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The Determinants of Happiness Among  
Race Groups in South Africa

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# THE DETERMINANTS OF HAPPINESS AMONG RACE GROUPS IN SOUTH AFRICA

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## *Abstract*

This paper tests for happiness differences among race groups in South Africa and also investigates the determinants of happiness for each race group. Using data from the 2008 National Income Dynamics Survey, the results indicate that reported happiness differs substantially among race groups, with Blacks being the least happy. The determinants of happiness also differ between race groups. While Whites attached greater importance to physical health, employment status and absolute income matter greatly for Blacks. For Coloureds and Blacks, relative income is an important determinant of happiness, with religious importance significantly contributing to the happiness of Indians/Asians.

KEYWORDS: Happiness, race, determinants, South Africa

JEL CLASSIFICATION: I31, D60

## 1. INTRODUCTION

INTEREST IN examining the causes of and reasons for happiness has become a popular topic in economics in past decades as can be seen by the exponential increase in literature regarding life satisfaction (Clark *et al.*, 2008).<sup>1</sup> Veenhoven (1991, 1993) defines happiness as the degree to which an individual judges the overall quality of his or her life as favourable. In order to increase the happiness of all members of society, a good understanding is needed of all the factors that contribute to happiness (Veenhoven, 1996:13).

An understanding of racial happiness differences in South Africa is important as the information can be used to address these differences in future economic policy. Sixteen years after the democratisation of South Africa, we would expect that happiness differences among race groups should be less substantial than before the 1994 elections (Powdthavee, 2003). In light of this background, this paper aims to examine whether reported happiness differs among race groups, as well as explore the determinants of happiness for each race group. The paper proceeds as follows: Section 2 presents a literature review on the determinants of happiness and previous research; Section 3 presents details of the data used and the research methodology; Section 4 presents the results and discussion of the findings and Section 5 presents some concluding remarks.

## 2. LITERATURE REVIEW

### *2.1 The determinants of happiness*

Happiness levels can change significantly in response to many different factors (Schyns, 1998; Hagerty and Veenhoven, 2003; Powdthavee, 2003; Møller and Radloff, 2010). Happiness surveys can be used to look at the effects of non-income factors such as

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<sup>1</sup>Some researchers distinguish between the terms 'happiness', 'well-being' and 'life satisfaction', but others use the terms interchangeably. It is argued that questions that are answered with these different words receive the same emotional response (Veenhoven 1996:34; Schyns 1998:11). For example, Schyns (1998:11) found a high correlation between mean happiness and mean life-satisfaction and suggests that happiness and life-satisfaction are very similar concepts. Therefore, these terms are used interchangeably in this paper.

education, race and gender; all of which have been found to have a relationship with happiness. Factors such as inflation, gross domestic product (GDP) and price stability have also been found to have a relationship with happiness but will not be examined in this paper as this is a cross-sectional study (Frey and Stutzer, 2002).

It has been found that unemployment is a source of dissatisfaction with life (Clark and Oswald, 1994; Oswald, 1997; Ravallion and Lokshin, 2001; Stutzer, 2001; Powdthavee, 2003; Møller and Radloff, 2010). Graham (2008:28) notes that unemployment has a greater negative effect in countries where there are no measures to counter the effects of unemployment. Clark and Oswald (1994:655) also found that unemployment has a greater effect on happiness than income. For South Africa, Hinks and Gruen (2007:326) found that being unemployed has a negative impact on happiness.

Warr (1992), Clark *et al.* (1996), Blanchflower and Oswald (2000) and Ferrer-i-Carbonell and Gowdy (2007) found a “U-shaped” relationship between happiness and age, which suggests that happiness is high at a young age, decreases over time until it reaches the lowest level of happiness (between 30 and 50 years of age) and then increases again (Dolan *et al.*, 2008:98). Powdthavee (2003, 2005) found a significant U-shaped relationship between happiness and age among South Africans, which reaches a minimum at approximately 40 years of age. However, Hinks and Gruen (2007) found no significant relationship between age and happiness in South Africa.

Diener *et al.* (1993), Oswald (1997) and Blanchflower and Oswald (2000) found that those who are more educated are happier than those with a lower level of education. The positive relationship between happiness and education is generally attributed to the higher income, productivity, and social status brought about by a higher level of education (Witter *et al.*, 1984). Higher education may, however, lead to greater aspirations and if these aspirations are not met may lead to dissatisfaction (Clark and Oswald, 1994; Diener *et al.*, 1999). This idea is also asserted by Powdthavee (2003) from South African evidence, who found a negative relationship between happiness and education. Hinks and Gruen (2007) found that those with tertiary education are happier than those with no education. They also found, however, that people with primary and secondary education are not happier than those with no formal education. Mahadea and Rawat (2008) report no significant relationship between education and happiness in South Africa.

Marital status is another important determinant of happiness found mainly from research conducted in the developed world. Married people are happier than those who are divorced, separated, single or widowed (Clark and Oswald, 1994; Easterlin, 2001; Layard, 2006). In addition, cohabitants generally report a higher level of happiness than those who are single (Dolan *et al.*, 2008:106). Powdthavee (2003) and Hinks and Gruen (2007) found no significant relationship between happiness and marital status. However, in a later study, Powdthavee (2005) found that South Africans in civil marriages were significantly happier than people who were single.

Men and women generally report different levels of happiness. Clark and Oswald (1994) and Blanchflower and Oswald (2000) found that women are happier than men while Stevenson and Wolfers (2009:1) find that despite the improvements in the lives of women, the happiness of women has declined relative to that of men in the USA. In contrast, Graham (2008) found no significant happiness differences among gender groups in Latin America. Both Hinks and Gruen (2007) and Mahadea and Rawat (2008) found no significant relationship between happiness and gender in South Africa.

Health is an important determinant of well-being. Those in good health generally report a higher level of satisfaction than those with poorer health (Veenhoven, 1996; Gerdtham and Johannesson, 2001). Health is the most important factor affecting happiness in Latin America, and is consistent in both developed and developing nations (Graham, 2008). Using Swedish data, Gerdtham and Johannesson (2001) found a positive relationship between health and happiness.

Studies have shown that those who practice a religion have a higher level of happiness than those who do not practice any religion (Ferriss, 2002; Rule, 2007). It has also shown that religious importance has a positive influence on happiness levels (Ferriss, 2002; Hayo, 2004). From South African data, Rule (2007) found that religious importance positively affects happiness.

Children and happiness are related, but the results are mixed (Dolan *et al.*, 2008:107). Some studies find that having children exhibits a positive relationship with happiness (Haller and Hadler, 2006), while others find a negative effect of children on happiness in, for example, single parents (Frey and Stutzer, 2000), poor families (Alesina *et al.*, 2004) and divorced mothers (Schoon *et al.*, 2005).

Schyns (1998), Marks and Flemming (1999), Graham, Eggers and Sukhtankar (2004), and Blanchflower and Oswald (2004) suggest that there is a positive relationship between happiness and absolute income. An increase in absolute income enables consumers to purchase more goods and services, which in turn results in an increase in happiness (Mahadea and Rawat, 2008). The effect of income on happiness is greater in developing countries than in developed countries (Clark *et al.*, 2008). In developed countries, it has been found that once a certain income threshold is reached, an increase in income does not raise happiness levels (Clark *et al.*, 2008). In South Africa, Powdthavee (2003), Hinks and Gruen (2007) and Mahadea and Rawat (2008) found that happiness is positively associated with absolute income.

Studies including relative income suggest that happiness is strongly affected by positional status in society (Clark *et al.*, 2008), with the relationship between relative income and happiness being dependent on those in the relevant comparison group (Ferrer-i-Carbonell and Gowdy, 2007). Clark *et al.* (2008) suggest that an increase in income of an individual relative to others will raise the level of happiness of that individual. Thus, people care about their social status in society. In South Africa, Powdthavee (2003) found that higher relative income is associated with higher levels of happiness.

## 2.2 Previous research

The relationship between happiness and race has been explored in previous research, with race having a significant effect on happiness in both developed and developing countries (Graham, 2005). For example, Oswald (1997), Hughes and Thomas (1998), Di Tella *et al.* (2001) and Graham (2005) found that the well-being of Black people was much lower than those of other race groups in the US and Latin America.

Powdthavee (2003) examined the happiness of South Africans using data from the 1993 Southern Africa Labour and Development Research Unit (SALDRU) survey and found Blacks to be the least happy race group, which he attributes to the Apartheid legacy of South Africa. Hinks and Gruen (2007) found, from studies conducted in Durban, that Whites are happiest followed by Asians and Coloureds. Blacks were found to be most unhappy group. Harris (2007) conducted a study on the changes South Africa experienced with the end of Apartheid and found that Blacks were happier at the advent

of democracy than they were before. However, the percentage of Blacks that reported that they were relatively happy was much less than that of the other race groups. Mahadea and Rawat (2008) found, from a study conducted in Pietermaritzburg, that Blacks are happier than Coloureds but, similar to Hinks and Gruen (2007), in the race hierarchy Whites remain the happiest followed by Indians.

Previous studies conducted in South Africa mainly test which race group is happiest in comparison to other race groups, while these studies only include race as a control variable. In all of the South African studies conducted, none have explicitly analysed the determinants of happiness for the respective race groups. There is thus a distinct lack of research in South Africa on the relationship between happiness and race as well as the determinants of happiness for each race group.

### 3. DATA AND METHOD

The data is obtained from the National Income Dynamics Study (NIDS), which was conducted by the Southern Africa Labour and Development Research Unit (SALDRU) in 2008. NIDS is a nationally representative survey examining 7300 households carried out by approximately 300 fieldworkers. The aim of NIDS is to examine income, consumption, expenditure and well-being over time. NIDS is the most recent data set that contains a question about life satisfaction and is therefore chosen for this study. The question regarding life satisfaction in the survey states: “Using a scale of 1 to 10 where 1 means ‘Very dissatisfied’ and 10 means ‘Very satisfied’, how do you feel about your life as a whole right now?”

The data is analysed using the STATA statistical program. The analysis comprises of both descriptive and regression based methods. In the descriptive section, analysis of variance (ANOVA) and median tests are conducted. The former tests for the equality of mean happiness between racial groups, while the latter tests whether reported median happiness between racial groups are equal.

Due to the ordinal nature of happiness, the common method for estimating happiness equations is to adopt an ordered probit model as it best describes individual preferences (Gerdtham and Johannesson, 2001; Hinks and Gruen, 2007). The following model is estimated:

$$y = \beta_i X_i + \varepsilon_i \quad (1)$$

where  $y$  represents reported happiness at the  $i^{\text{th}}$  scale,  $\beta_i$  is the coefficient of each of the variables included in the model,  $X_i$  represents the vector of explanatory variables and  $\varepsilon_i$  represents the error term. Since an ordered probit model estimates both the effects of the independent variables and the thresholds of the dependent variable at the same time, the marginal effects are calculated and interpreted instead. The marginal effect of the independent variable is the derivative or slope of the prediction function which reports information on the probability of success. This is done for the highest level of happiness, i.e. level 10.

The explanatory variables, which were informed by the literature review, includes race, age, age squared, education, marital status, gender, health, religion, children, absolute income, employment status and relative income. Race is classified into four categories; Black (base), White, Asian/Indian and Coloured. Age refers to the age of the respondent. Age squared is the square of age. Education is divided into four categories, including “no schooling” (base), “primary school”, “secondary school” and “post-secondary school”.

*Table 1: Reported happiness (%), by race group*

Satisfaction level of life currently	Black	Coloured	Indian/Asian	White	Total
Satisfaction scale: 1	8.88	2.85	3.54	0.59	7.33
Satisfaction scale: 2	6.36	1.64	1.01	1.19	5.22
Satisfaction scale: 3	10.98	3.13	2.53	1.66	9.03
Satisfaction scale: 4	15.82	7.89	5.56	4.15	13.67
Satisfaction scale: 5	19.27	19.85	19.19	13.64	18.97
Satisfaction scale: 6	13.14	13.43	11.11	12.57	13.12
Satisfaction scale: 7	10.03	15.13	21.21	18.27	11.54
Satisfaction scale: 8	6.46	14.31	24.75	29.54	9.52
Satisfaction scale: 9	2.39	5.26	2.02	9.25	3.29
Satisfaction scale: 10	6.65	16.50	9.09	9.13	8.33
Total	100.00	100.00	100.00	100.00	100.00
Number of observations	9,365	1,824	198	843	12,230
Pearson chi <sup>2</sup> (27)	1500.0***				
Mean happiness	5.03	6.60	6.53	7.07	5.43

Marital status is classified in five categories; “Single” (base), “Married”, “Cohabitant”, “Widowed” and “Divorced/Separated”. Gender is classified in two categories; male (base) and female. The health variable measures the individual's own assessment of current health and consists of five categories, namely “Poor” (base), “Fair”, “Good”, “Very good” and “Excellent”. The religious importance variable is measured through questioning the importance of religion in an individual's life, and is separated into four categories, ranging from “Not important at all” (base), “Unimportant”, “Important” and “Very important”. The children variable refers to the number of children a respondent has. Absolute income is net income per month, in logarithm. Employment status consists of two categories, namely unemployed (base) and employed. To measure relative income, individuals were asked to classify their household income in comparison with other households in their area. Relative income is classified into five categories; “Much below average income” (base), “Below average income”, “Average income”, “Above average income” and “Much above average income”.

Five ordered probit regressions were conducted. The first regression includes the entire sample while the remaining regressions report results for each individual race group. In terms of diagnostics, the Pseudo R-squared and Wald chi-squared tests are used. The former is a standard measure of goodness of fit, while the latter reports the joint significance of the explanatory variables in explaining the variation in the dependent variable.

#### 4. RESULTS AND DISCUSSION

Table 1 illustrates the reported satisfaction levels for people across the different race groups, with the Pearson chi-squared test indicating that the relationship between happiness and race is statistically significant ( $p < 0.001$ ). Of black respondents, 61% reported a level of satisfaction of 5 or less while only 21% of white respondents reported a level of satisfaction of 5 or less. Only 6.65% of Black respondents report a satisfaction level of 10, while the majority of Blacks and Coloureds report a satisfaction level of 5. This is different from results for Whites and Indians/Asians where the majority of both race groups report a satisfaction level of 8. As found by Hinks and Gruen (2007) the majority of Blacks still reported lowest happiness levels.

The ANOVA results indicate that mean happiness is not equal for all race groups ( $F(3, 12226) = 394.53, p < 0.001$ ). The median test among race groups also shows that median happiness among race groups is also not equal ( $p < 0.001$ ).

Table 2: Marginal effects ordered probit results of reported happiness across different race group

	Total Sample	Black	Coloured	Indian/Asian	White
Age	-0.0013*** (0.0004)	-0.0014*** (0.0004)	0.0008 (0.0023)	-0.0052 (0.0046)	-0.0043** (0.0022)
Age squared	0.0000*** (0.0000)	0.0000*** (0.0000)	0.0000 (0.0000)	0.0001 (0.0001)	0.0001*** (0.0000)
Primary school	0.0122*** (0.0040)	0.0076** (0.0036)	0.0503** (0.0229)	0.0251 (0.0439)	-0.0581* (0.0299)
Secondary school	0.0190*** (0.0042)	0.0129*** (0.0041)	0.0607*** (0.0224)	0.0669 (0.0564)	-0.0606 (0.0586)
Post secondary school	0.0221*** (0.0052)	0.0122** (0.0049)	0.0858*** (0.0328)	0.0715 (0.0631)	-0.0574 (0.0994)
Cohabitant	-0.0006 (0.0038)	0.0005 (0.0037)	-0.0265 (0.0193)	-0.0349 (0.0668)	0.0047 (0.0372)
Widowed	-0.0027 (0.0044)	0.0015 (0.0045)	-0.0406* (0.0227)	-0.0356 (0.0289)	-0.0168 (0.0242)
Divorced/Separated	-0.0142*** (0.0053)	-0.0104* (0.0061)	-0.0417 (0.0282)	-0.0463* (0.0237)	-0.0241 (0.0212)
Married	0.0038 (0.0031)	0.0055* (0.0031)	-0.0268 (0.0169)	0.0541* (0.0313)	-0.0022 (0.0207)
Female	-0.0065*** (0.0024)	-0.0084*** (0.0025)	0.0042 (0.0132)	0.0125 (0.0204)	0.0186* (0.0106)
Fair health	0.0178*** (0.0055)	0.0127** (0.0051)	0.0471 (0.0306)	0.0364 (0.0443)	0.1215* (0.0683)
Good health	0.0197*** (0.0051)	0.0120** (0.0047)	0.0785*** (0.0300)	0.0776 (0.0535)	0.1238** (0.0557)
Very good health	0.0377*** (0.0059)	0.0296*** (0.0057)	0.0838*** (0.0304)	0.0578 (0.0578)	0.1671*** (0.0558)
Excellent health	0.0231*** (0.0055)	0.0139*** (0.0052)	0.0500* (0.0300)	0.1199 (0.0747)	0.2458*** (0.0731)
Religion - unimportant	-0.0023 (0.0069)	-0.0025 (0.0064)	0.0105 (0.0677)	0.3816* (0.2194)	-0.0025 (0.0325)
Religion – important	0.0078 (0.0060)	0.0083 (0.0056)	0.0392 (0.0609)	0.2023* (0.1112)	-0.0126 (0.0266)
Religion - very important	0.0370*** (0.0066)	0.0361*** (0.0067)	0.0787 (0.0483)	0.1335*** (0.0449)	0.0149 (0.0274)
Children	0.0000 (0.0006)	-0.0001 (0.0006)	0.0034 (0.0044)	0.0125 (0.0101)	-0.0094 (0.0070)
Absolute income	0.0070*** (0.0021)	0.0119*** (0.0024)	-0.0056 (0.0103)	0.0264 (0.0259)	0.0118 (0.0097)
Employment status	0.0356*** (0.0115)	0.0525*** (0.0092)	-0.0452 (0.0794)	0.1441 (0.1128)	0.0830 (0.0672)
Below average income	0.0396*** (0.0041)	0.0354*** (0.0039)	0.0730*** (0.0228)	-0.0350 (0.0240)	0.0224 (0.0483)
Average income	0.1065*** (0.0055)	0.0998*** (0.0059)	0.1885*** (0.0220)	0.0480* (0.0268)	0.0600* (0.0361)
Above average income	0.2285*** (0.0149)	0.2410*** (0.0175)	0.2691*** (0.0484)	0.0345 (0.0806)	0.1075 (0.0694)
Much above average income	0.3136*** (0.0313)	0.2777*** (0.0317)	0.4834*** (0.1175)	0.4013 (0.2883)	0.3358** (0.1710)
Coloured	0.0821*** (0.0061)				
Indian/Asian	0.0566*** (0.0141)				
White	0.0746*** (0.0076)				
Number of observations	10738	8281	1571	168	718
Wald Chi-squared	2650.43	1456.64	192.17	73.01	116.12
Pseudo R-squared	0.0587	0.0430	0.0319	0.0904	0.0429

Note: p < 0.01 \*\*\*, p < 0.05 \*\*, p < 0.10 \*. Robust standard errors are shown in parenthesis.



The majority of Black respondents report a satisfaction level that is lower than the median of the entire sample while the majority of people in all other race groups report a level of satisfaction that is higher than the overall median. Whites are found to have the highest mean level of happiness followed by Coloured and then Indians/Asians. Blacks report the lowest mean level of happiness as is displayed in Table 1. Evidently, the descriptive statistics give the first evidence of happiness differences among race groups.

All regression results are reported in Table 2. Each regressions model is found to be statistically significant having high chi-square indicating that all the explanatory variables are jointly significant in explaining the variation in happiness. The Pseudo R-squared values for each model is low. Pseudo R-squared measures the goodness of fit but can be expected to be low when conducting an ordered probit regression (Powdthavee, 2003).

Results from the regression of the entire sample confirm that there is a difference in happiness levels among race groups. Compared to Blacks, the probability of reporting the highest level of satisfaction is 8.21%, 7.46% and 5.66% higher for Coloureds, Whites and Indians/Asians respectively. Post estimation chi-square tests indicate that Coloureds are happier than Indians/Asians ( $p < 0.05$ ) but not significantly happier than Whites ( $p = 0.1598$ ) while Indians/Asians are not significantly happier than Whites ( $p = 0.1954$ ). Powdthavee (2003, 2005) and Hinks and Gruen (2007) also found Blacks to be the least satisfied race group. These results are also consistent with findings of Blanchflower and Oswald (2004) for the USA.

For the total sample, age has a negative relationship with happiness. For each additional year of age, the probability of reporting the highest level of happiness decreases by approximately 0.13% ( $p < 0.01$ ). Results for Coloureds and Indians/Asians are insignificant but results for both Blacks and Whites are significant and indicate a negative relationship between age and happiness. The relationship of happiness with age-squared is positive and significant for the entire sample. For Blacks, Whites and the total sample, the signs of age and age squared show that there is indeed a U-shaped relationship between happiness and age. This is in line with the findings of international studies such as Warr (1992) and Clark et al. (1996), as well as the South African studies of Powdthavee (2003, 2005).

Reported well-being is higher for respondents with a higher level of education. Having post-secondary education contributes the most to happiness levels relative to those who have no education ( $p < 0.01$ ). Similar findings are found from evidence in developed countries (Diener *et al.*, 1993). Interestingly primary school education for Whites enters negatively with happiness indicating that those with primary school education are less likely to report the highest level of happiness than those who have no schooling ( $p < 0.10$ ). Results for Whites in the secondary school and post-secondary school categories are insignificant as well as the results for Indians/Asians. For Coloureds, the probability of reporting the highest level of happiness is 8.58% higher for someone with post-secondary education compared to those with no schooling ( $p < 0.01$ ).

Married people are not significantly happier than those who are single for the entire sample as well as Coloureds and Whites. For Blacks and Indians/Asians, respectively, the probability of reporting the highest level of satisfaction for those who are married is 0.55% and 5.41% higher than those who are single ( $p < 0.10$ ). The probability of reporting the highest level of satisfaction for those who are divorced is 1.42% lower compared to those who are single ( $p < 0.01$ ). For Coloureds, the probability of reporting the highest level of satisfaction for those who are widowed is 4.06% lower compared to

those who are single ( $p < 0.10$ ). Powdthavee (2005) and Mahadea and Rawat (2008) found similar results regarding divorce while these findings are in contrast to Hinks and Gruen (2007).

Females are found to be less happy than males in the overall sample ( $p < 0.01$ ). This finding is in contrast to that of Hinks and Gruen (2007), who found no significant differences in happiness between men and women. Black men are happier than Black women, but results for Coloureds and Indians/Asians are insignificant. For Whites it is found that the probability of females reporting the highest level of happiness is 1.86% higher than for males ( $p < 0.10$ ).

As expected, health plays a significant positive role in happiness. Those who report fair health and above average health have a higher level of happiness compared to those who report a poor health status. This is found to be true in the overall model as well as for each individual race group, with the exception of Indians/Asians where results are insignificant. The effect of health is greatest for Whites, where the probability of reporting the highest level of satisfaction for those with excellent health is 24.58% higher compared to those who reported poor health ( $p < 0.01$ ).

In the overall sample, those who consider religious activities as very important are 3.7% more likely to report the highest level of happiness compared to those who consider religious activities not to be important at all ( $p < 0.01$ ). Religious importance is a determinant of happiness for the Indian/Asian race group. The probability of reporting the highest level of happiness is 13.35% higher for those viewing religious activities as very important than those viewing religious activities not to be important at all ( $p < 0.01$ ). The results for Blacks indicate that the probability of reporting the highest level of happiness is 3.61% higher for those viewing religious activities as very important than those viewing religious activities not to be important at all. Post estimation chi-square tests for Coloureds indicate that those viewing religion as important is not significantly happier than those who report religion as unimportant ( $p = 0.4492$ ) with the results for Whites indicating that those who report religion as very important are happier than those who report religion as unimportant ( $p < 0.01$ ).

The effect of children on happiness is insignificant for all race groups and in the overall sample. This is in contrast to Mahadea and Rawat (2008), who found that children and happiness are negatively associated. Absolute income is positively related with happiness but is only significant in the total sample and for Blacks. A one percent increase in absolute income increases the probability of reporting the highest level of happiness by 0.7% and 1.19% for the total sample and Blacks, respectively. These results are broadly in line with Powdthavee (2003), Hinks and Gruen (2007) and Mahadea and Rawat (2008).

Those who are employed report a higher level of happiness than those who are unemployed. In the overall sample, the probability of reporting the highest level of happiness for those who are employed is 3.56% higher than for those who are unemployed. For Blacks, the probability of reporting the highest level of happiness is 5.25% higher for those who are employed compared to those who are unemployed. International studies for both developing and developed countries also found that unemployment and happiness are negatively associated (Clark and Oswald, 1994; Oswald, 1997; Ravallion and Lokshin, 2001; Stutzer, 2001 and Graham, 2008). Results for Coloureds, Indian/Asian and Whites are found to be insignificant.

For the total sample the probability of reporting the highest level of happiness for those who consider their income to be much above average income is 31.36% higher than those who consider their income as much below average income. Coloureds that report much above average income are 48.34% less likely to be very dissatisfied with life than those who report much below average income. Relative income is a determinant of happiness for Blacks and Whites. Results for Blacks indicate that the likelihood of reporting the highest level of happiness is 27.77% higher for those with much above average income than those much below average income. Post estimation chi-square results for Indians/Asians indicate that those who considered much above average income are happier than those who are considered below average income. The results for relative income thus confirm the idea that individuals measure their happiness relative to those in their reference group and are also consistent with the findings of Hinks and Gruen (2007).

## 5. CONCLUSION

This paper aimed to test if there is a difference in happiness levels between race groups in South Africa and discuss the determinants of happiness for each group. It estimates the responses for the question of life satisfaction from a survey of a representative sample of the country conducted in 2008. Black respondents in South Africa report a much lower level of happiness than Whites, Coloureds and Indians/Asians. The overall finding that happiness levels are significantly different among race groups is not a new result in the South African context. Although this may be expected due to the legacy of Apartheid, it is disappointing to note that 16 years after the democratisation of the country, a racial happiness hierarchy still persists. What have emerged as a new set of results are the factors affecting happiness levels for each race group. Age, education, marital status, gender, health, religious importance, absolute income, employment status, and relative income all influence happiness levels in this study but to different degrees for each race group.

There is sufficient evidence to conclude a U-shaped relationship between age and happiness for South Africans which is similar to results found for both developing and developed countries. As is expected reported happiness is higher for respondents with a higher level of education. Divorced people are less happy than single people as can be expected, but results for married people are insignificant when looking at the total sample. Men and women do report different levels of happiness but in South Africa the trend is that females are less happy than males. Whites attach a greater importance to physical health relative to other race groups. As a determinant of happiness, religious importance significantly contributes to the happiness of Indians/Asians. Employment status as well as absolute income are determinants of happiness that are more important to Blacks than to other race groups. It emerges that although income is an important determinant of happiness for each race group, relative income is more important in determining happiness levels for Coloureds.

Factors that determine happiness such as age, gender, religious importance, marital status, relative income and number of children are not matters government can control. However, significant improvements in variables such as employment status, absolute income, education and health can raise the overall levels of life satisfaction in society as these determinants of happiness are the most important across different race groups. The findings of this paper therefore have important policy implications. When trying to

improve the level of welfare in South Africa, policy-makers cannot ignore education, health and employments status. It is hoped that this study will serve to raise awareness amongst economists and policy-makers of the determinants of happiness in the South African context.

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