



4-2013

### Assessing Happiness: How Economic Factors Measure Up

Elizabeth Hancock '13

*Illinois Wesleyan University*, [ehancock@iwu.edu](mailto:ehancock@iwu.edu)

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#### **Recommended Citation**

Hancock, Elizabeth '13 (2013) "Assessing Happiness: How Economic Factors Measure Up," *The Park Place Economist*: Vol. 21

Available at: <https://digitalcommons.iwu.edu/parkplace/vol21/iss1/11>

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## Assessing Happiness: How Economic Factors Measure Up

### Abstract

The perception of economics as a dismal science for killjoys is challenged with the development of happiness economics. The economics of happiness refers to the study of subjective well being compared to income, unemployment, and other economic factors. In addition, the field expands the notions of happiness and welfare past basic measures of utility simultaneously posing serious policy implications. For example, if an economic policy is not contributing to the happiness of its constituents then what is its purpose? Furthermore, are policy makers catering to the needs of individuals or larger entities like corporations? The development of the economics of happiness is important when addressing the true well-being of people relative to the economy.

This study will assess the relationship between happiness and economic factors. The project will have a microeconomic framework and focus on individual well being. Specifically, it questions if one's standard of living has a meaningful impact on their happiness level given the scarcity of time. The study will also explore the possible non-pecuniary factors that are important in relation to happiness. It is expected that non-pecuniary factors will have significant effect on happiness levels along with economic factors.

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# Assessing Happiness: How Economic Factors Measure Up

Elizabeth Hancock

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## I. INTRODUCTION

The perception of economics as a dismal science for killjoys is challenged with the development of happiness economics. The economics of happiness refers to the study of subjective well being compared to income, unemployment, and other economic factors. In addition, the field expands the notions of happiness and welfare past basic measures of utility simultaneously posing serious policy implications. For example, if an economic policy is not contributing to the happiness of its constituents then what is its purpose? Furthermore, are policy makers catering to the needs of individuals or larger entities like corporations? The development of the economics of happiness is important when addressing the true well-being of people relative to the economy.

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## II. THEORY & LITERATURE REVIEW

Since the project will focus on individual happiness, microeconomic theory is essential. Foremost, theories on consumer preferences and utility are helpful in the analysis. Indifference or utility curves are the basic measurement of happiness or well being in neoclassical economic theory. According to this theory, a consumer on a given indifference curve is indifferent to baskets of goods on that curve, because they create the same amount of utility. Further, the ability to consume baskets with larger quantities of goods causes a consumer's

utility to increase. The assumption is that as a consumer obtains more goods, they will have more utility or happiness. An individual maximizes her utility when the highest possible utility curve correlates with her budget (Parkin, 2009). This microeconomic theory is limiting, because it only uses income and consumption as a means to assess happiness and generally assumes that the utility surface is given. However, the model serves as a starting point for the analysis of the study. A more well-rounded analysis of happiness is needed.

The neoclassical model of indifference curves neglects the opportunity cost of consuming and working. In order to have a budget line for the model, one must be working for wages. However, time is finite and scarce; therefore, any time allocated for work is an opportunity cost for other activities (Buchanan, 2008). Opportunity costs are subjective and dependent on how much an individual values a particular option. The allocation of time between work, consumption, and leisure is essential to this project because it may affect an individual's happiness. Perhaps, working less generates more happiness which renders the neoclassical model of consumer choice with indifference curves incomplete. Happiness is subjective; hence, consumption and income cannot be its only determinants.

Max Weber is a fundamental social and economic thinker that provides insight for my paper. In his *The Protestant Ethic and the Spirit of Capitalism* (1930), Max Weber describes how religious asceticism eventually defers to the consumption of private goods. Asceticism refers to the renouncement of private goods and leisure because they do not serve God. However, Weber asserts that private goods became overwhelmingly appealing to individuals. This theory implies that obtaining or consuming goods influence happiness. Weber's theory is consistent with the indifference curve theory mentioned above. Therefore,

his work also limits the contributing factors of happiness. Newer theories in the field of economics identify a problem of attributing happiness to only economic factors.

Another aspect to consider is patterns between absolute and relative happiness levels and their impact on well-being. There is an inherent difference in money, consumption, and how each can affect happiness levels. American money is green, rectangular strips of paper which is not intrinsically valuable or useful. In other words, individuals do not have a "scale" for money to convert to happiness because it is a medium of exchange. The feeling or satisfaction that consumption brings causes money to become valuable. This is apparent in neoclassical thought. When one has a larger budget, he or she consumes at a higher indifference curve. Yet, relative income is cited as an important determinant of happiness, not absolute income (Hsee, C. K., Yang, Y., Li, N., & Shen, L., 2009). Relative income refers to one's income compared to their peers and coworkers. If one's relative income is less than a peer's, then it may cause discontent despite its absolute value ability to purchase goods. Social status affects subjective well-being. Therefore, the neoclassical model fails to account for this aspect of relative income as well. In addition, coupled with the Easterlin Paradox, it implies that absolute income may not have a significant effect on happiness.

The Easterlin Paradox is widely associated with happiness economics. Richard Easterlin, a pioneer of the economics of happiness, found that increases in per-capita income had little or no impact on average happiness, across countries. After basic needs are met, changes in aspirations, relative income, and security of gains become more important (Graham, 2008). Therefore, wealthier countries are only happier than poorer ones to a certain extent. A possible explanation for this paradox is the ability of capitalism to turn luxuries into necessities which consumers begin to take for granted. People are stuck on a consumption treadmill where they become inured to the pleasures of a higher standard of living (Economist, 2006). This is a central detail of the Easterlin Paradox for this project, because it changes the focus from absolute income to more personal factors like rising aspirations. Also, relative income is said to be more important than absolute values, which affects the interpretation of the neoclassical model. The Easterlin Paradox will be an important guiding force for this project because it acknowledges other possible influences on happiness.

Easterlin discovered the Easterlin Paradox in the 1970s. Since then, he has continued his research on happiness economics. Working with Sawangfa, Easterlin conducted research to analyze the cross-sectional relation of happiness to socio-economic status (Easterlin & Sawangfa in Dutt, 2009). Easterlin and Sawangfa analyzed the net effect of satisfaction in different domains of life on overall happiness. Domains of life included family, job, education, and health. By studying the respondents' subjective satisfaction in these domains, Easterlin is not reliant on objective measures of happiness. The results of the study report a positive correlation between socio-economic status and happiness. In addition, education level had a positive relationship to happiness. Overall, the model of domain variables estimated happiness well. Therefore, Easterlin and Sawangfa affirm that socio-economic status, family, job status, and health are important in measuring happiness subjectively.

The simplistic neoclassical model of utility is missing other factors of well-being like age, gender, race, marital status, and education. According to Frey and Stutzer, a socio-demographic approach to happiness reveals that younger and older individuals are happier than middle-aged people. Young people have high aspirations and good health. Individuals lose these qualities over the life course resulting in lower life satisfaction. Prospects increase after the middle age period because older people tend to adapt better to their experiences (2002).

Women on average are happier than men according to Frey and Stutzer. The difference in happiness is small but may be a result of women experiencing more intense emotions. It is socially acceptable for a woman to express more feeling than men which may contribute to subjective well-being answers. However, women in the labor force report lower levels of happiness possibly due to discrimination and lower wages (Frey, et al., 2002).

In the United States, African Americans are less happy than whites according to both psychological and sociological studies. This difference can be attributed to many blacks having lower incomes, less education, and lower social status.

Health is another contributor of subjective well-being. On subjective well-being tests, health is highly correlated with happiness levels. Yet, this observed effect decreases with objective health ratings by physicians

(Frey, et al., 2002). People demonstrate tremendous ability to cope, which does not affect their happiness significantly. Yet, other studies show individuals that have experienced adverse health conditions like paraplegics, show lower levels of happiness. Therefore, increases in the severity of the health condition will decrease one's happiness levels.

According to Frey and Stuter, married persons report greater subjective well-being than persons who have never married, divorced, separated, or been widowed (2002). Marriage also provides advantages in mortality, morbidity, and mental health (Lee, Seccombe, and Shehan in Frey et al., 1991). People are less likely to feel lonely or have low self-esteem when involved in a committed relationship.

As seen in Easterin and Sawangfa (2009), education is positively correlated with happiness levels. Educational attainment is likely positively linked to happiness because of its contribution to socio-economic status. Highly educated individuals possess more human capital to help productivity and success in the economy. People will show higher rates of happiness with more education.

Given the neoclassical theories, one could deduce that income and other economic factors have a significant relationship to happiness. Yet, it is found that these theories miss crucial aspects of happiness such as education, family, gender, race, religiosity, and marital status. Focusing solely on economic factors would not encompass all the influences on happiness. This project asserts that these non-pecuniary factors will be significant in evaluating happiness which challenges fundamental economic theory.

### III. DATA

The National Longitudinal Survey of Youth of 1979 (NLSY79) is a panel study with nearly 13,000 participants. The questionnaire was administered in 1979, and respondents answered annually until 1994 when the surveyors shifted to biannual questionnaires (Bureau of Labor Statistics, n.d.). The NLSY79 is an appropriate data set for this research project, because the survey asks a variety of questions ranging from self esteem, employment status, and other personal characteristics. The NLSY79 data will be essential to assess economic and non-pecuniary factors in relation to happiness.

In addition, a panel study like NLSY79 is ideal

for measuring happiness because it questions the same respondents over time. Aside from usual statistical problems, assessing happiness has its own errors. For example, personality and temperament are important influences on happiness that the study cannot reasonably quantify. Similarly, there is not an available proxy for personality. Therefore, using panel data is of utmost importance to control these sources of error.

### IV. EMPIRICAL MODEL

Before diving into regression analysis, a bivariate analysis of the independent variables and happiness was utilized. The cross tabulation allows for the deciphering of the proportion of respondents in each independent variable category and their happiness level. Continuous variables like income were sorted into brackets for clarity. Chi-square tests are utilized to test for dependence between variables. By conducting the cross tabulation, there are some initial results regarding the influence of each independent variable on happiness. The cross tabulations are found in Table 3 of the appendix.

To test the hypothesis that asserts the influence of non-pecuniary factors on happiness, the empirical model utilizes ordinary least square regressions. Happiness will be the dependent variable which is measured by a self esteem proxy. The survey question of self esteem in the NLSY79 questionnaire is an appropriate proxy for happiness, because it measures self-perceived well being. In the survey, respondents were asked to decide their level of agreement with the statement, "I am satisfied with myself." Considering the nature of the question, the dependent variable is not a continuous measure. The possible answers were as follows: "Strongly Agree," "Agree," "Disagree," and "Strongly Disagree." To account for these four possible answer choices in analysis, the data set codes "Strongly agree" as the highest level of happiness and "Strongly Disagree" as the lowest. The answer choices rank from 1-4, with 4 being the highest level of happiness. With a value of 4, the respondent is "Happy." For values 3, 2, and 1, the respondent is "Somewhat Happy," "Somewhat Unhappy," and "Unhappy," respectively. The relationship between the possible answer choice, its numerical value, and its degree of happiness is essential to analysis, because it is an ordinal measure. Ranking answer choices is not ideal for measurement because numerical values cannot capture happiness wholly. Yet, this compromise is necessary in order to utilize ordinary least square regressions.

In the first regression model will only assess economic factors to assess happiness. This will allow me

to test the mentioned neoclassical economic theories at face value. Statistical significance does not need to be explained. The model will include independent variables for income, net worth, ability to work, employment status, and employment type (Table 1). Income and net worth represent standard of living or the ability to consume more goods. For the subsequent regression, it will include non-pecuniary variables.

Model 1, Regression 1:

$$\begin{aligned} \text{Happiness(Happy, Somewhat Happy, Somewhat} \\ \text{Unhappy, Unhappy)} = \beta_0 + \beta_1(\text{IncomeThou}) \\ + \beta_2(\text{FamilyWorthThou}) + \beta_3(\text{Employed}) \\ + \beta_4(\text{HealthytoWork}) + \beta_5(\text{GovernJob}) \\ + \beta_6(\text{PrivateJob}) + \beta_7(\text{NonProfitJob}) + \\ \beta_8(\text{SelfEmployed}) \end{aligned}$$

The second regression of Model 1 will include the same economic variables with a set of controls for well-being. These variables include: age, gender, race, religiosity, education, family size, and marital status. The hypothesis states that all the non-pecuniary variables will be statistically significant determinants on happiness and obtain their expected sign (Table 1).

Model 1, Regression 2:

$$\begin{aligned} \text{Happiness (Happy, Somewhat Happy, Somewhat} \\ \text{Unhappy, Unhappy)} = \beta_0 + \beta_1(\text{IncomeThou}) \\ + \beta_2(\text{FamilyWorthThou}) + \beta_3(\text{Employed}) \\ + \beta_4(\text{HealthytoWork}) + \beta_5(\text{GovernJob}) \\ + \beta_6(\text{PrivateJob}) + \beta_7(\text{NonProfitJob}) + \\ \beta_8(\text{SelfEmployed}) + \beta_9(\text{Female}) + \beta_{10}(\text{AgeCurrent}) \\ - \beta_{11}(\text{Hispanic}) + \beta_{12}(\text{Black}) + \beta_{13}(\text{Married}) + \\ \beta_{14}(\text{FamilySize}) + \beta_{15}(\text{HighestGrade}) + \\ \beta_{16}(\text{Religiosity}) \end{aligned}$$

Because the dependent variable is categorical and not continuous, ordinary least squares is not the most efficient form of analysis. However, condensing the four options of happiness into two categories, the ordinary least squares regressions become linear probability models. In other words, the regression can predict the probability of being happy or not. Therefore, the second model of regressions follows the same form as above except the dependent variable is condensed to "Happy" or "Not Happy." Respondents that strongly agreed or agreed with the statement, "I am satisfied with myself" were grouped into the "Happy," and respondents that strongly disagree or disagree were sorted into the "Not Happy" category. This regression is easier to interpret in the ordinary least squares format yet lacks the degree of accuracy in the first model.

## V. RESULTS

The results will be presented in three sections to account for the cross tabulations and both empirical models. The two models represent different degrees of happiness and therefore, present slight differences in results. The first set of results in Model 1 demonstrates the effect of economic variables on the four levels of happiness. Then, the second regression in Model 1 accounts for both economic and non-pecuniary variables. The comparison of these two sets of results will determine the significance of both types of variables (economic and non-pecuniary) and if the neoclassical model holds.

The second model is a probability model. Therefore, the results of the regression will be interpreted differently. However, the comparison of economic and non-pecuniary variables remains the focus. A summary of regression results are in Table 2 of the Appendix.

### A. Cross Tabulations of Happiness & Independent Variables

As mentioned, this paper used Chi-square testing to find if there was a relationship between the variables. The economic variables for income, new worth, employment status, and the ability to work demonstrated statistical significance and largely impacted happiness. This result is consistent with neoclassical theory and verifies that economic variables are appropriate for measuring happiness. Of the non-pecuniary variables, education, gender, race, marital status, family size, and religiosity affected one's happiness. The statistical significance of the relationship between happiness and these non-pecuniary variables suggests they should be used in the regression models.

Measures for job type and age were not statistically significant and therefore do not affect the measures of happiness used in this study. The negative outcome for age is understandable because the respondents of the survey are in the same age group. The slight differences in age will not produce dramatic effects on happiness.

Nonetheless, the variables will be included in the regression models because some literature suggests that they are important determinants of happiness.

### B. Model 1: Multinomial Dependent Variable

After running an ordinary least square

regression for Model 1, it is apparent from the results presented in Table 2 that the economic variables were highly significant predictors of happiness. Income, net worth, employment status, and the ability to work passed the .01 significance level. This affirms the neoclassical models that cite income and the ability to consume as the major influences on happiness. Also, all these coefficients followed their predicted sign. The high significance of these four pecuniary independent variables occurred in both models and all four regression analyses. The only unsuccessful economic variables were the four dummy variables for job type. Despite job type showing no significance, the other economic variables are consistent with neoclassical relationships of happiness.

In the second regression of Model 2 (Appendix Table 2), all independent variables were used to predict the four degrees of happiness. Again, the first four economic variables showed high significance. Unfortunately, the non-pecuniary variables did not exhibit the same success. The only significant attributes of the respondent were their marital status, education level, and whether they were African American or not. Marital status and education level had positive coefficients as expected; the dummy variable for African American did not have its predicted sign. Because African Americans are a minority and a marginalized group, it would follow that their race would negatively affect their happiness. However, the regression showed that being black actually positively influenced happiness, an unexpected result.

The results show insignificant coefficients for the variables female, age, Hispanic, family size, and religiosity. It is surprising that being a female was not significant because like African Americans or other minorities, woman experience inequality compared to white men. This inequality may lead to decreases in happiness. In addition, the literature stated that women express more emotions, which affects happiness (Frey, et al., 2002). Yet, this theory was not supported in the first model, because being female or Hispanic was insignificant and the Black dummy variable had the opposite sign than predicted.

Model 1 identified the key variables in assessing the four degrees of happiness. Consistent with the neoclassical models, income and other economic variables were statistically significant. This demonstrates that happiness is a function of standard of living. Furthermore, it suggests that non-pecuniary variables

like gender and race are not nearly as significant to assessing happiness.

### C. Model 2: Binomial Dependent Variable

Model 2, finds results consistent with the first model. Again, the first four economic variables are highly significant and important to the model. Job type fared slightly better because working in the private sector was significant and followed its predicted sign. In the second regression, all the previously significant economic variables remained. Yet, the non-pecuniary variables show different levels of significance than Model 1. Race and education level are no longer significant. Marital status is still highly significant along with age and gender.

Because NLSY79 is a cohort study, age should not be a significant variable. All the respondents are within ten years of age of each other. It is interesting that only one non-pecuniary variable was significant across both models. This may be due to subjectivity in that the non-pecuniary variables are too personal and not easily measured. Ideally, more non-pecuniary variables would be consistently significant.

Overall, the results demonstrated strong support of neoclassical models. Economic variables were highly significant for each regression. Non-pecuniary variables did not achieve the same success; therefore, the hypothesis is not sufficiently supported. A possible reason for this result is immense subjectivity. In other words, the personal differences in happiness cannot be fully measured by objective variables. Therefore, the empirical model was limited in assessing happiness.

## VI. DISCUSSION & CONCLUSIONS

The economics of happiness is an emerging field with important policy implications. Essentially, economies should behave in a way to benefit their constituents. Microeconomic theory can aid in this task when it is all encompassing or includes several influences on happiness. Yet, we find in neoclassical models that income and consumption are the essential determinants of happiness. While this appears to limit happiness to pecuniary variables, the results of this study show that economic variables have significant effects on happiness. Non-pecuniary variables demonstrated low statistical significance, which is inconsistent with more sociological theories. Therefore, this research suggest that happiness economics should remain largely determined by economic factors like income, net worth, employment status, and the ability to work.



Future research could address the empirical limitations of this study. Firstly, subjectivity due to personality differences could be controlled more appropriately. Assessing happiness in each domain of life like family, education, financial situation, and occupation could have a more statistically significant relationship as found by Easterline and Sawangfa (2009). Therefore, the use of subjective independent variables versus objective independent variables may better assess well-being. Happiness was measured using categories of life satisfaction when regression analysis is more useful for numerical dependent variables. The use of a probit model in the future will alleviate this issue. Overall, the study presented an analysis of an emerging field of economics, happiness. While the study had its limitations, there is evidence that, for the NSLY79 cohort, income and assets are important determinants of happiness.

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VIII.APPENDIX

Table 1:Variables Descriptions			
Variable Name		Description	Exepected Sign
<b>Dependent</b>			
	Happiness: Four Degrees	4 = Happy, 3 = Somewhat happy, 2 = Somewhat unhappy, 1 = Unhappy	
	Happiness:Two Degrees	1 = Happy, 0 = Not Happy	
<b>Independent</b>			
	IncomeThou	Previous year's income in Thousands of Dollars	+
	FamilyWorth Thou	Total Family Net Worth in Thousands	+
	Employed	1 = Employed 0 = Not Employed	+
	HealhtoWork	1 = Able to work 0 = Not able to work	+
	GovernJob	1 = Works for Gov't 0 = Does not work for Gov't	-
	PrivateJob	1 = Works in Private Sector 0 = Does not work in Private Sector	+
	NonProfitJob	1 = Non-Profit Sector 0 = Does not work in Non-Profit Sector	+
	SelfEmployed	1 = Self-Employed 0 = Not Self-Employed	+
	Female	1 = Yes 0 = No	-
	AgeCurrent	Age as of 2006	-
	Hispanic	1 = Hispanic 0 = Not Hispanic	-
	Black	1 = Black 0 = Not Black	-
	Married	1 = Yes 0 = No	+
	FamilySize	Number of Family Members	+
	HighestGrade	Total number of grade levels passed	+
	Religiosity	How often respondent attends religious services 5 = More than Once a week 4 = About Once a week 3 = 2-3 times a month 2 = About Once a month 1 = Several times a year or less 0 = Not at all	+

Table 2: Regression Results for Both Models				
Variable	Model 1		Model 2	
	4 Degrees of Happiness		2 Degrees of Happiness	
	Regression 1	Regression 2	Regression 1	Regression 2
Constant	2.904 .000***	2.44 .000***	0.746 .000***	0.545 .000***
Income	0.001 .000***	0.001 .000***	0.000 .003***	0.000 .060*
Net Worth	7.93e-5 .000***	6.328e-5 .003***	2.835e-5 .003***	1.910e-5 .057*

Table 2: Regression Results for Both Models				
Employed	0.094 .000***	0.091 .000***	0.049 0.000***	0.043 .000***
Healthy to Work	0.225 .000***	0.221 .000***	0.130 .000***	0.128 .000***
GovernJob	0.034 0.235	0.000 .994	0.000 .990	-0.006 .668
Private Sector	-0.028 0.114	-0.024 0.187	-0.019 .022**	-0.018 .029**
Non-Profit Sector	-0.011 0.786	-0.024 0.560	-0.011 .544	-0.015 .438
Self Employed	0.034 0.214	0.040 0.152	-0.004 .759	-0.003 .829
Female	N/A	-0.015 0.370	N/A	-0.014 .054*
Current Age		0.004 0/194		0.004 .021**
Hispanic		0.030 0.159		-0.007 .462
Black		0.084 0.000***		0.011 .185
Married		0.080 .000***		0.033 .000***
Family Size		-0.004 0.441		0.001 .698
Education		0.014 .000***		0.002 .240
Religiosity		0.011 .151		0.003 .442
N	6565	6290	6590	6312
Adjusted R <sup>2</sup>	.044	.052	.045	.048
*Significance at the 0.1 level **Significance at the 0.05 level ***Significance at the 0.01 level				

Table 3: Cross Tabulations for Happiness Levels and Independent Variables						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
SelfEsteem * BracketSalary	7213	56.9%	5473	43.1%	12686	100.0%
SelfEsteem * FamilyWorthBracket	7541	59.4%	5145	40.6%	12686	100.0%

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SelfEsteerms * Employed	7611	60.0%	5075	40.0%	12686	100.0%
SelfEsteem * HighestGradeBracket	7611	60.0%	5075	40.0%	12686	100.0%
SelfEsteem *HealthytoWork	7448	58.7%	5238	41.3%	12686	100.0%
SelfEsteem * Female	7611	60.0%	5075	40.0%	12686	100.0%
SelfEsteem * AgeCurrent	7611	60.0%	5075	40.0%	12686	100.0%
SelfEsteem * Black	7611	60.0%	5075	40.0%	12686	100.0%
SelfEsteerms * Married	7611	60.0%	5075	40.0%	12686	100.0%
SelfEsteem * FamilySize	7611	60.0%	5075	40.0%	12686	100.0%
SelfEsteem * Freq of Attending Religious Services	7102	56.0%	5584	44.0%	12868	100.0%

**Table 3.1: Self Esteem & Bracketed Salary**

Self Esteem 4 Categories		Salary											Total
		\$0 - 10,000	\$10,001 - 20,000	\$20,001 - 30,000	\$30,001 - 40,000	\$40,001 - 50,000	\$50,001 - 60,000	\$60,001 - 70,000	\$70,001 - 80,000	\$80,001 - 90,000	\$90,000 - 100,000	> \$100,000	
Unhappy	Count	34	10	9	5	4	1	1	1	1	0	0	66
	% within Salary	1.7%	1.2%	0.9%	0.5%	0.6%	0.2%	0.3%	0.4%	0.6%	0.0%	0.0%	0.9%
Somewhat Unhappy	Count	298	68	86	57	35	22	16	9	9	5	7	612
	% within Salary	14.9%	8.1%	8.5%	6.0%	5.1%	4.4%	4.7%	3.8%	5.7%	4.0%	1.9%	8.5%
Somewhat Happy	Count	1143	530	616	574	384	282	172	136	79	80	184	4180
	% within Salary	57.2%	63.1%	60.7%	60.4%	55.7%	56.0%	56.0%	57.6%	50.0%	64.0%	51.1%	58.0%
Happy	Count	522	232	303	314	266	199	151	90	69	40	169	2355
	% within Salary	26.1%	27.6%	29.9%	33.1%	38.6%	39.5%	4.4%	38.1%	43.7%	32.0%	46.9%	32.6%
Total	Count	1997	840	1014	950	689	504	340	236	158	125	360	7213
	% within Salary	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests	Value	df	Asymp. Sig. (2- Sided)
Pearson Chi-Square	295.054 <sup>a</sup>	30	.000
Likelihood Ratio	294.268	30	.000
Linear-by-Linear Association	206.789	1	.000
N of Valid Cases	7213		
a. 6 cells (13.6%) have expected count less than 5. The minimum expected count is 1.14.			

Table 3.2: Self Esteem & Family Worth										
Self Esteem 4 Categories		Salary								Total
		< \$50,000	\$50,001 - 100,000	\$100,001 - 150,00	\$150,001 - 200,000	\$200,001 - 250,00	\$250,001 - 300,000	\$300,001 - 350,000	> \$350,001	
Unhappy	Count	44	10	3	7	2	2	1	1	70
	% within Salary	1.2%	1.1%	0.5%	1.4%	0.5%	0.8%	0.4%	0.1%	0.9%
Somewhat Unhappy	Count	438	62	39	31	20	11	10	33	644
	% within Salary	11.8%	7.1%	6.3%	6.3%	5.4%	4.2%	4.5%	3.3%	8.5%
Somewhat Happy	Count	2143	524	365	293	212	144	124	567	4372
	% within Salary	57.9%	60.0%	59.3%	59.3%	57.6%	54.5%	55.6%	56.7%	58.0%
Happy	Count	1077	278	209	163	134	107	88	399	2455
	% within Salary	29.1%	31.8%	33.9%	33.0%	36.4%	40.5%	39.5%	39.9%	32.6%
Total	Count	3702	874	616	494	368	264	223	1000	7541
	% within Salary	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests	Value	df	Asymp. Sig. (2- Sided)
Pearson Chi-Square	159.233 <sup>a</sup>	21	.000
Likelihood Ratio	171.295	21	.000
Linear-by-Linear Association	119.301	1	.000
N of Valid Cases	7541		
a. 4 cells (12.5%) have expected count less than 5. The minimum expected count is 2.07.			

Table 3.3: Self-Esteem & Employment Status				
Self Esteem 4 Categories		Employed		Total
		Not Employed	Employed	
Unhappy	Count	29	41	70
	% within Employed	1.9%	0.7%	0.9%
Somewhat Unhappy	Count	264	385	649
	% within Employed	16.9%	6.4%	8.5%
Somewhat Happy	Count	902	3507	4409
	% within Employed	57.6%	58.0%	57.9%
Happy	Count	371	2112	2483
	% within Employed	23.7%	34.9%	32.6%
Total	Count	1566	6045	7611
	% within Employed	100.00	100.0%	100.0%

Chi-Square Tests	Value	df	Asymp. Sig. (2- Sided)
Pearson Chi-Square	227.377 <sup>a</sup>	3	.000
Likelihood Ratio	202.898	3	.000
Linear-by-Linear Association	180.892	1	.000
N of Valid Cases	7611		
a. 6 cells (13.6%) have expected count less than 5. The minimum expected count is 1.14.			

Table 3.4: Self-Esteem & Highest Grade Attained						
SelfEsteem4Categories		Highest Grade Attained				Total
		Grade School	High School	Undergrad	Beyond Grad	
Unhappy	Count	3	44	21	2	70
	% within HighestGrade	1.5%	1.1%	0.8%	0.3%	0.9%
Somewhat Unhappy	Count	22	392	187	48	649
	% within HighestGrade	10.9%	10.1%	6.8%	6.2%	8.5%
Somewhat Happy	Count	134	2327	1525	423	4409
	% within HighestGrade	66.3%	59.8%	55.6%	54.8%	57.9%
Happy	Count	43	1131	1010	299	2483
	% within HighestGrade	21.3%	29.0%	36.8%	38.7%	32.6%
Total	Count	202	3894	2743	772	7611
	% within HighestGrade	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests	Value	df	Asymp. Sig. (2- Sided)
Pearson Chi-Square	88.815 <sup>a</sup>	9	.000
Likelihood Ratio	91.130	9	.000
Linear-by-Linear Association	80.342	1	.000
N of Valid Cases	7611		
a. 1 cell (6.3%) has expected count less than 5. The minimum expected count is 1.86.			

Table 3.5: Esteem & Healthy/Able to Work				
SelfEsteem4Categories		Healthy to Work		Total
		No	Yes	
Unhappy	Count	19	45	64
	% within Healthytowork	2.0%	0.7%	0.9%
Somewhat Unhappy	Count	194	412	606
	% within Healthytowork	20.2%	6.4%	8.1%

Somewhat Happy	Count	544	3790	4334
	% within Healthtowork	56.6%	58.4%	58.2%
Happy	Count	204	2240	2444
	% within Healthtowork	21.2%	34.5%	32.8%
Total	Count	961	6487	7448
	%within Healthytowork	100.0%	100.0%	100.0%

Chi-Square Tests	Value	df	Asymp. Sig. (2- Sided)
Pearson Chi-Square	258.593 <sup>a</sup>	3	.000
Likelihood Ratio	212.051	3	.000
Linear-by-Linear Association	188.794	1	.000
N of Valid Cases	7448		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 8.26.			

Table 3.6: Self-Esteem & Female				
SelfEsteem4Categories		Percent Male/Female		Total
		Male	Female	
Unhappy	Count	28	42	70
	% within Female	0.8%	1.1%	0.9%
Somewhat UnHappy	Count	281	368	649
	% within Female	7.6%	9.4%	8.5%
Somehwhat Happy	Count	2155	2254	4409
	% within Female	58.0%	57.9%	57.9%
Happy	Count	1251	1232	2483
	% within Female	33.7%	31.6%	32.6%
Total	Count	3715	3896	7611
	% within Female	100.0%	100.0%	100.0%

Chi-Square Tests	Value	df	Asymp. Sig. (2- Sided)
Pearson Chi-Square	12.534 <sup>a</sup>	3	.000
Likelihood Ratio	12.580	3	.000
Linear-by-Linear Association	10.013	1	.000
N of Valid Cases	7611		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 34.17			

Table 3.7: Self-Esteem & Current Age											
SelfEsstem4Categories		Current Age									Total
		41	42	43	44	45	46	47	48	49	
Unhappy	Count	6	15	11	7	11	9	3	7	1	70
	% within AgeCurrent	0.9%	1.4%	1.0%	0.7%	1.0%	1.0%	0.4%	0.8%	0.5%	0.9%



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Somewhat Unhappy	Count	59	86	96	86	96	89	59	65	13	649
	% within AgeCurrent	9.0%	8.1%	9.0%	8.3%	8.9%	9.7%	7.5%	7.8%	7.1%	8.5%
Somewhat Happy	Count	387	612	578	604	631	539	471	480	107	4409
	% within AgeCurrent	58.8%	58.0%	54.2%	58.5%	58.8%	58.7%	59.7%	57.4%	58.5%	57.9%
Happy	Count	206	343	381	335	335	281	256	284	62	2483
	% within AgeCurrent	31.3%	32.5%	35.7%	32.5%	31.2%	30.6%	32.4%	34.0%	33.9%	32.6%
Total	Count	658	1056	1066	1032	1073	918	789	836	183	7611
	% within AgeCurrent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests	Value	df	Asymp. Sig. (2- Sided)
Pearson Chi-Square	20.327 <sup>a</sup>	24	.678
Likelihood Ratio	20.736	24	.654
Linear-by-Linear Association	.594	1	.441
N of Valid Cases	7611		
a. 1 cell (2.8%) has expected count less than 5. The minimum expected count is 1.68			

Table 3.8: Self-Esteem & Race-Black				
SelfEsteem4Categories		Black		Total
		Not Black	Black	
Unhappy	Count	43	27	70
	% within Black	0.8%	1.1%	0.9%
Somewhat Unhappy	Count	435	214	649
	% within Black	8.3%	9.1%	8.5%
Somewhat Happy	Count	3125	1284	4409
	% within Black	59.5%	54.4%	57.9%
Happy	Count	1649	834	2483
	% within Black	31.4%	35.4%	32.6%
Total	Count	5252	2359	7611
	% within Black	100.0%	100.0%	100.0%

Chi-Square Tests	Value	df	Asymp. Sig. (2- Sided)
Pearson Chi-Square	18.105 <sup>a</sup>	3	.000
Likelihood Ratio	17.990	3	.000
Linear-by-Linear Association	2.583	1	.108
N of Valid Cases	7611		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 21.70.			

Table 3.9: Self-Esteem & Marriage				
SelfEsteem4Categories		Married		Total
		Not Married	Married	
Unhappy	Count	29	41	40
	% within Married	1.1%	0.8%	0.9%
Somewhat Unhappy	Count	323	326	649
	% within Married	11.7%	6.7%	8.5%
Somewhat Happy	Count	1594	2815	4409
	% within Married	57.9%	57.9%	57.9%
Happy	Count	805	1678	2483
	% within Married	29.3%	34.5%	32.6%
Total	Count	2751	4860	7611
	% within Married	100.0%	100.0%	100.0%

Chi-Square Tests	Value	df	Asymp. Sig. (2- Sided)
Pearson Chi-Square	67.962 <sup>a</sup>	3	.000
Likelihood Ratio	66.155	3	.000
Linear-by-Linear Association	50.610	1	.000
N of Valid Cases	7611		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 25.30.			

Table 3.10: Self-Esteem & Family Size						
SelfEsteem4Categories		Family Size				Total
		1-3	4-6	7-9	10 or more	
Unhappy	Count	44	25	1	0	70
	% within Family Size	0.9%	0.9%	0.9%	0.0%	0.9%
Somewhat Unhappy	Count	459	179	11	0	649
	% within Family Size	9.5%	6.7%	10.1%	0.0%	8.5%
Somewhat Happy	Count	2788	1546	64	11	4409
	% within Family Size	57.9%	57.9%	58.7%	73.3%	57.9%
Happy	Count	1528	918	33	4	2483
	% within Family Size	31.7%	34.4%	30.3%	26.7%	32.6%
Total	Count	4819	2668	109	15	7611
	% within Family Size	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests	Value	df	Asymp. Sig. (2- Sided)
Pearson Chi-Square	22.527 <sup>a</sup>	9	.007
Likelihood Ratio	24.477	9	.004
Linear-by-Linear Association	9.336	1	.002
N of Valid Cases	7611		
a. 4 cells (25.0%) have expected count less than 5. The minimum expected count is .14.			

**Table 3.11: Self-Esteem & Frequency of Attending Religious Services**

Self-Esteem Categories		Freq of Attending Religious Services				Total
		Not at all	Yearly	Monthly	Weekly	
Unhappy	Count	8	11	23	24	66
	% within Freq of Attending Religious Services	1.0%	0.7%	1.2%	0.8%	0.9%
Somewhat Unhappy	Count	65	151	160	216	592
	% within Freq of Attending Religious Services	8.1%	10.3%	8.4%	7.4%	8.3%
Somewhat Happy	Count	467	902	1100	1678	4147
	% within Freq of Attending Religious Services	58.0%	61.2%	58.0%	57.3%	58.4%
Happy	Count	265	409	612	1011	2297
	% within Freq of Attending Religious Services	32.9%	27.8%	32.3%	34.5%	32.3%
Total	Count	805	1473	1895	2929	7102
	% within Freq of Attending Religious Services	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests	Value	df	Asymp. Sig. (2- Sided)
Pearson Chi-Square	29.027 <sup>a</sup>	9	.001
Likelihood Ratio	28.984	9	.001
Linear-by-Linear Association	10.424	1	.001
N of Valid Cases	7102		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 7.48.			