# The Pursuit of Happiness: An Analysis of Aggregate Difference in the Distribution of Happiness in the United States

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The pursuit of happiness is viewed as an inalienable right by most Americans, but the government of the United States does not ensure that the right is equally enjoyed by all its citizens. There is significant difference in the distribution of happiness among different aggregates of American people. Using General Social Survey (GSS) 1998 data, this paper analyzes which aggregates of American people are reported to be ahead in the distribution of happiness. Previous happiness research has so far analyzed the effects of various determinants on happiness but few researchers have tried to show how these effects vary among different aggregates of people characterized in terms of major determinants such as socioeconomic status, health status, marital status, household type, religious participation and denominations, political and world views, age, gender, and race. This study tries to fill this gap. To adopt sound public policy aimed at enhancing the levels of collective happiness, it is important to know about the aggregate difference in the distribution of happiness.

## Introduction

The pursuit of happiness is a not-so-subtle human obsession. We see a notable number of self-help books on how to be happy are published every year and millions of copies of these books are sold worldwide. In addition, hundreds of websites and online courses now offer time-bound happiness projects.[1] This obsession is even more vivid in the United States, where happiness is viewed by most Americans as a fundamental right, on account of the paradigmatic expression given in the 1776 Declaration of Independence of the United States: "We hold these truths to be self-evident, that all men are . . . endowed by their Creator with certain inalienable rights, that among these are life, liberty and the pursuit of happiness" (quoted in Haller and Hadler 2006: 170). More than half of the states in America adopted the phrase "the pursuit of happiness" in their constitutions, yet a broader public policy to enhance the collective happiness in the country remains absent.

[1]Gretchen Rubin's *The Happiness Project* was a *New York Times* bestseller. She has her own blog, the Happiness Project, at `http://www.happiness-project.com` which offers the 'challenge' to make a happier year for those who sign up. Another renowned author Tom G. Stevens launched his website which is "dedicated to enhancing human happiness and self-development" at `http://www.csulb.edu/~tstevens/index.html`. His book *You Can Choose to Be Happy* is a popular self-help book.

Two centuries after independence, the average happiness rating of the US is only 6.6 (out of 10) while its Gross National Product (GNP) per capita is $2,790 (in 1961 US dollars); this is just above Cuba (6.4) which had a significantly lower GNP per capita at $516 in the same year (Ball and Chernova 2008: 502).

We often hear people say that money cannot buy happiness. Many happiness studies seem to confirm this observation, according to former Harvard University president Derek Bok (2010). Summarizing the major findings of the past happiness research, he examines how governments all over the world could use happiness research in a variety of policy areas to increase wellbeing and improve the quality of life of their citizens. Bok argues that happiness should be a prime aim of all public policies. His suggestion, however, is fundamentally different from what Thomas Jefferson intended when he wrote of the right to pursue happiness in the American Declaration of Independence in 1976. Bok wants to use the power of the state to ensure greater happiness for the greatest number of Americans and not to create a state that, as Jefferson had hoped, frees its citizens to pursue their own version of happiness. He looks at the policy implications for economic growth, equality, retirement, unemployment, health care, mental illness, family programs, education, and governance quality, among other things.

Michalos (2008) asserts that today, with the breakdown of a binding common value system, secularization, rationalization and individualization processes in the US, happiness increasingly comes to be seen as a personal goal rather than a collective goal. To the majority of Americans, the pursuit of happiness is related to the seeking of hedonic enjoyment, a subjective experience that includes "the belief that one is getting the important things one wants, as well as certain pleasant affects that normally go along with this belief" (Kraut 1979: 178). The current American notion of happiness is "something very close to an extended feeling of pleasure or an extended good mood or pleasant affect" (Michalos 2008: 355). Epistemologically, what the ancient Greek wise men meant by "happiness" (the English translation of the Greek word *eudaimonia*) is not the "extended feeling of pleasure" but closer to the modern notion of "wellbeing". In *Nicomachean Ethics*, Aristotle stated that "living well and doing well are the same as being happy" (cited in Michalos 2008: 355). What he meant by "happiness" is not a mere hedonic enjoyment of individuals but a general human wellbeing. According to his view, the happy life of a person, or a group of people, "is a function of the actual conditions of that life and what a person or a community makes of those conditions" (Michalos 2008: 357).

There are variations in the public opinion about the two conceptions of happiness—wellbeing versus hedonic enjoyment (Waterman 1993). Individuals also differ among themselves in their assessment about how happy they are (Green and Elliot 2010). In the US, not all Americans are able to pursue happiness at the same rate due to the unequal environments prevailing in this extent; some aggregates of people are well ahead of others in this pursuit, while others require greater support to have equitable access to happiness. Although the pursuit of happiness is a "fundamental right" of all Americans, the US government does not ensure that the right is equally enjoyed by all its citizens. Making the pursuit of happiness an individual-level goal in this capitalist society where inequality is very high, the government in fact facilitates an unequal distribution of happiness among different aggregates of people. By empirically showing the aggregate difference in the distribution of happiness, we can help present strong arguments for adopting public policies

that focus on enhancing citizens' overall wellbeing—living well and doing well.

The objective of this paper is to analyze which aggregates of American people are reported to be ahead or falling behind in the pursuit and distribution of happiness. Previous happiness research has so far analyzed the effects of various determinants on happiness, but few researchers have tried to show how the effects vary among different aggregates characterized by the determinants such as socioeconomic status, health status, marital status, household type, religious participation and denominations, political and world views, age, gender, and race. This study tries to fill this gap. As such, the focus of this study is not to analyze what factors (mostly continuous variables) are associated with the increase or decrease of individual happiness levels but to convert these factors into aggregate characteristics (categorical variables) and see which aggregates have what levels of happiness.

In previous empirical analyses, researchers predominantly used two measures of happiness—objective and subjective. In the next section, I briefly discuss these two measures and indicate which measure I am going to adopt in this study. Then I analyze the existing research on happiness and draw my own hypotheses about the aggregate difference in the distribution of happiness. I discuss the results derived from the quantitative analyses of my data and finally conclude the study by indicating the policy implications of my major findings.

## Measures of Happiness

There is no official happiness index in the US to measure the levels of wellbeing of its citizens. In contrast, Bhutan developed an official happiness index in 1972 and this tiny Asian country was the first in the world to declare that "Gross National Happiness" (GNH) rather than Gross National Product (GNP) would be the nation's principal yardstick for measuring progress (Bok 2010: 1). Bhutan's GNH Index is a multidimensional measure of happiness which is itself a multidimensional concept—"not measured only by subjective well-being, and not focused narrowly on happiness that begins and ends with oneself and is concerned for and with oneself" (Ura, Alkire and Zangmo 2012: 1). The pursuit of happiness in Bhutan is collective though it can be experienced deeply personally. So far in the West, France has announced an initiative to measure the collective wellbeing of French people, and in Britain, the prime minister's strategy unit has prepared a study paper on the implications of happiness research for public policy. As a result, the European Commission has initiated a survey on various measures of wellbeing which is called the "Eurobarometer".

There are variations in the measures of happiness among researchers. Many economists try to measure happiness in terms of objective economic conditions and utilities. Michalos (2008: 351-52) cites an example of this sort of research, the one conducted by Kahneman (1999) who "resurrected the hedonism from Plato's fourth century BCE *Protagoras* ... and Bentham's more familiar treatise of 1789 to construct a concept called 'objective happiness', which is rooted in subjective experience and involves only a narrow sense of happiness." Recent survey measures of subjective happiness are still somewhat novel to economists, although most of them agree on the validity of these data (Ball and Chernova 2008: 499). They also agree that economic measures alone cannot explain the variations

in the levels of happiness among different aggregates of people.

Economist Richard Easterlin (1974), along with several other investigators, recently concluded that average levels of happiness in the US have risen very little over the past 50 years, despite substantial growth in per capita incomes. They have shown that although rich people as a whole are happier than the poor, the percentage of Americans who declare themselves as "very happy", "pretty happy", or "not too happy" are almost exactly the same as they were fifty years ago. This is perhaps because most Americans think that more money would make them happier, but as income rises they soon become used to their higher standard of living and feel they need even more money to live a good life. These findings challenge the objective measurement of happiness. Michalos (2008: 353) argues that it "makes no sense to measure people's well-being without asking the people themselves what they think or how they feel." That is why many psychologists and sociologists nowadays use a subjectivist definition of happiness, one that commonly relies on self-reports, as they believe this is a more appropriate and even necessary approach, given the view that happiness must be defined from the perspective of the person who is the final judge of what makes him or her happy (Myers and Diener 1995). Happiness is thus defined in terms of frequent positive affect, high life satisfaction, and infrequent negative affect (Diener 1984; Diener et al. 1999).

However, it is important to note that individuals may vary in their hedonic profiles; two individuals with similar happiness levels might differ in their relative levels of satisfaction with life, compared to their relative frequency of experiencing positive and negative mood states (Michalos 2008). The fact that self-reported happiness is subjective does not mean that it is unrelated to relatively more objective variables such as actual physical and mental health, living conditions, and work status. "The good life that we must want and achieve for all people is not, just a life in which people feel good, no matter how terrible their real life conditions are," according to Michalos (2008: 351), "but one in which they feel good with the best of all reasons, because the objectively measurable conditions of their lives merit a positive assessment."

Many studies have indeed found "high correlations" between subjective and objective measures of happiness (Ball and Chernova 2008: 499). It is nonetheless important to acknowledge my bias toward the subjective measure of happiness, which is to be linked with other relatively objective variables in the survey data, such as age, levels of education, income, work status, marital status, gender, and race.[2] Psychologists would emphasize that personality is the single most important determinant of happiness, such as extroverts are happier than introverts, and that these personality traits are passed on through DNA.[3]

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[2]I am using the GSS 1998 survey data in this study. It can also be seen as a bias to choose this particular dataset. Although more recent datasets are available, not all related questions were asked to all respondents in these datasets. For example, in GSS 2006, the key item to assess subjective happiness was included on ballots (sub-samples) A and B and administered to a total of 1,980 respondents, but the key item to asses subjective health was only included on ballot A and administered only to 1,003 respondents. This ballot system used in GSS 2006 considerably reduced the number of cases in the final analysis. The GSS 1998 offers a far greater number of cases for the present analysis than the later datasets. Furthermore, the conditions that predict happiness have not dramatically changed in the decade between the datasets, as can be inferred from the available datasets.

[3]In October 15, 2011, *The Economist* reports on a research project which concludes that about a third of the variation in people's happiness is heritable. See "The Genetics of Happiness: Transporter of Delight" available online at `http://www.economist.com/node/21532247`, accessed January 5, 2012.

This paper is not concerned about psychological or biological determinism of happiness but it includes such variables as people's world views—whether people are optimists or pessimists about the world—which may be closely related with their personality traits such as confidence and nervousness. The following section draws hypotheses related to this and other factors from the extant research.

## Hypotheses Drawn from the Extant Research

One of the major findings of the existing happiness research is that good and close relationships between partners and spouses, parents and children, friends and neighbors, coworkers and associates are a main source of satisfaction with life (Argyle 1987; Veenhoven 1989, 1999; Myers 1993, 2000; Schulz 1995; Eckersley 2000; Land et al. 2001; Michalos et al. 2001). Writing in 1897, Durkheim (1966) had already showed that family life and social relationships were not only a protection against anomie and suicide but also against unhappiness. Many recent studies have also reported that married people and people with children are happier than singles; especially divorced, separated, and widowed people are significantly less happy (Myers 2000; Hayo and Seifert 2003). Moreover, Veenhoven (1983) has shown that the relation of marriage to happiness has not become weaker since the 1950s, but rather stronger. From these findings of the existing happiness research, I draw the following two hypotheses:

**Hypothesis 1** Married (or common-law) people are happier than unmarried (or single), divorced, separated and widowed people.

**Hypothesis 2** People living with children are happier than people living without children.

Social relationships grow with people's participation in various social activities and networks. Previous research has shown that participation in religious activities has significant effects on happiness: regular church goers are significantly happier than those who seldom or never attend ecclesiastic services (Argyle 1987; Myers 2000). Moreover, people's religious denominations have also important roles to play in their satisfaction with life. The effect of Protestantism on happiness can be drawn from Weber's (1930) thesis that Protestants tend to develop an optimistic outlook on life and are inclined to show themselves as successful and happy persons. Thus, I construct the following hypotheses:

**Hypothesis 3** Happiness is higher among participants of religious services than non-participants.

**Hypothesis 4** Happiness is higher among the members of a religious denomination which emphasizes material success in life than those who do not belong to such religious denominations.

Research has also shown that people who view social relations and the world more pessimistically are less content with their life than those who hold a more optimistic and altruistic view of human relations and the world as a whole (Ryan and Dziurawiec 2001). Then, I suggest that:

**Hypothesis 5** Happiness is greater among those who have an optimistic world view than those who hold a pessimistic view about the world and human relations.

World views may be linked with people's political views. Americans who hold a liberal political view, for example, have fought for years for redistributive programs that would help the sick and the needy, while politically conservative people have long maintained that social legislation often fails to help its intended beneficiaries (Veenhoven 2003). Bok (2010: 7) also mentions that "conservatives continue to extol the virtues of free markets and consumer choice in promoting the welfare of the population" and "liberals worry so much about the distribution of income in America and press so strongly for progressive taxes and expensive government programs to benefit the sick, the needy, and the unemployed." From these observations, I assume:

**Hypothesis 6** Those who hold a liberal political view are more altruistic, hence happier, than those who hold a conservative political view

Many researchers have shown that work and income are among the most important determinants of human wellbeing (Diener et al. 1995; Argyle 1999; Frey and Stutzer 2002; Easterlin 2003; Diener and Seligman 2004). Additionally, Easterlin (1974) argues that people care exclusively or almost exclusively about their incomes relative to the national distributions of income in the countries in which they live. Philosophically, Bertrand Russell (1996) has argued that it is through their work that people can be happy. However, by "work", Russell meant more than just income activities. I can, therefore, say:

**Hypothesis 7** Employed people are happier than unemployed and those who are not currently in formal labor market.

**Hypothesis 8** People with higher incomes are happier than those with lower incomes.

Income and education are also closely correlated and both influence happiness. But how much does education influence happiness? According to Michalos (2008), it depends on how one defines and operationalizes education and happiness as well as the term "influence". More precisely, if one defines and operationalizes education as highest level of formal education attained including primary, secondary and tertiary education leading to diplomas and degrees, and happiness as measured by standardized single-item or multi-item indexes, then the answer to the question is that education has very little positive influence on happiness. But education has enormous positive influence on happiness, if one defines both education and happiness more broadly. In his broad definition of education, Michalos (2008) includes formal education (leading to diplomas and degrees), non-formal education of the sort that might involve learning through course-work not connected to any diplomas or degrees, and informal education of the sort that might involve learning outside of any course-work such as from news media, works of art and culture, work-related training and experiences, social interaction and life experiences. His broad definition of happiness includes an Aristotelian *eudaimonia* or general wellbeing ensured by the enjoyment of goods of the mind such as wisdom, moral virtue and pleasure, goods of the body such as physical and mental health, and external goods such as wealth and adequate material resources, good parents and families, good friends, peace and

security within and between communities, and well-governed communities. Additionally, Michalos (2008) thinks that the indirect influence of education on happiness is enormous. For example, leisure time creates opportunity for people to learn informally from reading newspapers and books, watching television, visiting places and so on and thus people can enjoy their leisure time more effectively which indirectly but positively influence their levels of happiness. Following Michalos's arguments, we can then say that:

**Hypothesis 9** More educated people are happier than less educated people.

**Hypothesis 10** Those who have leisure time and opportunity to learn formally, non-formally or informally are happier than those who do not have leisure time and such opportunity to learn.

In every society, age or one's position in the life cycle, is a socially standardized and evaluated category. In American society, youth are generally more highly evaluated than the elderly, while persons in the middle-age category are mostly involved in work, earning and family maintenance. The young and the old people get more leisure time to enjoy their life than the middle-aged people. Family and work-related responsibilities may also affect the levels of happiness of the middle-aged group. Considering these issues, several studies have shown that levels of happiness vary significantly by age in a nonlinear fashion (Michalos et al. 2001; Hayo and Seifert 2003; Christoph and Noll 2003). Therefore, we get the following hypothesis:

**Hypothesis 11** The younger, but also the older people, tend to be happier than the middle-aged people.

Older people face more health-related problems than younger and middle-aged people. But if the older people are reported to be happier than the middle-aged people, then the common-sense dictum that "a healthy life is a happy life" is dubious. Nevertheless, many studies have shown that health, or subjective health, is one of the most important determinants of happiness (Diener et al. 1998; Hagerty et al. 2001). Categorizing people in terms of health status, I formulate the following hypothesis:

**Hypothesis 12** Those who report to have an excellent or a good health also report to be happier than those who report to have a poor or less than good health.

Cummings and Jackson (2008) claim that despite considerable improvements in the status of Blacks and women over the past 30 years, racial and gender disparities in mortality and morbidity persist in the US. Using General Social Survey (GSS) data from 1974 to 2004, Cummings and Jackson (2008) explore the extent to which race, gender, and socioeconomic status converge to produce differences in self-assessed health and overall wellbeing of the American people. Furdyna et al. (2008) argue that the increased economic prominence of women complicates their wellbeing within marital relationships and that the husband-wife income disparities are more negatively associated with the marital happiness of Black women than White women. Following these arguments, we can say:

**Hypothesis 13** Women report to be less happy than men.

**Hypothesis 14** Self-assessed happiness is greater for Whites than Blacks.

All of the 14 hypotheses are formulated to test whether there is significant difference in the distribution of happiness among different aggregates of people in the US. Some continuous and ordinal variables like age, income, and levels of education are found in the extant literature to have nonlinear effects on the levels of happiness (Michalos et al. 2001; Christoph and Noll 2003; Easterlin 2003; Diener and Seligman 2004). To account for the nonlinear effects, this study uses these variables as categorical ones to characterize different aggregates of people. The division into such aggregates as young, middle and old age or low, average, above-average and high income may not intuitively register as more explanatory than their continuous forms. But, as already stated, the objective of this study is not to examine how the continuous or ordinal variables affect the levels of happiness; rather, we want to see if the aggregates are significantly different from one another in the distribution of happiness. The formation of these categories can be arbitrary and not as self-evident as race, religion or gender. However, it is not uncommon in the existing literature to create these categories in order to account for the nonlinearity issue. Another issue can be raised about the binary formation of some aggregates characterized by, for example, world views and political views. The binary categories—optimist/pessimist and conservative/liberal—do not take into consideration other possible categories such as indifferent and radical. This is a limitation of the available dataset and should not be taken as a limitation of this analysis.

## Data and Methods

To test the hypotheses, I use the data from the 1998 wave of the *General Social Survey (GSS)* conducted by the National Opinion Research Center (NORC) at the University of Chicago (Davis and Smith 1998). The GSS is an independently-drawn national multi-stage probability sample of non-institutionalized, English-speaking respondents living in the United States. In GSS 1998, a total of 2,832 respondents above 18 years of age were interviewed in person using a standard questionnaire. Happiness was measured in the survey by asking respondents the question: "Taken all things together these days, would you say that you are very happy, pretty happy, or not too happy?" The three response categories from not too happy (0) to very happy (2) have been recoded to create a "happiness dummy" variable for this study with 1 = happy (very to pretty happy) and 0 = not too happy. This dummy variable is taken as the dependent variable for a logistic regression analysis on the independent variables, also an array of dummies. I have followed the existing literature (as reviewed above) to create the dummy variables and select the reference category for each of them.

## Independent Variables

**Age** To assess the nonlinear effect of age on happiness, various stages of life cycle have been represented by three dummy variables: young (18-29 years), middle (30-59 years), and old (60-89 years), with "young" as the reference category.

**Marital Status** Three dummy variables have been created for marital status with "currently married" as the reference category. The "previously married" dummy includes

divorced, separated, and widowed and equals 1 when other categories equal 0. Similarly, "never married" dummy equals 1 when others equal 0.

**Household Type** Two dummy variables, household with children and household without children, have been created, with "household with children" as the reference category.

**Health Status** Respondents were asked: "Would you say your own health, in general, is excellent, good, fair, or poor?" Two dummy variables have been created from the response categories: "excellent and good" and "less than good/poor" health, with latter as the reference category.

**Work Status** Four dummy variables (currently employed, currently unemployed, retired, and currently in school, keeping household or other) have been created, with "currently employed" as the reference category.

**Total Household Income** Four dummy variables—low income (first quartile with annual income below 20,000 US dollars in 1997), average income (second quartile: 20,000—34,999), above average income (third quartile: 35,000—59,999), and high income (last quartile: 60,000 and above)—have been created, with "high income" group as the reference category.

**Education** Three dummy variables (less than high school, high school diploma, and college and above) have been created with "less than high school" as the reference category.

**Leisure Time** Two separate items—frequency of reading newspapers ("How often do you read the newspaper?") with responses ranging from 1 (every day) to 5 (never), and television hours ("On the average day, about how many hours do you personally watch television?") with responses ranging from 0 to 24 hours—have been combined as a proxy measure of "leisure time" dummy with "no leisure" (never reading a newspaper or watching television in a day) as the reference category.

**Religious Attendance** Two dummy variables, participant and non-participant, have been created, with "non-participant" as the reference category.

**Religious Denomination** Three dummy variables (self-rated Protestant, non-Protestant and no religious denomination) have been created, with the "Protestant" as the reference category.

**World View** Two dummy variables have been created, with "pessimist" as the reference category, from the responses to the question: "On a scale of 1-7, where would you place your image of the world?" Pessimist (scale values 1-4) has been coded as 1 with 0 = optimist (scale values 5-7).

**Political View** Two dummy variables, liberal and conservative, have been created, with "conservative" as the reference category.

**Gender** Two dummy variables, male and female, have been created from respondent's sex, with "male" as the reference category.

**Race** Two dummy variables, White and Black, have been created, with "White" as the reference category. "Other" race category has been excluded from the analysis to compare happiness levels between Blacks and Whites only.[4]

## Results

Zero-order correlations of all variables show that no correlations are above .80 to warrant a multicollinearity problem (results not shown here). The overall variance inflation factor (VIF) in the normal regression analysis is found to be only 1.58, which also confirms that the model has no multicollinearity problem. The heteroskedasticity problem of all the dummy variables used in this study has been corrected using White's correction.

Odds ratios are reported in five models in Table 1. Model 1 shows the results derived from logistic regression of subjective happiness on socioeconomic variables such as work status, income, education, and leisure time. Adding health related variable to socioeconomic variables, we get Model 2. By adding religion (religious participation and denomination) and personal view (political and world view) related variables to Model 2, we get Model 3. By further adding demographic variables such as age, marital status, and household type to Model 3, we get Model 4. The complete model—Model 5—includes all of the variables of Model 4 plus two control variables, gender and race. For all of these variables, results are quite consistent through Models 1 to 5.

In Model 5, the odds ratio of the currently unemployed is .28, which means that unemployed people have 72% less odds to be happy than currently employed people. This odds ratio is highly significant (at .001 level in all models). However, those who are currently retired and studying or keeping households are not significantly different in the distribution of happiness from those who are currently employed. As for income, odds to be happy are about 52% less for the low income group and 44% less for the average income group compared to the reference category, the high income group. But the above-average income group is not significantly different from the high income group in the distribution of happiness.

Aggregates categorized in terms of higher-levels of education, leisure time, excellent/good health status, participation in religious services, optimistic world view and liberal political view appear to be positively and significantly happier than those of the respective reference categories. Odds to enjoy happiness are about 1.66 times more for those with a high school diploma and about 1.94 times more for those with college or above education compared to those with less than a high school diploma. People who enjoy their leisure time (by reading newspapers or watching television in this case) have about 1.61 times more odds to enjoy happiness than those who never have the leisure time. People with excellent or good health have about 2.77 times more odds to enjoy happiness than those who report to have fair or poor health. Odds to be happy are 1.46 times more for those who regularly (and fairly regularly) participate in religious services than for those who do not participate in ecclesiastical services at all. Finally, odds to be happy are 1.72 times more for people with an optimistic world view than for those with a

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[4]Although the Hispanics are a significant racial minority in the US, the GSS 1998 data did not include them in the survey. This study, then, fails to compare the happiness levels of the Hispanics with those of the Blacks and the Whites. Weaver (2003), however, compares happiness between the Hispanics and the non-Whites of the US by gender.

*Table 1. Logistic regression of subjective happiness.*

| Independent Variables | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 |
|---|---|---|---|---|---|
| Socioeconomic variables | | | | | |
| *Work status* (ref.: currently employed) | | | | | |
| Currently unemployed | .252*** | .250*** | .297*** | .290*** | .280*** |
| | (−3.89) | (−4.10) | (−3.59) | (−3.27) | (−3.31) |
| Retired | 1.414 | 1.767* | 1.628* | 1.441 | 1.489 |
| | (1.49) | (2.37) | (2.00) | (1.09) | (1.18) |
| Currently in school or other | .733 | .821 | .755 | .672 | .709 |
| | (−1.59) | (−.99) | (−1.40) | (−1.85) | (−1.54) |
| *Income* (ref.: high income) | | | | | |
| Low income | .255*** | .282*** | .284*** | .453*** | .481 ∗∗ |
| | (−5.99) | (−5.48) | (−5.52) | (−3.32) | (−3.00) |
| Average income | .437*** | .447*** | .446*** | .563* | .561* |
| | (−3.61) | (−3.49) | (−3.51) | (−2.43) | (−2.43) |
| Above average income | .745 | .775 | .755 | .804 | .792 |
| | (−1.17) | (−1.01) | (−1.11) | (.804, −.83) | (−.89) |
| *Education* (ref.: less than high school) | | | | | |
| High school | 1.825 ∗∗ | .626* | 1.592* | 1.661* | 1.661* |
| | (3.06) | (2.39) | (2.26) | (2.39) | (2.35) |
| College and above | 2.377*** | 1.906 ∗∗ | 1.796 ∗∗ | 2.016*** | 1.942 ∗∗ |
| | (4.37) | (3.08) | (2.79) | (3.23) | (3.02) |
| *Leisure time* (ref.: no leisure) | | | | | |
| Leisure | 1.584 ∗∗ | 1.636 ∗∗ | 1.668 ∗∗ | 1.609 ∗∗ | 1.612 ∗∗ |
| | (2.83) | (2.99) | (3.08) | (2.77) | (2.76) |
| Health related variable | | | | | |
| *Health status* (ref.: fair and poor health) | | | | | |
| Excellent and good health | | 2.720*** | 2.715*** | 2.752*** | 2.766*** |
| | | (6.08) | (5.99) | (5.91) | (5.90) |
| Religion and personal view related variables | | | | | |
| *Religious participation* (ref.: non-participant) | | | | | |
| Religious participant | | | 1.420* | 1.348 | 1.457* |
| | | | (1.99) | (1.66) | (2.07) |
| *Religiousdenomination* (ref.: Protestant) | | | | | |
| No religious affiliation | | | .984 | 1.013 | .951 |
| | | | (−.07) | (.05) | (−.20) |
| Non-Protestant (other denominations) | | | 1.035 | .996 | .899 |
| | | | (.19) | (−.02) | (−.58) |
| *World view* (ref.: pessimist) | | | | | |
| Optimist | | | 1.751*** | 1.725*** | 1.720*** |
| | | | (3.61) | (3.46) | (3.41) |
| *Political view* (ref.: conservative) | | | | | |
| Liberal | | | 1.216 | 1.349 | 1.387* |
| | | | (1.24) | (1.86) | (2.01) |
| Demographic variables | | | | | |
| *Age* (ref.: young age) | | | | | |
| Middle age | | | | 1.270 | 1.283 |
| | | | | (1.02) | (1.06) |
| Old Age | | | | 1.625 | 1.526 |
| | | | | (1.37) | (1.19) |
| *Marital status* (ref.: currently married) | | | | | |
| Previously married | | | | .311*** | .325*** |
| | | | | (−5.58) | (−5.38) |
| Never married | | | | .467 ∗∗ | .507 ∗∗ |
| | | | | (−3.08) | (−2.74) |
| *Household type* (ref.: household with children) | | | | | |
| Household without children | | | | .855 | .840 |
| | | | | (−.73) | (−.81) |
| Gender and race | | | | | |
| *Gender* (ref.: male) | | | | | |
| Female | | | | | .938 |
| | | | | | (−.39) |
| *Race* (ref.: white) | | | | | |
| Black | | | | | .596 ∗∗ |
| | | | | | (−2.56) |
| *Pseudo R2* | .090 | .116 | .131 | .150 | .165 |

pessimistic world view and 1.39 times more for people with a liberal political orientation than for those with a conservative political orientation.

This study does not find significant difference in the distribution of happiness between male and female and among different age categories, household types, and religious denominations. However, aggregates categorized in terms of marital status are found significantly and negatively associated with the levels of happiness. The previously married category (i.e., currently separated, divorced or widowed) has about 68% less odds to be happy than the currently married (including individuals living in common-law union). Singles (i.e., never married) have approximately 50% less odds to enjoy happiness than those who are currently married.

Results also show that Blacks have about 40% less odds to enjoy happiness compared to Whites. However, this direct effect becomes non-significant when an interaction term, "Black x college education", is added to the regression equation (analyzed separately, results not shown). The interaction term's odds ratio (.439) is significant at .05 level (with $z$ value -2.20). This means that highly educated Blacks have about 66% less odds to enjoy happiness compared to Whites with similar levels of education. Other interaction terms such as "Black x female", "Black x unemployed", "Black x low income", as well as "female x college education", "female x unemployment", "female x low income" and so on were also added to the regression equation but did not appear to be statistically significant.

We can know the aggregate differences in terms of the predicted values of happiness, holding every predicting value at the mean, from Table 2. In terms of marital status, the difference of predicted happiness between currently married and previously married is 1.125; between never married and previously married is .446 and between currently married and never married is .679. That is, currently married people are significantly happier than currently separated, divorced and widowed people as well as those who are never married. Other aggregate differences can be interpreted in the same way.

## Discussions and Conclusions

Contrary to the existing theory and my Hypothesis 2, this study does not find any significant difference in the distribution of happiness between people living with children and people living without children in a single household. Children may be a significant source of happiness, a feeling of personal fulfillment, but, at the same time, raising children requires a great deal of sacrifice, commitment and resources. These requirements negatively affect personal hedonistic enjoyments. People may love to have children but they are constrained by the requirements to raise them.

Second, results have shown that the distribution of happiness does not significantly vary among different religious denominations, although it varies significantly between those who participate in religious services and those who do not. This may mean that it is not the faith that affects the happiness level significantly but it is the social relationships people develop by participating in the religious services that matter most. Presumably, the religious services may involve participants in charity activities which they may consider as altruistic and philanthropic. After all, people with more altruistic and optimistic attitudes are likely to be happier than those with rationalistic and pessimistic views, as

*Table 2.   Aggregate difference in the distribution of predicted happiness.*

| Aggregate | Predicted happiness |
|---|---|
| Currently married | 3.002 |
| Previously married | 1.877 |
| Never married | 2.323 |
| Household with children | 2.653 |
| Household without children | 2.478 |
| Religious participant | 2.636 |
| Religious non-participant | 2.259 |
| Protestant | 2.565 |
| No religious affiliation | 2.514 |
| Non-Protestant (others) | 2.459 |
| Optimist | 2.776 |
| Pessimist | 2.234 |
| Liberal | 2.644 |
| Conservative | 2.317 |
| Currently employed | 2.547 |
| Currently unemployed | 1.274 |
| Retired | 2.945 |
| Currently in school/other | 2.203 |
| Low income | 2.142 |
| Average income | 2.296 |
| Above average income | 2.641 |
| High income | 2.874 |
| Less than high school | 2.016 |
| High school diploma | 2.523 |
| College and above | 2.679 |
| Leisure time | 2.627 |
| No leisure time | 2.149 |
| Young age | 2.28 |
| Middle age | 2.529 |
| Old age | 2.703 |
| Excellent/good health | 2.74 |
| Fair/poor health | 1.723 |
| Male | 2.562 |
| Female | 2.498 |
| White | 2.604 |
| Black | 2.086 |

the results show. Weber's (1930) thesis that the members of the Protestant church possess an optimistic view about life might have held true in the early years of Western capitalism, but today people's rationalistic calculations may be more closely linked to their utilitarian and hedonistic profiles than their levels of happiness. Third, in the pursuit of happiness, the currently employed are not significantly different from the retired (mainly due to old age, as old age and retirement are closely correlated). The currently employed are also not found significantly different from those currently in school or doing other non-income activities. Only, a significant difference exists in this respect between the currently employed and the currently unemployed categories as well as the currently unemployed and those who are not currently involved in formal labor market, i.e., students, housekeepers and others. It is, however, not known from the survey data used in this study for how long the currently unemployed were out of work at the time of the data collection. If the length of unemployment persists for a long time, people may start becoming frustrated and hence less satisfied with life. It is also not known whether the students, housekeepers and others were engaged in non-income activities as because they failed to find suitable jobs.

Bok (2010) finds that job loss is singularly upsetting for most Americans; it even outranks divorce or separation in affecting their levels of happiness. Furthermore, when workers find a new position at similar pay, they often fail to regain their earlier level of happiness. But the US government, as Bok claims, does not have sufficient and appropriate schemes to reduce the shock of unemployment. He recommends that unemployment insurance should be extended to cover all the American workers who are not covered now, and that aid should be offered to those who lose their jobs and want to go back to school until they find better jobs with greater qualifications.

Fourth, although this study finds significant difference in the distribution of happiness between high and low, high and average, and above-average and low income groups, it does not find the same between high and above-average income groups. This is perhaps due to the fact that after a certain level, more money does not mean more happiness. When all the basic needs are ensured, people remain content with what they earn. This finding is similar to what Ball and Chernova (2008) find: changes in relative income have a much larger effect on happiness than changes in absolute income. Easterlin (1974) also suggests that "if people care only about their relative incomes, then a distribution-neutral shift in a country's GDP per capita will not make anyone happier. If this is true, policy-makers, donors of foreign aid, and anyone else hoping to improve the lives of people around the world should look for strategies other than simply promoting growth" (cited in Ball and Chernova 2008: 498).

Finally, this study supports the arguments of Michalos (2008) that education should be defined more broadly to include formal, non-formal and informal education and that we should analyze its direct and indirect influences on happiness, defined broadly as general wellbeing of people. Leisure time, which is found significantly and positively associated with happiness, creates opportunity for informal, non-formal as well as formal learning. We have little scope for leisure time due to our "formal" workload. We are mostly occupied with earning our livelihood. When it is related to the question of wellbeing, work should be defined broadly to include our leisure-time creative activities as well as informal learning. Moreover, in praise of leisure time, everybody should demand "a world where no one is

compelled to work more than four hours a day," as Russell (2000: 24-25) argues: "Modern methods of production have given us the possibility of ease and security for all; we have chosen, instead, to have overwork for some and starvation for others. Hitherto we have continued to be as energetic as we were before there were machines; in this we have been foolish, but there is no reason to go on being foolish forever."

Unfortunately, leisure-time activities are often not considered as work that pays. Most surveys do not include necessary measures of work, education, or happiness defined in broader terms. A tradition of happiness research is growing but many of its unconventional findings, such as the finding that national economic growth does not automatically translate into a rise in citizens' happiness levels, have turned out to be counterintuitive. As a result, even if it is established by some empirical studies showing what makes individuals substantially happy, most policy makers would suggest that we should leave its pursuit to individuals alone since happiness is largely a subjective judgment. Policy makers also tend to believe that individuals are often a bad judge of their real needs. I would argue that because individuals do not always know what makes them happy, policy makers have the responsibility to work out appropriate official indexes to measure general wellbeing of people and design policy to enhance their happiness levels.

The government of a country has the potential to produce happiness for the maximum number of people. If the government puts more efforts to create happy citizens, the happy citizens will create more social capital and less social and political unrest (Lyubomirsky et al. 2005). This can be a strong justification for the government to replace per capita Gross National Product (GNP) with Gross National Happiness (GNH) as the yardstick to measure a nation's progress and adopt public policy to enhance collective happiness.

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