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# A Global Perspective on Happiness and Fertility

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Much of the world is pervaded by strong cultural beliefs that children increase the well-being of parents, and especially women, and these beliefs have bolstered norms about the desirability of having children. Even though the taboo against childlessness has decreased in much of Europe and North America, levels of childlessness have remained generally low. With few exceptions, however, research on parenthood and well-being has focused on the United States or Northern Europe, ignoring the rest of the world and neglecting comparative analysis. This article investigates the fertility/happiness association globally and comparatively, using World Values Surveys data for 86 countries. Our results shed new light on the association between well-being and number of children by showing how the relationship depends strongly on the macro-level context and life-cycle stage.

Parenthood changes lives in both positive and negative ways, many of them unexpected by the parents themselves. Having a child deepens joy, strengthens social ties with family and friends (Gallagher and Gerstel 2001; Umberson and Gove 1989), and creates new roles for adults that carry rights, responsibilities, and a sense of adulthood (Sieber 1974; Hoffman and Manis 1979). Becoming a parent also increases housework (Sanchez and Thomson 1997), often decreases relationship quality between parents (Crohan 1996; Lavee, Sharlin, and Katz 1996), and can strain psychological well-being (McLanahan and Adams 1987; Ross, Mirowsky, and Goldsteen 1990; Umberson and Williams 1999).

The relative importance of these countervailing outcomes may depend on the institutional context and individual-level factors. The relationship between subjective well-being and childbearing has been inadequately studied, especially in light of its potential to explain demographic behavior at a time when fertility is a matter of choice for most people in the world (Hobcraft 2006). Some analyses across Europe suggest that fertility differences could be partially explained by the compatibility between subjective well-being and number of children (Billari 2008); more ambitiously, then, a global and comparative examination of the fertility/happiness association may inform us about the determinants of fertility in a world that is characterized by unprecedented differences in country-by-country fertility levels, ranging from less than one child to more than seven children per woman (World Bank 2010).

This article focuses on the association between fertility and subjective well-being across countries and welfare regimes, and analyzes how individual-level factors modify the relationship. We draw on research from sociology, psychology, and economics which suggests that the association between fertility and happiness differs for population subgroups, at different stages of the life cycle, and in different regimes.

First, the relationship between fertility and happiness may vary by sex and marital status. Women and men experience the transition to parenthood differently (Cowan et al. 1985; LaRossa and LaRossa 1981), with women experiencing greater stress and stronger negative

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Figures in this article are available in color in the electronic edition of the journal.

shocks to well-being (Nomaguchi and Milkie 2003; Scott and Alwin 1989; Simon 1992). This may be because women are more often the primary caregiver (Ross and Van Willigen 1996), experience greater work/family conflict (Goldsteen and Ross 1989), or have less leisure time (LaRossa and LaRossa 1981). Similarly, unmarried people may experience more strain from childbearing than the married (Nomaguchi and Milkie 2003; Umberson and Williams 1999). In the United States both unmarried mothers and unmarried fathers report higher levels of distress than married couples, which may be due to higher levels of distress, fewer coping resources, or anxiety caused by being a non-resident parent (Nomaguchi and Milkie 2003).

Second, the relationship between fertility and happiness may change over the life cycle. For example, research in the US and Canada found that among individuals in childbearing years, those with children tend to show higher levels of distress than non-parents (Cleary and Mechanic 1983; Gore and Mangione 1983; Lovell-Troy 1983; McLanahan and Adams 1987); among the elderly, however, no relationship is found between parenthood and well-being (Connidis and McMullin 1993; Koropeckyj-Cox, Pienta, and Brown 2007; Rempel 1985; Ross and Huber 1985). This difference may be attributable to the financial and emotional costs of rearing children, which are greatest when children are young. On the other hand, when parents are elderly, children may provide needed care to parents in poor health or act as insurance or social protection in old age if non-family institutions providing old-age security are weak, as they often are in developing countries (Caldwell 1978).

Third, the relationship between fertility and well-being may vary according to institutional and cultural context (Mirowsky and Ross 2003). Research focusing on the US and Canada has found either a negative or very weak relationship between parenthood and well-being (Cleary and Mechanic 1983; Connidis and McMullin 1993; Gore and Mangione 1983; Koropeckyj-Cox, Pienta, and Brown 2007; Lovell-Troy 1983; McLanahan and Adams 1987; Rempel 1985). In contrast, studies using European data find either no differences in happiness between parents and non-parents (Bergman and Daukan-taite 2006; Hansen, Slagsvold, and Moum 2009; Savolainen et al. 2001) or a weak positive relationship between children, especially the first child, and life satisfaction of adults (Daukantaite and Zukauskiene 2006; Dykstra and Wagner 2007; Kohler, Behrman, and Skytthe 2005). Hansen and colleagues (2009) interpret the finding that parenthood is either unrelated to or positively related to well-being in countries of Northwest Europe to the fact that the welfare state equalizes the costs of raising children and eases the combination of parenthood, marriage, and work. Similarly, Aassve and colleagues (2008) find that within Europe, parents in social democratic countries are happier than parents in countries with conservative or liberal welfare regimes.

We examine the relationship between subjective well-being and fertility cross-nationally using a rich and large data set that allows testing various mechanisms through which well-being and the number of children may be related. We analyze the happiness/fertility association by five individual-level characteristics—age, sex, partnership status, relative income, and health—as well as welfare regime and fertility of the society while controlling for potentially important confounding factors such as socioeconomic status, partnership status, and health.

## Data

The World Values Surveys (WVS), which assess the state of socio-cultural, moral, and political values through a series of questionnaires administered in face-to-face interviews, is the largest international survey to include questions on fertility and happiness. We use survey waves conducted between 1981 and 2005 among respondents aged 15 and older at

the time of the interview. Of the 328,449 respondents, we exclude 126,461 because of missing data for key variables or differences in the country questionnaires omitting questions of interest. This leaves 201,988 respondents from 86 countries (in our study Germany is treated as two countries, corresponding to the former West Germany and East Germany). The samples in developed countries are often close to representative, while samples from developing countries are not random (Inglehart et al. 2000).

### Dependent variable

The dependent variable is the respondent's level of happiness about his or her life. Respondents were asked, "Taking all things together, would you say you are very happy, quite happy, somewhat happy, or not at all happy?" We treat happiness as a continuous variable with observed range from one (not at all happy) to four (very happy). Although cross-national comparisons of happiness are standard (Cantril 1965; Deaton 2008; Diener, Helliwell, and Kahneman 2010), the validity of these comparisons may be questionable as people from different backgrounds, languages, and cultures may use different scales in reporting happiness. Therefore, in our analysis of the relationship between number of children and happiness, we always control for the average country-specific level of happiness and the year of interview. This effectively removes the problem of country-specific differences in observed happiness levels, be they due to reporting differences or true differences in well-being. We thus assume that the observed differences in the relationship between happiness and number of children across countries and contexts reflect true differences in the relationship, not differences in reporting practices. For this assumption to hold we only need to assume that the number of children does not influence the way happiness is being reported within countries, although it may influence the average level of happiness.

### Key explanatory variable

Our key explanatory variable is the number of children the respondent has. Respondents were asked, "Have you had any children?" We code the number of children as: none, one, two, three, or four or more.

### Other independent variables

We explore how the fertility/happiness relationship varies by age, sex, health, and marital status. We code respondents' age as: 15–19, 20–29, 30–39, 40–49, and 50 and above. When conducting analysis on subpopulations, we collapse age groups to 15–19, 20–39, and 40 and above. Thus, our analysis is based on a synthetic cohort, constructed from cross-sectional data, rather than a true cohort using longitudinal data. Marital status is coded as whether the respondent is single, married, living as if married, separated or divorced, or widowed. Occasionally, we combine marital status groups into a two-category variable coded as partnered (married or living as if married) or not-partnered (single, separated or divorced, widowed) to increase statistical power. We also take into account individuals' subjective state of health. Respondents were asked, "All in all, how would you describe your state of health these days?" We code responses as either good/very good or fair/poor/very poor.

We use two measures of socioeconomic status. The first is relative household income. Respondents were shown a card representing a scale of incomes ranging from 1 ("lowest income decile") to 10 ("highest income decile") and were asked in which group their household belonged, "including all wages, salaries, pensions, and other incomes that come in." We code relative household income into three groups: low (deciles 1–4), medium (deciles 5–6), and high (deciles 7–10).[1] Our second measure of socioeconomic status is self-reported social class. Respondents were read the statement, "People sometimes describe themselves as belonging to the working class, the middle class, or the upper or lower class.

Would you describe yourself as belonging to the: upper class, upper middle class, lower middle class, working class, or lower class?" We code socioeconomic status as: low (working or lower class), middle (middle and lower middle), or high (upper middle or upper class). We focus on relative income and social class instead of educational attainment since the former are relative measures within each country and thus comparable across countries, whereas the latter depends more on the country's overall educational level. Moreover, relative status within a society seems to matter more for subjective well-being than the country's overall income level (Easterlin 1995).

Finally, we examine two contextual variables: welfare regime and stage of fertility decline. Welfare regime is an extended categorization of Esping-Andersen's typology (1990), which describes how welfare production is allocated between the state, the market, and households. Social democratic states are the Nordic countries, which are committed to comprehensive risk coverage, generous benefits, and egalitarianism; conservative states are those of continental Europe, which blend public and familial support; and liberal states are the Anglophone countries, which promote market solutions to individual risks. We add countries to Esping-Andersen's social democratic, conservative, and liberal welfare regimes that fit his criteria, and we also create three additional categories: Southern Europe, former socialist countries, and developing countries. The list of countries in each welfare regime is included in Appendix Table A1. We examine each country's stage of fertility decline by coding its total fertility rate (TFR) for the survey year into categories. The TFR for each country and survey year and its source are given in Appendix Table A2. We use linear interpolation to fill in the TFR for missing years, using data from prior and later years. We construct a categorical fertility variable for the fertility of the country in the period 1981–2005. It is coded as: lowest low (TFR<1.3), low (TFR 1.3–1.99), moderate (TFR 2–2.99), high (TFR≥3).

## Methods

We use linear regression models to estimate the association between number of children and happiness. [2] We estimate the association using global models that include all the data and stratified models that focus on specific individual and contextual variables. Next, we examine how the relationship between fertility and happiness varies on seven key dimensions. We estimate models stratified by three demographic characteristics of the respondent (age, sex, and partnership status), two measures of well-being (relative income and health status), and two contextual variables (welfare regime and level of fertility).

We chart the coefficients for number of children by these key variables in Figures 1–8. In each figure, statistical significance from zero is noted with squares or circles on each point. Our figures allow much more than a comparison between parity zero and higher parities. Because the coefficients are based on linear regression models, it is straightforward to change the reference group while reading the graphs. In particular, for any regression model charted in the figures, the difference between any two regression coefficients represents the happiness difference between the respective parities. This allows us to compare the happiness levels between any two parities, not just between childlessness and higher parities.

[1]We include the 7th decile of self-reported income in the high-income category. Otherwise the high-income group would have been small, comprising only 14 percent of the sample. With the current classification of income groups, in our overall sample of 201,988 respondents 36.5 percent are in the low-income group, 41.1 percent in the middle-income group, and 22.4 percent in the high-income group.

[2]The results shown in the article are estimated using OLS regression and thus assume the cardinality of happiness. However, similar to the finding of Ferrer-i-Carbonell and Frijters (2004) that assuming the ordinality or cardinality of happiness scores makes little difference, our results are robust to estimation using ordered logit regressions.

## Results

Characteristics of respondents, shown in Appendix Table A3, reveal large cross-national differences in happiness and number of children in our analytic sample. The table ranks countries according to the mean level of happiness, on a scale from 1 to 4. Tanzania, El Salvador, and Venezuela rank highest in happiness, with mean happiness above 3.4 in these countries. Moldova, Belarus, and Albania rank the lowest, with mean happiness below 2.5. The mean number of children respondents have at the time of the survey varies from less than 1.2 in the Dominican Republic, Andorra, and Ethiopia to 3.1 in Jordan.[3] Because the countries in the sample have different age distributions, the mean age of each country's sample varies from 28.8 years in the Dominican Republic to almost 50 years in Switzerland. Similarly, there are large differences in the proportions married. Less than 20 percent of respondents in Indonesia were married, in contrast to more than 85 percent in China.

### Global results

First, we examine the relationship between subjective well-being and number of children globally. Tables 1 and 2 present coefficients for linear regression models predicting the level of reported happiness among all respondents in all countries in our WVS sample. Model 1 estimates the association between number of children and happiness, controlling for age, sex, country, and year. Model 2 includes all variables from Model 1 and adds income, socioeconomic status, and marital status. The coefficients for the number of children (one, two, three, four or more) are estimated with reference to those with no children.[4]

The results from Model 1 suggest that, compared to respondents with no children, those with one, two, or three children have significantly higher reported happiness. At parity four and above, there is no statistically significant difference in reported happiness from those with no children. Inclusion of additional controls in Model 2 yields different associations between fertility and happiness from those found in Model 1. Results from Model 2 show that having one, two, three, or four or more children is associated with significantly lower reported happiness compared with childless respondents, after controlling for potentially important confounders. Having one or two children is associated with a 0.03 unit decrease in happiness, and having four or more children is associated with an even larger decrease in happiness. Because Model 2 better controls for the potentially confounding variables of marital status and socioeconomic status than Model 1, our results suggest that, globally, having children is associated with decreased happiness. The size of the coefficients may seem small—about 5 percent and 8 percent of a standard deviation in happiness. However, they are comparable in magnitude to associations between happiness and other better-studied variables. For example, the difference in happiness between those with no children and those with one or two (0.03 units) is similar to the difference between women and men (0.03), and the happiness difference between childless respondents and those with four children (0.06) is similar to the difference in happiness between middle-income and high-income respondents (0.05).

[3]The Ethiopian and Dominican samples are considerably younger than the overall sample. The mean age of the sample is 29.9 for Ethiopia, 28.8 for the Dominican Republic, and 41.5 for the whole sample. Moreover, as mentioned above, the sampling for the World Values Surveys is not random, especially in developing countries.

[4]The childless are an important reference group in examining the relationship between parenthood and well-being. Thus, we graph regression results in reference to parity 0. However, comparisons of happiness at various fertility levels (i.e. the effect of having one additional child) is possible by examining the slopes of results in Figures 1–8. These comparisons are implicitly in our regression analyses and explicitly in our discussion.

## Results by age, sex, and partnership status

Both happiness and number of children vary over the life course with age. Moreover, the relationship between happiness and number of children may depend on age because of the way in which the nature and demands of parenthood change as children mature. Figure 1 plots coefficients from linear regression models for the number of children, estimated separately for the respondents' age group (from 15–19 to 50 and above). The association between number of children and happiness strongly depends on age. In the youngest age groups (less than 30), happiness decreases approximately monotonically with number of children. At ages 30–39, the negative association vanishes, and at older ages (40–49, 50 and above) the association between number of children and happiness becomes positive so that those with three children are happiest.

The observed age gradient in the happiness/fertility link in Figure 1 could indicate that the effect of having children changes as people and their children age, or it could signal cohort or period differences in the link. To address this topic, we estimated the happiness/fertility association for two periods, 1981–1996 and 1997–2005. Comparing the age gradient for these two periods allows us to analyze whether the aging or the cohort explanation is more plausible. Figure 2 shows that although there is weak evidence that the happiness/fertility relationship is marginally different in the two time periods, we still observe a strong and similar age gradient in the link for both periods. This result does not support the idea that the age gradient is an artifact of cohort or period differences, but it is consistent with the aging explanation for the gradient in the happiness/fertility association. Given the strong age gradient in the happiness/fertility link, all of our subsequent analyses stratify the results by age.

We next ask whether there are sex differences in the relationship between happiness and children. To retain large sample sizes we have collapsed age categories to 15–19, 20–39, and 40 and above. We omit results for parity three and higher for the 15–19 age group because of the small sample size. Figure 3 shows that the negative association between having children and happiness at ages 20–39 does not differ markedly by sex. At older ages, the positive association between children and happiness is slightly stronger for women than for men, although not statistically significantly.

Figure 4 shows the happiness/fertility association by age and partnership status. We observe that within each age group, the association is remarkably similar between those who are in a partnership and those who are not.[5] Further analyses (not shown) indicate that this is also true when stratifying by sex.

## Results by economic well-being and health status

Figures 5a through 5c show the association between fertility and happiness by age and income group. Figures 5a and 5b, which show the results for age groups 15–19 and 20–39, indicate that while the income differences are small, the negative association between happiness and fertility is strongest among those with lesser financial resources, and weakest among those with greater financial resources. A high income may help alleviate the burden of raising children, for example through paid childcare, and may also be a proxy for postponement of fertility. In this case, the high-income group would include more people who are still voluntarily childless in their 30s or have only one child, whereas among the low-income group low parity may signal infertility or problems finding a partner. On the other hand, at ages 40 and above (Figure 5c), where the associations between happiness and fertility are positive, no differences are seen between income groups.

[5]There are no statistically significant differences between the partnered and non-partnered in either age group 20–39 or 40+.

Figure 6 categorizes health status as good/very good and fair/poor/very poor. The results, shown for two age groups, do not suggest significant differences in the happiness/fertility link by health. We observe a similar age gradient in the two health groups. The largest difference lies in the magnitude of the positive happiness/fertility relationship at ages above 40 between those in good health and those in poor health. The finding that the association is stronger for those in poor health could indicate that children provide care for their ill parents. Among the healthy this care is not needed, thus the association between having children and happiness is weaker.

## Analysis by welfare regime

Public support for parenthood differs according to countries' welfare regime. We hypothesized that during prime childbearing years, the relationship between fertility and happiness would be more positive in the social democratic and conservative states that provide the greatest support for childbearing. We also hypothesized that people with children at older ages would be much happier than those without children in countries with weak welfare states, including many developing countries, because children often act as insurance for old age.

Figure 7a shows the association between fertility and happiness for the age group 20–39. In all welfare regimes except social democratic and conservative, happiness declines monotonically with number of children so that childless people are happiest and those with four or more children are the least happy. In the social democratic welfare regime, happiness declines until parity two, but then starts to rise, and is the same for those with four or more children as it is for childless people. In the continental European countries with conservative welfare regimes, the relationship is relatively flat by parity. This partially supports our hypothesis that the relationship between happiness and having children would be the least negative in countries with strong welfare states, although for social democratic countries this is the case only above parity three. Moreover, at parity three and above, happiness is lowest for those in former socialist, Southern European, and developing countries—groups of countries with lower state support for families with small children.

Figure 7b shows the happiness/fertility association for the age group 40 and above by welfare regime. The association is flat for social democratic, conservative, and developing-country welfare regimes. For liberal regimes, there is a weak indication that first children may be associated with decreased happiness. Former socialist countries display a strong positive association between fertility and happiness, and those with three children are happiest. The negative association between fertility and happiness in the 20–39 age group was strongest for the former socialist countries, demonstrating the importance of the life-cycle stage in the happiness/fertility relationship. Happiness was also significantly higher among those with one child in Southern European countries, perhaps reflecting the value of familial support in this region. Our hypothesis about the importance of children at older ages in countries with weak welfare regimes is partially validated. Older respondents in both former socialist states and Southern Europe were significantly happier with children than those without. These countries have much weaker welfare regimes than continental or Nordic countries and rely much more heavily on familial support. We did not, however, find a significantly positive relationship for developing countries, which also have lower levels of state support than in social democratic and conservative welfare regimes. The unrepresentative nature of the samples in developing countries might oversample wealthy and urban respondents and therefore underestimate the degree to which parents rely on children for old age support.

Taken together, the results by welfare regime suggest that the negative association between fertility and happiness in young adult ages is weakest in social democratic and conservative

welfare regimes, and the positive association between fertility and happiness in middle and older ages is strongest in former socialist countries. These country groups include states with mostly low or very low fertility rates (for example, Sweden 2005 TFR = 1.77, Bulgaria 2005 TFR = 1.31, Czech Republic 1999 TFR = 1.13). In the social democratic and conservative countries, comparatively high happiness levels for those with children may be related to the policies aimed at collectively alleviating the burden an individual faces in childrearing. In former socialist states, the positive association between happiness and fertility at middle and older ages may be related to the long-standing tradition of government support for pronatalist policies, both before and after the collapse of the Soviet Union (Zhurzhenko 2001; Yelizarov 2008) and to the increasingly important role of adult children in providing care for their elderly parents in the post-Soviet era (Iecovich et al. 2004).

### Analyses by stage of fertility decline

Finally, we analyze the happiness/fertility link according to country groups characterized by the level of fertility. Figure 8a shows the association between fertility and happiness by fertility level for the age group 20–39. The figure indicates that, with the exception of countries with lowest-low fertility (TFR below 1.3), happiness declines with the number of children so that those with no children or only one child are happiest, and those with three or more children are least happy. In lowest-low-fertility countries, the decline in happiness by parity stops at parity three, and those with four or more children are happier than respondents with only one child but not quite as happy as childless people.

Figure 8b presents similar results for the age group 40 and older. The figure indicates a gradient in the happiness/fertility relationship, similar to what we observed for age. In high-fertility regimes, the happiness/fertility relationship is flat, but the lower the fertility level, the more positive the happiness/fertility relationship becomes. The results by country groups according to fertility level suggest that the demographic transition modifies the fertility/happiness relationship in a straightforward, yet unexpected way. The lower the country's fertility, the happier are those who have children compared to those without. This may be the result of selection of those who value children the most into childbearing.

## Discussion

Our analysis of World Values Survey responses from 86 countries indicates that, globally, happiness decreases with the number of children parents have. This association is strongly modified, however, by individual and contextual factors. Most importantly, the association between happiness and fertility evolves from negative to neutral to positive above age 40, and is strongest among those who are likely to benefit most from support from children in their later years. This age gradient is evident for both sexes, at all income levels, for those in good and bad health, for those who are in partnerships and those who are not, for all welfare regimes, at all levels of fertility, and for our period of study from 1981 to 2005. In addition, analyses by welfare regime show that the negative fertility/happiness link at young adult ages is weakest in countries with high public support for families, and that the positive association at ages above 40 is strongest in countries where old-age support depends mostly on the family. These results suggest that children are a long-term investment in well-being, and they highlight the importance of both the life-cycle stage and macro contexts to the happiness/fertility association.

Previous research has found differences in the relationship between fertility and happiness as a function of the age of respondents. Among younger respondents in the United States, those with children have levels of distress similar to or higher than those without children (Cleary and Mechanic 1983; Gore and Mangione 1983; Lovell-Troy 1983; McLanahan and Adams 1987). However, research focusing on the United States has not found significant

differences in life satisfaction between relatively older parents and childless people of the same age (Connidis and McMullin 1993; Koropeckyj-Cox, Pienta, and Brown 2007; Rempel 1985). We have documented more subtle age differences in the relationship between happiness and fertility throughout the life course. We find that in the youngest age groups, happiness decreases approximately monotonically with the number of children. At ages 30–39, the negative association disappears and at older ages the association between the number of children and happiness becomes positive.

Several factors could cause the observed age gradient in the happiness/fertility association. For example, the age gradient could indicate period or cohort differences in the happiness/fertility link. Our analysis, however, showed that the gradient exists independently of survey period. In addition, the age gradient exists independently of sex, income, partnership status, health status, welfare regime, and stage of demographic transition. Thus the age gradient may be better explained by the life cycle. When parents and children grow older, children usually leave home, which may decrease the negative effect they have on the quality of spousal relationships and on the amount of support partners provide for each other (Pleck 1983). In addition, and potentially more importantly, the time and monetary costs of raising children are generally higher at younger ages than at older ages.[6] Older children are more independent and require less care and fewer resources. As children reach adulthood, when parents are approximately 40–60 years old, children may become a resource themselves, providing financial and emotional support for aging parents. This explanation for the age gradient in the association between happiness and fertility would imply that older people who are more in need of kin support gain more from having children than those who are more independent. Our findings that the positive fertility/happiness association is stronger for those in poor health and for those from the former socialist states are consistent with this explanation.

A theme in the literature is that women and men experience the transition to parenthood differently (Cowan et al. 1985; LaRossa and LaRossa 1981; Umberson and Williams 1999). Women may experience more costs associated with having children than men, especially costs related to stress and emotional well-being (Scott and Alwin 1989; Simon 1992). Some analysts have argued that this is because women are more often the primary caregiver (Ross and Van Willigen 1996). It is unclear, however, whether parenthood is differentially related to emotional health for women and men (Nomaguchi and Milkie 2003). Unlike previous researchers, we find that the negative association between happiness and children during prime childbearing years does not differ by sex. Sex differences in the happiness/fertility association, however, may vary by context and should be explored in future work.

The degree to which parenthood might affect well-being may depend on marital status and socioeconomic position (Ross and Huber 1985; Umberson and Williams 1999). Single mothers in the United States are more likely to report higher levels of stress than married mothers (Avison 1995), but this may be confounded by differences in socioeconomic position by marital status. Therefore in investigating childrearing and happiness, one must take socioeconomic position into account.

Our analysis sheds light on the discrepancy between the widespread belief that children bring happiness and the fact that most research finds either a negative or insignificant relationship between parenthood and well-being. In the early stages of parenting, the positive aspects of having children may be difficult to detect in surveys because they may be overshadowed by the negative aspects such as lack of sleep, concerns about the child's

[6]Our data did not have information on the ages of children or whether the children are present in the household. Therefore we have to use parent's age as a proxy for the stage in the family life cycle.

safety and development, and financial strains. Powdthavee (2009) calls this phenomenon in which parents' responses reflect more of the negative aspects of parenting than the positive a "focusing illusion." However, our finding that parents above age 40 are happier than respondents without children suggests that at a later life stage the positive aspects of parenting, and potentially also grandparenting, might dominate and be easier to detect. Moreover, our results mirror the life-cycle net production pattern of humans: at young ages, consumption dominates production, but at ages close to 20 (when parents are approximately aged 40–60 years) production starts to dominate consumption (Lee 1994). These ages correspond to the ages at which we observe that childless people are less happy than those with children.

There are four major limitations to this analysis. Choice of the reference group, childless people, may be criticized in two ways. First, because childlessness is rare in most societies, this group of people is probably different from those who have one or more children on many unobserved dimensions, including health, social skills, and career perceptions. However, implicit in our regression analyses, and explicit in our discussion, is the comparison of those with two or more children to those with only one child; those with three or more children to those with one or two children; and so on. In fact, the effect of having one *additional* child (compared to those with one less child) can be seen from the slopes of the results in Figures 1 to 8. A potentially more important criticism is that the childless group may be compositionally different in different contexts. For example, those who strongly desire to have children are likely to have them both in high-fertility and low-fertility societies, whereas those who would rather not have children may forgo having them more often in low-fertility societies, but may have children in response to social pressures in high-fertility societies. Thus the proportions of childless people and the degree of selection may differ by context. As discussed above, however, we also compare respondents with different numbers of children. Therefore the potential peculiarity of the childless group does not prevent a meaningful interpretation of our results.

Second, having children is a decision, which exposes our regression results to endogeneity bias. More specifically, although we control for a large number of observed characteristics, we do not control for unobservable differences in people's preferences for children. One study of the happiness/fertility link in which unobserved characteristics are partially controlled (Kohler, Behrman, and Skytthe 2005) uses data on twins to control for unobserved social and genetic differences. However, their results indicate that the sign and magnitude of the coefficient for number of children in a regression on happiness is in most cases the same in standard ordinary least squares regressions and in twin-differences models. This suggests that the unobserved heterogeneity bias in our ordinary least squares regression results may not be large.

Third, the design of our study assumes that life events such as having children influence happiness. This assumption stands in contrast with the setpoint theory of happiness, which asserts that a large fraction of variation in well-being results from social or biological endowments, and while life events may temporarily change one's level of well-being, this change is transitory (Kahneman 1999). However, several recent studies have demonstrated that important life events do permanently change levels and perceptions of happiness (Kohler, Behrman, and Skytthe 2005; Zimmerman and Easterlin 2006). Our results, which suggest that significant life events such as having a child have long-lasting but potentially time-varying effects on happiness, are consistent with these findings which suggest that happiness is not set to a point.

Lastly, we use a synthetic cohort constructed from cross-sectional data to examine the association between fertility and happiness throughout the life cycle. This approach is

widely employed because of the ease with which comparisons can be made across age groups. However, it makes it difficult to generalize about the life-course experience, as it uses many cohorts that experienced different life-course events. To ensure that our results are not driven by cohort differences, we conducted the analyses separately for two time periods (1981–1996 and 1997–2005) and found that our key results concerning the age gradient in the happiness/fertility association was present in both periods. These results add to the evidence suggesting that the association between happiness and fertility is related to differences in age, not to period or cohort differences. Still, future research would benefit from longitudinal data in examining life-cycle experiences and comparing the associations between fertility and happiness across parities, periods, and cohorts. Clark et al. (2008) make a key step toward this end in comparing life satisfaction before and after important life events, including the birth of a child.

In discussing the associations between fertility and happiness, we have focused on explanations in which the direction of influence goes from fertility to happiness. The effect of happiness on demographic behavior has been much less widely studied but is a promising area for future research (Diener et al. 1999). Although we do not know whether happier people have more children than less happy people, having children may be a strategy to improve happiness, for example by increasing the level of certainty in life by defining the family unit (Friedman, Hechter, and Kanazawa 1994). Some recent evidence also suggests that people who expect greater happiness from having a child are more likely to have one in the short to medium term (Billari and Kohler 2009). However, our results show that people in their 20s and 30s with children are less happy than those without. We can reconcile this discrepancy in two ways. First, people seem to poorly predict how children affect their lifestyles and underestimate the costs of children (Belsky, Ward, and Rovine 1986). Second, people may place a high value on the gains in happiness at older ages from having children and thus be willing to accept the short-term costs. Further comparison of these and other factors may explain why people still have children even though the immediate effects on subjective well-being seem to be negative.

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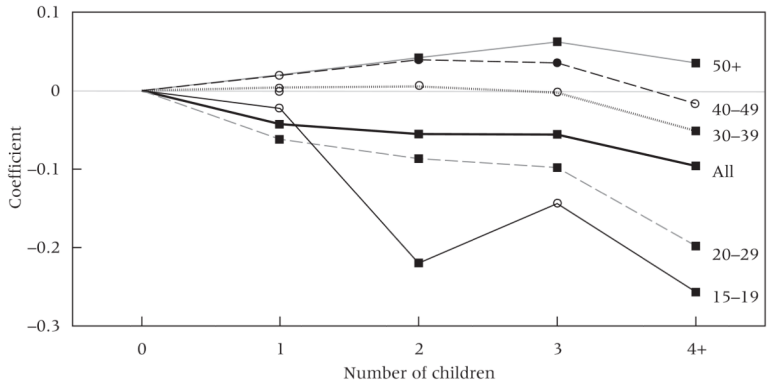


**FIGURE 1. Happiness and number of children by age**

NOTE: Lines connect coefficients from regression models predicting happiness—measured on a linear scale from 1 (not at all happy) to 4 (very happy)—with number of children (0, 1, 2, 3, 4+), controlling for sex, socioeconomic status, income, marital status, country, and year.

■ $p<.05$ ● $p<.10$ ○ $p\geq.10$

SOURCE: World Values Surveys 1981–2005, N = 201,988.

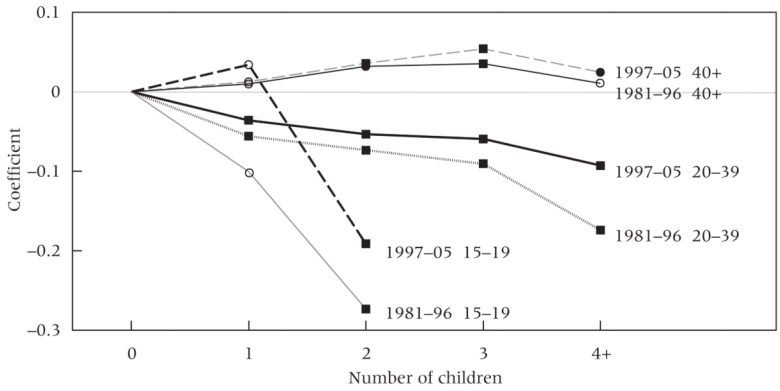


**FIGURE 2. Happiness and number of children by age and survey period**

NOTE: Lines connect coefficients from regression models predicting happiness—measured on a linear scale from 1 (not at all happy) to 4 (very happy)—with number of children (0, 1, 2, 3, 4+), controlling for sex, socioeconomic status, income, marital status, country, and year.

■ $p<.05$ ● $p<.10$ ○ $p\geq.10$

SOURCE: World Values Surveys 1981–2005, N = 201,988.

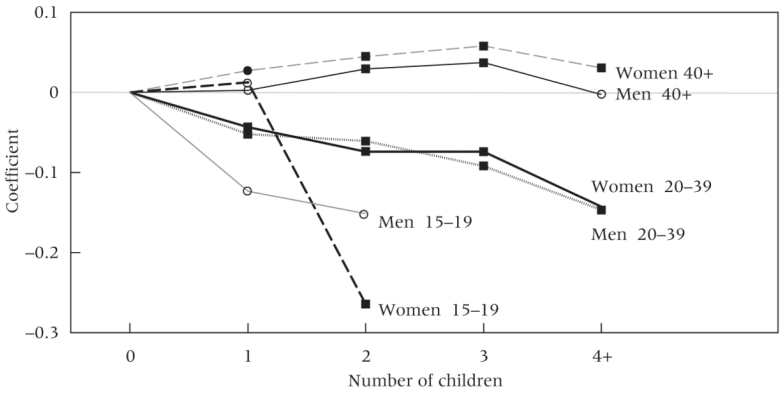


**FIGURE 3. Happiness and number of children by age and sex**

NOTE: Lines connect coefficients from regression models predicting happiness—measured on a linear scale from 1 (not at all happy) to 4 (very happy)—with number of children (0, 1, 2, 3, 4+), controlling for sex, socioeconomic status, income, marital status, country, and year.

■ $p<.05$ ● $p<.10$ ○ $p\geq.10$

SOURCE: World Values Surveys 1981–2005, N = 201,988.

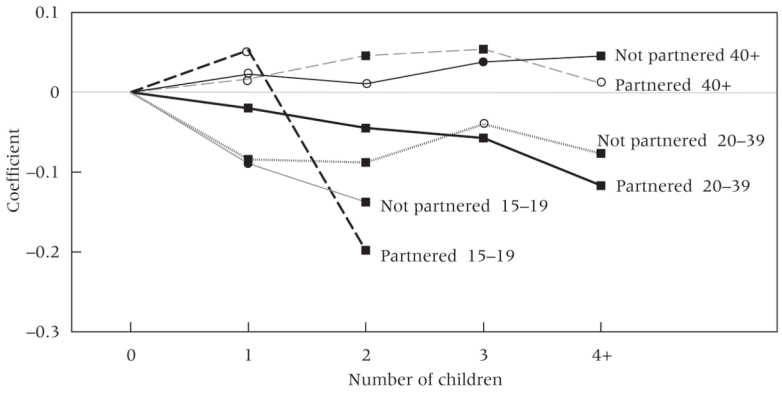


**FIGURE 4. Happiness and number of children by age and partnership status**

NOTE: Lines connect coefficients from regression models predicting happiness—measured on a linear scale from 1 (not at all happy) to 4 (very happy)—with number of children (0, 1, 2, 3, 4+), controlling for sex, socioeconomic status, income, marital status, country, and year.

■ $p<.05$ ● $p<.10$ ○ $p\geq.10$

SOURCE: World Values Surveys 1981–2005, N = 201,988.

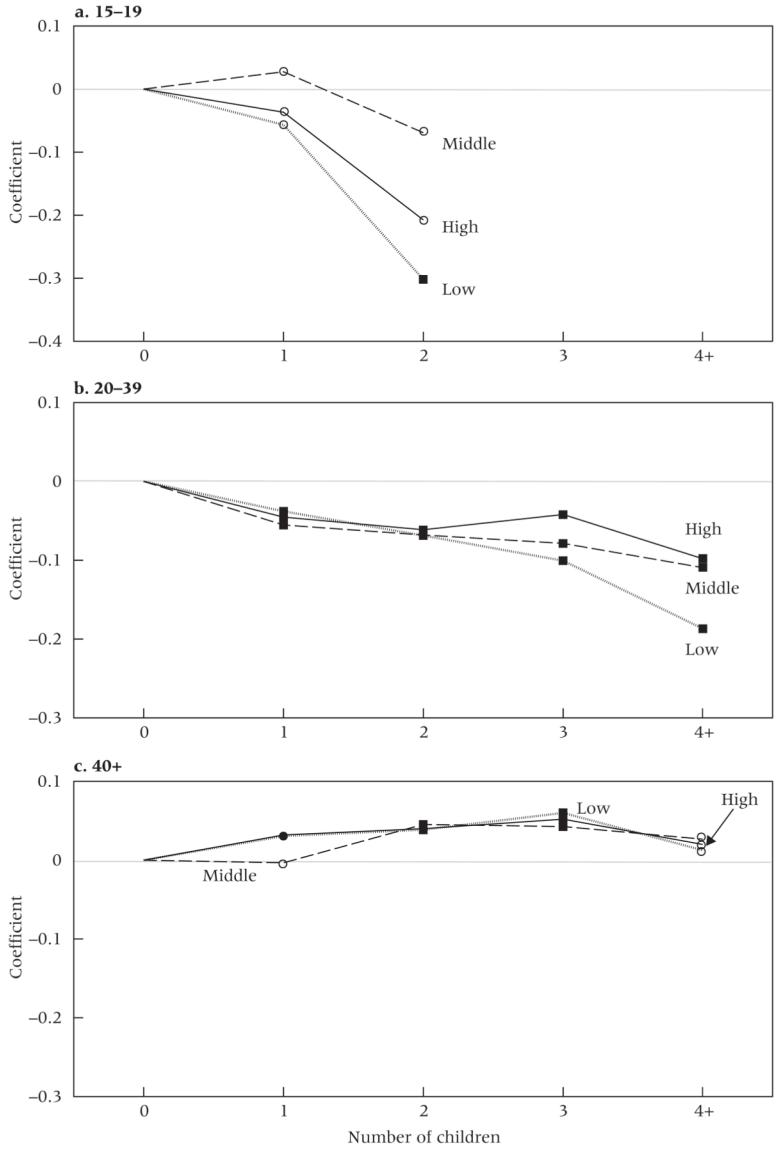


**FIGURE 5. Happiness by number of children and income group, ages 15–19, 20–39, and 40+**

NOTE: Lines connect coefficients from regression models predicting happiness—measured on a linear scale from 1 (not at all happy) to 4 (very happy)—with number of children (0, 1, 2, 3, 4+), controlling for sex, socioeconomic status, income, marital status, country, and year.

■ $p<.05$ ● $p<.10$ ○ $p\geq.10$

SOURCE: World Values Surveys 1981–2005, N = 201,988.

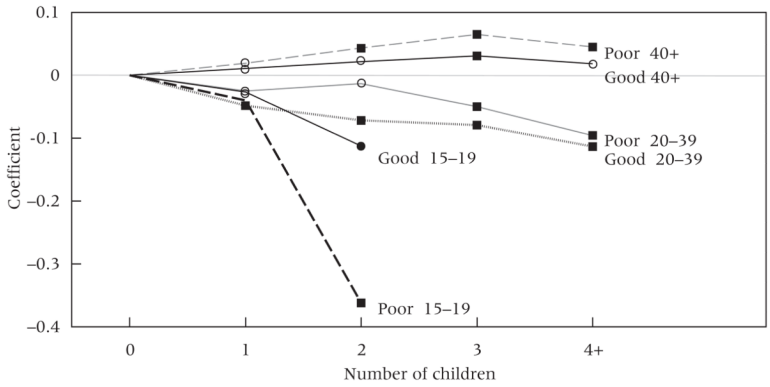


**FIGURE 6. Happiness and number of children by age and health status**

NOTE: Lines connect coefficients from regression models predicting happiness—measured on a linear scale from 1 (not at all happy) to 4 (very happy)—with number of children (0, 1, 2, 3, 4+), controlling for sex, socioeconomic status, income, marital status, country, and year.

■ $p<.05$ ● $p<.10$ ○ $p\geq.10$

SOURCE: World Values Surveys 1981–2005, N = 201,988.

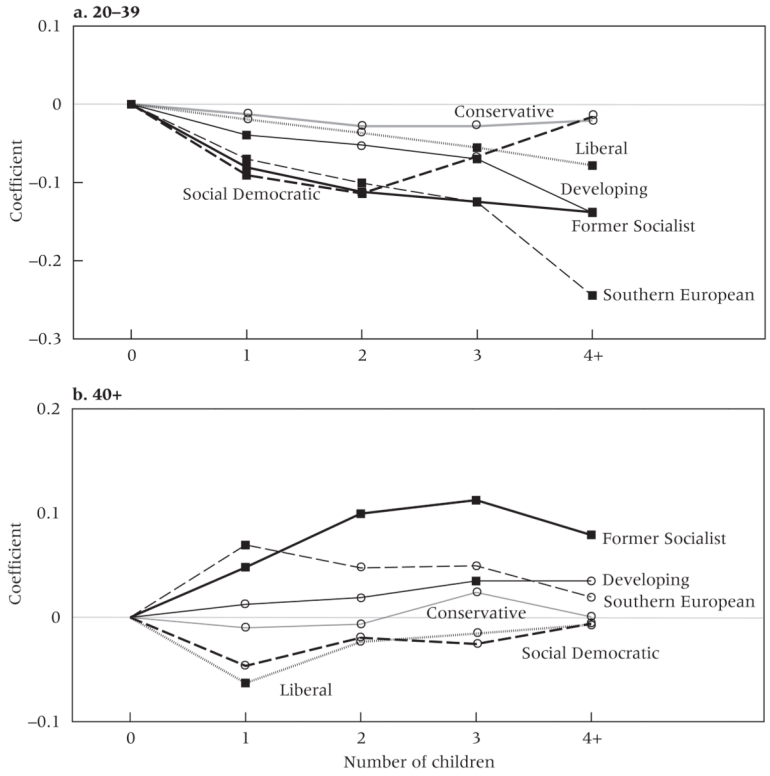


**FIGURE 7. Happiness and number of children by welfare regime and in developing countries, ages 20–39 and 40+**

NOTE: Lines connect coefficients from regression models predicting happiness—measured on a linear scale from 1 (not at all happy) to 4 (very happy)—with number of children (0, 1, 2, 3, 4+), controlling for sex, socioeconomic status, income, marital status, country, and year.

■ $p<.05$ ● $p<.10$ ○ $p\geq.10$

SOURCE: World Values Surveys 1981–2005, N = 201,988.

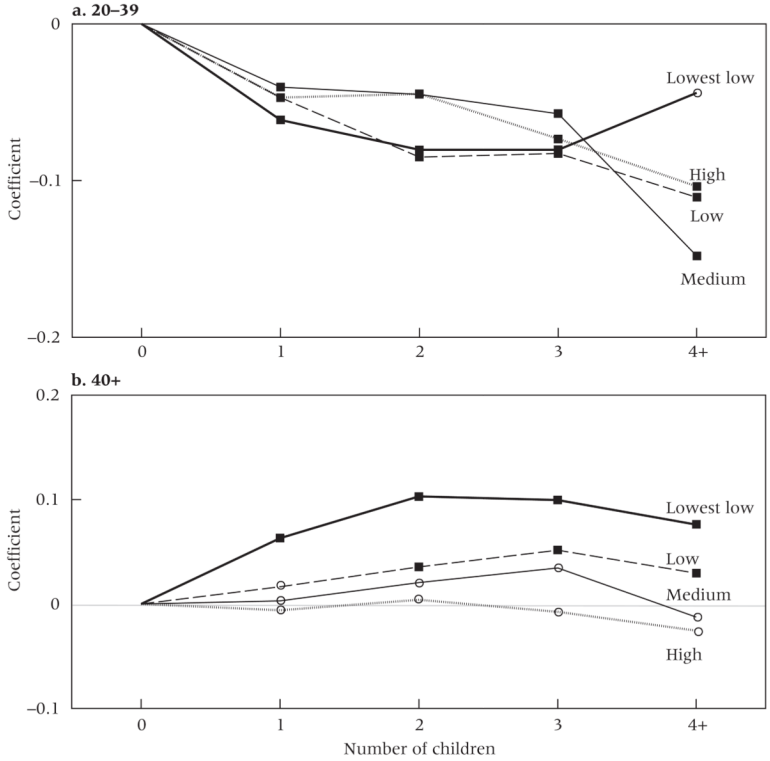


**FIGURE 8. Happiness and fertility by fertility level, ages 20–39 and 40+**

NOTE: Lines connect coefficients from regression models predicting happiness—measured on a linear scale from 1 (not at all happy) to 4 (very happy)—with number of children (0, 1, 2, 3, 4+), controlling for sex, socioeconomic status, income, marital status, country, and year.

■ $p<.05$ ● $p<.10$ ○ $p\geq.10$

SOURCE: World Values Surveys 1981–2005, N = 201,988.

*Popul Dev Rev*. Author manuscript; available in PMC 2012 May 07.

**TABLE 1**

Coefficients from linear regression models predicting happiness, Model 1 (N=201,988)

| Variable | Coefficient | SE | t | p value | 95% CI |
|---|---|---|---|---|---|
| **Number of children (none)** | | | | | |
| One | 0.041 | 0.005 | 7.95 | 0.000 | (0.031 0.051) |
| Two | 0.062 | 0.005 | 13.09 | 0.000 | (0.053 0.072) |
| Three | 0.060 | 0.005 | 10.80 | 0.000 | (0.049 0.071) |
| Four or more | 0.002 | 0.006 | 0.30 | 0.766 | (−0.009 0.013) |
| **Sex (male)** | | | | | |
| Female | 0.007 | 0.003 | 2.47 | 0.014 | (0.001 0.014) |
| **Age (15–19)** | | | | | |
| Ages 20–39 | −0.094 | 0.008 | −11.66 | 0.000 | (−0.110 −0.079) |
| Age 40+ | −0.192 | 0.009 | −22.25 | 0.000 | (−0.209 −0.175) |

NOTE: Coefficients for country and year dummy variables not shown. SE = standard error; CI = confidence interval. R squared = 0.12.

Happiness is measured on a linear scale from 1 (not at all happy) to 4 (very happy).

SOURCE: World Values Surveys 1981–2005.

*Popul Dev Rev*. Author manuscript; available in PMC 2012 May 07.

**TABLE 2**

Coefficients from linear regression models predicting happiness, Model 2 (N=201,988)

| Variable | Coefficient | SE | t | p value | 95% CI |
|---|---|---|---|---|---|
| **Number of children (none)** | | | | | |
| One | −0.032 | 0.006 | −4.77 | 0.000 | (−0.045 −0.020) |
| Two | −0.034 | 0.006 | −5.40 | 0.000 | (−0.046 −0.022) |
| Three | −0.026 | 0.007 | −3.39 | 0.000 | (−0.039 −0.012) |
| Four or more | −0.055 | 0.007 | −6.64 | 0.000 | (−0.069 −0.041) |
| **Sex (male)** | | | | | |
| Female | 0.035 | 0.003 | 11.36 | 0.000 | (0.029 0.041) |
| **Age (15–19)** | | | | | |
| Ages 20–39 | −0.111 | 0.008 | −13.79 | 0.000 | (−0.127 −0.095) |
| Age 40+ | −0.181 | 0.009 | −20.88 | 0.000 | (−0.198 −0.164) |
| **Income (high)** | | | | | |
| Low | −0.164 | 0.005 | −34.84 | 0.000 | (−0.173 −0.155) |
| Middle | −0.054 | 0.004 | −12.57 | 0.000 | (−0.062 −0.045) |
| **Socioeconomic status (low)** | | | | | |
| Middle | 0.121 | 0.004 | 32.70 | 0.000 | (0.114 0.129) |
| High | 0.121 | 0.004 | 42.68 | 0.000 | (0.201 0.220) |
| **Marital status (married)** | | | | | |
| Cohabiting | −0.083 | 0.007 | −11.27 | 0.000 | (−0.097 −0.069) |
| Separated/divorced | −0.277 | 0.007 | −38.12 | 0.000 | (−0.291 −0.263) |
| Widowed | −0.243 | 0.007 | −36.78 | 0.000 | (−0.256 −0.230) |
| Single | −0.157 | 0.006 | −24.95 | 0.000 | (−0.169 −0.144) |

NOTE: Coefficients for country and year dummy variables not shown. SE = standard error; CI = confidence interval. R squared = 0.16.

Happiness is measured on a linear scale from 1 (not at all happy) to 4 (very happy).

SOURCE: World Values Surveys 1981–2005.

## APPENDIX TABLE A1

Welfare regime categorization

| Social Democratic | Conservative | Liberal | Southern Europe | Former Socialist | Developing countries |
|---|---|---|---|---|---|
| Denmark | Andorra | Australia | Italy | Albania | Algeria |
| Finland | Austria | Canada | Malta | Armenia | Argentina |
| Netherlands | Belgium | Ireland | Portugal | Azerbaijan | Bangladesh |
| Norway | France | New Zealand | Spain | Belarus | Brazil |
| Sweden | Germany, West | United Kingdom | | Bulgaria | Burkina Faso |
| | Japan | United States | | Croatia | Chile |
| | Luxembourg | | | Czech Republic | China |
| | Switzerland | | | Estonia | Colombia |
| | | | | Georgia | Cyprus |
| | | | | Germany, East | Dominican |
| | | | | Hungary | Republic |
| | | | | Kyrgyzstan | Egypt |
| | | | | Latvia | El Salvador |
| | | | | Lithuania | Ethiopia |
| | | | | Macedonia | Ghana |
| | | | | Moldova | India |
| | | | | Poland | Indonesia |
| | | | | Romania | Iran |
| | | | | Russia | Jordan |
| | | | | Slovakia | Korea, South |
| | | | | Slovenia | Malaysia |
| | | | | Ukraine | Mali |
| | | | | | Mexico |
| | | | | | Morocco |
| | | | | | Nigeria |
| | | | | | Pakistan |
| | | | | | Peru |
| | | | | | Philippines |
| | | | | | Rwanda |

| Social Democratic | Conservative | Liberal | Southern Europe | Former Socialist | Developing countries |
|---|---|---|---|---|---|
| | | | | | Saudi Arabia |
| | | | | | South Africa |
| | | | | | Taiwan |
| | | | | | Tanzania |
| | | | | | Thailand |
| | | | | | Trinidad and Tobago |
| | | | | | Turkey |
| | | | | | Uganda |
| | | | | | Uruguay |
| | | | | | Venezuela |
| | | | | | Vietnam |
| | | | | | Zambia |
| | | | | | Zimbabwe |

## APPENDIX TABLE A2

Total fertility rate by country and survey year

| Country | Year | TFR | Country | Year | TFR | Country | Year | TFR |
|---|---|---|---|---|---|---|---|---|
| Albania | 1998 | 2.40 | Germany, West[b] | 1981 | 1.43 | Philippines | 2001 | 3.52 |
| | 2002 | 2.29 | | 1990 | 1.45 | Poland | 1990 | 2.04 |
| Algeria | 2002 | 2.53 | | 1997 | 1.39 | | 1997 | 1.51 |
| Andorra[a] | 2005 | 1.31 | | 1999 | 1.39 | | 1999 | 1.37 |
| Argentina | 1991 | 2.93 | Ghana | 2005 | 4.40 | | 2005 | 1.24 |
| | 1995 | 2.74 | Hungary | 1991 | 1.86 | Portugal | 1990 | 1.43 |
| | 1999 | 2.52 | | 1999 | 1.29 | Romania | 1998 | 1.32 |
| Armenia | 1997 | 1.75 | India | 1990 | 3.80 | | 2005 | 1.32 |
| Australia | 1995 | 1.82 | | 1995 | 3.39 | Russia | 1995 | 1.34 |
| | 2005 | 1.79 | | 2001 | 3.00 | Rwanda | 2005 | 5.58 |
| Austria | 1990 | 1.45 | | 2005 | 2.68 | Saudi Arabia | 2003 | 4.09 |
| | 1999 | 1.34 | Indonesia | 2001 | 2.39 | Slovakia | 1991 | 2.05 |
| Azerbaijan | 1997 | 2.07 | | 2005 | 2.26 | | 1998 | 1.38 |
| Bangladesh | 1996 | 3.66 | Iran | 2000 | 2.29 | | 1999 | 1.33 |
| | 2002 | 3.00 | Ireland | 1981 | 3.07 | Slovenia | 1992 | 1.34 |
| Belarus | 1996 | 1.31 | | 1990 | 2.12 | | 2005 | 1.26 |
| Belgium | 1981 | 1.67 | Italy | 1981 | 1.62 | South Africa | 1990 | 3.32 |
| | 1990 | 1.62 | | 1990 | 1.26 | | 1996 | 3.04 |
| | 1999 | 1.61 | | 1999 | 1.23 | | 2001 | 2.86 |
| Brazil | 1991 | 2.70 | | 2005 | 1.32 | | 2005 | 2.78 |
| | 1997 | 2.45 | Japan | 1990 | 1.54 | Spain | 1981 | 2.03 |
| | 2005 | 2.04 | | 1995 | 1.42 | | 1990 | 1.33 |
| Bulgaria | 1990 | 1.81 | | 2000 | 1.36 | | 1995 | 1.18 |
| | 1997 | 1.09 | | 2005 | 1.26 | | 1999 | 1.20 |
| | 2005 | 1.31 | Jordan | 2001 | 3.69 | | 2000 | 1.24 |
| Burkina Faso | 2005 | 6.15 | Korea, South | 1996 | 1.58 | | 2005 | 1.35 |
| Canada | 1990 | 1.83 | | 2005 | 1.08 | Sweden | 1996 | 1.60 |
| | 2000 | 1.49 | Kyrgyzstan | 2003 | 2.50 | | 1999 | 1.50 |

| Country | Year | TFR | Country | Year | TFR | Country | Year | TFR |
|---|---|---|---|---|---|---|---|---|
| Chile | 1990 | 2.59 | Latvia | 1996 | 1.16 | | 2005 | 1.77 |
| | 1996 | 2.28 | | 1999 | 1.16 | Switzerland | 1996 | 1.50 |
| | 2000 | 2.08 | Lithuania | 1997 | 1.47 | | 2005 | 1.42 |
| | 2005 | 1.97 | Luxembourg | 1999 | 1.73 | Taiwan[c] | 1994 | 1.75 |
| China | 1995 | 1.92 | Macedonia | 1998 | 1.90 | | 2005 | 1.11 |
| | 2001 | 1.88 | | 2001 | 1.75 | Tanzania | 2001 | 5.62 |
| | 2005 | 1.71 | Malaysia | 2005 | 2.71 | Thailand | 2005 | 1.81 |
| Colombia | 1998 | 2.77 | Mali | 2005 | 6.59 | Trinidad and Tobago | 2005 | 1.62 |
| Croatia | 1996 | 1.67 | Malta | 1991 | 2.04 | Turkey | 1990 | 3.00 |
| | 1999 | 1.38 | | 1999 | 1.71 | | 1996 | 2.76 |
| Cyprus | 2005 | 1.42 | Mexico | 1990 | 3.31 | | 2001 | 2.52 |
| Czech Rep. | 1991 | 1.86 | | 1996 | 2.75 | | 2005 | 2.17 |
| | 1998 | 1.16 | | 2000 | 2.41 | Uganda | 2001 | 6.90 |
| | 1999 | 1.13 | | 2005 | 2.20 | Ukraine | 1996 | 1.30 |
| Denmark | 1981 | 1.43 | Moldova | 1996 | 1.67 | | 2005 | 1.20 |
| Dominican Rep. | 1996 | 3.08 | | 2002 | 1.28 | United Kingdom | 1981 | 1.81 |
| Egypt | 2000 | 3.43 | | 2005 | 1.50 | | 1990 | 1.83 |
| | 2005 | 2.99 | Morocco | 2001 | 2.50 | | 1998 | 1.71 |
| El Salvador | 1999 | 3.05 | | 2005 | 2.43 | United States | 1990 | 2.08 |
| Estonia | 1996 | 1.33 | Netherlands | 1981 | 1.56 | | 1995 | 1.98 |
| Ethiopia | 2005 | 5.57 | | 1990 | 1.62 | | 1999 | 2.01 |
| Finland | 1996 | 1.76 | New Zealand | 1998 | 1.97 | Uruguay | 1996 | 2.50 |
| | 2005 | 1.80 | Nigeria | 1990 | 6.71 | Venezuela | 1996 | 3.04 |
| France | 1981 | 1.94 | | 1995 | 6.40 | | 2000 | 2.83 |
| | 1990 | 1.78 | | 2000 | 5.92 | Vietnam | 2001 | 1.88 |
| | 1999 | 1.79 | Norway | 1996 | 1.89 | | 2005 | 2.21 |
| Georgia | 1996 | 1.65 | Pakistan | 1997 | 5.00 | Zambia | 2005 | 5.96 |
| Germany, East[b] | 1990 | 1.45 | | 2001 | 4.59 | Zimbabwe | 2001 | 3.66 |
| | 1997 | 1.05 | Peru | 1996 | 3.30 | | | |
| | 1999 | 1.17 | | 2001 | 2.93 | | | |
| | | | | 2005 | 2.67 | | | |

SOURCES: World Bank 2010 except as follows:

[a] Central Intelligence Agency 2010.

[b] Lechner 2001.

[c] Lee 2009.

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## APPENDIX TABLE A3

Unweighted sample characteristics by country (N=201,988)

| Country | Number of respondents | Mean happiness | Mean number of children | Mean age | Percent married |
|---|---|---|---|---|---|
| All countries | 201,988 | 3.03 | 1.97 | 41.5 | 61.9 |
| Tanzania | 1,001 | 3.49 | 2.81 | 38.3 | 52.9 |
| El Salvador | 977 | 3.47 | 2.39 | 37.7 | 39.4 |
| Venezuela | 2,104 | 3.46 | 2.27 | 36.4 | 41.6 |
| Nigeria | 3,872 | 3.39 | 2.23 | 32.5 | 56.9 |
| Netherlands | 1,313 | 3.38 | 2.02 | 43.9 | 70.4 |
| Ireland | 1,147 | 3.37 | 2.65 | 45.7 | 67.8 |
| Saudi Arabia | 1,303 | 3.34 | 2.19 | 32.2 | 59.6 |
| Switzerland | 1,976 | 3.34 | 1.59 | 49.2 | 56.3 |
| Trinidad and Tobago | 973 | 3.34 | 2.09 | 42.4 | 38.8 |
| United States | 3,962 | 3.34 | 2.02 | 45.9 | 59.2 |
| Sweden | 2,466 | 3.33 | 1.55 | 45.8 | 49.8 |
| Australia | 2,998 | 3.32 | 1.82 | 45.8 | 56.3 |
| Thailand | 1,477 | 3.32 | 2.16 | 45.6 | 69.7 |
| Belgium | 3,516 | 3.31 | 1.81 | 46.4 | 64.8 |
| Malaysia | 1,195 | 3.31 | 1.64 | 31.8 | 50.0 |
| Colombia | 2,962 | 3.30 | 1.99 | 36.6 | 42.0 |
| Luxembourg | 589 | 3.30 | 1.41 | 42.5 | 61.5 |
| Denmark | 674 | 3.27 | 2.29 | 47.2 | 75.5 |
| New Zealand | 930 | 3.27 | 2.13 | 46.2 | 60.7 |
| Philippines | 1,181 | 3.27 | 2.74 | 38.8 | 72.6 |
| United Kingdom | 2,412 | 3.26 | 1.53 | 46.3 | 65.8 |
| Cyprus | 1,031 | 3.26 | 1.71 | 41.6 | 64.8 |
| Norway | 952 | 3.25 | 1.69 | 43.4 | 55.2 |
| Vietnam | 2,412 | 3.25 | 2.37 | 41.5 | 74.3 |
| Canada | 3,026 | 3.24 | 1.89 | 44.3 | 55.2 |
| Ghana | 1,421 | 3.24 | 1.99 | 33.9 | 46.2 |
| Austria | 2,549 | 3.23 | 1.76 | 46.8 | 65.9 |
| Andorra | 936 | 3.21 | 1.05 | 40.4 | 40.0 |

| Country | Number of respondents | Mean happiness | Mean number of children | Mean age | Percent married |
|---|---|---|---|---|---|
| Mali | 981 | 3.21 | 2.87 | 36.7 | 69.5 |
| Mexico | 5,154 | 3.20 | 2.48 | 37.2 | 56.5 |
| South Africa | 7,461 | 3.20 | 1.98 | 38.5 | 45.9 |
| France | 2,683 | 3.19 | 1.97 | 44.8 | 62.4 |
| Malta | 931 | 3.19 | 1.95 | 45.6 | 70.1 |
| Finland | 1,696 | 3.17 | 1.60 | 44.9 | 43.9 |
| Indonesia | 2,515 | 3.17 | 2.16 | 39.2 | 17.7 |
| Japan | 3,487 | 3.16 | 1.80 | 47.4 | 80.2 |
| Uganda | 526 | 3.12 | 2.21 | 31.4 | 43.7 |
| Taiwan | 1,875 | 3.11 | 2.01 | 42.8 | 68.8 |
| Argentina | 2,590 | 3.10 | 2.11 | 43.6 | 55.4 |
| Chile | 4,040 | 3.10 | 2.26 | 41.8 | 58.2 |
| Brazil | 3,703 | 3.09 | 2.24 | 39.2 | 52.1 |
| Turkey | 7,545 | 3.07 | 2.20 | 36.9 | 72.5 |
| Dominican Republic | 325 | 3.06 | 1.19 | 28.8 | 32.6 |
| Spain | 7,617 | 3.04 | 1.98 | 46.1 | 67.4 |
| Kyrgyzstan | 982 | 3.03 | 2.05 | 37.3 | 60.2 |
| Morocco | 2,318 | 3.03 | 1.79 | 35.6 | 55.6 |
| Uruguay | 909 | 3.01 | 1.98 | 46.5 | 56.2 |
| Germany, West | 3,981 | 3.01 | 1.53 | 46.1 | 60.1 |
| Korea, South | 2,388 | 3.00 | 1.65 | 40.0 | 66.6 |
| Burkina Faso | 1,170 | 2.99 | 2.52 | 34.3 | 55.2 |
| Egypt | 5,636 | 2.99 | 2.68 | 39.8 | 72.7 |
| India | 6,556 | 2.99 | 2.67 | 40.2 | 85.7 |
| Algeria | 835 | 2.98 | 2.29 | 37.3 | 52.8 |
| Italy | 3,971 | 2.98 | 1.52 | 45.2 | 66.3 |
| Bangladesh | 2,833 | 2.96 | 2.33 | 34.6 | 76.7 |
| China | 4,541 | 2.96 | 1.88 | 41.9 | 86.1 |
| Pakistan | 2,525 | 2.96 | 2.19 | 37.3 | 69.8 |
| Rwanda | 1,336 | 2.96 | 2.40 | 34.4 | 52.5 |
| Peru | 3,754 | 2.94 | 2.04 | 36.2 | 40.9 |

| Country | Number of respondents | Mean happiness | Mean number of children | Mean age | Percent married |
|---|---|---|---|---|---|
| Germany, East | 2,741 | 2.93 | 1.64 | 46.2 | 59.9 |
| Jordan | 1,109 | 2.91 | 3.09 | 36.3 | 67.4 |
| Poland | 3,657 | 2.91 | 1.94 | 46.3 | 65.8 |
| Czech Republic | 4,554 | 2.89 | 1.73 | 46.7 | 66.1 |
| Azerbaijan | 1,698 | 2.88 | 1.76 | 36.5 | 63.3 |
| Ethiopia | 1,406 | 2.87 | 1.03 | 29.9 | 39.7 |
| Portugal | 1,109 | 2.85 | 1.62 | 42.5 | 60.4 |
| Croatia | 1,992 | 2.84 | 1.42 | 41.7 | 63.2 |
| Macedonia | 1,608 | 2.83 | 1.68 | 42.2 | 73.4 |
| Iran | 1,992 | 2.82 | 1.78 | 34.3 | 56.9 |
| Slovenia | 1,889 | 2.80 | 1.52 | 44.3 | 60.3 |
| Hungary | 1,919 | 2.78 | 1.65 | 47.1 | 65.7 |
| Zambia | 1,035 | 2.77 | 1.72 | 29.4 | 31.0 |
| Latvia | 1,087 | 2.72 | 1.29 | 42.7 | 52.4 |
| Georgia | 1,934 | 2.71 | 1.43 | 40.7 | 60.5 |
| Slovakia | 3,116 | 2.70 | 1.88 | 44.3 | 69.4 |
| Estonia | 962 | 2.65 | 1.49 | 43.6 | 57.0 |
| Zimbabwe | 809 | 2.65 | 2.71 | 35.5 | 60.4 |
| Ukraine | 3,001 | 2.58 | 1.48 | 45.0 | 67.7 |
| Armenia | 1,785 | 2.56 | 1.72 | 38.3 | 59.3 |
| Lithuania | 863 | 2.55 | 1.63 | 44.5 | 66.9 |
| Romania | 2,697 | 2.54 | 1.60 | 46.3 | 69.0 |
| Bulgaria | 2,490 | 2.50 | 1.55 | 45.9 | 70.3 |
| Russia | 1,786 | 2.50 | 1.56 | 46.6 | 62.7 |
| Moldova | 2,764 | 2.47 | 1.77 | 42.8 | 67.5 |
| Albania | 1,877 | 2.43 | 2.14 | 40.9 | 71.9 |
| Belarus | 1,869 | 2.43 | 1.63 | 44.1 | 65.6 |

NOTE: Happiness is measured on a linear scale from 1 (not at all happy) to 4 (very happy).

SOURCE: World Values Surveys 1981–2005.