Human Capital and Economic Opportunity: A Global Working Group

**Working Paper Series** 

Working Paper No. 2012-010

# Gender and Well-Being around the World: Some Insights from the Economics of Happiness

Carol Graham Soumya Chattopadhyay

May, 2012

Human Capital and Economic Opportunity Working Group Economic Research Center University of Chicago 1126 E. 59th Street Chicago IL 60637 humcap@uchicago.edu

# Gender and Well-Being around the World: Some Insights from the Economics of Happiness

# Carol Graham and Soumya Chattopadhyay The Brookings Institution March 2012

A wide body of research explores gender differences in welfare outcomes, and their implications for economic development. We aim to contribute to this work by looking at differences in reported well-being (happiness) across genders around the world. We examine differences across genders within countries, comparing age, income, education, and urban versus rural cohorts, and explore how those same within country differences vary in countries of different development levels. Our findings, based also on previous research on well-being more generally, highlight some consistent patterns across genders, with women typically happier than men in the world as a whole, with the exception of the poorest sample of countries. We also find substantial differences in the standard relationships between key variables - such as marriage - and happiness when we take differences in gender rights into account. Our research also suggests that cross-gender differences in well-being are affected by the same empirical and methodological factors that drive the paradoxes underlying the income and happiness debates more generally, with norms and expectations playing an important mediating role. Women's happiness seems to fall – at least in the short-term - when there are changes/improvements in gender rights, in keeping with our more general findings on the drops in reported well-being that are often associated with the process of acquiring agency.

JEL codes: I3 welfare and poverty; J1 demographic economics; J7 labor discrimination

## Gender and Well-Being around the World: Some Insights from the Economics of Happiness

# Carol Graham and Soumya Chattopadhyay The Brookings Institution March 2012

There is a wide body of research aimed at better understanding differences across gender in welfare outcomes, and the implications of those differences – in particular the extent to which female outcomes are disadvantaged – for economic development. Women's rights have improved in general in the past few decades, but there are large differences across regions of the world and countries within them. These differences, in turn, may have implications for the way in which these countries and regions develop.

We aim to contribute to this work by looking at differences in reported well-being (happiness) across genders around the world. We examine differences across genders within countries, comparing age, income, education, and location (urban versus rural) cohorts, and explore how those same within country differences vary in countries of different development levels.

While happiness is the commonly used colloquial term, well-being is a more comprehensive term implying the many dimensions of human well-being, and is ultimately the subject of our inquiry.<sup>1</sup> The economics of happiness is a relatively new approach which uses surveys of reported well-being to establish the income and non-income determinants of human well-being, as well as to understand the effects of environmental and policy conditions. The factors affecting well-being that can be studied include environmental quality, inequality, commuting time, inflation and unemployment rates, and quality of governance, among others. Presumably any or all of these could have quite different effects across genders.

The approach is particularly well-suited to addressing questions that standard revealed preferences approaches do not answer very well, such as situations where individual choice is limited, as is in the case of contexts of strong gender discrimination. Two sets of questions are the subject of the authors' ongoing research and are relevant here. The first is the welfare effects of macro and institutional arrangements that individuals are powerless to change. The second is the explanation of behaviors that are driven by norms (including low expectations), or by addiction and self-control problems. As such, the approach may be helpful in exploring differences in well-being across genders, both in the aggregate and in country or region-specific contexts, where women's rights may be constrained or compromised.

Neither of the authors is an expert on gender issues. Our aim is to provide data on genderspecific well-being trends which is novel and hopefully useful to those who are. Our work builds

<sup>&</sup>lt;sup>1</sup> For a detailed discussion of the definition of the different terms underlying the broader concept of well-being, terms which include happiness, life satisfaction, best possible life, subjective well-being, and reported well-being, among others, see Graham (2011), chapter 1.

from earlier work by Graham (2009), and by Graham, Chattopadhyay, and Picon (2010a and b). Our research is based primarily on data from the Gallup World Poll (2005-2010) and measuring well-being or happiness based on Cantril's best possible life question. Our results are supplemented in places by analysis based on the Latinobarometro survey for Latin America, and by the World Values Survey, among others.

#### **World-Wide Trends**

Our main finding is that women are happier than men world-wide. The standard deviation of happiness levels across women is also smaller than that of men. We find a consistent pattern across levels of development and over time.<sup>2</sup> Well-being levels are generally higher in countries with higher levels of development, and the gap between male and female happiness is also greater in countries with higher levels of development. When happiness levels rise or fall (they did the latter, on average, from 2005-2010), the levels of women and men tend to co-move, with the gap between them remaining largely the same across the different sets of countries. [Figure 1, Table 1]

One notable exception, which is not surprising given the context, is sub-Saharan Africa, where men are happier than women for most of the years for which we have data. Not only is SSA the only region in the world where women are less happy than men, but they are also less positive about their future happiness than men. Again, this is a departure from the trends in other world regions. [Table 3]

This general finding of higher levels of female happiness is supported by recent research by Veira Lima (2011), based on the World Values survey. Yet the two sets of research have important differences. While Veira-Lima also finds that women are happier than men in general, she finds that the *gap* between male and female happiness is larger in countries with *lower* levels of development and less favorable gender rights (as measured by the Cigranelli-Richards (CIRI) Human Rights data and by the World Development Indicators (WDI). How the gap between male and female happiness varies (in at times surprising ways) across countries and contexts of gender-rights depends in part on which question is used to measure well-being, and in part on unobservable differences across countries.

Our own research on question framing (Graham, Chattopadhyay, and Picon 2010a) finds that the best possible life question correlates much more closely with income across countries than do other happiness questions, such as open-ended happiness and life satisfaction questions. In one exploration in Afghanistan, where we tested the best possible life question against an open-ended happiness question and a question about frequency of smiling the previous day (designed to capture positive affect), we find that respondents in Afghanistan score much higher than the world average on the open-ended happiness and affect questions, but much lower than the world average on the best possible life question. The best possible life question is framed in relative terms, and evokes a broader reference norm than do general life satisfaction or affect questions. Thus different questions seem to capture different components or dimensions of wellbeing which, in turn, correlate differently with income and other measures of development progress.

<sup>&</sup>lt;sup>2</sup> The best possible life question asks respondents to compare their life to the best possible life they can imagine, ranking themselves on a ten-scale ladder. For detail, see Graham (2011).

Richard Easterlin's original work on income and happiness world-wide uncovered a seeming paradox: while individuals were happier than poorer ones within countries, there was not a consistent relationship between income and happiness across countries or over time. The Easterlin Paradox has been the subject of many subsequent studies and is now the subject of much, at times acrimonious, debate among economists today. Recent work on cross-country income and happiness, by Angus Deaton (2008) and Betsey Stevenson and Justin Wolfers (2008) finds a much closer log-linear relationship between average per capita incomes and happiness than have earlier studies, and the authors claim to have de-bunked the Easterlin paradox.

While not entering into that debate here, our contribution has been to demonstrate the role of the particular questions used in explaining much of the debate. Easterlin's work used numerous data sets and an open ended life satisfaction question, while Deaton and Stevenson and Wolfers use the Gallup data and the best possible life question. As Deaton notes in his 2008 paper, the best possible life question invokes a world-wide reference norm, and respondents in Togo know enough to know that life is likely better outside Togo, and those in Denmark likely know they live better than those in Togo, even though each set of respondents may respond quite differently when simply asked how happy they are with their lives in general.

Our research certainly suggests that to be the case, and finds a major role for norms and expectations in moderating the manner in which respondents answer well-being surveys, which in turn affect the dimensions of well-being that respondents emphasize. Some new research on the U.S., for example, by Kahneman and Deaton (2010) suggests that income matters more as respondents evaluate their lives as a whole than it does when they evaluate their daily experiences. Graham (2011), based on research in Latin America with Eduardo Lora (2009), posits that individuals are more likely to emphasize the dimensions of well-being that they are capable of having, and thus wealthier respondents emphasize work and health and their lives as a whole when responding to well-being questions, while poorer respondents with less agency and capabilities emphasize family, friends, and daily living experiences.

That debate has important implications for the different findings on gender. Our research on the Gallup World Poll is based on the best possible life question, and it is not surprising, then, that our findings correlate more closely with income trends than do Veira-Lima's, which are based on an open-ended life satisfaction question in the World Values Survey. Her findings track much less closely with per capita income levels – and indeed almost run in the opposite direction. The nature of gender rights and the opportunities available to women may affect the manner in which they answer well-being surveys, or at least the dimensions of well-being that they emphasize when doing so.

In addition, the Veira-Lima research finds a much stronger role for country outliers (with no clear pattern among them) in the gender gap story than does ours. For example, she finds that women were less happy than men in Singapore, Burkina-Faso, Norway, Israel, Portugal, South Korea, and Brazil, among others. Clearly there are unobservable differences across countries that seem to affect the well-being of men and women differently – or at least how they respond to surveys, and open-ended happiness questions seem to reflect those unobservable differences more than does the more framed best-possible life question.

Another set of findings on happiness and gender may help explain these differential findings. Stevenson and Wolfers (2009) provide evidence that women in the United States have

experienced a decline in absolute and relative levels of happiness, based on the U.S. General Social Survey (GSS). They explain their findings, at least in part, by the raised expectations that accompanied the equalization in gender rights, as well as the double burden that new professional opportunities introduced into many women's lives.

Chris Herbst (2010), in a later paper, based on different survey methods and a different question in the DDB Needham Lifestyle Survey (NLSS), finds that both men and women experienced a similar decline in life satisfaction from 1985 to 2000. Herbst attributes the difference in his findings to the questions used (happiness in the GSS versus life satisfaction in the NLSS) and, more importantly, to different survey methods. The GSS is based on face to face interviews, which may elicit "expected" responses from some respondents as well as are subject to time pressures and cognitive limitations, while the NLSS is based on a mail survey, which allows respondents more time to reflect and answer at a comfortable pace. Responses to face-to-face surveys are more likely to provide extreme responses on questions using ordinal answer scales, for example.

More important, however, the NLSS data is a much later survey, while the GSS captures trends in the 1970's and 1980's. Equal gender rights were much more established in the latter years, and, consequently, women in the work-force may have experienced less barriers to entry as well as less perceived stigma or identity issues pertaining to working and raising a family than those in the earlier decades. One can surely imagine that similar changes in gender rights may have different effects in different countries and regions, depending on where in the cycle particular countries are.

Another example, which complements these findings, is work by Rafael Lalive and Alois Stutzer (2010), which looks at differences in women's wages and well-being levels across Swiss cantons. In June 1981, the Swiss held a referendum on equal rights for women, with an emphasis on equal pay for work of equal value. The majority of cantons (17) voted in favor of the referendum, while nine voted against it - rather remarkably. Indeed, as late as 2003, a survey conducted in Switzerland found that there was still evidence for gender specific differences in appropriate pay.

Using the Swiss Labor Force Survey (SLFS) - a rotating panel conducted annually since 1991 - Lalive and Stutzer examined gender differences in pay and in life satisfaction across cantons. Unsurprisingly, they found that the gender wage gap narrowed significantly in cantons that had voted in favor of the referendum. An unexpected result, however, is that working women in the more conservative communities that had voted against the referendum were significantly more satisfied with their lives than were men (based on an open-ended life satisfaction question), while there was no significant difference in life satisfaction between women and men in the communities where large numbers of voters supported the referendum (approval rate greater than 60%). At the same time, women in the more conservative communities were *less* likely to report discrimination than they were in the communities that had strongly approved the referendum. Lalive and Stutzer focus on the role of different pay norms across communities. More generally, the explanation might be similar to that for the divergent U.S. results, perhaps because of changing expectations and norms in the more liberal Swiss communities. This, in turn, fits with broader findings of the effects of changes on well-being, at least in the short-term. Another example of the effects of cyclical changes is a trend that Eduardo Lora and I (2009) have called the "paradox of unhappy growth" in which, controlling for average per capital levels of GDP, respondents are less happy in faster growing countries. We explain our results, at least in part, by the difference between the effects of *changes* and *levels* of income on wellbeing. While higher *levels* of income – and all of the things that typically accompany them, such as political rights and public goods – are associated with higher levels of well-being, many of the *changes* that accompany rapid income growth, such as increased inequality and insecurity and changing rewards to different skill sets, are often associated with lower levels of well-being, at least in the short term.<sup>3</sup> One can imagine that the same sort of phenomenon could occur at times of change in gender rights and the role of women in the workforce.

#### Multivariate Analysis

We examined the relationship between happiness and gender in a multi-variable regression framework. We first regressed happiness (best possible life) on the usual demographic and socio-economic variables (age, age<sup>2</sup>, gender, marital status, affect variables, household income and size, and urban versus rural location) and with an ordered logit specification on the world-wide sample, and find that the positive relationship between female gender and happiness still holds. [Table 1]

We then compared differences in male and female happiness *within* countries around the world more generally. In addition to the basic finding – women are happier than men world-wide – we looked at differences across age and education cohorts, and also compared developed to developing countries. We find that the gap between male and female happiness is greater (women are that much happier than men) in older (over age 40) than in younger cohorts. The gap is also greater in urban rather than rural areas, and among educated (completed high school and greater) rather than in less educated cohorts. Women seem to be happier as they age, if they have more education, and if they live in urban areas, which is what one would expect from a gender rights perspective (one can imagine that gender rights are more equal in these cohorts). This is an important departure from the findings from the World Values survey study, though, which finds a larger gap between male and female happiness in less developed countries).

We also found some related and interesting findings for marriage. While overall, married people are happier than non-married people, a finding which is consistent throughout the happiness literature, we find that young married people (in the age 15-40 cohort) are *less* happy than the average, while married people over 40 are happier than the average. Along the same lines, married people in urban areas are happier than the average, while there is no difference between married and unmarried people in rural areas. Our findings on marriage and education run in the same direction with the coefficient on marriage being much stronger for educated married people than for non-educated married people. All of these findings suggest that the effects (or correlation) of marriage on happiness are more likely to be positive in cohorts where gender rights are more equal.

#### Differences across Country Income Levels

<sup>&</sup>lt;sup>3</sup> At the same time, we also find that at times of crisis, uncertainty seems to have worse effects on well-being than does loss of income. See Graham, Chattopadhyay, and Picon (2010b).

An important question, of course, is how these trends vary across people in countries of different levels of development. The poorest people in many of the OECD countries are wealthier than the richest ones in some of the poorest countries in our sample. Presumably the relationship between gender and well-being could be quite different. In our full sample analysis, most of those at the top end of the income distribution are most likely in the wealthier countries in the sample.

To get around this problem, we split our sample into low, middle, and high income countries. We used the criteria from the World Bank's World Development Indicators (WDI), which are: low income, low middle income, high middle income, high income OECD countries, and high income non-OECD countries, based on average per capita income levels for each country. We combined the two middle income categories and the two high income categories, resulting in our three income categories.

While the findings are, for the most part, in concurrence with those for the world-wide sample, there are some important departures. The most important of these is that neither our standard age finding (the U-shaped curve) nor our gender finding (women being happier than men) hold for the low-income group. In other words, there is no significant difference between male and female happiness in the low income group of countries. This is intuitive, as one can imagine that women are less likely to be equal in poorer countries, and that likely plays out in their happiness levels. This finding, however, also departs significantly (180 degrees) from the study based on the open-ended life satisfaction question in the World Values survey. It again drums home the point that the best possible life question is a more framed question which correlates more closely with income and the many variables that are typically associated with it (such as more equal gender rights).

There may also be important regional differences across the low-income countries. Our initial look at the world-wide sample comparing regions, noted above, found that the one region where women were not happier than men was sub-Saharan Africa. We explored the extent to which our low-income group finding is driven by respondents in SSA, compared to those in other low and middle-income regions. We found that SSA indeed stands out in that the relationships between both gender and marriage depart for those for the world-wide sample (and most previous work that has been done on the correlates of well-being): men were happier than women, and married respondents were less happy than the average. Rather surprisingly, marriage was also negatively correlated with happiness in LAC. Of the low and middle income regions, marriage was only positively correlated with happiness in MENA and ECA. Thus it seems that the generally positive relationship between marriage and happiness is primarily driven by wealthier countries.

As in the case of our other findings, the state of gender rights may play a role in this, although we do not know for sure. As one test of this, we explored whether the negative effect of marriage was driven by married women. It turns out that, in contrast to what we expected, it is driven by married men! Married men are less happy than married women in all three income regions, although the happiness gap between married men and married women is smallest in the low income countries. There is no happiness gap between unmarried men and unmarried women in the low income countries, meanwhile, while the gender difference still holds for unmarried

men and women in the middle and high income countries, with unmarried women being happier.<sup>4</sup>

Along the same lines, we found that the happiness gap between men and women was highest in the high income countries. In other words, women are the happiest compared to men in the high income countries. And, while household size is negatively correlated with happiness across the board, the negative effect is greatest in the high income countries (there is likely a positive safety net effect of having large households in poor countries). Freedom to choose what to do with one's life, meanwhile, was positively correlated with happiness everywhere, but was most positively correlated with happiness in the high income group of countries. This confirms previous work by the authors, which suggests that norms and expectations about things such as freedom and equal rights (and/or crime and corruption), mediate their positive (negative) effects on well-being.<sup>5</sup>

We also analyzed attitudes about the future. In addition to the best possible life question, there is a question in the Gallup poll that asks respondents how they think their life 5 years hence will compare to the best possible life.<sup>6</sup> While closely linked to answers to the best possible life question, responses to this question are slightly more speculative and capture innate optimism on the one hand, and attitudes about realistic future prospects on the others.

Our results on gender differences essentially run in the same direction as those for present happiness, but are also interesting in their own right. The basic difference between women and men holds: women are more optimistic about their future lives than are men. [Table 2] When we split the sample by the income level of the countries that respondents live in, we find that – as in the case of best possible life or happiness in general – the gap between the genders is greatest in the high income countries and still positive in the middle income countries. However, men are more positive about their future than are women in the low income countries, and while married men are less happy than married women in the same set of countries, they are actually more optimistic about their future happiness than are married women.

When we split the sample into "educated" and "non-educated" respondents (greater than high school education = educated), we find that the happiness gap between women and men is higher for more educated women, running in the same direction as our country-income level findings. And, not-unrelated, the effects of being married on attitudes about the future are positive for educated respondents but they are actually *negative* for the non-educated group.

<sup>&</sup>lt;sup>4</sup> Regression results available from the authors.

<sup>&</sup>lt;sup>5</sup> On a slightly different note, we found that urban respondents were happier than rural respondents for the sample as a whole. Yet when we split the sample, we find that the urban happiness gap is driven by the middle income countries, while being in an urban area is negatively correlated for happiness for respondents in the wealthiest group of countries. One can imagine that living in an urban area in a middle income (and/or poor) country is better than living in a rural one, not least as most public services are significantly better in urban areas in middle income countries, while being in an urban area in the wealthiest countries may not have the same premium.

<sup>&</sup>lt;sup>6</sup> We also looked at respondents' attitudes about their *country's* current and future situation, but could not really find any discernible patterns, with the exception of satisfaction with freedom in life, which was consistently and positively correlated with the country's future situation. This suggests, as does some of our other work, that individual level optimism correlates more closely with individual socio-economic and demographic traits than do more aggregate assessments, which are perhaps even more subjective (and/or noisy). Results are available from the authors on request.

More generally, house-hold size is negatively related to future best possible life responses for the educated respondents, but positively correlated for the less educated respondents. This is in keeping with the above findings on household size and present best possible life. It also is suggestive of the above-cited research in Latin America by Graham and Lora (2009), based on a sub-set of the Gallup Poll, which finds that friends and family are the most important variable to the happiness of the poor, after having enough food to eat. In contrast, work and health are more important to the happiness of the rich. (The categories rich and poor are rough ones: above and below median income for the sample).<sup>7</sup> [Table 2]

## Conclusions

Women around the world are happier than men, regardless of which happiness question is used. Reported happiness has been falling around the world over the time of the Gallup survey (2006-2010), meanwhile, and trends have co-moved across genders.

When using the best possible life question in the Gallup Poll, as we do, we find that overall well-being levels are higher in the richer countries/regions, and the gap between men's and women's happiness is highest in the rich countries and non-existent in the poorest group. Yet research based on an open-ended life satisfaction question in the World Values Survey yields contrasting findings, with a larger gap between men's and women's happiness in poorer countries and those with less equal gender rights.

Some of this may be explained by differences in norms and expectations across these countries, which in turn affect the dimensions of well-being that respondents emphasize. Openended life satisfaction or happiness questions seem to capture these differences more than does the best possible life question, which introduces a relative component as respondents assess their well-being levels. The nature of gender rights, the opportunities available to women, and related expectations may influence how they answer both open-ended and more framed well-being questions, but particularly the former.

When we look at trends across cohorts within countries, the gap between male and female happiness is greater (e.g. women are that much happier than men) in older and more educated cohorts, as well as in urban areas. In this instance, as in the case of the split sample results for rich versus poor countries, the findings suggest that the gap is greater (e.g. women are happier) where gender rights are more equal. Our findings on marriage run in a similar direction. While married people are, on average, happier than non-married people, married people in the young cohorts (e.g. ages 15-40) are less happy than the average, as are married respondents in Sub-Saharan Africa and Latin America. And while married people in urban areas are happier than the average, there is no difference in the happiness levels of married and non-married people in rural areas. Finally, the happiness gap between women and men is slightly higher in educated than in non-educated cohorts.

Our findings on attitudes about expected future happiness correspond. Women are more optimistic about their future happiness than men in the middle and high income countries, but less optimistic than men in the low income ones. The future happiness gap between women and men is greater among educated than non-educated respondents, and marriage is positively

 $<sup>^{7}</sup>$  See Graham and Lora (2009) and Graham (2011).

correlated with future happiness for the educated group but negatively correlated with future happiness for the less educated group.

Some evidence from research in the United States helps shed light. Women are happier than men in the United States. Yet women's happiness declined in the 1970's and 1980's compared to men's. After that point they trends co-moved. Some of that difference may be explained by initial changes and then stabilization of gender rights, with women's taking on professional roles becoming increasingly the norm by the 1980's and 1990's, and, perhaps, by increasing sharing of household work across genders as dual wage-earning households became the norm. An interesting supporting finding is that we find that freedom to choose what to do with one's life has the strongest correlation with happiness (across both genders) in the richest group of countries, precisely where there is more of it and people are more likely to expect to have it.

This note is a first look into differences in well-being across genders around the world. Our initial look, based on previous research on well-being more generally, highlights some consistent patterns across genders, with women typically happier than men in the world as a whole, with the exception of the poorest sample of countries. Our research also suggests that cross-gender differences in well-being are affected by the same empirical and methodological factors that drive the debates and paradoxes underlying the income and happiness debates more generally, with norms and expectations playing an important mediating role. Our findings also suggest that the standard relationships between key variables – such as marriage – and happiness may be mediated by the state of gender rights, among other things.

# References

Graham, Carol (2009). *Happiness around the World: The Paradox of Happy Peasants and Miserable Millionaires*. Oxford: Oxford University Press.

Graham, Carol (2011). *The Pursuit of Happiness: An Economy of Well-Being*. Washington, D.C.: The Brookings Institution Press.

Graham, Carol, Soumya Chattopadhyay, and Mario Picon (2010a). "The Easterlin and Other Paradoxes: Why Both Sides of the Debate Might be Correct" in Edward Diener, John Helliwell, and Daniel Kahneman, eds., *International Differences in Well-Being*. Oxford: Oxford University Press.

Graham, Carol, Soumya Chattopadhyay, and Mario Picon (2010b). Adapting to Adversity: Happiness and the 2009 Economic Crisis in the United States", *Social Research*, Vol. 77, No.2, pp. 715-749.

Graham, Carol and Eduardo Lora, eds. (2009). *Paradox and Perception: Measuring Quality of Life in Latin America*. Washington, D.C.: The Brookings Institution Press.

Herbst, Christopher M. (2010). "Happy Together, Sad Together? Another Look at the Relative Decline in Women's Subjective Well-Being", *Mimeo*, Arizona State University, October.

Lalive, Rafael and Alois Stutzer (2010). "Approval of Equal Rights and Gender Differences in Well-Being", *Journal of Population Economics*, Vol. 23, pp. 933-962.

Stevenson, Betsey, and Justin Wolfers, (2009). "The Paradox of Declining Female Happiness", *American Economic Journal: Economic Policy*, Vol. 1, pp. 190-225.

Veira-Lima, Sabrina (2011). "A Cross-Country Investigation of the Determinants of the Happiness Gender Gap", *Mimeo*, University of Milan-Bicocca, Department of Economics, Milan, Italy.

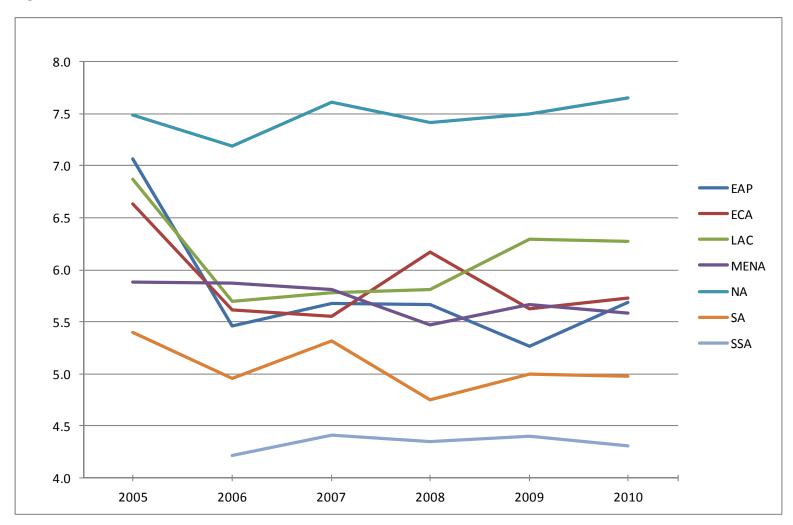


Figure 1: Best Possible Life of women across the world (0-10 scale)

[Region legend in Table 3]

(Source: Authors' calculations based on Gallup World Poll survey 2005-2010. Country classificiations based on World Development Indicators, The World Bank.)

# Table 1: Best Possible Life (on a 0-10 scale)

	1	2	3	4	5	6	7	8	9	10	11
	bpl										
Geographic Regions	All	All	Low Y	Middle Y	High Y						
		Youth	Non-youth			Educated	Non-		Low	Middle	High
Cohort Category	All	(15-24)	>24	Urban	Non-urban	(>=HS)	educated	Freedom	income	income	income
		· · ·					( <hs)< td=""><td></td><td>countries</td><td>countries</td><td>countries</td></hs)<>		countries	countries	countries
Age	-0.022***	-0.035	-0.013***	-0.031***	-0.014***	-0.026***	-0.025***	-0.022***	0.003	-0.034***	-0.032***
	[0.001]	[0.029]	[0.002]	[0.002]	[0.002]	[0.003]	[0.001]	[0.001]	[0.002]	[0.001]	[0.002]
Age <sup>2</sup>	0.000***	0.000	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	-0.000**	0.000***	0.000***
	[0.000]	[0.001]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Gender (0=Women, 1=Men)	-0.116***	-0.122***	-0.127***	-0.130***	-0.087***	-0.212***	-0.103***	-0.115***	0.007	-0.095***	-0.196***
	[0.006]	[0.013]	[0.007]	[0.009]	[0.011]	[0.017]	[0.007]	[0.006]	[0.014]	[0.009]	[0.012]
Married (0=No, 1=Yes)	0.019***	-0.140***	0.068***	0.054***	-0.008	0.118***	0.022***	0.012	0.033**	0.059***	0.220***
	[0.007]	[0.016]	[0.008]	[0.010]	[0.013]	[0.019]	[0.008]	[0.007]	[0.017]	[0.010]	[0.014]
Experienced enjoyment yesterday (0=No, 1=Yes)	0.650***	0.529***	0.682***	0.670***	0.527***	0.736***	0.624***	0.603***	0.398***	0.577***	0.818***
	[0.007]	[0.015]	[0.008]	[0.011]	[0.013]	[0.020]	[0.008]	[0.007]	[0.017]	[0.010]	[0.015]
Experienced sadness yesterday (0=No, 1=Yes)	-0.425***	-0.269***	-0.464***	-0.461***	-0.335***	-0.488***	-0.406***	-0.399***	-0.320***	-0.414***	-0.576***
	[0.008]	[0.017]	[0.009]	[0.012]	[0.015]	[0.024]	[0.009]	[0.008]	[0.021]	[0.011]	[0.016]
Annual household income (International \$)	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Household location (0=Rural 4=Big city)	0.155***	0.211***	0.139***			0.031***	0.152***	0.162***	0.107***	0.144***	-0.032***
	[0.003]	[0.005]	[0.003]			[0.007]	[0.003]	[0.003]	[0.007]	[0.004]	[0.006]
Household size	-0.071***	-0.071***	-0.077***	-0.082***	-0.052***	-0.099***	-0.059***	-0.073***	-0.009***	-0.030***	-0.096***
	[0.002]	[0.003]	[0.002]	[0.003]	[0.003]	[0.005]	[0.002]	[0.002]	[0.003]	[0.002]	[0.005]
Satisfaction with freedom (0=No, 1=Yes)								0.444***	0.347***	0.371***	0.686***
								[0.007]	[0.015]	[0.009]	[0.016]
Observations	345750	81486	264264	153637	192113	44957	278995	321108	62746	172659	85703
Standard errors in brackets											
* significant at 10%; ** significant at 5%; *** significant at 1%											

(Source: Authors' calculations based on Gallup World Poll survey 2005-2010. Country classificiations based on World Development Indicators, The World Bank.)

	1	2	3	4	5	6	7	8	9	10	11
	bplfut										
Geographic Regions	All	All	Low Y	Middle Y	High Y						
		Youth	Non-youth			Educated	Non-		Low	Middle	High
Cohort Category	All	(15-24)	>24	Urban	Non-urban	(>=HS)	educated	S)	income	income	income
		· · ·					( <hs)< td=""><td>countries</td><td>countries</td><td>countries</td></hs)<>		countries	countries	countries
Age	-0.016***	0.077**	-0.023***	-0.021***	-0.013***	-0.024***	-0.018***	-0.016***	0.001	-0.028***	-0.028***
	[0.001]	[0.030]	[0.002]	[0.002]	[0.001]	[0.004]	[0.001]	[0.001]	[0.003]	[0.002]	[0.002]
Age <sup>2</sup>	-0.000***	-0.002***	0.000	-0.000**	-0.000***	0.000	-0.000***	-0.000***	-0.000***	0.000***	0.000
	[0.000]	[0.001]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Gender (0=Women, 1=Men)	-0.083***	-0.132***	-0.079***	-0.114***	-0.058***	-0.143***	-0.068***	-0.079***	0.093***	-0.105***	-0.169***
	[0.006]	[0.013]	[0.007]	[0.009]	[0.008]	[0.017]	[0.007]	[0.006]	[0.014]	[0.009]	[0.013]
Married (0=No, 1=Yes)	-0.055***	-0.217***	-0.037***	-0.022**	-0.081***	0.084***	-0.058***	-0.058***	-0.064***	-0.050***	0.098***
	[0.007]	[0.017]	[0.008]	[0.011]	[0.010]	[0.019]	[0.008]	[0.007]	[0.017]	[0.010]	[0.015]
Experienced enjoyment yesterday (0=No, 1=Yes)	0.606***	0.469***	0.644***	0.630***	0.579***	0.695***	0.580***	0.556***	0.316***	0.560***	0.701***
	[0.007]	[0.016]	[0.008]	[0.011]	[0.010]	[0.021]	[0.008]	[0.008]	[0.018]	[0.010]	[0.015]
Experienced sadness yesterday (0=No, 1=Yes)	-0.372***	-0.224***	-0.410***	-0.351***	-0.390***	-0.334***	-0.376***	-0.337***	-0.308***	-0.375***	-0.312***
	[0.008]	[0.018]	[0.009]	[0.012]	[0.011]	[0.024]	[0.009]	[0.009]	[0.021]	[0.012]	[0.017]
Annual household income (International \$)	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Household location (0=Rural 4=Big city)	0.125***	0.177***	0.108***			0.034***	0.121***	0.133***	0.174***	0.122***	0.012**
	[0.003]	[0.005]	[0.003]			[0.008]	[0.003]	[0.003]	[0.007]	[0.004]	[0.006]
Household size	-0.006***	-0.033***	0.004*	-0.023***	0.007***	-0.022***	0.008***	-0.005***	0.030***	0.003	-0.106***
	[0.002]	[0.003]	[0.002]	[0.003]	[0.002]	[0.006]	[0.002]	[0.002]	[0.003]	[0.002]	[0.005]
Satisfaction with freedom (0=No, 1=Yes)								0.478***	0.365***	0.453***	0.645***
								[0.007]	[0.016]	[0.010]	[0.016]
Observations	319471	77513	241958	142857	176614	42399	257153	298182	59468	158994	79720
Standard errors in brackets											
* significant at 10%; ** significant at 5%; *** significant	it at 1%										

# Table 2: Best Possible Life anticipated in the next 5 years (on a 0-10 scale)

(Source: Authors' calculations based on Gallup World Poll survey 2005-2010. Country classificiations based on World Development Indicators, The World Bank.)

Table 3: Best Possible Life, current and anticipated in the next 5 years (on a 0-10 scale), non-rich countries across regions of the world

	1	2	3	4	5	6	7	8	9	10	11	12	
			b	pl			bplfut						
Geographic Regions	EAP	ECA	LAC	MENA	SA	SSA	EAP	ECA	LAC	MENA	SA	SSA	
	Non-high												
Cohort Category	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
	countries												
Age	-0.032***	-0.040***	-0.045***	-0.026***	-0.015***	0.010***	-0.036***	-0.041***	-0.039***	-0.022***	-0.019***	0.008***	
	[0.004]	[0.003]	[0.003]	[0.004]	[0.004]	[0.003]	[0.004]	[0.003]	[0.003]	[0.004]	[0.005]	[0.003]	
Age <sup>2</sup>	0.000***	0.000***	0.000***	0.000***	0.000***	-0.000***	0.000***	0.000***	0.000***	0.000*	0.000*	-0.000***	
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	
Gender (0=Women, 1=Men)	-0.083***	-0.016	-0.147***	-0.186***	-0.041*	0.046***	-0.044**	-0.024	-0.177***	-0.218***	-0.138***	0.056***	
	[0.020]	[0.017]	[0.017]	[0.020]	[0.023]	[0.015]	[0.021]	[0.018]	[0.018]	[0.021]	[0.024]	[0.015]	
Married (0=No, 1=Yes)	0.031	0.106***	-0.058***	0.115***	-0.007	-0.058***	-0.003	0.035*	-0.102***	-0.023	-0.071**	-0.094***	
	[0.026]	[0.019]	[0.018]	[0.025]	[0.031]	[0.017]	[0.027]	[0.020]	[0.019]	[0.025]	[0.033]	[0.017]	
Experienced enjoyment yesterday (0=No, 1=Yes)	0.420***	0.637***	0.375***	0.498***	0.510***	0.402***	0.424***	0.615***	0.335***	0.499***	0.589***	0.329***	
	[0.025]	[0.019]	[0.022]	[0.022]	[0.028]	[0.018]	[0.026]	[0.020]	[0.023]	[0.022]	[0.031]	[0.018]	
Experienced sadness yesterday (0=No, 1=Yes)	-0.540***	-0.448***	-0.562***	-0.425***	-0.315***	-0.278***	-0.411***	-0.498***	-0.363***	-0.427***	-0.196***	-0.218***	
	[0.029]	[0.021]	[0.021]	[0.026]	[0.031]	[0.022]	[0.030]	[0.022]	[0.022]	[0.026]	[0.033]	[0.022]	
Annual household income (International \$)	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	
Household location (0=Rural 4=Big city)	0.122***	0.061***	0.131***	0.095***	0.114***	0.105***	0.128***	0.025***	0.169***	0.084***	0.145***	0.187***	
	[0.008]	[0.007]	[0.008]	[0.009]	[0.010]	[0.007]	[0.008]	[0.007]	[0.008]	[0.009]	[0.011]	[0.007]	
Household size	0.020***	-0.050***	-0.012**	-0.045***	0.036***	-0.018***	0.024***	0.022***	-0.045***	0.023***	0.008	0.011***	
	[0.007]	[0.006]	[0.006]	[0.005]	[0.005]	[0.003]	[0.007]	[0.006]	[0.006]	[0.006]	[0.006]	[0.003]	
Satisfaction with freedom (0=No, 1=Yes)	0.252***	0.471***	0.219***	0.305***	0.271***	0.353***	0.107***	0.545***	0.339***	0.395***	0.380***	0.432***	
	[0.026]	[0.017]	[0.019]	[0.021]	[0.025]	[0.015]	[0.027]	[0.018]	[0.020]	[0.022]	[0.027]	[0.015]	
Observations	31654	45200	43258	30997	24935	59361	29099	40363	39452	29326	21907	58315	
Standard errors in brackets													
* significant at 10%; ** significant at 5%; *** significant at 1%													

(Source: Authors' calculations based on Gallup World Poll survey 2005-2010. Country classificiations based on World Development Indicators, The World Bank.)

EAP: East Asia and Pacific ECA: Europe and Central Asia LAC: Latin America and the Caribbean MENA: Middle East and North Africa SA: South Asia SSA: Sub-Saharan Africa