

**What contributes to Americans' happiness:**  
*An examination of the workplace*

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## **Introduction**

Economists divide an individual's time into two main categories: labor and leisure. Generally, people spend eight hours a day at work if working full time, therefore spending about a third of their day at work alone. With work representing such a significant portion of a person's day, work can have a significant impact on an individual's happiness.

The concept of happiness as a social indicator was first asked of Americans in the 1946 Gallup's 'Public Opinion Survey,' and has since become a standard question for many surveys (Veenhoven and Hagerty, 2006). In general, life satisfaction questions read: "Overall, how happy would you say that you are?" with varying response options. Quite often, economists are unwilling to utilize the knowledge from such subjective questions due to the unreliability of the data. This unreliability of the responses is due to the fact that the judgment of overall life happiness is constructed only when asked. This means that individuals are partially determining their response by their current mood and context.

Bertrand and Mullainathan (2001) found that the use of subjective variables, such as life satisfaction, is useful in practice for explaining differences in behavior amongst individuals and groups (71). These differences in behavior can be explained by happiness being closely related, but not identical, to the traditional concept of utility in economics. Only over the past 30 years has happiness surfaced as an issue for economists. Carol Graham (2005) explains happiness economics as a new economic direction which relies on "more expansive notions of utility and welfare, including interdependent utility functions, procedural utility, and the interaction between rational and non-rational influences in determining economic behavior" (42). Individuals and societies can be viewed as trying to maximize their well-being given certain constraints which leads them to

make choices which are a direct reflection of their preferences. These preferences influence economic behavior and can shed a new light on how individuals and societies approach the decision-making process.

“Job satisfaction” is used as a proxy for overall happiness - as occupational happiness includes more quantitative aspects for an individual to judge and provide a more specific measure of happiness. Despite the potential problem with subjectivity when utilizing reported happiness data, happiness economics can expand upon the insights of well known, but abstract, theoretical propositions, such as: effects of unemployment, effects of income, effects of inflation, evaluation of policy, consumption behavior, investment behavior, work behavior and productivity. This new information about what influences economic behavior can then lead to complementary policy-making by utilizing the implications of this research.

This paper’s purpose is to examine the determinants of life and job satisfaction. In particular, the relationship between personal happiness and demographic factors and personal attitudes is analyzed. Further, the paper studies the effect of various work-related characteristics on one’s job satisfaction. Comparisons are made between the predictors of overall happiness and job-related happiness in order to see if attributes and characteristics would have a similar effect upon happiness and job satisfaction so parallels could be drawn between the two subjective dependent variables.

### **Literature Review**

The main catalyst in the literature of happiness economics has been Richard A. Easterlin’s seminal article “Does Economic Growth Improve the Human Lot? Some Empirical Evidence” (1974). This paper set out the ‘paradox’ of the substantial real income growth in nineteen developed and developing countries with which a rise in reported happiness levels was not accompanied by

using 1946-1970 data from thirty surveys (1974). Easterlin later updated his findings, using 1971-1991 time series data from the General Social Survey, concluding that a positive relationship between growth in income and happiness typically occurs in international comparisons only for low GDP per capita comparisons (1995). This finding conflicts against common economic theory because economic theory states that with growth and therefore growth in income, there are increases in utility, therefore everyone is better off than they once were. Since then much research has been embarked upon in order to find out the type of relations between income and happiness, but the results were inconclusive, yielding no final theoretical explanation (Brickman et al. 1978, Inglehart 1990, Diener et al. 1995, Easterlin 2001, Gardner & Oswald 2001, Gerdtham & Johannesson 2001, Hagerty & Veenhoven 2003, Easterlin 2005, Veenhoven & Hagerty 2006). Economic analysis regarding income's corresponding impact on well-being (or individual utility) has since led to research investigating the impact of both absolute and relative income on a person's reported overall satisfaction.

Following the introduction of the Easterlin paradox, numerous studies have found that relative income has a significant impact on individual happiness (Solnick & Hemenway 1998, Hagerty 2000, Alesina et al. 2001, Diener & Biswas-Diener 2002). Easterlin claimed that if people judge happiness through purely relative comparisons, the society may be doomed to the "hedonic treadmill." The treadmill results when each person attempts to increase their own happiness, but when all others do the same, everyone's happiness returns to its starting value and the cycle begins all over again. One proposed reason for literature yielding mixed results regarding income and happiness is that higher income brings both consumption and status benefits to an individual. Since status comparison is a zero sum game in the long run, the only factor at the aggregate level is consumption. So, the utility experienced from income increases over time is due to the fact that as income rises the consumption benefit approaches zero, so happiness profiles for individuals of

developed countries are flat over time (Clark et al, 2008). Still, research relating relative income and absolute income and individual happiness has produced inconclusive results. But the indeterminate results yielded further inquiries about other potential variables that could have an impact upon individual happiness.

Economists have long been interested in how happiness is correlated with an assortment of variables. Subsequently, finding that age race, gender, educational attainment, and employment status all result in different levels of life satisfaction. Research concludes there have been large changes in the level of happiness across groups across America. Stevenson & Wolfe find that the racial happiness gap has closed despite the difference in happiness levels persisting for over 50 years (2008). While men and women were once viewed as unequal in happiness levels, women have now surpassed men as the happier gender and educational happiness gaps have widened (Stevenson & Wolfe, 2008). In a study for Britain, Clark and Oswald find that joblessness depresses well-being more than any other single characteristic with people with high education experiencing a larger decrease in their subjective well-being due to unemployment than employees with low education (1994). Di Tella et al. find that the self-proclaimed happiness of unemployed persons is much lower than employed persons with otherwise similar characteristics (2001). Good health is also found to significantly increase happiness (Gerdtham & Johannesson, 2001). Further, the relationship between age and happiness is found to be U-shaped, with happiness being lowest in the age-group 45-64 years (Clark & Oswald, 1994; Gerdtham & Johannesson, 2001).

The results of happiness economics research yielding mixed results provide insight into the instability of the standard measures of satisfaction. Easterlin acknowledged the measurement problems of the data in terms of the stability of replies, validity of reports, and contextual issues regarding the question (1974). In order for an individual to evaluate their overall happiness the

person must distinguish between their experienced utility and remembered utility; the way people feel about experiences in real-time versus the way they remember their experiences after they are over. For example, Diener and Suh find that there is a significant but lower correlation for repeat measures of life satisfaction using a “test-retest” method of a five-item life satisfaction measure over a four week time span (1996). This suggests that the data may be reliable enough for many purposes, but that current mood and context cause fluctuations in people’s answers from day to day. Another subtle measurement issue involved is that in many of the surveys asking individuals about their happiness there is a shorter scale of answers (such as “very happy,” “pretty happy,” and “not so happy”) than do those asking typical life satisfaction questions (which often use the “ladder” technique in which there is a longer list of options for one to judge their satisfaction). Researchers deduce that the issue with respondents accurately recounting their overall happiness levels is that ‘overall happiness’ contains countless abstract variable which results in individuals attaching a judgment to an irrelevant anchor which are more conceptually attainable (Tversky & Kahneman, 1974).

Economic research about job satisfaction produces similar variables to have a direct impact upon job satisfaction as those that influence overall well-being. Differences in wage, age, gender, health, wage, job characteristic value to the respondent and gender all show significantly different job satisfaction levels. A study of satisfaction undertaken by Cappelli and Sherer using data on approximately 600 employees working for a major US airline ran a regression estimated for satisfaction with pay and satisfaction with work (1988). An outside “market wage”, calculated by averaging pay for specific occupations in other airlines, was found to be statistically significant and negative. Moreover, it was fairly close to being of equal size but opposite in sign to the coefficient on a variable for the actual wage earned by the worker. The final conclusion being that the specification is close to a pure relative wage effect. In a related paper, Cappelli and Chauvin show

that relative wages help to predict actions as well as attitudes, specifically: disciplinary layoffs in a large manufacturing company are negatively and significantly related to a plant's wage premium (1991).

Sloane & Williams utilized data from the 1986 UK Social and Economic Life Initiative (SELI) household survey in order to examine sex differences in job satisfaction (2000). Employees were asked on a 0-10 scale how satisfied or dissatisfied they were with their present job. The same scale was used to rank various aspects of the job, specifically: promotion prospects; the total gross weekly pay (including any overtime and bonuses), relations with their supervisor or manager, their job security, being able to use their own initiative, the ability and efficiency of management, the actual nature of work itself, and the hours they worked. They were also asked to state whether they were equitably, over or underpaid and to say how much they thought they deserved. Initially using probit estimation models, their analysis found that both absolute and comparative income has a significant positive effect on the job satisfaction of men and women, but the effect is stronger for men. Utilizing the inclusion of a question on the level of pay which individual felt they deserved, Sloane and Williams found that while overall both men and women thought they were being underpaid, a much higher proportion of men felt that they obtained much less pay than they deserved.

In a paper by Clark and Oswald, the results from data from wave one of a 1991 random sample of about 10,000 individuals in approximately 5,500 British households from the British Household Panel Study found significant differences in reports of job satisfaction between gender, age, and health (1995). Clark and Oswald also found that men report themselves as less satisfied than women, healthy people are more satisfied, individuals who work in small establishments are happier and that highly educated individuals are less satisfied than those with medium qualifications

who are in turn less satisfied than those with no or few qualifications. In another paper, Clark uses the same data responses from wave one of the BHPS from 1991, but this time to relate three different measures of job satisfaction with a wide range of individual job characteristics (1996). The paper uses both bivariate and regression techniques to examine the distribution of the three measures of job satisfaction in this British data set. The empirical results found similar results regarding gender, age, education, and establishment size as the formerly mentioned paper by Clark and Oswald. Specific to this paper, Clark found that, workers are relatively satisfied in agriculture and dissatisfied in engineering and that workers in 'other services' report low levels of satisfaction with pay but are one of the most satisfied groups overall.

Clark once again uses data from the large scale British Household Panel Survey (BHPS), this time to document the extent of a gender differential for eight measures of job satisfaction and to evaluate the proposition that identical men and women in identical jobs should be equally satisfied (1997). The method used to measure job satisfaction was to ask respondents to rate their satisfaction levels on a seven point scale (with one being "not satisfied" and seven being "completely satisfied"), regarding: promotion prospects, total pay, relations with supervisors, job security, ability to work on their own initiative, the actual work itself and hours of work. Using an ordered probit, Clark found that neither the different jobs that men and women do, their different work values, nor sample selection account for the gender satisfaction differential. Overall, gender specific characteristics to women were found to be marital status, hour of work and union status upon satisfaction and that women report significantly higher levels of satisfaction. Further, regarding the various points of interest in Clark's model, those who rank "pay promotion" highly tend to report significantly lower job satisfactions, choosing pay or promotion as the first most important aspect of a job has a much larger negative effect on men's job satisfaction than on women's, the choice of job security and relations at work is associated with significantly higher job

satisfaction for women but has no effect for men. Clark's final conclusion is that the understanding the differences behind what makes the different gender groups occupationally satisfied, similar to those characteristics demonstrated in his paper, should be given a high priority by labor economists because of the relationship between job satisfaction and market behavior.

Levy-Garboua and Montmarquette use a Canadian cross-section of employed workers from the 1986 General Social Survey (2004). The working sample consisted of 2600 observations and respondents were asked to rate their level of overall job satisfaction in three categories: 9.38% were "totally or rather displeased", 42.12% were "rather satisfied" and 47.50% were "fully satisfied." The respondents also reported their satisfaction with respect to leisure, health and marital situation. Levy-Garboua and Montmarquette ran ordered probit regressions of job satisfaction on several estimated wage gaps and the job-related satisfactions. They predicted that the coefficient of the wage gap should decrease with age, so they run the same regression on four age groups. The wage gap was defined as the residual of an earnings function that explains the annual wage by weeks worked, part time, education, a quadratic of years of potential experience, socio-economic work status, marital status, and other variables used in the job satisfaction equation. They ran a regression, relating job satisfaction with these variables and another regression relating these variables and the wage gap. The coefficient of the wage was found to always be positive and inversely U-shaped across age groups, the peak being attained in the 25-34 age group. They then looked at other coefficients in the ordered probit regressions and found that job-related satisfactions with health, leisure, and marital status which exert significant and substantial effects. Leisure was found to be increasingly valued with age. Job satisfaction appeared to increase with the level of education. The empirical evidence shown in this paper supports the view that self-reported job satisfaction indicates an experienced preference for a current job over available opportunities.

In another paper focusing on the gender differences of job satisfaction, Bender et al. estimate equations from a representative US sample, the National Study of the Changing Workforce (NSCW) conducted in 1997 (2005). A four-point scale of overall job satisfaction (from not satisfied at all to very satisfied) used with an average job satisfaction for men of 3.35 and 3.42 for women. Categories were created with respectively different make ups of genders for the respondents to classify their occupational experience as, the responses are one of six categories: 0%, 1–25%, 26 to 50%, 51 to 75%, 76 to 99%, and 100%. Then an OLS regression was run and Bender et al. find that: the coefficient on hours is negative for both men and women but is not significant for women, the significant negative coefficients generated on higher education in the full sample are largely generated from the male subsample, the negative association between job satisfaction and firm size is disproportionately generated from the female subsample, and men appear to disproportionately dislike temporary jobs while women seem to disproportionately value control over starting times. The evidence presented shows that job satisfaction of women is highest in the traditionally female dominated work places, the very places in which women as a whole have the most experience and should have the most accurate expectations. Their results suggest that much of the satisfaction difference associated with segregation results from the exclusion of determinants of satisfaction. These determinants, flexibility between work and home, appear to be of greater value to women and when accounted for eliminated satisfaction differences associated with gender composition.

On an international level, Blanchflower and Oswald document the patterns in job satisfaction data on approximately 50,000 randomly sampled people across eighteen countries using data from three sources – the International Social Survey Programme, the Eurobarometer Surveys, and the US General Social Surveys (1999). The paper attempts to examine the factors that shape well-being at work. A simple ordered logit regression equation was run on GSS data and even when

controlling for variables, there were microeconomic patterns. Satisfaction was higher among the old, females, the self-employed, whites, those in non-union plants, the highly educated (except when income is controlled for in the regressions), those with high perceived job security, those who feel it would be easy to get a comparable job elsewhere, and those on high earnings.

### **Data and Methods**

The analysis is based on the data from the 2006 General Social Survey (GSS), administered by the National Opinion Research Center (NORC) at the University of Chicago. With the exception of the U.S. Census, the GSS is the most frequently analyzed source of information in the social sciences (Davis & Smith, 2009). The survey collects information on demographic, behavioral and attitudinal questions and additional modules of special interest from a nationally representative sample since 1972 primarily via a face-to-face interview.

This study uses current data from the 2006 GSS to examine determinants of happiness and job satisfaction. Even though the 2008 GSS survey is the most recent one available, the 2006 wave was chosen for two reasons. In 2006, the survey featured specific questions on the topic of quality of working life and employee compensation. Furthermore, in 2006 the unemployment rate of 4.6% was close to the natural rate of unemployment, which was not the case two years later. In 2008, even though unemployment rate in the first two quarters was 5.1%, close to the natural rate, it jumped to 6.3% in quarters three and four, reflecting the worsening economic conditions.

The 2006 survey was administered to 4,510 respondents. However, only a subsample of the respondents was asked the two questions used to construct the happiness measures this study examines. Regarding life satisfaction, the GSS asks: “Taken all together, how would you say things are these days—would you say that you are very happy, pretty happy, or not too happy?” Regarding job satisfaction, the GSS asks the question: “All in all, how satisfied would you say you

are with your job – would you say you are very satisfied, somewhat satisfied, not too satisfied, or not satisfied at all?” The variable used to measure happiness is “respondent identifies self as ‘very happy’” and the variable used to measure job satisfaction is “respondent identifies self as being ‘very satisfied’ with job.” Since respondents were asked GSS questions via a face-to-face interview, the potential for inflation of responses in order to avoid negative opinion by the interviewer is high (Gilovich, et al., 2002).

The independent variables consist of a variety of categories that could potentially impact overall happiness and job satisfaction. Demographic variables consist of: male, race (*white*<sup>1</sup>, black, Hispanic, and other), age (age, age squared and age cubed), marital status (married, *single/never married*, and divorced/separated/widowed), number of children (no children, one child, *two children*, or three or more children), education (less than high school, *high school*, some college, college, graduate, or doctorate<sup>2</sup>), health, political views (liberal, moderate, and *conservative*) and work status (*full time* and part time). Variables specific to job satisfaction included employment type (self-employed), firm type (*private company*, nonprofit organization, government), size of establishment (less than 50 employees, *between 50-500 employees*, 500 or more employees), work schedule (*day*, night, irregular/rotational), occupational prestige, subjective job valuations (respondent feels: job security is okay, work runs smoothly, occupational fringe benefits are okay, he/she is treated with respect), and income.

Previous literature has found age to have a U-shape with happiness. Namely, younger and older people were happier than those in their 40’s. To capture this potential relationships, the analysis included age, age squared and age cubed. The occupational prestige scores available in the GSS were based on the prestige model designed by Robert W. Hodge, Judith Treas and Keiko Nakao

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<sup>1</sup>Italicized indicates that variable was used as reference group

<sup>2</sup>Doctorate variable includes those with PhD, MD and/or JD

(1989), ranking occupations by prestige (Davis and Smith, 2009; Nakao Nakao et al., 1990) For the purposes of this study, the following occupational prestige categories were created (x signifies the prestige score):  $x < 30$  (examples include: sales clerks, janitors, bill collectors, shipping clerks, and food service workers),  $30 \leq x < 40$  (examples include: restaurant/bar managers, receptionists, cosmetologists, and therapists),  $40 \leq x < 50$  (examples include: farm owners, police officers, and real estate agents),  $50 \leq x < 60$  (examples include: accountants, computer programmers, actors, and social workers),  $60 \leq x < 70$  (examples include: clergymen, engineers, chemists, school administrators, and elementary and high school teachers),  $70 \leq x < 90$  (examples include: judges, lawyers, physicians, college professors, and financial managers). Based on the literature, two measures of income were used, relative and absolute income. Relative income was created based on respondent's ranking of family income: lower than average, *average* or higher than average. Absolute income was categorized if the individual's income was less than \$35,000 a year, *less than \$75,000 but greater than or equal to \$35,000* or greater than or equal to \$75,000 a year.

Given that both dependent variables were defined as dichotomous, the analysis used probit estimation technique. Happiness was modeled as a function of demographics and attitudes (religious and political), and estimated separately for relative and absolute income, as the literature identifies both income measures as important determinants of happiness. Furthermore, job characteristics were added to the model. The inclusions of work-related variables should capture another important influence between happiness and the work place. The model with job characteristics was then estimated for job satisfaction. It is expected the job characteristics will be a better predictor in this model as compared to the happiness model as they relate more directly to the dependent variable. In particular, the two main models can be summarized as follows:

$$\text{Happiness} = f(\text{gender, race, age, marital status, number of children, education, religion, health, political views, work status, income})$$

Happiness/Job Satisfaction=f(gender, race, age, marital status, number of children, education, religion, health, political views, work status, income, employment type, firm type, firm size, work schedule, occupational prestige, subject job valuations)

In order to compare overall satisfaction and job satisfaction results, the determinants of job satisfaction were also used as predictors for happiness.

## **Results & Analysis**

### *Descriptive Statistics*

After data cleaning, the sample size consisted of 1,322 observations of working individuals ages 18 and older. As shown in Table 1 29.8% identified themselves as overall “very happy” and 44.3% reported themselves as “very satisfied” with their job.

Demographically, the sample size consisted of approximately 49% males and 51% females. Based on race/ethnicity, 74% of the sample were white, 14% black, 6% Hispanic and 5% other which includes: American Indian or Alaska native, Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese, other Asian, Native Hawaiian and “other.” The youngest respondents included in the sample were 18 years old and the oldest 88, with the average age being 42 and 95% of respondents being within the ages of 18 and 67. Half of the respondents were married, a quarter had been married in the past but were no longer married and a quarter was single. Sixty-seven percent had children. Regarding the educational attainment of the respondents, only 8% had less than a high school education, 25% had graduated high school, 30% had some college education, and 20% had achieved their Bachelor’s degree, 14% had their Master’s degree, and 3% had achieved a doctorate of some sort. 60% of the respondents said they would consider themselves religious, 55% felt the overall condition of their health would be deemed ‘good or better’, 30% felt their political views would be classified as liberal, 35% thought they had moderate political views and 35% classified themselves as politically conservative.

Regarding the respondents' employment characteristics, 84% worked full-time and 16% worked part-time. Twelve percent were self-employed, 74% worked for a private company, 20% were government employees and 6% worked for a non-profit organization. Approximately 80% of the respondents worked during the day, 5% worked a night schedule, and 15% worked an alternative work schedule. Within the respondent group, most worked at an establishment that had less than 50 individuals, approximately 35% worked at an establishment that had anywhere from 50 to 500 individuals and less than 20% were employed at a large firm with over 500 employees.

As the means for occupational prestige scores in Table 1 indicate, most of the respondents work in the restaurant/bar manager, receptionist, cosmetologist, and therapist group ( $30 \leq$  occupational prestige  $< 40$ ). Seventy-four percent of the respondents thought their workplace ran smoothly, 87.3% found their job to be secure, 71.6% thought their fringe benefits were okay and 92.3% were treated with respect.

Finally, regarding income, most respondents earned under \$35,000 a year (51.5%). Whereas, 51.3% felt that their family income was average in comparison to others. Twenty-eight individuals of the 1,322 used in this paper reported earning over \$150,000 a year and sixteen individuals reported earning less than \$1,000 a year.

### *Regression Analyses*

Table 2 shows the results from the happiness models with two measures of income, relative and absolute income. There was no difference in probability of being happy between men and women in the relative income model. Hispanics were 12.7 percentage points more likely to report themselves as 'very happy.' Black and other races did not report differences in level of happiness than whites. Those who were religious were also found to be 6.7 percentage points more likely to report themselves as 'very happy' than the religiously affiliated. Age did not affect reported

happiness either. Marital status was only found to be significant for those who were married in comparison to individuals who were single. Married people were 20.7 percentage points more likely to report themselves as ‘very happy’ in comparison to respondents who were single. But children did not affect happiness levels.

Education was found to significantly affect happiness. Namely, having a graduate degree had no significant effect on the probability of a respondent reporting himself or herself as ‘very happy.’ In comparison with those with a maximum high school education, individuals with less than a high school degree were 16.7 percentage points happier. Whereas, individuals with some college or college education were approximately 10 percentage points happier. The happiest people were the respondents with a doctorate degree, 25.6 percentage points happier than high school graduates. These findings provide evidence for findings from previous literature of a U-shaped relationship between education and happiness, with high school graduates being the least happy demographic group.

Healthy people were 14.8 percentage points more likely to be happy. This finding aligns with current literature highlighting the importance of the relationship between health and happiness. Political views also played a role in happiness. Liberals were 9.1 and moderates were 5.1 percentage points less likely to report themselves as ‘very happy’ in comparison to conservatives. Individuals with low self reported family income were 10.5 percentage points less likely to report themselves as ‘very happy’ in comparison to their counterparts who felt their family income was average in comparison to others. Contrastingly, individuals who felt their family income was higher relative to the rest of the population were no happier than the average income group.

Similar to the relative income model, the absolute income-happiness model paralleled those variables that were found to be significant by the relative income-happiness model. Unlike the

relative income model, in the absolute income model males were found to be 4.8 percentage points less likely to report themselves as very happy in comparison to females but this was only found to be significant at a level of 10%. Further, and specifically regarding absolute income, individuals were 9.3 percentage points happier with an income \$75,000 or more as compared to their counterparts with an annual income between \$35,000 and \$75,000.

Table 3 shows the results from the job satisfaction and happiness models when relative income and all 'job characteristic' variables are used. Originally, two different models were used to chart the marginal effects of happiness and job satisfaction when all variables were used in the model, one model for the relative income variable and one model for the absolute income variable. The happiness model when using absolute income yielded strikingly similar results to the happiness model created with a relative income variable, however absolute income was not a significant determinant of happiness. The job satisfaction model for absolute income also yielded similar results to the job satisfaction model created with a relative income variable, once again, income did not contribute to the probability of an individual being 'very happy'.

The model created for 'happiness' using relative income as indicated by Table 3 included the 'job characteristic' variables utilized in the job satisfaction model. When controlling for these variables, the exact same results in the same direction were produced as when these variables were excluded from the happiness model. Hispanics, healthy, religious, and married individuals were once again found to be more likely to report themselves as being 'very happy' in contrast to whites, unhealthy, unreligious and single individuals, respectively. Education (with the exception of those with a graduate degree) once again produced a positively linked probability for all educational levels with the highest impact being for those who had less than a high school education and those who had a doctorate degree. Working for a non-profit organization decreased probability of being

happy by 10.1 percentage points. Income was only negligibly different in this model in comparison to the demographics model using relative income – decreasing the probability of individuals who viewed their income as low in comparison to others by 9 percentage points.

Gender was found to be an insignificant predictor of difference in job satisfaction. Blacks were found to be 10.5 percentage points less likely and ‘other’ races were found to be 14.3 percentage points less likely to be very satisfied with their job in comparison to whites. No relationship was observed for the age of the respondent to their job satisfaction and those who were married once again to be happier, this time 8.1 percentage points happier with their job. The number of children the respondent had did not affect the job satisfaction of the respondent.

Education was differently influential to job satisfaction than happiness in comparison to the original happiness model that utilized demographic variables. This time, those who had attained a Master’s degree were actually 10.1 percentage points less happy with their job and all other educational levels showed a difference in job satisfaction in comparison to high school graduates. Religion and health were once again seen to be positively related to happiness, making respondents 6.3 percentage points and 9.9 percentage points more likely to be happy with their job. Relative income only changed the probability of an individual for those who viewed their family income to be higher in comparison to others, increasing the probability of being satisfied with their job by 9.5 percentage points.

Among job specific characteristics, employment type and firm type were most significant. Those who were self employed were found to be 16.3 percentage points more likely to be very satisfied with their job in comparison to those who worked for someone else. Individuals who work for the government were also found to positively increase the probability of being satisfied with their job by 8 percentage points. Other variables regarding subjective occupational valuations were

found to be positively and highly significant in relation to the probability of reporting occupational satisfaction as 'very satisfied.' If work ran smoothly then the respondent would be 24.5 percentage points more likely to be satisfied, if the job was seen as secure then 12.7 percentage points more likely, if fringe benefits were good then 6.6 percentage points more likely and respect increased probability by 15.6 percentage points. However, due to the overwhelmingly large sample size that responded positively to these questions and therefore skewed nature of the sample size, it is the author's view that these results are overstated and overrepresented though a positive relationship may be significant.

### **Conclusion and Implications**

The findings from this paper construct the following profile for the happiest people: female, Hispanic, married, either highly educated (doctorate degree) or not educated (less than high school), religious and having conservative political views. Findings are consistent with the literature that women are reported as being happier than men (Clark & Oswald, 1995; Clark, 1996; Clark, 1997). Unlike some literature, age was not found to affect happiness and job satisfaction (Clark & Oswald, 1994; Clark, 1996; Gerdtham & Johannesson, 2001; Stevenson & Wolfe, 2008). Furthermore, education was found to have a U-shaped relationship with the probability of being happy in happiness models with an educational level of high school at the bottom of the U. Whereas, people who went to graduate school, but less than doctorate, were less satisfied with their job.

The same variables found to be significant in the 'demographics only' happiness model were found to be significant in the 'demographics and job characteristics' happiness model. Interestingly, relative income is a more important determinate and absolute income of overall happiness and job satisfaction than absolute income. Furthermore, high relative family income as compared to average family income was found to significantly increase the probability of being

‘very satisfied’ with one’s job. This finding regarding absolute income follows the paradox set up by Easterlin that income does not create a corresponding improvement in happiness. Relative income is found to play an important role as a predictor of happiness but whether this ‘happiness’ is higher than the past is unsure so the ‘hedonic treadmill’ explained by Easterlin remains unaddressed. Also, an inquiry as to what specific key factors lead those who are self-employed to be so significantly more satisfied with their job could have important implications for companies in diminishing the gap between job satisfaction levels among the self-employed and employed. Increased occupational productive could be realized in the work place due to the relationship between job satisfaction and productivity. More broadly, knowledge of happiness can have implications on policy by making them more effective by focusing on those issues that have the largest impact on satisfaction within the population because policy maker can utilize the knowledge of ‘what makes people happy’ and apply it.

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**Table 1: Summary Statistics**

<b>Variable Description</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Min</b>	<b>Max</b>
Respondent identifies self as "very happy"	0.2980	0.4576	0	1
Respondent identifies self as being "very satisfied" with job	0.4433	0.4970	0	1
Male	0.4894	0.5001	0	1
<i>White</i> <sup>1</sup>	0.7436	0.4368	0	1
Black	0.1437	0.3509	0	1
Hispanic	0.0605	0.2385	0	1
Race is "other"	0.0522	0.2225	0	1
Age of respondent	42.1861	12.5985	18	88
Squared age of respondent	1938.27	1123.25	324	7744
Cubed age of respondent	95688.03	82887.97	5832	681472
Married	0.5091	0.5001	0	1
Separated, Divorced or Widowed	0.2322	0.4224	0	1
<i>Single/never married</i>	0.2587	0.4381	0	1
No children	0.3351	0.4722	0	1
One child	0.1641	0.3705	0	1
<i>Two children</i>	0.2648	0.4414	0	1
Three or more children	0.2360	0.4248	0	1
Education: less than high school	0.0787	0.2693	0	1
<i>Education: high school degree</i>	0.2481	0.4321	0	1
Education: some college	0.3048	0.4605	0	1
Education: Bachelor's degree	0.1967	0.3976	0	1
Education: Master's degree	0.1384	0.3455	0	1
Education: doctorate	0.0333	0.1794	0	1
Religious	0.5998	0.4901	0	1
Excellent or good health	0.5560	0.4970	0	1
Political views: liberal	0.2912	0.4545	0	1
Political views: moderate	0.3540	0.4784	0	1
<i>Political views: conservative</i>	0.3548	0.4786	0	1
<i>Work status: full time</i>	0.8381	0.3685	0	1
Work status: part time	0.1619	0.3685	0	1
<i>Family income: average in comparison to others</i>	0.5136	0.5000	0	1
Family income: low in comparison to others	0.2284	0.4200	0	1
Family income: high in comparison to others	0.2579	0.4377	0	1
Annual income: less than \$35,000	0.5151	0.5000	0	1
<i>Annual income: between \$35,000 ≤ x &lt; \$75,000</i>	0.3570	0.4793	0	1

Annual income: over \$75,000	0.1278	0.3340	0	1
Self employed	0.1225	0.3280	0	1
<i>Works for private company</i>	0.7466	0.4351	0	1
Works for government	0.1952	0.3965	0	1
Works for nonprofit organization	0.0582	0.2343	0	1
Firm size: less than 50 individuals	0.4652	0.4990	0	1
<i>Firm size: within the range <math>50 \leq x &lt; 500</math></i>	0.3427	0.4748	0	1
Firm size: over 500 coworkers	0.1921	0.3941	0	1
<i>Work schedule: day hours</i>	0.7882	0.4087	0	1
Work schedule: night hours	0.0575	0.2329	0	1
Work Schedule: irregular or rotational	0.1543	0.3614	0	1
Occupational prestige: score is below 30	0.1195	0.3245	0	1
Occupational prestige: $30 \leq x < 40$	0.2284	0.4200	0	1
<i>Occupational prestige: <math>40 \leq x &lt; 50</math></i>	0.2557	0.4364	0	1
Occupational prestige: $50 \leq x < 60$	0.1823	0.3862	0	1
Occupational prestige: $60 \leq x < 70$	0.1619	0.3685	0	1
Occupational prestige: $70 \leq x < 90$	0.0522	0.2225	0	1
Respondent feels that work runs smoothly	0.7398	0.4389	0	1
Respondent thinks job security is ok	0.8737	0.3323	0	1
Respondent thinks occupational fringe benefits are ok	0.7163	0.4509	0	1
Respondent thinks he/she is treated with respect at job	0.9236	0.2657	0	1
N	1322			

<sup>1</sup>Italicizations represent reference groups.

Source: 2006 General Social Survey working population, ages 18–88.

**Table 2: Marginal Effects of Happiness Model**  
*demographic variables only*

	Relative Income		Absolute Income		
Male	-0.0339	(0.208)	<b>-0.0475</b>	(0.090)	*
Black	0.0052	(0.896)	0.0022	(0.956)	
Hispanic	<b>0.1266</b>	(0.028)	**	0.1207	(0.036) **
Race is "other"	-0.0610	(0.295)		-0.0685	(0.238)
Age of respondent	0.0188	(0.417)		0.0182	(0.435)
Squared age of respondent	-0.0005	(0.313)		-0.0005	(0.312)
Cubed age of respondent	0.0000	(0.234)		0.0000	(0.218)
Married	<b>0.2068</b>	(0.000)	***	<b>0.2070</b>	(0.000) ***
Separated, Divorced or Widowed	-0.0154	(0.743)		-0.0356	(0.442)
No children	0.0256	(0.525)		0.0285	(0.478)
One children	0.0126	(0.756)		0.0122	(0.764)
Three or more children	-0.0122	(0.737)		-0.0151	(0.678)
Education: less than high school	<b>0.1674</b>	(0.004)	***	<b>0.1608</b>	(0.006) ***
Education: some college	<b>0.0911</b>	(0.013)	**	<b>0.0989</b>	(0.007) ***
Education: undergraduate degree	<b>0.1077</b>	(0.011)	**	<b>0.1090</b>	(0.012) **
Education: graduate degree	0.0143	(0.762)		0.0132	(0.783)
Education: doctorate	<b>0.2555</b>	(0.002)	***	<b>0.2513</b>	(0.003) ***
Religious	<b>0.0660</b>	(0.017)	**	<b>0.0784</b>	(0.005) ***
Excellent or good health	<b>0.1475</b>	(0.000)	***	<b>0.1511</b>	(0.000) ***
Political views: liberal	<b>-0.0912</b>	(0.006)	***	<b>-0.0892</b>	(0.007) ***
Political views: moderate	<b>-0.0514</b>	(0.091)	*	<b>-0.0516</b>	(0.089) *
Work status part time	-0.0455	(0.219)		-0.0458	(0.224)
Family income: low in comparison to others	<b>-0.1051</b>	(0.002)	***	-	-
Family income: high in comparison to others	0.0460	(0.154)		-	-
Annual income: less than \$35,000	-	-		-0.0251	(0.425)
Annual income: over \$75,000	-	-		<b>0.0929</b>	(0.033) **
N	1322		1322		
Pseudo R <sup>2</sup>	0.1252		0.1196		

Notes: <sup>1</sup>Marginal effects and p-values reported <sup>2</sup>(\*\*\*) signifies significant at 1%, (\*\*) significant at 5%, (\*) significant at 10%.

<sup>3</sup>Source: 2006 General Social Survey working population, ages 18–88.

**Table 3: Marginal Effects of Happiness and Job Satisfaction Models**

	Happiness			Job Satisfaction		
Male	<b>-0.0459</b>	(0.098)	*	-0.0294	(0.349)	
Black	0.0083	(0.838)		<b>-0.1049</b>	(0.018)	**
Hispanic	<b>0.1127</b>	(0.051)	*	-0.0325	(0.594)	
Race is "other"	-0.0678	(0.239)		<b>-0.1429</b>	(0.030)	**
Age of respondent	0.0206	(0.382)		-0.0092	(0.740)	
Squared age of respondent	-0.0005	(0.279)		0.0001	(0.874)	
Cubed age of respondent	0.0000	(0.205)		0.0000	(0.952)	
Married	<b>0.2044</b>	(0.000)	***	<b>0.0805</b>	(0.080)	*
Separated, Divorced or Widowed	-0.0272	(0.564)		0.0706	(0.176)	
No children	0.0315	(0.438)		-0.0228	(0.619)	
One children	0.0205	(0.621)		0.0117	(0.803)	
Three or more children	-0.0115	(0.752)		0.0306	(0.467)	
Education: less than high school	<b>0.1860</b>	(0.002)	***	0.0347	(0.573)	
Education: some college	<b>0.0861</b>	(0.022)	**	-0.0035	(0.931)	
Education: undergraduate degree	<b>0.1016</b>	(0.025)	**	-0.0551	(0.258)	
Education: graduate degree	0.0156	(0.764)		<b>-0.1012</b>	(0.073)	*
Education: doctorate	<b>0.2717</b>	(0.003)	***	0.0662	(0.484)	
Religious	<b>0.0669</b>	(0.016)	**	<b>0.0625</b>	(0.049)	**
Excellent or good health	<b>0.1439</b>	(0.000)	***	<b>0.0993</b>	(0.001)	***
Political views: liberal	<b>-0.0906</b>	(0.006)	***	0.0086	(0.824)	
Political views: moderate	-0.0472	(0.125)		-0.0181	(0.613)	
Work status part time	-0.0441	(0.249)		-0.0402	(0.356)	
Family income: low in comparison to others	<b>-0.0908</b>	(0.008)	***	-0.0629	(0.102)	
Family income: high in comparison to others	0.0408	(0.214)		<b>0.0953</b>	(0.013)	**
Self employed	0.0585	(0.197)		<b>0.1631</b>	(0.001)	***
Works for government	-0.0266	(0.445)		<b>0.0804</b>	(0.047)	**
Works for nonprofit organization	<b>-0.1015</b>	(0.061)	*	0.0469	(0.475)	
Firm size: less than 50 individuals	-0.0197	(0.532)		0.0525	(0.140)	
Firm size: over 500 coworkers	0.0069	(0.864)		-0.0136	(0.750)	
Work schedule: night hours	0.0055	(0.928)		-0.0927	(0.165)	
Work Schedule: irregular or rotational	-0.0168	(0.654)		0.0188	(0.658)	
Occupational prestige: less than 30	-0.0084	(0.867)		-0.0053	(0.924)	
Occupational prestige: 30 ≤ x < 40	-0.0055	(0.885)		-0.0133	(0.758)	
Occupational prestige: 50 ≤ x < 60	0.0571	(0.163)		0.0357	(0.432)	
Occupational prestige: 60 ≤ x < 70	0.0222	(0.615)		0.0414	(0.415)	
Occupational prestige: 70 ≤ x < 90	-0.0376	(0.555)		-0.0328	(0.663)	
Respondent feels that work runs smoothly	0.0523	(0.107)		<b>0.2450</b>	(0.000)	***
Respondent thinks job security is ok	-0.0270	(0.531)		<b>0.1273</b>	(0.009)	***
Respondent thinks occupational fringe benefits are ok	0.0229	(0.463)		<b>0.0658</b>	(0.063)	**
Respondent thinks he/she is treated with respect at job	0.0735	(0.184)		<b>0.1560</b>	(0.021)	**
N	1322			1322		
Pseudo R <sup>2</sup>	.1365			0.1409		

Notes: <sup>1</sup>Marginal effects and p-values reported <sup>2</sup>(\*\*\*) signifies significant at 1%, (\*\*) significant at 5%, (\*) significant at 10%.  
<sup>3</sup>Source: 2006 General Social Survey working population, ages 18–88.