
Insights on Development from the Economics of Happiness

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The literature on the economics of happiness in developed economies finds discrepancies between reported measures of well-being and income measures. One is the so-called Easterlin paradox: that average happiness levels do not increase as countries grow wealthier. This article explores how that paradox—and survey research on reported well-being in general—can provide insights into the gaps between standard measures of economic development and individual assessments of welfare. Analysis of research on reported well-being in Latin America and Russia finds notable discrepancies between respondents' assessments of their own well-being and income- or expenditure-based measures. Accepting a wide margin for error in both types of measures, the article posits that taking such discrepancies into account may improve the understanding of development outcomes by providing a broader view on well-being than do income- or expenditure-based measures alone. It suggests particular areas where research on reported well-being has the most potential to contribute. Yet the article also notes that some interpretations of happiness research—psychologists' set point theory, in particular—may be quite limited in their application to development questions and cautions against the direct translation of results of happiness surveys into policy recommendations.

The study of happiness or subjective well-being (terms that are used interchangeably) is fairly new to economists, although psychologists have been studying it for years. Some of the earliest economists, such as Jeremy Bentham, were concerned with the pursuit of individual happiness. As the field became more rigorous and quantitative, however, much narrower definitions of individual welfare, or utility, became the norm. In addition, economists have traditionally shied away from the use of survey data because of justifiable concerns that answers to surveys of individual preferences—and reported well-being—are subject to factors such as the respondents' mood at the time of the survey and minor changes in the phrasing of survey questions, which can produce large biases in results (Bertrand and Mullainathan

2001). Thus traditional economic analysis focuses on actual behavior, such as revealed preferences in consumption, savings, and labor market participation, under the assumption that individuals rationally process all the information at their disposal to maximize their utility.

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In recent years, however, the strictly rational vision of economic decisionmaking has come under increasing scrutiny. One important innovation is the concept of bounded rationality, in which individuals are assumed to have access to limited or local information and to make decisions according to simple heuristic rules rather than complex optimization calculations (Conlisk 1996; Simon 1978). A more recent trend has been the increased influence of behavioral economics, which supplements economists' methods and questions with those more common to psychologists. A notable recognition of the behavioralist approach was the awarding of the 2002 Nobel Prize in Economics to Daniel Kahneman, a psychologist.

Economists who work in the area broadly define happiness or subjective well-being as satisfaction with life in general. Indeed, the three phrases are used interchangeably. Most studies are based on a very simple set of survey questions that ask respondents "How satisfied are you with your life?" or "How happy are you with your life?" Critics used to defining welfare or utility in material or income terms bemoan the lack of precise definition in these questions. Yet the economists who use these surveys emphasize their advantages in making comparisons across cohorts of individuals—in which they find a surprising consistency in the patterns of responses both within and across countries—over evaluating the actual happiness levels of specific individuals. Psychologists, meanwhile, find a significant degree of "validation" in subjective well-being surveys with individuals who report higher levels of happiness actually smiling more and meeting several other psychological measures of well-being (Diener and Biswas-Diener 2000; Diener and Seligman 2004).

Central to the findings of much of the happiness literature in developed economies are numerous discrepancies between reported measures of well-being and income measures. Richard Easterlin, who pioneered the economics of happiness in the mid-1970s, found that the way that most people spend their time is similar across countries and cultures: working and trying to provide for their families.¹ Thus the concerns that they express when asked about happiness are similar. His finding—that wealthy people tend to be happier than poor people in the same country, but that there is no such relationship across countries or over time—has since been supported by several subsequent studies and is known as the Easterlin paradox.²

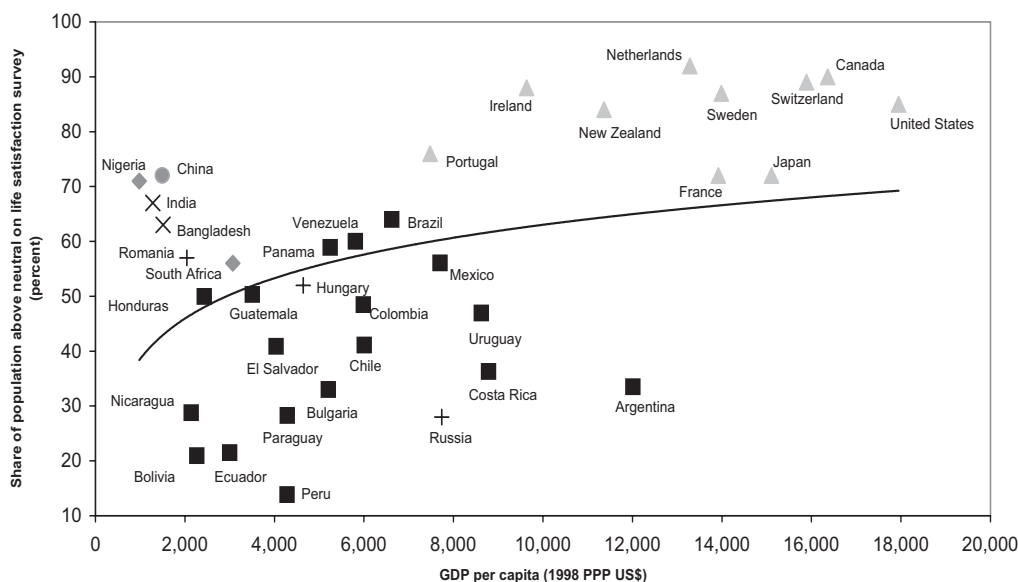
More recently, Graham and Pettinato (2001) examined data for a sample of 17 developing economies in Latin America and found a similar result: no obvious

relationship between gross national product per capita and happiness. Yet for the most part average happiness levels are higher in developed economies than in developing ones (figure 1).

The objective of this article is to explore how the Easterlin paradox—and the study of happiness more generally—provide insight into the way in which individuals in developing economies assess their own welfare and how their assessments differ from those based on traditional measures. Understanding those divergences better—particularly if they are significant and related to factors that can be influenced by policy—may help development economists and practitioners improve their benchmarks for measuring progress.

The broader question posed by the Easterlin paradox—why people do not get happier as they get wealthier—is also very relevant to this discussion. At a minimum it introduces a different element into the discussion of the tradeoffs involved for developing economies when they opt to pursue objectives other than growth, such as more equitable distribution and better social welfare systems. The research here on happiness in developing economies of course cannot answer these widely debated questions. But perhaps it can provide new insights into them. Research in Latin America and Russia discussed in this article suggests that happiness surveys can

Figure 1. Happiness and Income per Capita, by Country, 1990s



Source: Graham and Pettinato (2002b).

Note: $R^2 = 0.14$.

explain much about how the dynamics of poverty and inequality affect well-being, as well as about many other elements of well-being that are not captured by income measures alone. In particular, they may help explain public frustration when income measures alone provide insufficient explanation. They may also shed light on issues when a revealed preferences approach is limited—for example, when seeking the effects of inequality on well-being. It is difficult to imagine how poor Bolivians, for example, who are unhappy with nationwide inequality can reveal their preferences and move to a place with less inequality (short of emigrating). Nor can they do much to alter the income distribution by voting because progressive taxation is not on the policy agenda in much of the region. In such contexts, surveys of well-being may provide useful information.

It is important, though, to think of happiness surveys as complements to rather than substitutes for income-based measures of progress. Happiness surveys can provide novel information and suggest new analytical approaches, but they can also pose challenges when translated into direct policy recommendations. For example, countries have grown wealthier over time, and they have made major improvements in other indicators, such as morbidity, mortality, and literacy rates.³ But if the direct policy conclusion from the Easterlin paradox is that more money does not make people happier, a related conclusion could be that long-term gains in health and education also do not make people happier. Most development economists would find this extremely problematic.

Solving the Discrepancy between Reported and Income-Based Measures of Happiness

Economists who study the economics of happiness have devoted a fair amount of attention to trying to explain the paradox that improvements in living standards over time were not reflected in people's answers to happiness surveys. Easterlin (1974) explained the anomaly by suggesting that absolute income levels matter up to a certain point—particularly when basic needs are unmet—after which relative income differences matter more. Decades earlier, Pigou (1920) reasoned that because rich people derive much of their satisfaction from their relative (rather than absolute) income, satisfaction would not be reduced if the incomes of all the rich were diminished at the same time, justifying redistributive taxation.

Using a cross-section of 18,000 college students in 39 countries (primarily developed economies) and a longitudinal study of 4,942 adults in the United States over 1971–81, Diener and others (1993) found a stronger relationship between income and happiness at the lower end of the income scale and a weaker one at higher incomes that are well above subsistence levels. They also found a moderate relationship between affluence and life satisfaction across countries.

Norms and expectations also adapt upward with economic progress. Thus the expected gains of income on happiness are mediated by the rising aspirations that accompany the income gains. Empirical studies support this proposition, showing a much stronger relation between income and happiness at the lower end of the income scale (Veenhoven 1991). Some scholars have also found an additional effect at the top of the scale, which might be explained by greed or changing preferences resulting from high degrees of wealth (Argyle 1999).

Easterlin's proposition about changing reference norms is supported by the well-known sociological work of Merton (1957), based on Stouffer's (1949) analysis of the effects of promotions among U.S. soldiers. Stouffer found that members of the infantry, for whom promotion was quite rare, were much more satisfied when they received a promotion than were members of the air force, for whom upward mobility was the norm rather than the exception.⁴

At about the same time that Merton was writing, Duesenberry (1949) explored the relationship between income aspirations and social status. His specific interest was in ascertaining how the relationship influences savings behavior, but the empirical work on which he based his analysis was remarkably similar to Merton's work. He relied on sociological research based on public opinion polls in the United States in the 1940s. He found that people in the highest income group surveyed said that they needed a higher percentage increase in income to allow their family to live comfortably than did people in many lower income groups. In a much later study Kapteyn (1999) found that residents of higher income neighborhoods in the Netherlands save less than residents with similar income levels that live in lower income neighborhoods.

The importance placed on relative income and reference groups can lead to an ever-rising bar of perceived needs. In a classic work Veblen (1967) suggests that in affluent societies spending—and in particular conspicuous consumption—becomes the vehicle through which people establish social position. Several decades later, Schor (1998) cited repeated surveys in which more than half the respondents in the United States, the richest population in the world, said that they could not afford everything they really needed.

The importance of relative income differences to perceived well-being depends in part on social norms, which vary by society. Under certain norms some societies, such as the United States, are more willing to tolerate higher levels of inequality in exchange for benefits (real or perceived) such as greater freedom or opportunity (Esping-Andersen 1990; McMurrer and Sawhill 1998; Graham and Young 2003).

The concept of changing reference norms and aspirations is also relevant to economic development in poor countries. An anecdotal example comes from Peru in the 1960s. Webb (1977) interviewed a random sample of urban workers of different income levels and asked how much more income than they earned at the time they would need to "live well." The vast majority of respondents across all income levels responded that they would need twice as much.

Increasing income levels—and economic growth—are a necessary if not sufficient condition for development. The process can be quite uneven. Thus, aspirations and reference norms may adapt upward well before significant sectors of society see the benefits. The integration of global markets, meanwhile, has been accompanied by a marked increase in the availability of global information regarding living standards within poor countries and beyond their borders. Many developing economies, particularly in Latin America, have large gaps between the very wealthy and the rest of society, gaps that are often exacerbated by integration into global markets. If skilled labor benefits disproportionately from the process, as has been the case in Latin America, it is likely to require much more work to narrow the gaps, which also requires expanding the pool of skilled labor, than to simply increase awareness about them (Behrman and others 2000).

The concepts of rising aspirations and relative deprivation are not at all new to the study of development economics. They are highlighted in Hirschman's (1973) work, for example. Yet they are not well incorporated into existing measures of progress, even though they can have significant effects on individuals' assessments of their welfare.

Set Point Theory

A prominent explanation for the Easterlin paradox is that norms and expectations adapt upward at about the same rate as income increases, and thus after basic needs are met, more income does not make people happier. An additional—and in some cases plausible—explanation for the paradox is that happiness questions, which are usually based on a four- or seven-point scale, have an upper bound, whereas progress does not. This may explain some of the cross-country conundrum but not why happiness levels have fallen after 40 years of economic progress in Japan, for example. The extreme view of adaptation is the psychologists' set point theory, which suggests that all individuals have a set point of happiness, which they revert back to even after major events, such as winning the lottery or getting divorced.

Others, though, such as Easterlin (2003), cite research showing that there are some events—such as unemployment and being widowed—that individuals either never adapt to or take a long time to adapt to. A recent study of monozygotic and dizygotic twins in Denmark, meanwhile, shows that reported happiness has some genetic components but is also heavily influenced by experiences with partners and children (Kohler and others 2005).

A strict interpretation of the set point theory suggests that policy can do little to make people happier and that happiness surveys cannot be usefully applied to development questions without accepting that extremely poor and destitute people who report that they are happy, most likely because of psychological attributes, are as well off as much wealthier, healthier, and more educated respondents. Few policymakers or

social scientists would be comfortable with this, especially because decades of research and economic progress demonstrate that people live longer, healthier, and more fulfilling lives when they are not destitute, regardless of how they report their well-being. Easterbrook (2003), for example, discusses the paradoxical case of the United States, where virtually all of these indicators—health, wealth, and education—have improved over time, but reported well-being has gone down.

Yet the set point interpretation is extreme. There is no doubt a tremendous amount of adaptation to all kinds of change, and the evidence suggests that people often do return to or near their set point, particularly in the case of income changes. But there is also evidence that some things have more lasting effects on people's happiness. Certainly people adapt over time to events such as divorce or serious illness, but the evidence is much less conclusive on whether they ever fully adapt. Easterlin (2003) suggests that people adapt and recuperate much faster from pecuniary changes or shocks (upward or downward) than from changes in nonpecuniary areas, such as marriage or health. His data show that individuals never fully adapt to significant marital or health shocks. By contrast, panel data for Germany suggest that people eventually fully adapt to the negative effects of divorce.

Even if norms and adaptation play a major role in determining subjective well-being, there is ample evidence that objective conditions—and changes in objective conditions—matter. In virtually all countries where surveys are conducted, cross-section data show that wealthier people are happier than poor people. Healthier people are also happier, as are more educated people, employed people, and married people (Clark and Oswald 1994; Blanchflower and Oswald 2004). Conversely, economic and other forms of insecurity, such as high levels of crime, seem to have negative effects on people's happiness (Graham and Pettinato 2002a, b; Powdthavee forthcoming).

The extreme set point interpretation suggests that progress does not matter to happiness at all—an uncomfortable interpretation for some. A more nuanced view, however, posits that happiness surveys can show things that purely income-based measures of progress do not, and this may shed light on how the direction and nature of progress affect well-being. Having enough income seems to matter to people's happiness and is essential to poverty reduction, but other nonincome factors, such as stable employment, marital status, and good health, also matter a great deal to well-being (and, except for marital status, to poverty reduction).

Other Findings

Although there are diminishing returns to increasing income across countries, other things that are correlated with income, such as health, quality of government, and human rights, are also correlated with higher levels of happiness (Diener and Seligman 2004; Donovan and Halpern 2002; Frey and Stutzer 2002). In a recent

cross-country study, for example, Helliwell (2004) concludes that people with the highest well-being “are not those who live in the richest countries, but those who live where social and political institutions are effective, where mutual trust is high, and corruption is low” (p. 6). In addition, Graham and Pettinato (2002b) found that happiness levels are still, on average, lower in most developing economies than in developed ones, suggesting that if there is a threshold beyond which more money does not increase average levels of enhance reported well-being, most developing economies have not yet crossed it.

The discrepancy between cross-section and over-time country-level findings, meanwhile, is a paradox of its own. After minimum basic needs are met, respondents do not seem to factor in long-term, aggregate improvements in per capita income levels or in basic health and literacy standards when they assess their well-being. At the same time, at any point in time within individual countries wealthier and healthier people are happier than poorer and less healthy people. Responses are also influenced by changes in both income and health status. Even if gains do not affect people’s answers to happiness surveys over time, when life expectancy is longer and disease incidence lower, these temporarily happier, wealthier, and healthier people within countries will have more years to enjoy their lives.

One example of well-being surveys answering unresolved questions is the evidence (albeit mixed) they provide that distributional outcomes matter to welfare. Experimental-, firm- and region-level studies show that inequities in rank or in the distribution of particular rewards can erode the positive gains accrued from income.⁵ Using U.S. data from the General Social Survey, Blanchflower and Oswald (2004) found that relative income differences matter to happiness even when absolute income is held constant.⁶ Graham and Felton (2005) found that relative income differences (as well as perceived income differences) make rich people in Latin America happier than average and poor people less happy. The authors suggest that although inequality can signal mobility and opportunity as much as injustice in developed economies, in Latin America inequality seems to be a constant source of advantage for rich people and disadvantage for poor people.

Happiness surveys also suggest that macroeconomic conditions matter to well-being. Studies in developed economies show that higher inflation and unemployment rates make respondents less happy, all else being equal (de Tella and others 2001). Other research corroborates these findings for Latin America, with high inflation and unemployment rates bad for happiness (Graham and Pettinato 2002a, b; Eggers and Graham 2004). Most economists and policymakers would be quite comfortable with the logical conclusion from these results: high inflation and unemployment are bad for well-being.

But caution is also necessary. A more recent study of the costs of regional unemployment rates in Russia shows that respondents who live in regions with higher unemployment rates are happier than their counterparts in regions with lower

rates, all else held equal (Eggers and others forthcoming). These results reflect the unusual nature of the Russian economy and its uneven transition to the market. A detailed interpretation is beyond the scope of this article, but the policy implications, taken at face value, are that high unemployment rates are good for well-being in Russia. Few analysts would find that useful or conscionable.

Accepting that caution is necessary when drawing policy prescriptions, the point of this article is to demonstrate how happiness research can provide new insights into the development process and how individuals fare—and how they perceive that they fare—during that process. These insights complement but cannot replace the valuable information and benchmarks of progress provided by income-based measures. They are also useful for explaining policy puzzles, such as differences in societies' tolerance for inequality, divergent assessments of the benefits of globalization, and unexpected interruptions in social and political stability.

What Are Standard Measures Missing?

An obvious question is what are traditional or standard measures missing? Respondents' assessments of their own welfare often highlight factors that are not adequately captured by income measures, including real and perceived insecurity of rewards and incentives systems adapting to structural changes; the state of essential public services, such as education, health, and crime prevention; and norms of fairness and justice. Even the trends that can be measured in income terms, such as poverty and inequality, have broader dimensions and dynamic elements that are not captured by such traditional income-based measures as poverty headcounts and Gini coefficients.

Gini coefficients, for example, are static, aggregate measures that do not change very much over time and usually do not reflect distributional shifts among regions or skill cohorts. Poverty headcount studies based on cross-section data collected every few years often miss short-term movements in and out of poverty.⁷ Such movements are common in developing economies and create widespread insecurity among the middle class as well as the poor (Birdsall and others 2001). Panel data that measure income mobility are better suited to capturing such changes. Yet these data are rare and exist for only a few developing economies (and even then usually for short time periods and small samples). Fixed international poverty lines, such as the \$1 or \$2 a day lines, although useful for cross-country comparisons, often have very little to do with public conceptions of poverty within particular countries and regions, which is why they are rarely used for these purposes.

An example of the incomplete picture provided by income-based measures is the gap between economists' assessments of the effects of globalization based on traditional measures and the more negative assessments of the average citizen experiencing the process. This gap may be exaggerated by the vocal opponents or proponents of globalization, but it may also reflect trends—and broader dimensions of welfare—that

standard income measures do not. Few development economists dispute that growth is a necessary but insufficient condition for poverty reduction. So it should come as little surprise that measures of poverty and inequality that capture only income and expenditure trends do not provide a complete picture of the many broader dimensions of poverty and inequality or how they are affected by the complex process of globalization.

Another example of income measures providing an incomplete picture is the theory that civil unrest and social protest are more likely to occur in developing and growing societies than in stagnant ones. Gurr's (1970) often cited cross-country study cites relative deprivation as "the basic, instigating condition for participants in collective violence. . . . Societal conditions that increase the average level or intensity of expectations without increasing capabilities increase the intensity of discontent" (p. 254). Despite many subsequent studies, there is still vast disagreement over the relationships between gross domestic product growth, inequality, and civil violence (Collier and others 2003; Sambanis forthcoming). Using broader measures may offer some insights.

A related example is public tolerance for inequality. In a classic article Hirschman (1973) compared public tolerance for inequality in the development process with a traffic jam in a tunnel. He said that when one lane moves forward, it gives drivers in the stalled lanes hope, because it provides a signal or information about where they might be going in the future. But if only one lane moves and the others remain stalled for a long period of time, drivers in the stalled lanes become frustrated and are tempted to revert to radical behavior such as jumping the median strip. Note that the frustration and radical behavior come after a period of growth and development (albeit unevenly shared), not at a time of overall stagnation. There is no standard measure of growth or inequality that can gauge the timing of such frustration and how the tolerance threshold differs among societies.

The more important question, however, is whether this gap between economists' assessments and broader measures of well-being matters to outcomes in poor countries. Surely the bottom line or minimum requirement for economic development is economic growth. Will understanding broader and surely more difficult to measure dimensions of welfare contribute anything to the already complex challenges of development? If there is merit in pursuing these broader concepts, how can researchers better measure what traditional tools do not capture? Can the economics of happiness provide new tools to answer these questions?

The Economics of Happiness in Developing Economies: An Initial Exploration

There are very few studies of happiness in developing economies, and to the extent they exist, they tend to cover individual countries (Namafie and Sanfey 1998 in

Kyrgyzstan; Rojas 2003 in Mexico; Ravallion and Lokshin 1999 in Russia). Graham and Pettinato's (2001, 2002a, b) study of reported well-being in Latin America and Russia is the first with a large sample of developing economies. Their results strongly support the important role of relative income differences, reference norms, and other nonincome factors highlighted earlier. Indeed, for the most part the determinants of happiness in developing economies were very similar to those in developed ones.

Graham and Pettinato's work began as an attempt to better understand the determinants of income mobility (as a proxy for the distribution of opportunities) in developing countries that are in the process of opening their economies. The challenge in answering this question is the paucity of data. Baulch and Hoddinot (2000) provide an excellent summary of the few mobility studies that exist for developing economies.

Graham and Pettinato also expanded their approach to examine the role of perceptions of past and future mobility, linking data on subjective well-being to detailed over-time data on income mobility for the same respondents. This approach was introduced to collect data in Peru and in Russia. Unfortunately, similar mobility data were not available for the larger Latin America sample, which is a large cross-section survey of respondents in 17 countries.⁸ In Peru a subsample of 500 respondents in a large, nationally representative panel for 1991–2000 was reinterviewed and asked several questions about their perceptions of their past progress and future prospects. This perceptions survey was repeated three years in a row. A more detailed discussion of the methods used can be found in Graham and Pettinato (2002a, b).

Measurement Error and Other Concerns

Panel data on income mobility are rare because they require individuals to be followed over a prolonged period of time and are expensive to generate. There are only a few nationally representative panels for developing economies. Even then, the data are rarely without flaws. Respondents move, leading to attrition and possible bias. Attrition tends to be greatest at the tails of the distribution, as the wealthiest respondents tend to move to better neighborhoods and the poorest ones move in with others or return to their places of origin. In addition, as respondents in the panel age, they become less representative of the population as a whole. The studies by Graham and Pettinato had a 38 percent attrition rate over a five-year period in Russia and a 25 percent attrition rate for the three-year period covered by the perceptions survey in Peru (and a lower rate for the 1991–2000 expenditures survey).

Another problem with longitudinal data is accounting for error in reporting income, a problem that is gravely aggravated by policy shocks, such as devaluations and high levels of inflation. People who are self-employed or employed in the informal sector have a difficult time estimating any sort of monthly or annual salary, in part because their income fluctuates a great deal. Thus expenditure data are more

accurate than income data for samples with large numbers of self-employed, informal sector, and agricultural workers. It is also more difficult to misreport expenditures. Yet expenditure data miss part of the story, particularly at the upper end of the distribution, and do not capture volatility in income flows, as people tend to smooth their consumption where possible by saving and dissaving.

Adding perceptions data to longitudinal data has benefits, but creates its own set of methodological problems. Although happiness questions are not very useful in measuring the well-being of particular individuals, there is surprising consistency in the patterns of responses both within and across countries. Psychologists have found that several well-being indicators validate how most individuals respond to happiness or life satisfaction surveys. The correlation coefficient between happiness and life satisfaction questions, meanwhile, is approximately 0.50, and the microeconomic equations have almost identical forms.⁹

The data are most useful in the aggregate, because an individual's answer to a question on happiness can be biased by day-to-day events and because the same person's answer could be quite different from day to day or year to year. The simple correlation from a regression of happiness in year two on happiness in year one was 0.2734 for the Russia sample, suggesting a significant amount of fluctuation in happiness levels. (Given the highly volatile economic context in Russia during the period, this correlation is probably lower than the average for other countries.)

Accuracy in reporting is another major issue. Responses can be biased by the phrasing or the placement of questions in the survey. Another problem is bias introduced by different or changing reference norms. When people are asked how much income they would need to make ends meet or to be happy, they usually base their answers on either their existing income or the income of others in their community like themselves and increase it by some proportion, regardless of the absolute level. When people in the Peru survey were asked to compare themselves with others in their community and then with others in their country, they were much more consistent in how they compared themselves with those in their community than with those in their country, which is a much vaguer reference point.

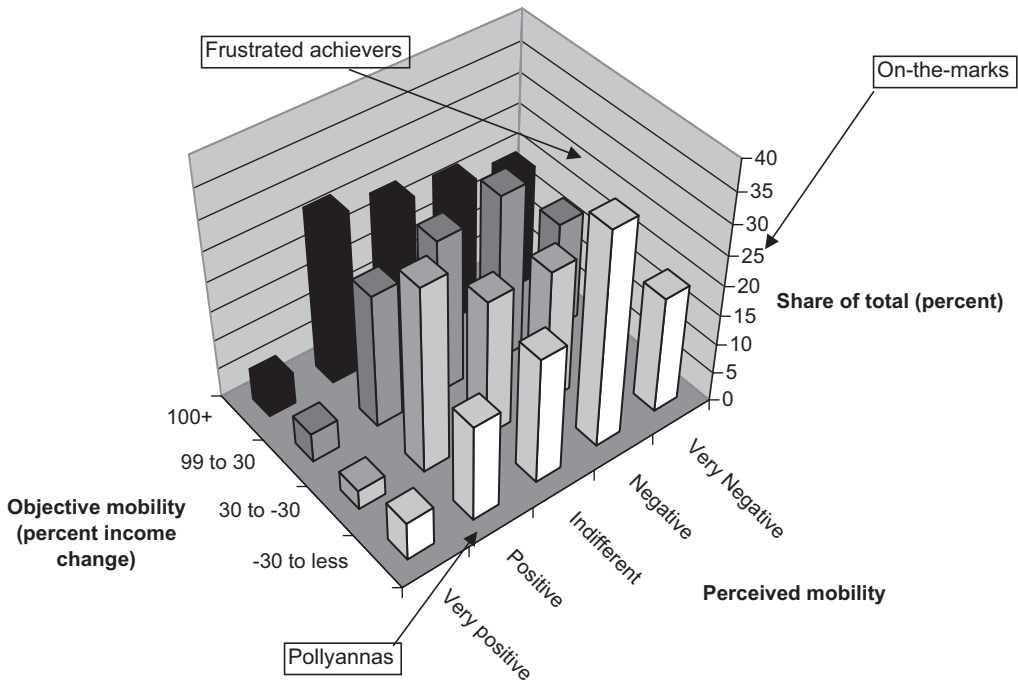
There is clearly a large margin for error with both kinds of data. The most important, from the perspective of the analysis here, is that income gains could be mismeasured. Thus, what is recorded as respondents' positive or negative perceptions of those gains could instead be a more realistic assessment than what the measures report. Although this may account for some of the findings here, the positive correlation between reported perceptions and other contextual variables offers some support that these results are not solely artifacts of error. After one accepts that some error is likely and that caution is necessary in interpreting the results, they provide useful information that static income data alone would not.

Results

The most significant and surprising finding in Peru was that almost half the respondents with the most upward mobility reported that their economic situation was negative or very negative compared with 10 years earlier (figure 2). A similar analysis based on comparable data for Russia showed an even higher share of frustrated respondents—or “frustrated achievers” as they are called here.¹⁰ These results are consistent with the existence of measurement error in the data (figure 3).

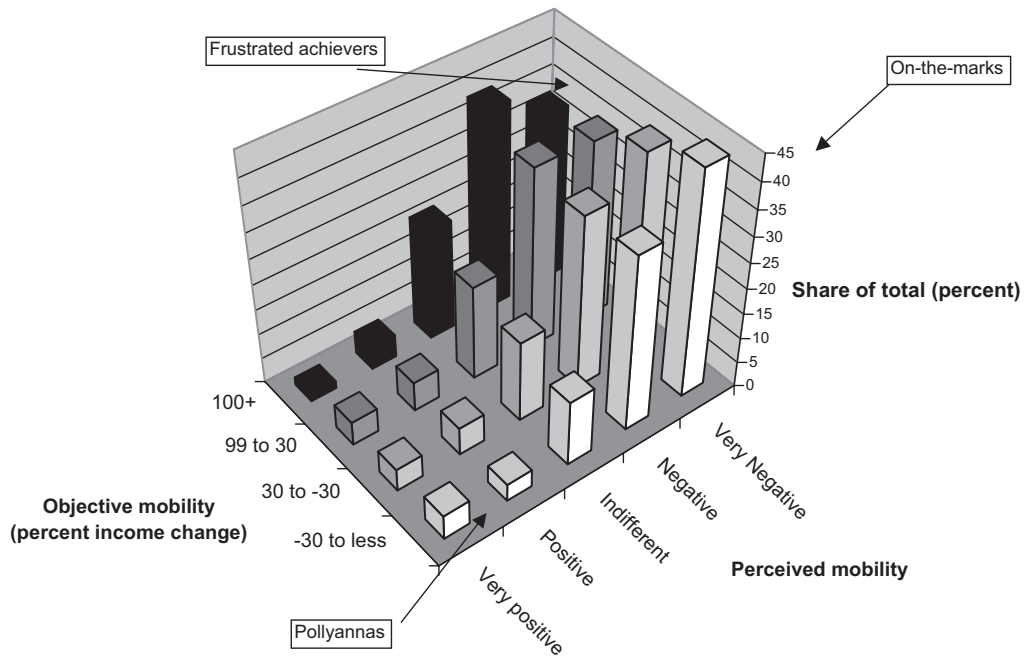
A closer look at these frustrated achievers shows that they are at or near average income (and therefore not the poorest in the sample) and that they are more urban and slightly older on average than nonfrustrated respondents with upward mobility. There are no significant gender or educational differences (Graham and Pettinato 2002b). Frustrated achievers scored lower on a host of perceptions questions, such as their perceived prospects of upward mobility and their positions on a notional economic ladder (where respondents were asked to place themselves on a nine-step ladder representing their society, with step one representing the poor and step nine representing the rich). In keeping with the direction of these findings the frustrated

Figure 2. Long-Term Perceived Mobility and 1991–2000 Income Mobility in Peru, 2000



Source: Graham and Pettinato (2002b).

Figure 3. Perceived Past Mobility and 1995–99 Income Mobility in Russia, 1999



Source: Graham and Pettinato (2002b).

achievers also had more fear of being unemployed in the future. In addition, the Russian frustrated achievers were more likely to want to restrict the incomes of the rich and were less satisfied with the market process and democracy (these questions were not in the original survey for Peru).

In Peru the likelihood of having upward mobility and being frustrated is negatively correlated with initial income levels (table 1). In other words, the frustrated achievers started from lower income levels, on average, even though they were not the poorest in the sample when they answered the survey. This is not surprising because even large percentage increases in their incomes would have seemed insufficient to reach the levels of wealthier groups. The frustrated achievers were also more likely to be urban dwellers and therefore more informed about the lifestyles of others, including the very wealthy. There is, of course, also the strong possibility that initial income was mismeasured, which would overstate the gains made by the frustrated achievers.

Assuming that all these findings are not caused by error, what explains these frustrations? Relative income differences certainly could. Both Peru and Russia have high degrees of inequality. The frustrated achievers in both countries were more

Table 1. Frustrated Achievers in Peru, 1991–2000

<i>Independent Variable</i>	<i>Regression 1</i>		<i>Regression 2</i>	
	<i>Coefficient</i>	<i>z-Statistic</i>	<i>Coefficient</i>	<i>z-Statistic</i>
Age	0.025	3.30	0.025	3.29
Male dummy variable	-0.012	-0.05	-0.005	-0.02
Years of education	0.042	1.61	0.051	1.93
Married dummy variable	-0.207	-0.89	-0.209	-0.89
Urban dummy variable	1.495	3.58	1.349	3.35
Log equivalence expenditure, 1991	-1.229	-6.04		
Equivalence expenditure, 1991			0.000	-5.70
Constant	6.437	4.13	-2.471	-4.23
Number of observations	500		500	
Pseudo = R ²	0.0968		0.1093	

Source: Graham and Pettinato (2002b).

Note: Logit estimation. The dependent variable is frustrated achiever.

likely to score lower on the notional economic ladder; those in Peru were more likely to negatively compare their situations with the situations of others in their community and their country (a question not included in the Russia survey).

A lack of adequate social insurance and insecurity could be another explanation. The frustrated achievers had more fear of unemployment than did nonfrustrated achievers. Thus even though the frustrated achievers are doing well by objective income measures, they perceive no guarantee of stability in their earnings levels. This is not surprising given that both surveys were conducted in very volatile economic contexts and that the objective mobility data reveal a remarkable degree of vulnerability. A higher share of respondents went from “rags to riches”—or from the bottom quintile to the top quintile—in a 10-year period in Peru (5 percent) than in a similar period in the United States (1 percent), for example. Yet a surprising 11 percent of respondents in the middle of the distribution (the fourth quintile in Peru) fell all the way to the bottom quintile, which is analogous to falling from the middle class into extreme poverty. In both cases some of the mobility could be driven by newly educated individuals entering the labor force. But because neither study could control for this, the rates are at least comparable.

If the frustrated achievers suffered more from this volatility, it might drive some of their frustrations. But in Peru the frustrated achievers have less volatility in their income trajectory, as measured by the coefficient of variation—a puzzling result if uncertainty or volatility explains the frustrations. In Russia the coefficient of variation is higher, which at first glance seems a more intuitive finding.

Clark (2003) found that respondents with greater income variance (controlling for levels) are more tolerant of inequality in the United Kingdom, presumably because the variance signals that great gains or opportunities are possible. This is

the opposite of initial intuition, in which volatility produces insecurity and reduces well-being. It may be that some combination of both interpretations is at play: although frustrated achievers may be concerned about inequality and unemployment, they may also view income variance as a reflection of new opportunities, at least in Peru. Tolerance for inequality varies across societies. There may be similar differences in tolerance for volatility related to inequality.

The fact that most of the frustrated achievers were at mean levels of education is probably relevant to the discussion of volatility versus opportunity. In Latin America, with the opening of trade and capital markets in the 1990s, people with higher levels of education receive high marginal returns compared with the rest of society; people with secondary education see decreasing marginal returns compared with people with primary education (Behrman and others 2000).

Last, it is quite plausible that some of the frustrations are driven by individual character traits rather than economic and other variables. There is probably some share of every sample that will always be negative or unhappy, regardless of objective conditions. It is impossible to determine whether these population samples are significantly different from others because similar income mobility and perceptions data are not available for a broader sample of countries to compare the share of frustrated achievers. A reinterview of an urban subsample of the panel in 2003 showed that there are still frustrated achievers, although a slightly lower share of the (fewer) upwardly mobile respondents were frustrated (27 percent of urban respondents were frustrated achievers in 1991–2000 and 18 percent were in 2000–2003). The economy was contracting from 2000 to 2003 in contrast to the previous, rapid growth period, suggesting that frustrations decrease somewhat with aspirations, but that some share of the sample may be frustrated regardless of conditions (Graham and MacLeod 2004).

There is also the broader question of whether the determinants of happiness in developing economies differ from those in advanced industrial economies. The determinants of happiness in Latin America and Russia were compared with those of the United States using the pooled data for 1973–98 from the General Social Survey for the United States (table 2), the 2000 Russian Longitudinal Monitoring Survey for Russia (table 3), and the 2001 Latinobarometro survey for Latin America (used because 2001 is the only year with data for both self-reported health status and minority status, which make it comparable to the U.S. and Russian surveys) (table 4).

The effects of age, income, education, marriage, employment, and health are remarkably similar. In all contexts, unemployed people were less happy than others. In the United States and Russia, self-employed people were happier than others on average, whereas in Latin America they were less happy. This may be because in the United States self-employment is a choice, but in Latin America the self-employed are often in the informal sector by default. Another difference is that in the United States women were happier than men, but in Russia men were happier than

Table 2. Happiness in Latin America, 2001

<i>Independent Variable</i>	<i>Coefficient</i>	<i>z-Statistic</i>
Age	-0.025	-4.21
Age ²	0.000	4.72
Male dummy variable	-0.002	-0.07
Married dummy variable	0.056	1.63
Log wealth index	0.395	10.56
Years of education	-0.004	-0.64
Minority dummy variable	-0.083	-2.49
Student dummy variable	0.066	1.01
Retired dummy variable	-0.005	-0.06
Homemaker dummy variable	-0.053	-1.04
Unemployed dummy variable	-0.485	-7.54
Self-employed dummy variable	-0.098	-2.33
Health index (self-reported)	0.468	24.58
Number of observations	15,209	
Pseudo-R ²	0.062	

Source: 2001 Latinobarometro survey and author's calculations.

Note: Ordered logit estimation. The dependent variable is happiness. Country dummy variables are included but not shown.

Table 3. Happiness in Russia, 2000

<i>Independent Variable</i>	<i>Coefficient</i>	<i>z-Statistic</i>
Age	-0.067	-7.42
Age ²	0.001	7.15
Male dummy variable	0.152	2.80
Married dummy variable	0.088	1.40
Log equivalent income	0.389	11.48
Years of education	0.015	0.96
Minority dummy variable	0.172	2.46
Student dummy variable	0.199	1.59
Retired dummy variable	-0.378	-3.97
Housewife dummy variable	0.049	0.33
Unemployed dummy variable	-0.657	-6.51
Self-employed dummy variable	0.537	2.23
Health index	0.446	3.82
Number of observations	5,134	
Pseudo-R ²	0.033	

Source: Graham and others (2004).

Note: Ordered logit estimation. The dependent variable is happiness.

Table 4. Happiness in the United States, 1972–98

<i>Independent Variable</i>	<i>Coefficient</i>	<i>z-Statistic</i>
Age	-0.025	-5.20
Age ²	0.038	7.53
Male dummy variable	-0.199	-6.8
Married dummy variable	0.775	25.32
Log income	0.163	9.48
Years of education	0.007	1.49
Black dummy variable	-0.400	-10.02
Other race dummy variable	0.049	0.59
Student dummy variable	0.291	3.63
Retired dummy variable	0.219	3.93
Housekeeper dummy variable	0.065	1.66
Unemployed dummy variable	-0.684	-8.72
Self-employed dummy variable	0.098	2.29
Health index	0.623	35.91
Number of observations	24,128	
Pseudo-R ²	0.075	

Source: General Social Survey and author's calculations.

Note: Ordered logit estimation. The dependent variable is happiness. Year dummy variables included but not shown.

women, perhaps due to disparities in status. (In Latin America there was no gender difference.) In the United States blacks were less happy than other races, and people who identified as minorities in Latin America were less happy. By contrast, minorities in Russia were happier than ethnic Russians.

In both Latin America and Russia happier people were more likely to support market policies, to be satisfied with how democracy was working, and to prefer democracy to other systems of government. (Support for market policies was measured by an index based on several scaled questions about the private sector, foreign investment, free trade, and privatization.) A cross-canton study in Switzerland by Frey and Stutzer (2002) shows that people who participate in direct democracy are happier than those who do not, all else being equal. Although similar information on respondents' voting patterns is not available, the results here suggest a virtuous circle of sorts between happiness and support for democracy (even though the direction of causality cannot be determined).

Happier people, on average, had higher prospects for their own and their children's future mobility, were more likely to believe that the distribution of income in their country was fair, placed themselves higher on a notional economic ladder, and had less fear of unemployment.

By contrast, the negative perceptions of frustrated achievers in Peru and Russia are correlated with lower life satisfaction (happiness) scores, lower scores on a

notional societal economic ladder (compared with nonfrustrated respondents of comparable income levels), lower perceived prospects of upward mobility, more fear of unemployment, less satisfaction with market policies, and a lower probability of preferring democracy as a system of government.

No surveys that take the approach of comparing objective trends in income mobility with reported trends could be found for Organisation for Economic Co-operation and Development countries. However, there are some studies that link people's perceptions about mobility—such as perceived prospects of upward mobility—with voting behavior and views about redistribution. Most of these studies suggest that societies with widely held faith in prospects for upward mobility are more tolerant of income inequality than those where social mobility is more limited. Benabou and Ok (1998) developed a model that they applied to data from the panel study on income dynamics and found that even though the majority of Americans are well below the mean income level, they do not vote for redistribution because they believe that they will be above the mean in the future (even though this is an unrealistic expectation for the median voter) (see also Piketty 1995).

Alesina and others (2000) compare views about inequality in the United States and Europe. They find that inequality has a modest negative effect on all respondents in Europe, and it is strongest for the poor. By contrast, in the United States the only group made less happy by inequality is left-leaning wealthy respondents. The authors posit that differences in views about the prospects of upward mobility between the two continents explain these results. This is something noted two centuries ago by de Tocqueville (1969) in comparing the United States and Europe. In the analysis of General Social Survey data here, U.S. respondents that support redistribution are, on average, less happy than others (Graham 2003).

Graham and Felton (2005) analyze inequality in Latin America, as already noted, and find that it makes the rich happier and the poor less happy, signaling persistent advantage for the rich and disadvantage for the poor. Graham and Sukhtankar (2004) also examined responses to several questions related to redistribution. One asked respondents to place themselves on a nine-point scale, where one was preferring more freedom and money and nine was preferring more rules and equality. Respondents that had higher perceived prospects of upward mobility were wealthier on average and were less likely to prefer equality and regulation.¹¹ This finding is similar to those for the United States.

Rather surprisingly, wealthier people were more likely to support more taxation and social spending. Although a surprising 67 percent of respondents said that taxes should be lower even if social welfare spending suffers, the wealthier respondents tended to disagree. Even after splitting the sample into respondents that were likely to pay taxes and those that were not, the results were not significantly different. At least some of these results reflect Latin Americans' mistrust of the state's ability to fairly redistribute wealth rather than widely held beliefs about prospects for upward

mobility (only 13 percent of Latin American respondents believed that the income distribution was fair or somewhat fair).¹² The limited support for redistribution seems to be among wealthier groups. A positive interpretation is that this reflects enlightened self-interest, but a more realistic interpretation may be that the poor typically receive fewer benefits from state spending than do wealthier groups in the region, and public faith in the state's capacity to redistribute fairly is quite minimal.

The share of respondents who thought that their children would live better than they did was remarkably similar in the United States (57 percent) and Latin America (58 percent). By contrast, far fewer Latin American respondents than U.S. respondents felt that they lived better than their parents did (Graham 2003). In Latin America there still seems to be a surprising amount of faith in individual effort and prospects for getting ahead. Some of this faith is no doubt based on respondents' awareness that their children are likely to have access to more and better quality education than they did, and some reflects hope and expectations as much as anything else. For the Peru sample some of the same respondents that assessed their own situation more negatively than was warranted by objective income measures still positively assessed their children's prospects.

People with higher prospects for upward mobility were also more likely to favor market policies, support democracy over any other system of government, and place themselves higher on the notional economic ladder. By contrast, frustrated achievers in Peru and Russia, who on average had more fear of unemployment and lower prospects of upward mobility scores, tended to be less supportive of market policies and democracy. Notable public frustration was linked to concerns about income differentials and unemployment and with reduced support for markets and democracy (Graham and Pettinato 2002b).

Causality Conundrums

Although frustrations and unhappiness are indeed linked to policy-relevant questions, the direction of causality is not clear. It is unknown whether policies, environments, or both drive the frustrations or whether underlying character traits (such as lower innate levels of happiness) drive negative assessments of policies and environments. In other words, it may well be that frustrated or unhappy people are more likely to be pessimistic about the future and concerned about relative income differences or insecurity.

At least some of the explanation for patterns in reported well-being lies in character traits. One study in Russia shows that only 3 percent of the variation in happiness is explained by socioeconomic and demographic variables; the rest is either behavioral or error-driven (Graham and others 2004). Yet there also seems to be an explanatory role for factors that policy can influence, such as inequality, macroeconomic volatility, and large gaps in rewards to different skill cohorts.

In a recent study Graham and others (2004) tried to gain a better understanding of the interaction between contextually driven attitudes and behaviorally driven ones. Using Russian data with observations on both happiness and income at two points in time, they found that behavioral traits had a role in explaining differences among individuals' performances and outcomes. Happier people earn more income in later periods, on average, than less happy people (table 5). Their method of analysis

Table 5. Effect of Happiness on Income in Russia, 1995–2000

Independent Variable	Regression 1		Regression 2		Regression 3	
	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic
Age	-0.013	-3.00	-0.013	-2.97	-0.015	-3.25
Age ²	0.000	3.18	0.000	3.15	0.000	3.52
Male dummy variable	0.010	0.42	0.010	0.42	0.000	-0.02
Married dummy variable	0.205	7.84	0.205	7.84	0.205	7.84
Years of education	0.030	4.51	0.030	4.51	0.030	4.44
Minority dummy variable	0.121	3.98	0.123	4.03	0.122	4.00
Student dummy variable	-0.034	-0.34	-0.030	-0.31	-0.037	-0.38
Retired dummy variable	-0.191	-4.85	-0.190	-4.83	-0.166	-4.18
Housewife dummy variable	-0.249	-3.9	-0.249	-3.90	-0.239	-3.73
Unemployed dummy variable	-0.345	-8.16	-0.344	-8.12	-0.343	-8.07
Self-employed dummy variable	0.142	1.46	0.141	1.46	0.128	1.33
Health index	0.060	1.11	0.059	1.09	0.056	1.04
Log equivalence income, 1995	0.242	18.11	0.243	18.12	0.224	15.69
Log equivalence income, 1995, poor ^a					0.009	2.60
Log equivalence income, 1995, rich ^b					0.018	4.36
Unexplained happiness, 1995 ^c	0.030	2.64	0.063	2.32	0.027	2.38
Unexplained happiness, 1995 ^c , second quintile			-0.044	-1.14		
Unexplained happiness, 1995 ^c , third quintile			-0.036	-0.95		
Unexplained happiness, 1995 ^c , fourth quintile			-0.063	-1.71		
Unexplained happiness, 1995 ^c , fifth quintile			-0.023	-0.65		
Constant	5.833	36.35	5.823	36.19	5.936	34.62
Number of observations	4,457		4,457		4,457	
Adjusted R ²	0.134		0.133		0.152	

Source: Graham and others (2004).

Note: The dependent variable is log equivalence income in 2000 (ordinary least squares). Regression 1 makes no income quintile distinctions; regression 2 tests for a difference in the effect of unexplained happiness on 2000 income, by 1995 income quintile; regression 3 tests for a difference in the effect of 1995 income on 2000 income, by 1995 income quintile. Independent variables are from 2000 unless otherwise noted.

^aPoor is defined as the bottom 40 percent of the income distribution in 1995.

^bRich is defined as the top 20 percent of the income distribution in 1995.

^cThe residual of basic happiness 1995 regression.

entailed calculating the residual or unexplained happiness for each respondent in the first period, that is, the happiness that was not explained by the usual socioeconomic and demographic variables, which is something that must be close to the behavioral component of reported happiness. That residual was included as an independent variable, with second-period income as the dependent variable. Controlling for first-period income, the residual had positive and significant effects on second-period income, and happier people were healthier in later periods.

Even though there is a large margin for error or correlated error in this analysis, these results suggest that happier people earn more income, perform better in the labor market, and are healthier. Psychologists attribute traits such as positive outlook and high self-esteem (so-called positive cognitive bias) to happier people. It is not surprising that these traits also contribute to productivity and health. A very tentative extension of these findings is that the frustrations of achievers could be a signal of more negative future outcomes.

The correlation between happiness and future income was stronger for people at lower levels of income, whereas the role of first-period income was more important for future income for people at higher levels of income (see table 5). A positive outlook and high self-esteem may be valuable labor market assets for people with fewer assets or less income, particularly people who provide services. These traits probably matter less for people who have sufficient income or assets to leverage in making future gains.

Related perceptions variables had a similar relationship with future income. Having a high prospects of upward mobility score or placing oneself high on the notional economic ladder in the first period was positively correlated with higher levels of income in the second period. By contrast, having more fear of unemployment was negatively correlated with future income (although this result was significant only at the 10 percent level) (table 6). Respondents' views or attitudes about their future prospects are correlated with their future outcomes and may play a role in determining those outcomes. It is likely that both happiness and perceptions variables are picking up similar character traits, such as optimism and self-esteem.

Indeed, it is plausible that some of these results are explained by people's abilities to forecast or predict their future income, and thus first-period attitudes merely reflect people's knowledge of the future.¹³ The highly unstable nature of the Russian context, however, renders this unlikely as the entire explanation. There is broader psychological evidence that character traits have effects on individuals' labor market performance and on their health outcomes (Cummins and Nistico 2002; Diener and Seligman 2004). Behavioral or attitudinal variables may be more important in extremely uncertain contexts, such as Russia, where it is more difficult to predict the future. Research using comparable data for other countries is necessary to test such a proposition.

Table 6. Effect of Perceptions Variables on Future Income in Russia, 1995–2000

<i>Independent Variable</i>	<i>Regression 1</i>		<i>Regression 2</i>	
	<i>Coefficient</i>	<i>t-Statistic</i>	<i>Coefficient</i>	<i>t-Statistic</i>
Age	−0.013	−3.00	−0.009	−0.78
Age ²	0.000	3.18	0.000	1.24
Male dummy variable	0.010	0.42	−0.008	−0.23
Married dummy variable	0.205	7.84	0.241	6.15
Years of education	0.030	4.51	0.032	2.44
Minority dummy variable	0.121	3.98	0.081	1.80
Student dummy variable	−0.034	−0.34	0.427	1.07
Retired dummy variable	−0.191	−4.85	−0.273	−4.60
Housewife dummy variable	−0.249	−3.90	−0.166	−1.60
Unemployed dummy variable	−0.345	−8.16	−0.373	−5.82
Self-employed dummy variable	0.142	1.46	0.094	0.72
Health index	0.060	1.11	0.061	0.84
Log equivalence income, 1996	0.242	18.11	0.230	11.55
Unexplained happiness, 1995 ^a	0.030	2.64	−0.002	−0.11
Fear of unemployment, 1995			−0.014	−1.22
Family better off next year, 1995			0.041	2.27
Economic ladder question, 1995			0.027	2.17
Constant	5.833	36.35	5.533	17.49
Number of observations	4,457		2,296	
Adjusted R ²	0.134		0.126	

Source: Graham and others (2004).

Note: The dependent variable is log equivalence income in 2000 (ordinary least squares). Regression 1 does not include perceptions variables; regression 2 includes perception variables. Independent variables are from 2000 unless otherwise noted. — not applicable.

^aThe residual of basic happiness 1995 regression.

These results are suggestive and do not establish any direction of causality. It is possible that causality runs from policy-relevant variables or factors such as economic performance to happiness, as well as in the other direction, or from third factors that influence both. What, then, are the implications?

At a minimum, it is clear that using longitudinal data on both mobility and subjective well-being gives a very different picture than looking at standard income data in isolation. Though it is fairly standard to associate well-being or utility with income, the research here and that of many others suggests that there are very important nonincome determinants of well-being, a finding that is in keeping with the broader questions raised by the Easterlin paradox. These elements of well-being also seem to be correlated with labor market performance and future earnings outcomes. An unanswered question, however, is how to most usefully—and prudently—incorporate these novel approaches and new kinds of data into the analysis of developing economies and into the policies that stem from that analysis.

Relevance of Happiness Research to Development Theory and Policy

The fairly new research on reported well-being in both developed and now developing economies suggests that models based on rationally calculated, income-based utility may not capture all of what drives economic behavior and determines welfare. In addition, the research may provide new tools to answer questions much debated by economists and other social scientists, such as the effects of inequality on well-being and the relationship between economic growth (or lack thereof) and social unrest.

Perhaps the most notable finding from this research is the gaps between measures of welfare as reported in surveys of well-being and as gauged in standard terms, such as earned income or expenditures, and even in other standard measures of development progress, such as gains in life expectancy, education, and reductions in infant mortality. These complementary measures of welfare could inform efforts to model and analyze economic behavior and micro-level responses to policy incentives. But this poses a conceptual as well as an empirical challenge, not least because there are times that the policy implications of findings from reported well-being surveys run in the opposite direction of what most development experts would consider sound policies.

One problem is that it is difficult to cleanly separate cause from effect when assessing the importance of these gaps. In other words, the differences between measured and reported welfare may be driven by the effects of nonincome variables that the income measures used here do not capture, such as job insecurity, relative income differences, and health and marital status. But it is also quite plausible that less happy people are more likely to attribute importance to these insecurities and differences and less likely to be healthy and to get married.

Across countries the Easterlin paradox suggests that there are limits to the extent that income growth alone—and even aggregate improvements in important areas such as health and education—can increase average levels of happiness, as individuals adapt their expectations upward as societies progress. A strict interpretation of the set point theory would suggest that happiness surveys cannot offer any realistic insights for policy, because virtually nothing will make people happier for long.

There is some debate about the long-term effects on happiness of events such as serious illness, unemployment, and losing a spouse. Some studies suggest that with sufficient time individuals rebound from virtually any event. And other studies find that many events have permanent effects on happiness. The findings on the effects of unemployment are the most consistent of these (Clark and others 2004; Darity and Goldsmith 1996; Easterlin 2003).

Cross-section studies of happiness within societies consistently show that individuals value such things as health, stable employment, and marriage as much as (if

not more than) income, and at the same time adapt less—or less quickly—to changes in these realms than to changes in income. Indeed, it may well be that changes in these variables, such as getting married or divorced—and related leads and lags—are the main drivers of these results, and the extent to which the effects last is less clear (and most likely varies across variables).¹⁴ Even if happiness levels eventually adapt upward to a longer term equilibrium (after a negative shock such as illness or divorce), mitigating or preventing the unhappiness and disruption that individuals experience for months, or even years, in the interim certainly seems like a worthwhile policy objective.

Across nations there are diminishing returns to increasing income. Yet other things are correlated with national income, such as health, quality of government, and respect for human rights, which seem to be correlated with higher levels of happiness. There is also some evidence that perceived equity in the distribution of income or rewards can matter as much to people's happiness as the rewards themselves. All of this suggests that happiness surveys—if used cautiously and with awareness that they do not well reflect long-term gains in income and health, which are important to the welfare of the poor—may broaden the understanding of several development questions.

Reported well-being seems to be correlated with economic outcomes. Reported happiness and many related perceptions, such as people's perceived prospects of upward mobility (which are highly correlated), are correlated with economic outcomes and with political views. No doubt some of what might be considered “effect” is individuals' abilities to predict or forecast their future outcomes. But there is also psychological evidence that character traits, such as high self-esteem and optimism, have effects on individuals' labor market performance and on their health outcomes. Thus a remaining challenge is how to better account for the role of subjective well-being and related perceptions in explaining individual economic and political behavior. Addressing such questions might enhance the understanding of such development challenges as persistent poverty traps, in which low expectations play a role in the willingness of poor people to take risks and make investments in their children's future.

The same psychological factors that affect subjective evaluations of well-being also seem to explain individuals' abilities to adapt to tremendous adversity and negative shocks and often even to return to previous levels of happiness. A nuanced view of adaptation—to either negative shocks or to the disruptions and changes that often accompany economic progress and development—is that the process is very much moderated by people's norms about equity and perceptions of fairness. This helps explain why there is often unexpected social stability in very poor societies and, at the same time, unexpected outbreaks of violence and social unrest in societies where there is a great deal of economic progress but differential rewards to different cohorts. The upwardly mobile frustrated respondents are a case in point.

A remaining challenge is better understanding the interaction between norms about fairness and equity with economic progress and change—including integration into global markets and information systems. Norms about what is fair are endogenous to policy choices in the long run and may explain, for example, the loss of unions' bargaining power over time (Atkinson 1999). Tolerance for inequality seems higher in contexts where there are perceived (even if not real) prospects for upward mobility (Graham and Young 2003). Meanwhile, downward mobility, or the threat thereof, is more likely to cause frustration and social unrest than is persistent poverty, as in the case of the frustrated achievers in Peru and Russia, or more generally as in Argentina in the late 1990s.

Graham and Pettinato's (2002a,b) research results suggest that the effects of macroeconomic volatility, unstable employment, and highly unequal income distributions on the well-being of individuals in the developing economies are underestimated. One logical policy implication is the need for better social insurance and social policies in these countries. Not only the very poor, but those in the middle of the distribution are often very vulnerable to falling into poverty, which can have lasting costs (Cline 2002; Prasad and others 2003). Although such policy conclusions are hardly novel, what is novel is their strong backing in individual welfare assessments rather than in a more general political or public policy debate, as is usually the case.

The more fundamental point is that broader or novel measures of welfare can help us better understand development outcomes, both positive and negative. Surveys of reported well-being are a helpful tool, although alone they are insufficient. Their potential contribution increases markedly when they can be matched with objective (and hopefully sound) income data for the same respondents. Yet caution is necessary when using this information as the basis for policy, particularly when surveys are conducted in unstable economic and political climates.

In the end, many of the results from surveys of reported well-being—or put more simply, from asking people what is important to their own welfare—drum home an old saw that seems to need constant reinforcing: growth is a necessary but not sufficient condition for poverty reduction. Other key factors—such as public investments in health, institutions that can ensure adherence to basic norms of equity and fairness, and collective investments in social insurance to protect workers from the volatility that often accompanies integration into global markets—are essential for sustaining the gains that growth and development bring about and for increasing the chances that larger numbers of the world's poor will eventually lead happy and fulfilling lives.

Notes

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cgraham@brookings.edu. The author thanks Nancy Birdsall, Gary Burtless, Angus Deaton, Andrew Eggers, Michael Kremer, Margaret MacLeod, Andrew Oswald, and three anonymous referees for helpful comments. A companion paper with a special emphasis on globalization was presented at a World Institute for Development Economic Research conference on globalization and inequality in October 2004; it benefited greatly from comments from participants there and will be published as part of the conference proceedings.

1. Easterlin used 30 surveys from 19 countries, including some developing economies. See Easterlin (1974, 1995, 2001, 2003). He also found that health is a demographic variable with clear effects on happiness in all societies, a finding that other studies corroborate. For an excellent summary of many of these studies, see the October 4, 2003, issue of *New Scientist*.

2. Easterlin (1974) and Blanchflower and Oswald (2004). They find that well-being in the United States has trended slightly downward, whereas in the United Kingdom it has trended slightly upward. See also Diener (1984) and Frey and Stutzer (2002).

3. For an excellent review of the relationship between health and development (and the links or lack thereof to inequality) see Deaton (2003).

4. I thank George Akerlof for pointing me in the direction of Stouffer's work.

5. Experimental studies, such as the ultimatum game, show that people are more willing to turn down fairly large amounts of reward money than to accept a reward that is unfairly divided between two people. Oswald and others (2003) found that workers place a higher value on their rank in a firm and how their salary compares with that of their co-workers than to the actual amount of salary. Haggerty (2000) found that after controlling for personal income individuals living in higher income areas in the United States were less happy than those living in lower income areas.

6. They use two specifications as proxies for relative income. The first is the ratio of individual income to per capita national income (controlling for regional housing prices). The second is a series of variables that measure individual income relative to the average level of income in each quintile of income in the individual's country. Under both proxies greater relative differences make people less happy. Under the second proxy the greatest effects come from the ratio of individual income to income in the top quintile.

7. In the first three years of Indonesia's financial crisis in the late 1990s, 20 percent of the population was below the poverty line at any given point in time, and 50 percent of the population was in poverty at some point. See Pritchett and others (2000).

8. The Latinobarometro survey consists of approximately 1,000 interviews in 17 countries in Latin America, providing 17,000 observations for statistical analysis. The samples are conducted annually by a prestigious research firm in each country and are nationally representative except for Brazil and Paraguay, where some parts of the population in remote areas are not fully represented. The survey is produced by the nongovernmental organization, Latinobarometro, which is based in Santiago and directed by Marta Lagos (www.latinobarometro.org). The first survey was carried out in 1995 and covered eight countries. Funding began with a grant from the European Community and is now from multiple sources. Data are available for purchase with a four-year lag in public release. The author has worked with the survey team for years and assisted with fundraising and therefore has access to the data.

9. Blanchflower and Oswald (2004) found a correlation coefficient of 0.56 for U.K. data for 1975–92 where both questions are available; Graham and Pettinato (2002a,b) found a correlation coefficient of 0.50 for Latin American data for 2000–2001 in which phrasing alternated by year.

10. The Peruvian data are expenditure-based and the Russian data income-based. The uncertain economic context and income data in Russia make potential error an even larger problem. One way to correct for error was to eliminate the roughly 60 respondents with no income from the panel, because many of them also reported that they were employed.

11. In a regression with *EQUALSUP* as the dependent variable, the coefficient on the prospects of upward mobility variable, *POUM*, was negative and significant. The coefficient on the wealth index was positive and significant, even when squared to check for differences in the attitudes of the very wealthy. Results of this regression are available on request.

12. In an earlier study Graham and Pettinato (2002b) found that support for redistribution was lower in poorer, more unequal countries in the region, whereas within countries wealthy people were more likely to favor productivity over redistribution. This finding is based on a question in the 1998 Latinobarometro survey asking respondents if what their country needs most to get ahead is more redistribution or more productivity.

13. I thank several participants at the Brookings Warwick Conference on “Why Inequality Matters: Lessons for Policy from the Economics of Happiness,” June 5–6, 2003, for discussing this insight, and in particular Gary Burtless for raising the point. It is also plausible, of course, that the results are also error-driven and that in the presence of measurement error the effects of mismeasured variables are projected onto variables that are correlated with them. I thank Angus Deaton for raising this point.

14. I thank Angus Deaton for raising the point about the effects of changes. He cites evidence from the German Socio-Economic Panel, which found that people adapt to the welfare losses of marriage or widowhood in about seven years. Graham and others (2004) found that during a five-year period in Russia the single most detrimental event for their sample of respondents was getting divorced. Although the respondents may have adapted after the period of study, they were significantly less happy than others during that period.

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