS), Michigan Quality of Work Surveys, and the Michigan Panel Survey of Income Dynamics, Freeman (1978) found that job satisfaction, a subjective variable, was significant in determining the probability of quitting. Freeman also found that job satisfaction cannot be treated the same way as a standard economic variable. By reviewing other studies, Kahnemann & Krueger (2006) found that subjective wellbeing measurements were useful for understanding individual health and predicting future behaviors. Kahnemann & Krueger continue, claiming that subjective well-being measurements are able to capture some features of an individual's emotional state.

Although job satisfaction is a subjective variable, it has proven to be an important indicator of job market mobility. Freeman (1978), found job satisfaction was significantly related to quitting probability and showed that job satisfaction can be a useful independent variable. As a dependent variable, job satisfaction proved to be difficult to predict. Variables such as unionism and tenure did not have the expected effect on job satisfaction (Freeman, 1978). Unionism was negatively correlated with quits, so it seemed that unionism should be positively related to job satisfaction. Instead, unionism had little influence, if any, on job satisfaction. Tenure was another variable that had an unexpected effect on job satisfaction. Because tenure also had a negative relationship with job quits, Freeman (1978) hypothesized that tenure would have a positive relationship with job satisfaction. Similar to unionism, tenure had little to no impact on job satisfaction. Most variables like age, wages, and a race dummy had the expected direction of the relationship with satisfaction (Freeman, 1977, p. 9).

As Freeman's study shows, job satisfaction is a complex variable that should be approached with caution. Job satisfaction relies on a variety of psychological factors that are difficult to record and control for. Regardless, measures of job satisfaction seem to be a major

determining factor in labor market mobility, making the ability to predict job satisfaction increasingly important.

Kahneman and Krueger also support incorporating self-reported measures into economic studies. In "Developments in the Measurement of Subjective Well-Being" (Kahneman & Krueger, 2006) it was found that "responses to subjective well-being questions are related to individuals' health outcomes, neurological functioning and characteristics—and predict some future behavior—suggests that the data are a valid subject for study in the sense that they capture at least some features of individuals' emotional states" (Kahneman & Krueger, 2006, p. 20). Kahneman and Krueger argue that acceptance of self-reported measurements could have a large impact on economics. Accepting these measures would allow "welfare analysis in a more direct way," (Kahneman & Krueger, 2006, p. 20). Self-reported measurements of well-being may also cause those interested in "maximizing society's welfare to shift their goals. Available self-reported data suggest that those attempting to maximize society's welfare should emphasize increasing social contracts, shift the emphasis from the importance of income to the importance of rank within a society, and life satisfaction can be affected by time and circumstances," (Kahneman & Krueger, 2006, p. 20).

"Job Satisfaction in Britain" by Andrew E. Clark is only one of many studies Clark has done on the subject of job satisfaction (Clark, 1996). In this study, Clark separated job satisfaction into three categories; pay satisfaction, satisfaction with work itself, and overall satisfaction. Satisfaction with work itself excluded wage as an independent variable while overall job satisfaction included every variable used in the study. Not surprisingly, wage was strongly positively correlated with pay satisfaction (Clark 1996). Clark (1996) also found that overall job satisfaction included every variable used in the study, and found that income is correlated with

overall job satisfaction. The correlation between income and overall satisfaction was not as strong as the correlation between income and pay satisfaction.

Clark found that job satisfaction is "higher for women, older workers, and those with lower levels of education" (Clark, 1996, p. 19). "The types of jobs that workers have were also strong indicators of job satisfaction" (Clark 1996, p. 19). Workers who worked long hours, in large firms, union members, and those who did not have promotion opportunities are more likely to be dissatisfied (Clark, 1996, p. 19).

"The Effects of Absolute and Relative Incomes on Job Satisfaction among Male Workers in Japan" by Isao Takei, Arthur Sakamoto, and Yoichi Murase was concerned with finding the effect of absolute and relative incomes on job satisfaction (Takei et al., 2009). Here, relative income is defined as income level relative to the income level of everyone else, while absolute income does not take anybody else into consideration (Takei et al., 2009). Takei, Sakamoto, and Murase found that "both net effects are substantively large and statistically significant, the estimated net effect of absolute income is slightly larger than that of relative income after controlling for year and labor market variables" (Takei et al., 2009, p. 13). It seems that income level has a significant impact on job satisfaction across the globe. Despite cultural differences, income had a similar impact on job satisfaction in Japan and Britain.

The effect wage has on job satisfaction may be different in Japan than in the United States due to a difference in culture and societal values. During the study, Japan was described has having a traditional culture that emphasizes "group identification over individualism" (Takei et al., 2009, p. 14). A higher income indicates to the Japanese individual he is contributing more to the firm, and this increases his job satisfaction. On the other hand, the culture of the United States emphasizes individual achievement and self-fulfillment (Takei et al., 2009, p. 14).

Americans may relate individual achievement and self-fulfillment to income, but not necessarily. This could account for a potential difference between job satisfaction in Japan and job satisfaction in America.

To understand how wage affects job satisfaction, it is helpful use a study that shows how a change in wage changes job satisfaction. In 2006, the wages of Chinese soldiers was raised and studied in "The Influence of a Pay Increase on Job Satisfaction: A Study with the Chinese Army", Hai Yang, Danmin Miao, Xia Zhu, Yunfeng Sun, Xufeng Liu, and Shengjun Wu (Yang et al., 2008). The goal of the study was to "investigate the influence of a pay increase on job satisfaction among junior officers in the Chinese Army" (Yang et al., 2008, p. 1). It was found that while a pay increase "significantly improved the job satisfaction of junior officers, in a number of facets job satisfactions for junior military officers is still comparatively low" (Yang et al., 2008, p. 6). The reason for this comparatively low job satisfaction is simply the nature of working in the military. Workers in the military tend to earn low wages compared to other professions. Regardless, there was a positive relationship between the wage and job satisfaction of junior officers in the Chinese army.

"The Influence of a Pay Increase on Job Satisfaction: A Study with the Chinese Army" shows that job satisfaction is multidimensional (Yang et al., 2008). Improving one aspect of job satisfaction, wage in this case, had a positive effect on other "facets of job satisfaction (Yang et al., 2008, p.5). The six facets of job satisfaction were colleague satisfaction, subordinate satisfaction, work-self-satisfaction, supervision satisfaction, development and promotion satisfaction, and pay and benefits satisfaction. After the pay raise, pay and benefits satisfaction as well as overall job satisfaction increased as expected. Surprisingly, the wage increase improved colleague, subordinate, work-self, supervision, and development and promotion as well (Yang et al., 2008, p.5). This effect implies that a wage increase alters the way a worker feels about other aspects of his environment. This could also mean that improvements in other aspects of the job could have a positive impact on pay satisfaction.

Another study on the influence of wage on job satisfaction found that changes in wage correlated with job satisfaction. "The Impact of Wage Increases on Job Satisfaction – Empirical Evidence and Theoretical Implications" by Christian Grund and Dirk Sliwka (2001) states job satisfaction "strongly depends on the relative wage increase as well as the absolute wage level," (Grund et al., 2001, p. 17). The goal of Grund and Sliwka's study was to establish the idea that job satisfaction depended on wage level. Then it intended to construct a job satisfaction function and analyze the theoretical implications. It was shown that wage has a positive impact on job satisfaction. Grund and Sliwka also analyzed both absolute and relative wage, something that most other studies do not do.

Similar to "The Influence of a Pay Increase on Job Satisfaction: A Study with the Chinese Army" by Yang et al. (2008), Grund and Sliwka included change in wage in its empirical analyses. It is argued that perceived utility is not only dependent on absolute wage but relative wage. Both studies found similar results; change in wage was positively correlated with job satisfaction.

Job satisfaction is essentially an individual's utility function with respect to one's job. It is generally assumed that one's utility function does not affect another's. However "despite what economics textbooks say, comparisons in the utility function seem to matter," (Clark & Oswald, 1996, p. 16). Using data from British Household Panel Survey (BPHS) Clark and Oswald (1996) set out to find the effect absolute income and relative income has on job satisfaction in "Satisfaction and Comparison Income." As expected, Clark and Oswald (1996) found that

absolute income was positively correlated with job satisfaction. Relative income was also positively correlated job satisfaction, as it was in "The Effects of Absolute and Relative Incomes on Job Satisfaction among Male Workers in Japan" by Takei et al., (2009).

A surprising result of Clark's study is how strongly correlated relative income is with job satisfaction. According to Clark and Oswald, "satisfaction is more strongly correlated with relative income than absolute income," (Clark & Oswald, 1996, p.11). Again, this is contrary to textbook economics. Several economics textbooks would agree that an individual's utility has no effect on another's utility, let alone a stronger effect. However, it can be seen that relative utility is important in the real world.

It appears that relative income has a strong impact on job satisfaction on a global level. Relative income is strongly, positively correlated with job satisfaction in countries across the world. Despite their vastly different cultures, relative income has a similar impact in Japan as it does in Britain. The effect of relative income, and by extension relative utility, on job satisfaction may not be a cultural trait, but a universal one.

Some would go so far to argue that absolute income does not affect happiness and, in turn, job satisfaction. Easterlin (1995) argues this in "Will raising the incomes of all increase the happiness of all?" Using a thought experiment, Easterlin is able to explain the reasoning behind this argument. "Imagine that your income increases substantially while everyone else's stays the same. Would you feel better off? The answer most people would give is 'yes'. Now suppose that your income stays the same while everyone else's increases substantially. How would you feel? Most people would say that they feel less well off," (Easterlin, 1995, p. 2). The reason people care about the income of others is that feelings of wellness are based on social norms. A person

who feels like he has more than others will be happier than a person who feels like he does not have as much as everyone else.

Easterlin's thought experiment implicitly shows what happens when the absolute income of everyone increases. The reason no one feels better off when everyone's absolute income increases is because the standard increases. By increasing the standard of society the effects of increasing absolute wage may be mitigated. "Perhaps most important are findings indicating that material norms and income increase, not only in the same direction, but at the same rate" (Easterlin, 1995, p, 7).

Easterlin's study covers the United States, Japan, and nine European countries from post-WWII to the 1970's. During that time period, real disposable income per capita rose by a third, and GDP doubled in the United States (Easterlin, 1995). Instead of increasing, happiness remained relatively constant. Similar trends were found in the other countries studied by Easterlin (1995). As previously stated, happiness remained relatively constant because material norms increase at the same rate as actual income in the society.

Because job satisfaction is essentially the amount of happiness a person's job provides, it seems reasonable to apply Easterlin's study to the subject of job satisfaction. A person with high job satisfaction is happy with his job. As job income increases, it is possible that job satisfaction does not necessarily increase. Increasing the wage of everyone the same amount may not increase job satisfaction because, relatively, everyone was well off as they were before the increase.

Lévy-Garboua and Montmarquette (2004) add to the argument that job satisfaction is relative in "Reported job satisfaction: what does it mean?" It is argued that a person's job satisfaction depends on the alternatives available. In other words, the opportunity cost of their

current job plays a large role in job satisfaction. "The job satisfaction reported in questionnaires is the mere judgment that the respondent would wish to repeat his past career if he now had to choose again. It indicates how one's experienced sequence of jobs compares with mentally experienced alternatives" (Lévy-Garboua & Montmarquette, 2004, p. 2). According to Lévy-Garboua and Montmarquette (2004), utility does not need to be comparative across persons, but it can be across time. A person will compare his current job to a job that he could have taken and evaluate the opportunity cost.

Lévy-Garboua and Montmarquette define job satisfaction as a binary variable. If a person is satisfied with his job, then he would choose the same path if given the option. If not, he would simply choose another career path. Such a preference is based on experience. The study found that "[wage] gaps in the remote past have greater weight on job satisfaction judgments than what happens at present. These two predictions are reminiscent of the fact that wisdom comes with age and that traumas suffered during childhood have quite persistent effects on human satisfaction," (Lévy-Garboua & Montmarquette, 2004, p. 13). In my study, job satisfaction will also be defined as a binary variable.

Data

General Social Survey 2014

The data used is from the 2014 General Social Survey (GSS) of the United States, (Smith et al., 2015). The GSS is "widely regarded as the single best source of data on social trends," (Smith et al., 2015).Starting in 1972, the GSS is the National Opinion Research Center's (NORC) longest running project. Most of the data is collected through face-to-face interviews, and in 2002 the GSS started using computer-assisted personal interviews (CAPI). Since its

founding, the GSS has used 5,545 variables, time-trends for 2,072 variables, and have 268 trends with more than 20 data points (Smith et al., 2015).

The study uses data from the 2014 social survey. The 2014 social survey is the most recent survey available and has all of the variables required for a study of job satisfaction. The 2014 wave of the GSS contains 866 variables and had 2,538 observations. After data cleaning, the number of variables utilized in the study was reduced to 42 variables and the number of observations was reduced to 1,999. Variables and variable information can be seen in the

Appendix.

Dependent Variable: Job Satisfaction

The dependent variable for my statistical model is job satisfaction. Measurements of job satisfaction are obtained from responses to the survey question "All in all, how satisfied would you say you are with your job?" (Smith et al., 2012). The possible responses to the survey are very satisfied, somewhat satisfied, not too satisfied, don't know, and no answer. These responses are then represented numerically, where 1 = very satisfied, 2 = somewhat satisfied, 3 = not too satisfied, 4 = not at all satisfied, 8 = don't know and 9 = no answer. For the sake of this study, job satisfaction was condensed into a binary variable. A value of 1 indicates that the respondent is satisfied. Job satisfaction is the only dependent variable in this study.

Independent Variables

There are several key independent variables to be used in this model. Household income will be used to measure all income obtained throughout the year. Income obtained by working is referred to as work income. All income is measured in 2013 dollars. Type of employment is another key independent variable. It is a binary variable that indicates the respondent is self-

employed. A measure of the opinion of the respondent's income relative to others was used. A binary variable was created to indicate that the respondent believed that he had a higher income relative to others at the time of the study. The reference group for relative income includes people who thought their income level was average or below average. Previous research has suggested that unions have a strong impact on job satisfaction, which is why a variable for union status is included in this study. The size of a person's workplace may also have a strong impact on job satisfaction. Respondents were asked if they worked in a firm with 1 to 9 employees on site, 10 to 49 employees on site, 50 to 99 employees on site, 100 to 499 employees on site, 500 to 999, 1,000 to 1,999 employees on site and 2,000 or more employees on site. In my study, I combined the three largest responses and created a variable that recorded workers who worked at worksites with 500 or more employees. The reference group used was 1 to 9 employees on site.

Other work related variables are hours worked per week, hours worked per week squared, weeks worked in a year, and whether or not the respondent was a government employee. Demographic variables that are controlled for are age, gender, race, health, education, household size, and social class. The main model can be summarized as follows:

Job Satisfaction = f(work income, household income, opinion of relative income, government employee, union status, self-employment, hours worked per week, hours worked per week squared, weeks worked in a year, number of workers at worksite (*1 to 9*, 10 to 49, 50 to 99, 100 to 499, 500 plus), age, gender (*female*, male), education, household size, race (*white*, black, Asian, other), health (*fair/poor*, good/very good/excellent), social class (*middle*, lower, working, upper)

Results and Analysis

Descriptive Statistics

The descriptive statistics can be seen in **Tables 1, 2, and 3**. The sample was about 46% male and 54% female. Approximately 15.2% of the sample was black, 2.2% of the sample was

Asian, 75.7% were white, and 6.9% was some other race, which includes Hispanic, Native Americans, Native Alaskans, Native Hawaiians, Guamanian, Chamorro, Samoan, Pacific Islander, and other races not specified by the survey. The average age of the respondents was 48 years old, and the sample fell between 18 and 89. The average number of years of education was 14 years of education, and the sample fell between 0 to 20 years of education. The average number of hours worked per week was 27.2 hours. The average home population of the sample was 2.33 people. 47% of the sample claimed to be in excellent health, very good health, or good health, 5.9% of the sample was in fair health, 0.7% of the sample is in poor health, and 46.3% of the sample was unknown. 8% of the sample believed themselves to be lower class, 46% of the sample believed themselves to be working class, 43% of the sample believed themselves to be middle class, and 2.8% of the sample claimed to be upper class. Years of education, age, and size of workplace are all top-loaded due to the nature of the questions in the GSS.

The average work income of respondents was \$33,584.65 per year. The work incomes in the sample fell between \$0 per year and \$266,778 per year. Average household income was \$75,302.47, with the minimum at \$502.69 and the high at \$286,557.20. About 23.7% of the sample believed themselves to have a higher income than the average American family. 20.7% of the sample worked for the government, 10.8% of the sample reported being self-employed and 7.1% of the sample was unionized. 15.8% of the sample worked at a worksite with 1 to 9 employees, 15.3% of the sample worked at a worksite with 10 to 49 employees, 8% of the sample worked at a worksite with 10 to 49 employees, 8% of the sample worked at a worksite with 50 to 99 employees, 13.6% of the sample worked at a worksite with 100 to 499 employees, 12.9% of the sample worked at worksites with 500 or more employees, and 34.5% of the sample did not respond.

Regression Analysis

Table 4 shows the results from the logistic regression. According to the model, absolute respondent income and absolute household income were not significantly related to job satisfaction. Hours worked per week, the square of hours worked per week, and weeks worked per year were not found to be significant either along with other workplace variables such as union status and working for the government were also found to be insignificant. Demographic variables that were not significant were gender, age, age squared, and household population. *Income*

Absolute income received from working and absolute household income was not found to be significant predictors of job satisfaction. However, relative income was. More specifically, the respondent's opinion of their income relative to that of others was positively correlated with job satisfaction and held slight significance. Individuals who believed that their income was above or well above that of American families in general were 1.85 times as likely to report job satisfaction as those who believed themselves to have average or below average incomes relative to Americans in general. Social class was also significant predictor of job satisfaction. Those who categorized themselves as lower-class were 0.28 times as likely to be satisfied with their jobs as those who claimed to be middle class These findings are consistent with Clark & Oswald (1996), Takei et al., (2009), and Easterlin (1995).

Self-Employment

Being self-employed had a strong, significant impact on job satisfaction. Selfemployment had a p-value of 0.022, making it significant at the 95% confidence level. Respondents who were reportedly self-employed were 4.75 times more likely to be satisfied with their jobs than those who are not self-employed. This is consistent with the literature. Bradley &

Roberts (2004) found that those who are self-employed tend to report higher job satisfaction than wage or salary workers.

Number of Workers at Worksite

The size of an employee's worksite also has an impact on job satisfaction. There was no significant difference between worksites with 10 to 49 employees, 50 to 99, 500 plus employees, and worksites with 1 to 9 employees. However, employees who worked at job sites with 100 to 499 employees were 0.46 times as likely to report being satisfied with their job as those who worked at job sites with 1 to 9 employees on site.

Race

Asian workers were the only workers who reported a different job satisfaction than Whites on average. Asians were 0.25 times as likely as whites to be satisfied with their jobs. The variable for Asian was found to be significant at the 95% confidence level. Blacks and the "other" race category were not found to be significantly different from Whites.

Education

Education was found to have a linear and nonlinear relationship with job satisfaction. Education was significant at the 95% confidence level, and the square of education was found to be significant at the 90% confidence level. Each additional year of education increased the chance of being satisfied by 1.43 times the previous year. However, each additional year of education squared made the respondent less likely or 0.989 times as likely to report being satisfied with their job. This difference implies that there are diminishing returns to education. There is disagreement among the literature regarding the impact of education on job satisfaction. Clark (1996), Clark & Oswald (1996), Grund et al., (2001), and Takei et al., (2009), found that education was negatively correlated with job satisfaction, while Lévy-Garboua & Montmarquette (2004) found that education was positively correlated with job satisfaction. However, the Clark (1996) and Clark & Oswald (1996) used data collected during a British recession which occurred in the early 1990's. The reduction in job satisfaction among the educated could be the outcome in underemployment of many educated workers.

Health

Health was found to be a strong predictor of job satisfaction. Health is significant at the 95% confidence level. People who claimed to be healthy were 2.03 times more likely to report job satisfaction than those who reported having fair health or poor health. This is consistent with the literature. Faragher, Cass & Cooper (2005) found that health was significantly positively correlated with job satisfaction.

Conclusions and Implications

According to this paper, the people who are most likely to report job satisfaction, and probably have the highest job satisfaction are highly educated, self-employed, healthy, do not work in a firm with 100 to 499 employees on-site, believe that they make more money than Americans in general, do not believe they are members of the lower class, and are not Asian. The effects of gender and education on job satisfaction are not consistent with Clark's (1996) findings. Clark (1996) found that women tend to report higher job satisfaction, and education actually decreases job satisfaction. I found that gender does not affect job satisfaction and that education has a positive impact on job satisfaction.

Those who were self-employed were far more likely to be satisfied with their job than salary and wage workers. This finding is consistent with the literature (Bradley & Roberts, 2004). However, everyone should not quit their current job and become self-employed. Bradley & Roberts (2004) hypothesized that personality characteristics may predispose the self-employed

to view their jobs in a positive manor and their findings supported this claim. In other words, people become who become self-employed are satisfied with their job due to previously held personality characteristics. Future research should be done to determine if self-employment is truly a cause of job satisfaction.

Surprisingly, absolute income was not found to be significantly related to job satisfaction. However, opinions of income relative to others and opinion on social class were both large determinants of job satisfaction. It appears that people are more concerned with how their income compares to others than an absolute measure of income. Findings that relative income affects job satisfaction are consistent with the literature (Clark & Oswald, 1996; Easterlin, 1995; Takei et al., 2009). As explained by Easterlin (1995), the increase in absolute wage across several European countries, Japan, and the United States did not cause overall happiness to rise. People's happiness increases when they are better off than other people. This is also true of job satisfaction; people are more satisfied with their job when they feel they are better off compared to others.

Job satisfaction is a useful predictor of quits and labor market mobility. A better grasp of job satisfaction will allow for changes in public policy aimed at increasing job satisfaction. The ability of economists to predict future economic occurrences will also be increased. Firms would be able to use job satisfaction to retain employees and create a better working environment. Firms could greatly improve the job satisfaction of employees by investing in health. However, firms and policymakers can only do so much. It seems that increasing job satisfaction ultimately lies with the individual. It seems that overall happiness seeps into measures of job satisfaction. To increase job satisfaction, it seems important for individuals to increase their overall happiness.

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Table 1: Descriptive Statistics where job satisfaction = 0

Work Income	1031	19090.97	37959.08	0	266778.9
Work Income: Missing Values	1031	0.551	.498	0	1
Household Income	1031	64661.15	71463.71	502.6855	286557.2
Income Believed to be Above National	1031	.203	.402	0	1
Average	1031	.205	.402	0	
Income Believed to be Similar to National	1031	.410	.492	0	1
Average	1051	.410	.452	U	-
Income Believed to be Below National	1031	.387	.487	0	1
Average	1001			C	-
Employed by Government	1031	.203	.402	0	1
Employed by Private Firm	1031	.797	.402	0	1
Union Member	1031	.0524	.223	0	1
Not a Union Member	1031	.590	.492	0	1
Union Member: Missing Values	1031	.358	.480	0	1
Self-Employed	1031	.0766	.266	0	1
Not Self-Employed	1031	.923	.266	0	1
Hours Worked per Week	1031	13.935	21.185	0	89
Hours Worked per Week: Squared	1031	642.554	1158.677	0	7921
Hours Worked per Week: Missing Values	1031	.661	.473	0	1
Weeks Worked per year	1031	21.958	23.727	0	52
Number of Workers at Worksite: 1 to 9	1031	.0747	.263	0	1
Number of Workers at Worksite: 10 to 49	1031	.0815	.274	0	1
Number of Workers at Worksite: 50 to 99	1031	.0378	.191	0	1
Number of Workers at Worksite: 100 to 499	1031	.0844	.278	0	1
Number of Workers at Worksite: 500 or	1031	.0592	.236	0	1
More					
Number of Workers at Worksite: Missing	1031	.662	.473	0	1
Values					
Age	1031	52.0417	18.201	19	89
Age: Squared	1031	3039.312	1933.315	361	7921
Male	1031	.440	.497	0	1
Female	1031	.560	.497	0	1
Years of Education	1031	13.598	2.967	0	20
Years of Education: Squared	1031	193.713	80.360	0	400
Household Population	1031	2.261	1.263	1	9
White	1031	.757	.429	0	1
Black	1031	.152	.359	0	1
Asian	1031	.0252	.157	0	1
Other Race	1031	.0660	.248	0	1
Respondent is in Good Health	1031	.0795	.271	0	1
Respondent is in Fair Health	1031	.0204	.141	0	1
Respondent is in Poor Health	1031	.00388	.0622	0	1
Health: Missing Values	1031	.896	.305	0	1
Lower Class	1031	.124	.330	0	1
Working Class	1031	.417	.493	0	1
Middle Class	1031	.431	.495	0	1
Upper Class	1031	.0281	.165	0	1

Table 2: Descriptive Statistics where jo			52442.00		
Work Income	968	48947.27	53413.99	0	266778.9
Work Income: Missing Values	968	.0806	.272	0	1
Household Income	968	86637.12	79508.41	502.6855	286557.2
Income Believed to be Above National	968	.274	.446	0	1
Average					
Income Believed to be Similar to National	968	.464	.499	0	1
Average					
Income Believed to be Below National	968	.262	.440	0	1
Average					
Employed by Government	968	.200	.401	0	1
Employed by Private Firm	968	.800	.401	0	1
Union Member	968	.0899	.286	0	1
Not a Union Member	968	.585	.493	0	1
Union Member: Missing Values	968	.325	.469	0	1
Self-Employed	968	.146	.349	0	1
Not Self-Employed	968	.858	.349	0	1
Hours Worked per Week	968	41.356	15.147	0	89
Hours Worked per Week: Squared	968	1939.561	1325.546	0	7921
Hours Worked per Week: Missing Values	968	.00103	.0321	0	1
Weeks Worked per year	968	46.848	11.244	0	52
Number of Workers at Worksite: 1 to 9	968	.246	.431	0	1
Number of Workers at Worksite: 10 to 49	968	.228	.420	0	1
Number of Workers at Worksite: 50 to 99	968	.125	.331	0	1
Number of Workers at Worksite: 100 to 499	968	.191	.393	0	1
Number of Workers at Worksite: 100 to 455	968	.202	.402	0	1
More	500	.202	.402	U	-
Number of Workers at Worksite: Missing	968	.00723	.0848	0	1
Values	500	.00725	.0040	0	1
Age	968	44.577	13.0841	18	79
Age: Squared	968	2158.168	1200.009	324	6241
Male	968	.481	.500	0	1
Female	968	.519	.500	0	1
				-	
Years of Education	968	14.310	2.739	0	20
Years of Education: Squared	968	212.267	78.430	0	400
Household Population	968	2.409	1.360	1	11
White	968	.757	.429	0	1
Black	968	.152	.359	0	1
Asian	968	.0186	.135	0	1
Other Race	968	.0723	.259	0	1
Respondent is in Good Health	968	.888	.315	0	1
Respondent is in Fair Health	968	.100	.300	0	1
Respondent is in Poor Health	968	.0103	.101	0	1
Health: Missing Values	968	.00103	.0321	0	1
Lower Class	968	.0331	.179	0	1
Working Class	968	.510	.500	0	1
Middle Class	968	.429	.495	0	1
Upper Class	968	.0279	.165	0	1
		1	1	1	-1

Table 2: Descriptive Statistics where job satisfaction = 1

Table 3: Descriptive Statistics

Tuble 5. Descriptive Statistics	1	1	1		
Job Satisfaction	1999	.484	.500	0	1
Work Income	1999	33548.65	48439.39	0	266778.9
Work Income: Missing Values	1999	.323	.468	0	1
Household Income	1999	75302.84	76242.99	502.6855	286557.2
Income Believed to be Above National	1999	.237	.425	0	1
Average					
Income Believed to be Similar to National	1999	.436	.496	0	1
Average					
Income Believed to be Below National	1999	.327	.469	0	1
Average					
Employed by Government	1999	.207	.401	0	1
Employed by Private Firm	1999	.798	.401	0	1
Union Member	1999	.0705	.256	0	1
Not a Union Member	1999	.587	.492	0	1
Union Member: Missing Values	1999	.342	.475	0	1
Self-Employed	1999	.108	.311	0	1
Not Self-Employed	1999	.892	.311263	0	1
Hours Worked per Week	1999	27.214	23.0283	0	89
Hours Worked per Week: Squared	1999	1270.619	1401.014	0	7921
Hours Worked per Week: Missing Values	1999	.342	.474	0	1
Weeks Worked per year	1999	34.0110	22.499	0	52
Number of Workers at Worksite: 1 to 9	1999	.158	.364	0	1
Number of Workers at Worksite: 10 to 49	1999	.153	.360	0	1
Number of Workers at Worksite: 50 to 99	1999	.0800	.271	0	1
Number of Workers at Worksite: 100 to 499	1999	.136	.343	0	1
Number of Workers at Worksite: 500 or	1999	.129	.335	0	1
More		_		-	
Number of Workers at Worksite: Missing	1999	.345	.476	0	1
Values					
Age	1999	48.427	16.357	18	89
Age: Squared	1999	2612.625	1678.631	324	7921
Male	1999	.460	.499	0	1
Female	1999	.540	.499	0	1
Years of Education	1999	13.943	2.880	0	20
Years of Education: Squared	1999	202.697	79.951	0	400
Household Population	1999	2.333	1.312	1	11
White	1999	.757	.429	0	1
Black	1999	.152	.359	0	1
Asian	1999	.0220	.147	0	1
Other Race	1999	.0690	.254	0	1
Respondent is in Good Health	1999	.471	.499	0	1
Respondent is in Fair Health	1999	.0590	.236	0	1
Respondent is in Poor Health	1999	.00700	.0834	0	1
Health: Missing Values	1999	.463	.499	0	1
Lower Class	1999	.0800	.271	0	1
Working Class	1999	.462	.499	0	1
Middle Class	1999	.402	.499	0	1
	-				
Upper Class	1999	.0280	.165	0	1

Variable	Odds Ratio	Std. Err.	Z	P>z	[95% Conf.	Interval]
Work Income	1.000	4.08e-06	0.41	0.679	1.000	1.000
Work Income: Missing	.725	.264	-0.88	0.377	.354825	1.481
Values	_	-				_
Household Income	1.000	2.34e-06	-0.64	0.520	1.000	1.000
Income Believed to be	1.851	.696	1.64	0.101	.886	3.867
Above National Average						
Government Employee	1.426	.458	1.11	0.268	.761	2.675
Union Member	1.441	.653	0.81	0.420	.593	3.504
Union Member: Missing	1.008	.236	0.04	0.972	.638	1.594
Values						
Self-Employed	4.748	3.239	2.28	0.022	1.247	18.083
Hours Worked per Week	1.002	.028	0.06	0.950	.948	1.059
Hours Worked per	.321	.570	-0.64	0.523	.010	10.489
Week: Missing	-					
Hours Worked per	1.000	.000	0.17	0.864	.999	1.001
Week: Squared			-			
Weeks Worked per Year	.989	.010	-1.07	0.286	.969	1.009
Number of Employees at	.707	.253	-0.97	0.332	.351	1.424
Worksite: 10 to 49	-					
Number of Employees at	1.297	.607	0.55	0.579	.518	3.246
Worksite: 50 to 99	-					
Number of Employees at	.457	.166	-2.16	0.031	.225	.930
Worksite: 100 to 499	_		_		_	
Number of Employees at	.838	.338	-0.44	0.662	.380	1.848
Worksite: 500 or More						
Number of Employees at	.413	.416	-0.88	0.380	.058	2.969
Worksite: Missing						
Age	1.043	.060	0.73	0.463	.932	1.168
Age Squared	1.000	.001	-0.24	0.811	.999	1.001
Male	.750	.173	-1.25	0.212	.478	1.178
Years of Education	1.434	.225	2.30	0.021	1.055	1.950
Years of Education	.989	.006	-1.84	0.066	.977	1.001
Squared						
Household Population	.959	.073	-0.55	0.581	.825	1.114
Black	.684	.197	-1.32	0.186	.389	1.202
Asian	.251	.149	-2.33	0.020	.0787	.802
Other Race	.905	.354	-0.26	0.798	.420	1.950
Respondent is in Good	2.032	.572	2.52	0.012	1.169	3.529
Health			1			
Health: Missing Values	.000	.000	-6.99	0.000	.000	.002
Lower Class	.281	.122	-2.92	0.004	.120	.659
Working Class	.892	.241	-0.42	0.673	.525	1.515
Upper Class	.795	.659	-0.28	0.782	.157	4.037
Constant	.193	.347	-0.92	0.360	.006	6.537

N

 $Pseudo \ R^2$

Appendix

	Original Variable	New Variable	Description	
Dependent Variable	Satjob1	Job Satisfaction	Respondent's job satisfaction	
Workplace Variables	Realrinc	Work Income	Respondent's yearly income from working	
		Work Income: Missing Values	Missing data from realrinc_job variable	
	Realinc	Household Income	Respondent's yearly household income	
	Finrela	Income Believed to be Above National Average	Respondent believes income is below the national average	
		Income Believed to be Similar to National Average	Respondent believes income is about the same as the national average	
		Income Believed to be Below National Average	Respondent believes income is above national average	
	Wrkgovt	Employed by Government	Respondent works for the government	
		Employed by Private Firm	Respondent works for a private firm	
	Union	Union Member	Respondent is unionized	
		Not a Union Member	Respondent is not unionized	
		Union Member: Missing Values	Missing union data	
	Wrkslf	Self-Employed	Respondent is self-employed	
		Not Self-Employed	Responded is not self- employed	
	Hrs1	Hours Worked per Week	Hours worked per week	
		Hours Worked per Week: Squared	Missing data from hours	
		Hours Worked per Week: Missing Values	Hours worked per week squared	
	Weekswrk	Weeks Worked per year	Weeks worked per year	
	Localnum	Number of Workers at Worksite: 1 to 9	Respondent's worksite has 1 to 9 employees	
		Number of Workers at Worksite: 10 to 49	Respondent's worksite has 10 to 49 employees	
		Number of Workers at Worksite: 50 to 99	Respondent's worksite has 50 to 99 employees	
		Number of Workers at Worksite: 100 to 499	Respondent's worksite has 100 to 499 workers	
		Number of Workers at Worksite: 500 or More	Respondent's worksite has 500 or more workers	
		Number of Workers at Worksite: Missing Values	Missing data from number of workers at worksite	

Demographics	Age	Age	Respondent's age	
		Age: Squared	Respondent's age squared	
	Sex	Male	Respondent is male	
		Female	Respondent is female	
	Educ	Years of Education	Years of education	
		Years of Education: Squared	Years of education squared	
	Нотрор	Household Population	Population of household	
	Race	White	Respondent is white	
		Black	Respondent is black	
		Asian	Respondent is Asian	
		Other Race	Respondent is some other race	
	Health1	Respondent is in Good Health	Respondent is in excellent, very good, or good health	
		Respondent is in Fair Health	Respondent is in fair health	
		Respondent is in Poor Health	Respondent is in poor health	
		Health: Missing Values	Missing health data	
	Class	Lower Class	Respondent considers him/herself lower class	
		Working Class	Respondent considers him/herself working class	
		Middle Class	Respondent considers him/herself middle class	
		Upper Class	Respondent considers him/herself upper class	