

### The Park Place Economist

Volume 19 | Issue 1

Article 8

4-2011

### Do Happier People Make More Money? An Empirical Study of the Effect of a Person's Happiness on Their Income

Michael Como '11

Illinois Wesleyan University

Follow this and additional works at: https://digitalcommons.iwu.edu/parkplace

#### **Recommended Citation**

Como, Michael '11 (2011) "Do Happier People Make More Money? An Empirical Study of the Effect of a Person's Happiness on Their Income," *The Park Place Economist*: Vol. 19

Available at: https://digitalcommons.iwu.edu/parkplace/vol19/iss1/8

This Article is protected by copyright and/or related rights. It has been brought to you by Digital Commons @ IWU with permission from the rights-holder(s). You are free to use this material in any way that is permitted by the copyright and related rights legislation that applies to your use. For other uses you need to obtain permission from the rights-holder(s) directly, unless additional rights are indicated by a Creative Commons license in the record and/or on the work itself. This material has been accepted for inclusion by faculty at Illinois Wesleyan University. For more information, please contact digitalcommons@iwu.edu.

©Copyright is owned by the author of this document.

# Do Happier People Make More Money? An Empirical Study of the Effect of a Person's Happiness on Their Income

#### **Abstract**

Does happiness affect workers' incomes? More specifically, do workers who are happier make more money because their happiness levels are higher? Employees who are happy are an asset to their company. Happy employees who become ill recover faster and stay home from work an average of 15 fewer days a year than unhappy employees (Achor, 2010). Happier employees can live up to 10 years longer than their unhappy counterparts. However, statistics indicate that there are a lot of unhappy employees in the work force today (The Economist, 2009). America's Bureau of Labor Statistics reported that work-related suicides increased by 28% between 2007 and 2008. Between June 2007 and December 2008, the proportion of employees who professed loyalty to their employers slumped from 95% to 39%; the number voicing trust in them fell from 79% to 22%.

## Do Happier People Make More Money? An Empirical Study of the Effect of a Person's Happiness on Their Income

Michael Como

#### I. Introduction

Does happiness affect workers' incomes? More specifically, do workers who are happier make more money because their happiness levels are higher? Employees who are happy are an asset to their company. Happy employees who become ill recover faster and stay home from work an average of 15 fewer days a year than unhappy employees (Achor, 2010). Happier employees can live up to 10 years longer than their unhappy counterparts. However, statistics indicate that there are a lot of unhappy employees in the work force today (The Economist, 2009). America's Bureau of Labor Statistics reported that work-related suicides increased by 28% between 2007 and 2008. Between June 2007 and December 2008, the proportion of employees who professed loyalty to their employers slumped from 95% to 39%; the number voicing trust in them fell from 79% to 22%.

Researchers have extensively studied whether people with higher levels of income are happier. These studies, including the Leyden literature (Clark, 2008) and Keirsey's research (Chicago Tribune, 2010), have demonstrated a correlation between higher incomes and greater happiness. However, the opposite question has not been well studied: To what extent do happier people earn greater income? It is assumed that higher incomes cause greater happiness. However, this causation has not been proven. It is possible that innately happier people earn higher incomes than people who are not as happy. If happier people do earn greater incomes, then this research could have far reaching implications that affect how companies across the globe treat their employees. A multitude of possibilities exist for companies to change the business environment, helping to create happier employees. Employers who are aware of how happiness generates success could hire happier people. Happier employees would be more productive, thus increasing the company's profitability and, in the long run, increasing the employees' income. This paper will examine to what extent a person's level of happiness determines future earnings.

#### **II. Literature Review**

Throughout history most economists and philosophers have underestimated the role of happiness in economic theory. Aristotle, Bentham, Mill, and Adam Smith were notable exceptions (Graham, 2008). Generally, economists assume that increased wealth leads to happiness or utility. Utility depends upon income as mediated by individual choices

or preferences within a rational individual's monetary budget constraint. Micro-economists continue to favor this interpretation of income determining utility.

In the 1970's, Richard Easterlin revisited the concept of happiness, and a more generalized interest took hold in the late 1990's, resulting in a new field called happiness economics (Graham, 2008). This new field of happiness economics relies on more expansive ideas of utility and welfare, including interdependent utility functions, procedural utility, and the interaction between rational and non-rational influences. The methodological approach in this new field has been to do surveys of large numbers of people to see how they rate their own happiness. These surveys provide information about a range of factors, like well-being, income, health, marital and employment status, and civic trust. In these surveys individuals are asked questions like, "Generally speaking, how happy are you with your life" or "How satisfied are you with your life", with possible answers on a four to seven point scale. Answers to happiness and life satisfaction questions correlate closely, so it is not crucial which question researchers choose to use.

Economists traditionally have been reluctant to use self-reports of happiness and well-being because of the subjectivity of these reports (Graham, 2008). This type of data collection may contain problems, such as order bias, idiosyncratic and unobserved events, unobserved personality traits, and correlated measurement errors. Various methods can be used to increase the validity of this data. To correct for order bias, happiness questions should be placed first in the questionnaire. Using panel data will solve the idiosyncratic and unobserved events, unobserved personality traits, and correlated measurement errors. The general trend is for increased availability of panel data, which enables researchers to have increasingly sound analysis.

Richard Easterlin was the first modern economist to examine the link between individual assessments of happiness and income (Hernandez-Murillo, 2010). In his 1974 paper, "Does Economic Growth Improve the Human Lot? Some Empirical Evidence," Easterlin discusses the factors contributing to happiness. His findings, labeled the Easterlin paradox, are a key concept in happiness economics. Using happiness surveys from 19 countries, Easterlin found that, within a given country, people with higher incomes are more likely to report being happy. However, in international comparisons, the average

reported level of happiness does not vary much with per capita income, at least for countries with income sufficient to meet basic needs. Additionally, Easterlin found that happiness in the United States had remained stagnant despite large increases in average real personal income. This pattern, in which wealthier individuals report greater happiness at any given time, but average happiness does not increase with average income over time is called the Easterlin paradox.

Other theories of happiness related to the Easterlin paradox are the set-point theory and the hedonic treadmill theory (Graham, 2008). In the set-point theory, psychologists argue that everyone has a happiness set-point. This set-point is a point that each person reverts back to after major life events. The policy implication of set-point theory is that very little can be done to boost average happiness levels. According to the hedonic treadmill theory, as a person makes more money, expectations and desires rise in tandem, which results in no permanent gain in happiness. This theory compares the pursuit of happiness to a person on a treadmill, who has to keep working just to stay in the same place.

Both the hedonic treadmill theory and the Easterlin paradox support the argument that happiness does not derive from money in itself. The hedonic treadmill theory shows that the pursuit of wealth and status goods leads to a zero sum game, where, once basic needs are met, acquiring additional wealth and status goods does not increase happiness (Graham, 2008). The Easterlin paradox, (which claims that rich people describe themselves as happier than poor people within a given country, but [once basic biological needs are met] rich countries are not happier overall than poor ones), shows that the relative differences in wealth compared to other people in a society is more influential than money itself.

Part of Easterlin's argument is that individuals adapt more in the pecuniary arena than in the non- pecuniary arena, while life changing events, such as bereavement, have lasting effects on happiness (Graham, 2008). However, most policies are based on pecuniary measures of well-being. This overemphasizes the importance of income gains to well-being, and underestimates the importance of other factors, such as health, family, and stable employment. It seems worthwhile for policy to mitigate suffering in non-pecuniary areas to improve citizens' lives.

Much of the relevant literature is based on the assumption that higher levels of income create happiness. Part of this literature focuses on adaptation to income. For example, there has been some work on life domains such as unemployment, marriage, divorce, and health. These factors, in addition to education, were the important factors used to control for socio-economic status. According to the Leyden literature (Clark, 2008), the income effect on happiness is eliminated by 60% over time. 20% of this adaptation happens in the short term and 40% happens in the longer term. This research also shows that relative income is at least twice as important for individual happiness as actual income, even in poor regions. The Leyden literature suggests a utility function in which two-thirds of aggregate income has no affect because it is status related and thus disappears in a zero sum game, and where 60% of the effect at the individual level evaporates within two years due to adaptation. This means that around 13% of the initial individual

effect will survive in the long run at the aggregate level.

Another part of the "income buys happiness" literature is finding specific dollar amounts that buy one happiness. According to a study conducted by Keirsey Research (Chicago Tribune, 2010), the happiest Americans are extroverted, earn more than \$75,000 a year, are healthy, and are engaged to be married. About 74% of extroverts are happy compared to 56% of introverts. 73% of those earning above \$75,000 a year were happy compared with only 59% for those under \$50,000. This survey found that \$75,000 is the magic point beyond which earning more won't make one much happier. When it comes to relationships, people who are engaged are the happiest, followed by married people, then divorced people, and finally, those who are separated but not divorced. In general, divorced people are moderately happy and those who are separated but not divorced are unhappy.

Studies show that happiness in the U.S. has stayed relatively constant over long periods of time, even though there has been tremendous growth in per capita income (Maital, 2006). In fact, studies of self- reported, subjective well-being show only a weak link or no link at all between happiness and wealth. According to Maital (2006), this is consistent with the Easterlin paradox. The relationship seems to be asymmetric however, with a loss in wealth creating great unhappiness, but gaining wealth generating little happiness.

The belief that happiness is caused by wealth is a fundamental belief in capitalist societies (Maital, 2006). In the 1990s, 75% of Americans said that an essential, or very important, life goal was being well-off financially. This percentage is an increase from 1970, when 40% of Americans aspired to the same goal. However, an increase in wealth doesn't necessarily result in greater happiness. One survey by Brickman and Coates (Maital, 2006) compared the happiness of lottery winners to that of paralyzed accident victims. This survey found that even with their increased wealth, the lottery winners took less pleasure in mundane events and were not happier than accident victims. The survey's finding is consistent with the set-point theory of happiness in psychology. This study also highlights that there is more to psychological well-being than winning a lot of money. Some studies have found that there are three universal psychological needs: autonomy, competence, and social relationships. According to Ryff (Diener, 2009), there are six suggested psychological needs: self acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth. Autonomy is proxied in this study by the Rotter scale which measures internal locus of control.

Regarding income's affect on happiness, there is a statistically significant but modest association of income to positive and negative feelings (Diener, 2009). However, happiness is greater for people who live in economically developed nations. For social psychological prosperity, positive feelings are much more important than income. Some nations that do well in economic terms do only modestly well in social psychological prosperity, and some nations that rank in the middle in economic development are stars when it comes to social psychological prosperity.

There have been more than 1,000 studies of wealth and happiness. Most of them confirm the finding that in poorer countries, income is a good predictor of well-being (Diener, 2009). However, in wealthy nations the main indicator is self-esteem. Once basic material needs are met, happiness is driven far more by higher needs such as social support, love, esteem, respect of others, and self fulfillment. Happiness is often more dependent on our ability to constrain ourselves in creative ways than on our success in pushing budget constraints upward and outward. The variety of factors that are correlated with happiness and income demonstrates that income by itself does not determine happiness.

One way of generating happiness is by developing a moral compass, which in turn can lead to increased incomes. According to the Costco connection (King, 2006), following a moral compass also allows a company to have a competitive advantage. Budget constraints can be pushed upward and outward because integrity produces a more trusting and inspired workforce that generates better innovation, all of which helps the bottom line.

Other studies show that happiness leads to greater success in several areas of life. For example, the results of over 200 scientific studies that studied nearly 275,000 people found that happiness leads to success in nearly every domain of our lives, including marriage, health, friendship, community involvement, creativity, and in particular, our jobs, careers, and businesses (Achor, 2010). Data abounds showing that happy workers have higher levels of productivity, produce higher sales, perform better in leadership positions, and receive higher performance ratings and higher pay. They also enjoy more job security and are less likely to take sick days, to quit, or to become burned out. Happy CEOs are more likely to lead teams of employees who are both happy and healthy, and who find their work climate conducive to high performance. There are substantial benefits of having happy workers in the workplace.

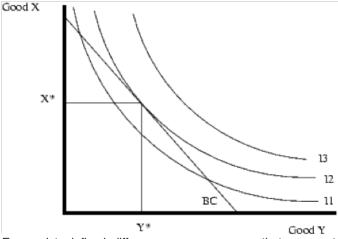
One study measured the initial level of positive emotions in 272 employees, and then followed their job performance over the next eighteen months (Achor, 2010). The study found that even after controlling for other factors, those who were happier at the beginning ended up receiving better evaluations and higher pay later on. Another study found that how happy individuals were as college freshmen predicted how high their income was nineteen years later, regardless of their initial level of wealth. These studies support the thesis that happier people make more money later in life ceterus paribus.

One of the main themes of the literature is that increased wealth creates greater happiness. There are over 1,000 studies of wealth and happiness with much of the literature assuming that higher levels of income create happiness. However, the new field of happiness economics argues the reverse: that happiness causes higher levels of income. Richard Easterlin was the first modern economist to examine this link between happiness and income, and his findings, labeled the Easterlin paradox, are a key concept in happiness economics. Other studies, such as those reported by Diener (2009), Maital (2006), Achor (2010), and King (2006), are part of the newer research that is supporting the theory that happiness causes greater wealth.

#### III. Theory

The microeconomics textbook by Pindyck (2009) develops budget constraints and utility curves separately and then superimposes them on top of each other, as illustrated in Graph 1. The budget constraint is defined as all combinations of goods for which the total amount of money spent is equal to income. Thus, all purchases have to equal income, which is the budget constraint. An implication of the budget line theory is that budget lines that are further outwards are representing higher budgets.

#### Graph 1:



Economists define indifference curves as curves that represent all combinations of market baskets that provide a consumer with the same level of satisfaction (Pindyck, 2009). According to this definition, a person is therefore indifferent among the market baskets represented by the points graphed on an indifference curve. This information can be used to rank all possible consumption choices.

The traditional model of indifference curves and budget constraints is that they are derived separately and then are superimposed on each other. This model holds that utility is a function of goods consumed, and that the utility surface is independent of income. Utility and income will not be related systematically. However, the findings in previous studies have suggested that the relationship between income and utility is in fact a dependent relationship.

The theory that this paper asserts is that happiness or utility causes people to earn higher levels of income. It has been generally assumed that greater wealth is what caused people to be happier. However, happier people may generally be wealthier. If this is true, then factors associated with happiness should correlate with greater wealth. Thus, happier individuals should have higher amounts of utility for any combination of goods, which will cause income for adults to be greater.

By testing the independence of happiness and income, this study will determine whether happiness causes higher income. Most micro-econometric happiness equations have happiness as the dependent variable with socioeconomic variables being the independent variables (Graham, 2008). However, this theoretical model will be Income = B1 Positivity + B2 locus of control score + B3 age + B4 gender + B5 race + B6 weeks

employed + B7 years of education + B8 marriage. Years of education, age, gender, race, marriage and weeks employed are control variables which control for socio-economic status. Income and their positivity scores are the most interesting with locus of control score falling into a second tier category of less important variables. This equation allows one to measure happiness's effect on income and measure happiness like a voltmeter (Colander, 2007). An imaginary voltmeter would read happiness levels with a needle on paper like a lie detector. The needle would fluctuate readily based on any small change to happiness. Of course, there is no happiness voltmeter in existence so economists have to use self-reported happiness ratings.

#### IV. Empirical Model

The empirical model will be:

Income = B1 Positivity dummy variables (super positive, above average positivity, below average positivity) or Self Satisfaction Dummy variables (highly self satisfied, somewhat self satisfied, not self satisfied) or Self-esteem Score + B2 education + B3 age + B4 gender + B5 race dummy variables (Not Hispanic or Black, Hispanic) + B6 weeks unemployed + B7 Rotter scale score + B8 Marriage status dummy variables (married, divorced, separated)

The test subjects were tested for their happiness levels when they were youths. The advantage of this is that these individuals were tested before they had earned regular career income. Since their happiness was identified at a young age, it can be confidently asserted that their future wealth did not cause their happiness. Since wealth did not cause these individuals to be happier, this study can conclude that happiness was the cause for them to earn more income years later.

There are several hypotheses that this model asserts. The happiness hypothesis is that the more positive a person is the more he or she earns in income. This means that the coefficients for the happiness dummy variables will all be positive. Also, it is hypothesized that super happy people will have a higher coefficient than somewhat happy people, who will in turn have a higher coefficient than unhappy people. The dummy variable for the reference group of unhappy people will be left out of the regression. The way that the happy dummy variables are computed is based on a self-rating system where respondents were asked how much they agree with the statement, "I take a positive attitude toward myself."

The alternative independent variable tests are self-satisfaction dummy variables and self-esteem score. Both of these tests are similar to the happiness hypothesis in their assumption that the more positive a person is the more he or she earns in income. Thus the coefficients will be positive for all the dummy variables and the more self-satisfaction someone has, the more positive the coefficient will be. For the self-satisfaction dummy variable, respondents were asked to respond to the statement, "On the whole, I am satisfied with myself," with a rating from one to four. Rating the question a four indicates that the respondent strongly disagrees with the statement. A three indicates disagreement, a two indicates that they agree with the statement and a one indicates strong agreement with

the statement. However, the self-esteem score variable is a continuous variable generated from a variety of questions that ask for agreement to either negative or positive statements about how competent the respondent feels. The higher the score, the happier the person is supposed to be, so the hypothesis is: the higher the score, the higher the income that the person earns. Also, the coefficient will be positive. These alternative variables of the self-satisfaction dummy variables and self-esteem score will also be tested to see which factor is most important to income.

The education hypothesis is that higher education levels generate higher incomes on average. Therefore, the continuous years of education variable is hypothesized to be positive and the higher it is, the more positive it will be.

The hypothesis for weeks of being unemployed is that a lower number of weeks of being unemployed will produce a higher income. This means that the variable is negatively related to income; the lower the coefficient, the more income the person will make.

Rotter Scale Score hypotheses are that having a lower score means having a higher internal locus of control, which will translate into a higher and more negative coefficient. Thus the Rotter Scale Score variable is negatively related to income, but internal locus of control is positively related to income. If a respondent has an internal locus of control, it means that the respondent believes that he or she is in control of many important areas of his or her life.

The variables of age, gender, and race have signs that are consistent with human capital theory. The hypothesis for age is that the sign will be positive and so the higher the age is the higher the coefficient will be. For gender, if the person is a male, then the sign will be positive. For race, being White and Asian means that the coefficient will be positive. If the person is Hispanic the sign will also be positive.

The database is the NLSY '79 cohort (www.nlsinfo.org, 2010). The National Longitudinal Survey of Youth is a government database hosted by the Labor of Bureau Statistics. The NLSY '79 follows about 7,000 people from when they are around 20 in 1979, to when they are around 40 years old, and asks them a long list of questions about various aspects of their lives, to provide an impressive longitudinal database for public use.

#### V. Results

Table 1 displays the descriptive statistics for the regression analysis. Important things to note are that the Rotter Scale Score variable ranges from 4 to 16 and Self-esteem Score ranges from 6 to 30. This is important to note because, while these variables are continuous, they are scaled so they behave somewhat differently from regular continuous variables. There are 6,786 cases in the sample. However, there was a problem with a number of people earning zero income. To solve this problem, those individuals earning zero income were excluded from the sample. This brought the number of cases down from 6,786 to 6,045 cases. Another problem was a group of 146 cases which were outliers, top coded by the average of far outliers in income. This group of people was included in the

model because there will be less bias downward in the sample if they are included as opposed to excluding them altogether.

The results that are presented in Table 2 largely confirm the three categories of hypotheses that were tested for each variable. The first category of hypotheses was that higher levels of happiness would cause higher coefficients for the happiness proxies. This study used three independent variables that proxy happiness: self-satisfaction, positivity or super happy, and self-esteem. It was expected that super happy people would have a higher coefficient than somewhat happy people, and that very self-satisfied people would have a higher coefficient than somewhat self-satisfied people. Self-esteem is a continuous variable and has a positive sign, so this categorical hypothesis did not apply to it. Variables in this study that had a higher coefficient had a higher significance.

Of the three variables used to proxy happiness, positivity and self-esteem turned out to be highly significant for earning income. Self-satisfaction, however, was not significant. These results show that people who are very satisfied with their lives do not earn more income than people who are not as satisfied with their lives. The most important finding is that very positive people, also known as super happy individuals, and people who have high self-esteem do earn significantly more income than those individuals in the labor market that are less happy and have lower self-esteem. These findings are highly significant at the .05 level for happier individuals with a more positive outlook and at the .000 significance level for those individuals that score higher on a self-esteem rating.

The second category of hypotheses was that the signs of the variables would be confirmed. Positive signs were expected for the variables of very satisfied, super happy, self-esteem, male, not Hispanic or Black, Hispanic, education, married, and age. Negative signs were expected for Rotter Score, weeks unemployed, divorced, and separated. With the exceptions of the age variable being negative and the divorced and separated variables being positive, all of the signs attached to the coefficients were as expected.

The third category of hypotheses was that the variables would be significant. Almost all of the t-statistics for these variables turned out to be highly significant. The variables that were not highly significant were in the preliminary regression called Regression 4. Regression 4 variables that were not highly significant included age, divorced, separated, any of the self-satisfaction dummy variables, the positive people dummy variable, and the somewhat positive dummy variable. These variables were removed from subsequent regressions. The remaining variables were highly significant at the .000 level as Table 2 illustrates.

The results were tested for multi-collinearity, heteroscedasticity, and autocorrelation, and the results have heteroscedasticity as determined by White's test. All of the regressions were put into Stata to run robust standard errors to correct for heteroscedasticity, and all of the remaining variables were still highly significant at the .000 level for the self-esteem regression. For the super happy regression the results became less significant but were still significant at the .05 level. Thus, the results largely remained as significant as they did before

correcting for heteroscedasticity.

The results of this study refute the majority of the literature which assumes that higher levels of income cause higher levels of happiness. By finding that very positive people and people who have high self-esteem earn significantly more income than those individuals in the labor market that are less happy and have lower self-esteem, the results are consistent with the Achor (2010) research that found that happier people earn higher income. Recent studies by King (2006), Maital (2006), Diener (2009) and Achor (2010) support the theory that happiness causes greater wealth, however, no empirical studies were found that specifically tested this paper's hypotheses.

#### VI. Conclusions

This research supports the conclusion that people with higher self-esteem and a more positive outlook when they are young earn more in the market place later in life than their counterparts who are less positive and have lower self-esteem. The dataset was well suited for this study because the subjects' happiness levels were determined when they were young, before they had earned regular career income. These happiness levels were then compared to their incomes nearly three decades later. Designing the study in this way avoids the endogeneity problem of determining the direction of causation. This makes it fairly certain that it is happiness that causes income to increase. Therefore, the traditional conclusion that wealth is what causes happiness can be ruled out.

This study used three proxies for happiness: positivity, self-esteem, and self-satisfaction. Positivity and self-esteem turned out to be highly significant for earning income, while self-satisfaction was not significant. Interestingly, the results showed that a high level of self-satisfaction is not an important factor in determining one's income. However, being positive and having high self-esteem have a high causal relationship in determining income. The results showed that people with a positive outlook in life and a healthy self-esteem earn significantly more than their less positive and less confident counterparts. Therefore, people can be both wealthier and happier if they have a positive outlook in life and a high self-esteem.

One policy implication of this research is that individuals should pursue courses of action that make them more positive and have higher self-esteem. To do this, one should look into the current psychological literature. Self-esteem has become very important to Americans and in this strong climate of self-improvement there are abundant resources for self-help. However, literature on the causal relationship of high self-esteem and income is scarce, so this is an important avenue for future researchers to pursue.

An important finding in this study is the significance of positivity. There is a significant positive statistical relationship between income and people who are positive. This finding generates an additional policy implication: cultivating a positive outlook is important and should be the focus of both this country's culture and corporations' cultures. By making people more positive, the country can become happier and wealthier. People are paid according to their productivity. Since happier people are

more productive, increasing their happiness should increase their productivity and create more profit for the individual and the corporation. This increase in happiness would benefit the wealth of the country. Thus, another avenue for future research in the sociological literature is to explore how to cultivate positive work environments in business.

The most significant result of this study was finding that selfesteem is the most accurate predictor of income. The Diener (2009) literature says that happiness is best predicted by selfesteem in wealthier countries, but income predicts happiness in poorer countries. Increasing one's level of self-esteem then, is important not only for psychological health, but also for financial well-being. This study's major finding that having higher self-esteem, and thus more happiness, leads to greater income is consistent with the newer happiness research. Maital (2006) found that happiness in the U.S. has staved relatively constant over long periods of time, even though there has been tremendous growth in per capita income. This shows that it is not wealth that leads to happiness. According to Achor (2010), happiness leads to success in many areas of life including financial success. Data abounds showing that happier workers have higher levels of productivity, produce higher sales, perform better in leadership positions, and receive higher performance ratings and higher pay. Although Diener's and Maital's work has expanded the happiness literature, it is Achor's (2010) work that directly relates to this study's thesis that happiness leads to higher income.

This study's finding that self-esteem and positivity do in fact lead to higher income is an important addition to the happiness literature. Although researchers have extensively studied whether greater wealth causes greater happiness, there were no empirical studies found in the literature that examined the reverse causation of greater happiness causing greater wealth, as this study did. Testing the subjects' happiness levels when they were youths, before they earned regular career income, was valuable in determining that it is happiness that causes income to increase. This unique aspect of the study can serve as an important research method in future studies.

Future research should include empirical studies of the importance of self-esteem on future earnings. The results could have a profound change on business and government policy. Happiness was always assumed to be an indirect benefit of society that largely benefited the individual. By establishing the link between profitability and self-esteem, making people happy could become a primary goal of business and government. The implications are endless for how the government and businesses could make themselves richer by working to improve the self-esteem of everyone in the country. Cultivating a more positive work environment and higher self-esteem is the next step for bridging the gap between this research and living a more fulfilling and wealthier life.

#### References

Achor, Shawn. 2010. "The Happiness Advantage: The Seven Principles of Positive Psychology that Fuel Success and Performance at Work." New York: Random House, Inc.

Chicago Tribune. 2010. "Price of joy? Survey says its \$75,000." September 5, 2010, 21.

Clark, Andrew E., Paul Frijters, and Michael A. Shields. 2008. "Relative Income, Happiness, and Utility: An Explanation for the Easterlin Paradox and Other Puzzles." Journal of Economic Literature, 46(1): 95-144.

Colander, David. 2007. "Edgeworth's Hedonimeter and the Quest to Measure Utility: Retrospectives." Journal of Economic Perspectives, 21(2): 215-225.

Diener, Ed, Weiting Ng, James Harter, and Raksha Arora. August 13, 2009. "Wealth and Happiness Across the World: Material Prosperity Predicts Life Evaluation, Whereas Psychosocial Prosperity Predicts Positive Feeling."

The Economist. 2009. "Hating what you do," October 10, 70.

Graham, Carol. 2008. "happiness, economics of", The New Palgrave Dictionary of Economics.

Hernandez-Murillo, Ruben and Christopher Martineck. January 2010. "The Dismal Science Tackles Happiness Data." Federal Reserve Bank of St. Louis Review.

King, Lisa. 2006. "Following a moral compass." The Costco Connection, 19.

Maital, Shlomo. 2006. "Reclaiming Moral Sentiments." In Handbook of Contemporary Behavioral Economics: Foundations and Developments, ed. Morris Altman, 210 – 212. New York: M.E. Sharpe, Inc.

National Longitudinal Survey Web Investigator. 2010. Bureau of Labor Statistics. www.nlsinfo.org

Pindyck, Robert, and Daniel Rubinfeld. 2009. Microeconomics. Upper Saddle River, New Jersey: Pearson Education, Inc.

**Table 1: Descriptive Statistics** 

	N	Minimum	Maximum	Mean	Std. Deviation
Income	7428	.00	307823.00	40172.1051	49388.21454
SelfEsteemScore	11992	6.00	30.00	22.3695	4.13029
SuperHappy	12686	.00	1.00	.3344	.47179
RotterScore	12541	4.00	16.00	8.6614	2.42269
Education	7757	.00	20.00	13.3710	2.49652
Married	12686	.00	1.00	.3323	.47104
Male	12686	.00	1.00	.5047	.50000
Hispanic	12686	.00	1.00	.1578	.36458
WeeksUnemployed	7443	.00	429.00	4.2580	18.24546
NotHispanicorBlack	12686	.00	1.00	.5920	.49148
Valid N (listwise)	6786				

Table 2: Satisfaction, Positivity, Self-Esteem Regression Results for NLSY '79 Cohort

Regression Results for NLSY '79 Cohort						
Income= dependent variable	Regression 1	Regression 2	Regression 3	Regression 4		
VerySatisfied	1372.402					
	(1.19)					
SuperHappy		2266.872 (2.03*)				
SelfEsteemScore			821.72 (6.03***)	825.994 (5.774***)		
RotterScore	-1086.483	-1042.211	-890.132	-885.457		
	(-5.48***)	(-5.20***)	(-4.25***)	(-3.722***)		
(Constant)	-79947.84	-80298.85	-95332.67	-80523.87		
	(-18.15***)	(-18.23***)	(-17.81***)	(-11.953***)		
Male	21970.56	21859.55	21921.49	24324.987		
	(21.49***)	(21.45***)	(21.00***)	(22.592***)		
Hispanic	7431.20	7601.152	7448.146	8199.014		
	(6.02***)	(6.18***)	(5.99***)	(5.152***)		
NotHispanicorBlack	8130.031	8260.47	8241.178	9409.06		
	(7.90***)	(8.10***)	(7.94***)	(7.299***)		
Education	5939.198	5909.45	5811.942	6738.455		
	(20.58***)	(20.44***)	(19.47***)	(28.967***)		
WeeksUnemployed	-164.104	-164.267	-162.60	-247.564		
	(-7.97***)	(-8.00***)	(-7.51***)	(-8.399***)		
Married	6723.748	6689.265	6587.945	8761.154		
	(6.76***)	(6.73***)	(6.47***)	(6.875***)		
Age				-92.809		
				(384)		
Divorced				1966.54		
				(1.132)		
Separated				1388.314		
				(.437)		
R-Squared Sample Size	.315 6,045	.315 6,045	.318 6,045	.230 6,045		

<sup>\*</sup>Significance at the .05 level

<sup>\*\*</sup>Significance at the .01 level \*\*\*Significance at the .000 level

t statistics in parentheses

All regressions were calculate us-

ing robust standard errors in STATA