

**The Pursuit of Happiness in the U.S.:
Inequality in Agency, Optimism, and Life Chances¹**

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The Pursuit of Happiness in the U.S.: Inequality in Agency, Optimism, and Life Chances

“Life should be better and richer and fuller for everyone, with opportunity for each according to ability and achievement regardless of social class or circumstances at birth.”

James Thurlow Adams, *The Epic of America*

“Sukhov went off to sleep, and he was completely content. Fate had been kind in many ways that day; he hadn’t been put in the cells, the gang had not been sent to the Socialist Community Center, he’d fiddled himself an extra bowl of porridge for dinner...the day had gone by without a single cloud – almost a happy day. There were three thousand six hundred and fifty-three days like that in his sentence, from reveille to lights out. The three extra days were because of the leap years”.

Alexander Solzhenitsyn, *One Day in the Life of Ivan Denisovich*

The United States pledge of allegiance promises liberty and justice for all. The U.S. Declaration of Independence guarantees the rights to life, liberty, and the pursuit of happiness to all citizens. These promises are not about guaranteed outcomes, but about opportunities to seek fulfilling lives. They have a long grounding in history and philosophy, beginning with Aristotle’s concept of happiness. This concept – eudemonia – is not about contentment, but about having sufficient means to be able to seek purpose or meaning in life. When Jefferson conceived of the pursuit of happiness, for example, he was grounded in the works of Plato and Aristotle, as well as in the liberalism of John Stuart Mill, which combines notions of individual freedom and societal fairness (Malouf, 2011; Reeves, 2007). These promises are the basis of the American Dream, with its strong focus on individual freedom and opportunity.

Yet there is increasing debate – both academic and political – about the extent to which the American Dream – and the right to the pursuit of happiness - is equally available to all citizens today. U.S. trends in opportunity and in distributional outcomes are becoming more unequal by any number of measures. Is happiness as unequally shared as income in the U.S.? While U.S. attitudes about inequality and opportunity have historically been exceptional, are they still? Do these attitudes, which are closely linked to happiness, matter? Do they affect individual choices about investments in the future?

This paper is about well-being and attitudes about future opportunities and mobility. A point of departure is the literature on inequality and well-being, which finds, among other things, that the effects of inequality on individual welfare hinge on what it signals. If inequality is a sign of future mobility and progress (signaling effects), then it tends to have neutral or even positive effects. If it is a sign of persistent advantage for some cohorts and disadvantage for others (comparison effects), then it has negative effects (Cojocaru, 2012; Graham and Felton, 2006; Luttmar, 2005; Senik, 2004). In this paper, I explore the related but less studied linkages between well-being and attitudes about future mobility, and the implications of those for actual behaviors and future outcomes.

A modest body of research (including some of my own) has shown that people with more positive attitudes and/or more positive attitudes about their future mobility have higher levels of well-being (with causality running in both directions). As a result, they are more willing to invest in those futures. People with more limited future opportunities have higher discount rates, both because they have less capacity to set aside their limited means to make those investments, and because they have less confidence that those investments will pay off (De Neve, Diener, Tay, and Xuereb, 2013; De Neve and Oswald, 2012; Oswald, Proto, and Sgroi, 2009; Graham and Pettinato, 2002; Graham, Eggers, and Sukhtankar, 2004; Birdsall, Ross, and Sabot, 1995; Ifcher and Zarghamee, 2011).

Does the increasingly unequal distribution of opportunity in the U.S. result in the disadvantaged cohorts of society being more likely to focus on the short term, at the expense of investments in their own and their children's futures? Are increasing sectors of U.S. society simply living in the moment, not as badly as Sukhov perhaps, but without the opportunities to seek better and more fulfilling lives as Thurlow Adams posits? Is the distribution of happiness also becoming more unequal? How does the U.S. compare with other countries on this score?

Well-being metrics give us a novel tool to measure the linkages between mobility attitudes and well-being. Hedonic metrics capture daily experience and respondents' mental states - such as happiness at the moment, stress, and anxiety - as they experience their daily lives. Evaluative metrics capture respondents' attitudes about their lives as a whole, including over the life course and the ability to lead meaningful and purposeful lives. Respondents with different future outlooks may emphasize one or the other well-being dimension more. If capabilities and opportunities are limited, respondents may focus more on the daily experience aspects of their lives and well-being, as they live from day to day without the capacity to plan for the future (Graham and Lora, 2009; Graham and Nikolova, forthcoming; Haushofer and Fehr, 2014). Respondents with more capabilities and opportunities may focus more on the longer term dimensions of their lives and well-being - such as purpose and fulfillment - even at the expense of daily quality of life, at least in the short term.

This paper is a first step in a longer research effort, and, as such, raises as many questions as it is able to answer. It builds from what we know about changes in the distribution of income and mobility in recent years and, more important, about changes in attitudes about inequality and mobility. I provide some new empirical analysis of the linkages between mobility attitudes and well-being (in its distinct dimensions) and on patterns in the distribution of *well-being*. Given what we know about well-being, outlooks for the future, and behavioral outcomes, there are potential implications for the distributions of income and well-being of future generations. If we are an increasingly divided society now - both from the perspective of available opportunities and of attitudes about what the future holds - does that imply we will be even more divided in the future?

The Declaration of Independence promises the opportunity to seek life fulfillment and happiness - in its fullest sense- for all U.S. citizens. Is happiness for all an increasingly elusive dream?

Well-Being Metrics and Questions

The measurement of well-being has developed into an increasingly accepted approach in economics and in the social sciences more generally. The metrics are particularly useful for exploring questions that revealed preferences do not provide good answers to, such as situations where respondents do not have the capacity to reveal a preference or when behaviors are driven by norms, addiction, or self-control problems rather than by rational or optimal choices. Such questions include the welfare effects of macro and institutional arrangements that individuals are powerless to change, with inequality a prime example, and of strong normative arrangements, such as discrimination and/or caste systems. They also include the explanation of behavioral choices such as excessive smoking and/or obesity.

The most recent work on well-being makes clear distinctions between two distinct well-being dimensions: evaluative – which encompasses how people think of their lives as a whole - and hedonic – which captures how people experience their daily lives (Stone and Mackie, 2013; Graham and Nikolova, 2013 and forthcoming). Individuals with higher levels of evaluative well-being, for example, who have more of a sense of what their futures look like and more capacity to craft those futures, may experience lower levels of hedonic well-being (such as more stress) as they work to make investments in those futures. Individuals with less agency or capacity to craft their futures (and lower prospects of upward mobility for example) may focus more on the daily experience dimension of well-being precisely because their future outlooks are far less certain. Some of my recent research (reported below) provides support for this hypothesis.

Another important dimension of well-being, which we know less about but is part and parcel of the foundations of the American Dream, is eudemonia – the extent to which people have purpose or meaning in their lives. It is implicitly captured in evaluative well-being metrics. There are some new efforts underway to measure it explicitly, including in the well-being modules of the British Office of National Statistics, using a question which asks respondents the extent to which they feel that the things they do in their lives are worthwhile (Adler, Dolan, and Kavetsos, 2014; ONS, 2013). Not surprisingly, eudemonic well-being tracks more closely with life satisfaction, the evaluative metric, than with the hedonic metrics. Whether or not people have the capacity to lead fulfilling and purposeful lives – and how that is linked to their position in the income distribution - is a critical underlying question of this paper.

The science has developed to a point that scholars are able to tease out causal channels related to different dimensions of well-being and related attitudes. For example, individuals with higher levels of well-being (on average) tend to have higher prospects of upward mobility and, as a result, invest more in their own and in their children's future. These investments are, in turn, reflected in better labor market and health outcomes (Graham et al., 2004; DeNeve and Oswald, 2012).

What is less well known is the exact channel where-by this operates. Experimental economics work suggests it may be via positive emotions (Oswald, Proto, and Sgroi, 2009; Ifcher and Zarghamee, 2011). Psychologists have shown that positive emotion influences self-control and performance, as well as the capacities of choice and innovative content, memory recall, and tendency towards altruism (Isen, 2000; Isen et al., 1978). Both bodies of work, while nascent, suggest a role for intrinsic versus external motivation (see also Benabou and Tirole, 2003). Recent work on well-being in the U.S. by Kahneman and Deaton (2010) finds that emotional well-being and income are positively correlated only up to median

levels (roughly \$75K). Thus more income does not buy positive emotions – which are in large part inherently determined - but insufficient income makes it more difficult to manage negative ones.

My focus is on the links between attitudes about inequality/future mobility and well-being, primarily in the U.S., with a comparative look at Latin America. The latter is relevant because despite its age-old image as a very unequal region, poverty rates have fallen dramatically and inequality has decreased slightly in the past decade, with related changes in absolute mobility (and even some in relative mobility). A question here is the extent to which attitudes – which tend to demonstrate hysteresis - have caught up with the negative trends in the U.S. and the positive ones in Latin America.

One telling trend for the U.S. is that inequality in life satisfaction (a standard metric of evaluative well-being) seems to have increased in recent years (and has decreased in Latin America). Well-being inequality typically falls as countries grow wealthier (in per capita GDP terms). That trend is usually driven by the bottom of the distribution – e.g. there are fewer respondents with very low levels of life satisfaction, as there are less people who are very poor and living precarious existences. The U.S. fit this trend of decreasing well-being inequality for several decades (Stevenson and Wolfers, 2008), but there is some new evidence that inequality in life satisfaction has actually increased in recent years.

Clark et al. (2014) find that the standard deviation of happiness scores has increased in the U.S. (roughly since 2000), in contrast to many other OECD countries. Helliwell and Wang (2013), based on an examination of happiness Gini's across regions of the world, find that happiness inequality increased in South Asia, North America, New Zealand, and Australia (NANZ) from 2009-2013 compared to 2005-2009. Happiness inequality fell during that period in Latin America and the Caribbean where, as noted above, growth has been steady and inequality has been gradually falling in the major economies.

This increase is likely driven by low scores at the bottom of the well-being distribution as the number of vulnerable individuals – including the long-term unemployed – have grown, particularly since the 2009 financial crisis (for a look at well-being trends across cohorts during the crisis, see Graham, Chattopadhyay, and Picon, 2010). These same cohorts benefited disproportionately less from the recovery, for a number of complex reasons including the increasing marginal rewards to high skilled workers versus low-skilled ones. This latter trend is also a driving factor in the more general inequality trends in the U.S. in recent decades (Burtless, 2009; Krueger, 2012).

Another way to explore the issue of well-being inequality – which is the focus of this paper - is to look across well-being dimensions. As we discuss in the empirical section of the paper, we find stark gaps in both dimensions of well-being across the rich and poor in the U.S., gaps which are particularly large in terms of stress and in attitudes about upward mobility. Indeed, the gaps in well-being are larger between the poor and the rich in the U.S. than they are, on average, in Latin America.

Inequality: A Complex Topic

Inequality is a controversial topic. It is complex to measure and the standard metrics that are used, such as the Gini coefficient or the 90/10 ratio, while useful for economists, are difficult for the average lay man or woman to understand. In addition, these measures provide snapshots of distributions at one

point in time, and do not change much in time periods that are relevant to political or policy cycles. The measures also mask very different trends in mobility and opportunity across societies and cohorts within them. The data that are necessary to measure mobility and opportunity are rare as they entail following the same individuals or cohorts over time.

There is a wide literature on the linkages between inequality and growth, with some channels between inequality and growth being positive, and many others negative (see Salvedra, Nolan, and Smeeding, 2009 and the many essays there-in for a comprehensive review). Some inequality is constructive and rewards productivity and innovation; some is destructive and creates disincentives for disadvantaged cohorts to invest in their futures and in those of their children (Birdsall and Graham, 1999). These vary across and within societies, and are also affected by structural trends in the world economy, such as technology and skill driven growth. The standard metrics tell us very little about these more complex phenomena.

Because of the available measures, most of the debate, at least among economists, has been about measured trends in income inequality and sometimes, although less often, about over-time trends in mobility. Yet regardless of trends in the data, the channel by which inequality likely has the most direct effects on individual welfare and resulting behaviors may be what it *signals* in different societies and among different cohorts. What inequality signals is also linked to behavioral outcomes, such as effort in the labor market and investments in health and education.

Studies of inequality and individual well-being - in the U.S., the EU, and Latin America - get mixed results. Some find a negative correlation between inequality and life satisfaction, others find weak results, and some even find a positive correlation (Alesina et al., 2004; Graham and Felton, 2006; Oishi et al., 2011; and Van Praag and Ferrer-i-Carbonell, 2009). Erzo Luttmer (2005) finds a negative correlation between average neighborhood level incomes and life satisfaction in the United States, and highlights the negative role of comparison effects.

In contrast, Claudia Senik (2004) finds a positive effect of average regional level incomes in Russia, suggesting a role for positive signaling effects in contexts of uncertainty and transition. Alexandru Cojocaru (2012), also in the transition economy context, finds that the well-being effects of neighborhood level income differences are mediated by their beliefs about whether hard work or connections get one ahead in life. Those respondents with faith in hard work are not bothered by relative income differences because of positive signaling effects.

Graham and Felton (2006) find that inequality is negatively correlated with life satisfaction in medium and large sized cities in Latin America due to comparison effects, but positively correlated in the smallest cities, where signaling effects seem to dominate. And Chuluun, Graham, and Myanganbuu (2014), in a first study of well-being in Mongolia, find that that both signaling and comparison effects can be at play at the same time, depending where respondents are in the income distribution.

In new work in progress, John Ifcher, Homa Zarghamee, and I (2014) explored the well-being effects of relative incomes at the zip code and MSA levels in the U.S., based on the Gallup Daily poll. We find that own incomes have the expected positive effect on life satisfaction (the best possible life question).

Yet higher median levels of MSA level incomes have a negative effect. Interestingly and in contrast, we find that higher levels of median zip code level income have a modest but positive effect. We posit that cost of living and comparative effects may dominate more at higher levels of aggregation, while positive externalities associated with higher income levels, such as better neighborhood amenities, may dominate at smaller levels of aggregation. In addition, higher median levels of both MSA and zip code level income have a positive correlation with health satisfaction (and other objective indicators of health). Higher levels of median zip code and MSA level life satisfaction were also positively associated with higher levels of individual life satisfaction. Thus while relative income differences can have a comparative or envy effect, living in neighborhoods where people are healthier and happier has positive effects on well-being.

Mobility Attitudes – and the POUM Hypothesis

One of the most prevalent questions in the debates today is whether the United States' long-held reputation as a land of opportunity is still backed by exceptional rates of mobility. Its high levels of inequality were traditionally seen as rewards in a dynamic and fluid labor market and a positive signal to individuals of where they might end up in the future. Yet there is now significant evidence that this is no longer the case, and that mobility rates – both inter and intra-generational – in the U.S. are actually lower than in many other countries in the OECD (see Brunori, Ferreira, and Peragine, 2013; and Graham, 2014a for a review of recent findings on the U.S. compared to other countries).

Richard Reeves (2014a) provides an excellent review of what we know now about the current state of social mobility in the U.S. in a recent *Brookings Essay* (<http://www.brookings.edu/research/essays/2014/saving-horatio-alger>). A few key points are worth highlighting here. Children born on the bottom rung of the income ladder have a four in 10 chance of remaining stuck there in adulthood (between 36 percent and 43 percent, depending on the dataset), and a very slim chance (between 4 percent and 10 percent) of making it to the top. A child raised by a poor, unmarried mother, meanwhile, has a 50 percent risk of remaining stuck on the bottom rung, and just a 5 percent chance of making it to the top. And there are stark differences in mobility rates for different racial groups, especially between Caucasians and African-Americans. Half the black children growing up on the bottom rung remain stuck there as adults (51 percent), compared to just one in four whites (23 percent).

This is surely not the reality that has driven exceptional American attitudes about future mobility for many decades. We know less about whether public perceptions grasp this reality and how attitudes have changed, particularly as public attention to the issue of inequality increased only recently.

For decades U.S. citizens accepted and even supported exceptionally high rates of inequality and low rates of redistributive taxation because of this widely held belief in the inequality-opportunity link (Benabou and Ok, 2001). While we know that outcomes in the U.S. are diverging; we know much less about the attitudes and behavioral dimensions (including well-being) underlying them, and how they vary across cohorts. The explosive amount of public attention to Thomas Piketty (2013)'s provocative book on inequality – including among myriad individuals who have not read its hundreds of technical pages – suggests that attitudes may be changing, at least among some cohorts.

Reeves cites a recent Pew survey on American attitudes about mobility and inequality, which provides some evidence that American attitudes are no longer exceptional. Sixty-one percent of Americans think the economic system favors the wealthy, while only 35% think it is fair to most people, meanwhile. This compares (negatively) to 44% of Australians reporting that the system favors the wealthy and 51% saying it is fair to most, and is about on par with the 65% of respondents in Great Britain (which is hardly known for exceptional rates of mobility) saying it favors the wealthy and 30% saying that it is fair to most.

And, perhaps most important, at least in terms of faith in future mobility, a remarkably high 62% of Americans think that their children will be *worse* off than they are, and only 33% think they will do better. While not a particularly hopeful picture, Americans are, for the most part, more optimistic than most of their counterparts in the OECD, with some exceptions, such as Australia (where only 53% think their children will be worse off, and 37% better). Yet respondents in the emerging market countries and in LAC in particular are much more hopeful. Only 13% of Chileans and 38% of Argentines think that their children will be worse off than they are. And while Americans still demonstrate faith in hard work (more than in many countries), that has fallen in recent decades. Sixty percent still think "most people who want to get ahead can make it if they are willing to work hard," but that is down from 68 percent in 1994 (Reeves, 2014a).

There is also evidence that U.S. attitudes are increasingly divided across ideological lines. A recent Pew poll, for example, found that 57% of Republicans believed that people who became rich did so because they worked harder than others, while only 27% of Democrats did. In contrast, only 32% of Republicans felt that people were poor because of circumstances beyond their control, compared to 63% of Democrats (Blow, 2014). There is less available evidence of how these attitudes vary across socio-economic cohorts, which is something that I will explore going forward.

An insight into the very different lives and future outlook of poor and rich cohorts comes from a novel study by David Leonhart and colleagues (2014), based on social media data. The stark differences in the lives that Americans lead were depicted by the words they themselves used - depending on where they live. The authors found that the words that stood out in "difficult" places were guns, video-games, hell, diets, and diabetes - living at the moment. Those most common in the "easiest" places to live were I-pads, Baby Bjorns, baby joggers, and exotic places like Machu Picchu. People who live in the difficult America live day to day, challenged with health and other problems, and rely on guns, games, and religion as means to surmount those challenges. Those in easy places have access to high-end technology, knowledge, travel, and exercise, and are transmitting their lifestyles and expectations to the next generation.

Another view comes from a recent study of working hours in the U.S. Lambert and colleagues (2014) find that 41% of hourly workers learn their schedules less than a week in advance - more than know at least a month in advance, and half of hourly workers have no control over their schedules. Related studies show that unpredictable working hours exacerbate stress, harm health, and attenuate work-life conflicts (Reeves, 2014b).

Well-being metrics provide a different kind of evidence of the increasing gaps in the mobility attitudes of poor and rich Americans. As noted above, individuals with prospects for future mobility are

happier and are more likely to invest in their future health and education (and those of their children), while those with poor prospects for the future are more likely to live in the moment.

In the Gallup World Poll data, for example, we find that, when queried about well-being, the rich are more likely to highlight the role of work and good health in their lives, while poor people are more likely to highlight friends and religion as social insurance mechanisms. Work and health allow those with means to make choices and pursue the kinds of lives they want to lead. Those without means often face stressful and difficult daily existence, resulting in short-sighted and risk-averse decision-making. (Graham and Nikolova, forthcoming; Graham and Lora, 2009; see also Haushofer and Fehr, 2014). We look more closely at these questions, with a focus on the U.S., below.

The Data

This stage of the research is based on the Gallup World Poll and the Gallup Healthways surveys. The Gallup World Poll (GWP) has surveyed annually in roughly 160 countries worldwide since 2005, with one wave per year. It has nationally representative coverage in most countries. Gallup weights the data in each country – and the sample size ranges from more than 4,000 household interviews in China every year to 500 households in Puerto Rico. While the poll covers most existing countries around the world, with a very few exceptions, a drawback is that there are proportionately more responses for small countries than there are for large ones. Different individuals are interviewed each year and thus we have pooled cross-sections of data – including year dummies - rather than a panel.

Gallup Healthways has provided extensive daily household level data since January 2008 and running through 2013 (the last year for which we have updated data). It is a stratified sample of an average of 1000 households across the U.S. (all localities with land-line phones and mobile cell phone connections), surveyed almost *every day* for the entire period, and thus has a very large number of individual observations. The questions include the usual demographic details of the respondents (age, race, ethnicity, household size, education level); economic conditions (employment status, job security, job mobility; respondents' perceptions about their standards of living and the state of the economy; access to services (such as health insurance, medical care, telephone and internet); geographic location (Zip code, MSA and FIPS code), and personal health, emotional experiences, and emotional conditions, among others. It is, again, cross-section rather than panel.² Later stages of this work (beyond the time frame of this paper) will use panel data for the United States, such as the PSID, which now also includes life satisfaction data. In the instances where panel data are available, the research will explore (to the extent possible) how attitudes about inequality and mobility link to behavioral outcomes of interest, such as investments in education and in the labor market.

Empirics (in progress)

² For full disclosure, I am an academic advisor to the Gallup Polls and in that capacity have access to the data.

Our empirical analysis of the links between well-being and mobility attitudes is work in progress. In a simple first-step exercise, we compared the well-being scores of the poorest and richest Americans based on the Gallup Daily Poll. For evaluative well-being we used the standard question in the Gallup Poll, the Cantril ladder question. This question asks respondents to compare their lives to the best possible life they can imagine on a ladder where 0 represents the worst life and 10 represents the best possible life (BPL). We also used a negative hedonic question (stress), which simply asks respondents whether or not they experienced stress the day before, with possible answers being yes/no. Respondents in the poorest income quintile experience higher levels of stress in their daily lives than do those in the highest one, and they score much lower than those in higher ones when they are asked to assess about satisfaction with their lives as a whole. The latter is a metric which captures respondents' ability to make choices and control their lives, among other things. [See Figure 1]

We next compared the U.S. and Latin America – a region long known for its inequality but where inequality has been decreasing slightly in recent years – in greater detail. In this instance we are used the Gallup World Poll data for 2005-2013, as it has the same survey metrics and time frame for both places.

For evaluative well-being, we again used the Cantril ladder question. We used two measures of hedonic well-being: the stress question and then another one about smiling yesterday (both are yes or no questions, on a 0-1 scale), as positive and negative affect do not always track together. As a gauge of mobility attitudes, we used a question which asks respondents: “Can people in this country get ahead if they work hard or not” (with possible answers being yes/no, 1-0).

As above, a simple look at the mean responses for the lowest and highest quintiles for each sample (averaged out for 2006-2013) is telling. Indeed, the scores suggest that the differences between the lives and future outlooks of poor and rich Americans are significantly larger than those between poor and rich Latin Americans. [Table 1, Figures 2a-d]

The one exception is evaluative well-being, as measured by the best possible life question, where levels are higher for the U.S. than for the Latin American countries. This is what we would expect, as the best possible life question- which introduces a relative component - is most closely correlated with income across both individuals and countries than any of the other evaluative questions (such as life satisfaction and happiness in general). The difference between the average scores of the poorest and richest quintiles in the U.S. is also marginally smaller than that for LAC, at least in most years, and averaged out over the period. [Table 1, Figure 2a]

In contrast, on all of the other questions – smiling, stress, and hard work gets you ahead – the difference between the scores of the poor and the rich is significantly smaller in LAC than it is in the U.S. [Table 1, Figures 2b-d] Both of the hedonic metrics – stress and smiling – exhibit a much larger gap between poor and rich Americans than between poor and rich Latin Americas. The working hard variable, meanwhile, tells an even more compelling story. Not only is the gap smaller between Latin American poor and rich quintiles, but in many years the poor actually score *higher* than the rich. At least in recent years in Latin America, the poor have faith that working hard can get you ahead. Scores on this variable in the U.S., meanwhile, are on average high compared to most countries, and slightly higher than those in

Latin America. But *gap* between the scores of the rich and the poor in the U.S. is much larger than it is in Latin America. [Table 1, Figure 2d]

These are simply averages, and thus may wash out important nuances. Yet the general picture is one of significant differences in well-being and outlooks for the future between the “two Americas”. The poor are more likely to experience stress in their daily lives and less likely to believe that hard work can get people ahead. And, remarkably, the gap in the scores and attitudes of poor and rich Americans is larger than it is in Latin America, a region long known for its high levels of inequality and its gaps between the lives and opportunities of the rich and the poor.

We attempted to get a more fine grained view of the determinants of mobility attitudes. We ran separate regressions for each sample (U.S., LAC), with mobility attitudes (e.g. belief in hard work) as the dependent variable, and the usual socio-demographic variables, income, year dummies, country dummies (for the LAC sample), and our best possible life and stress questions as independent variables.

$$a) \quad Y(\text{hard work})_{it} = b_1(\text{income}) + b_2(\text{vector of socio-dem traits}) + b_3(\text{bpl}) + b_4(\text{stress}) + b_5(\text{year dummies}) + b_6(\text{country dummies for LAC specification}) + \text{epsilon}$$

Our econometric results essentially confirm the patterns in the averages. Most importantly, log income (measured in international dollars, where respondents place themselves in brackets based on their domestic currency and then converted into international dollar values) is positively correlated with beliefs in hard work in the U.S. but not in Latin America. Education plays no role in the U.S. but is (surprisingly) negatively correlated with hard work beliefs in Latin America (this may have to do with ongoing changes in rewards to different levels of education in the latter). Women are less likely to believe that hard work gets you ahead in the U.S., but more likely to do so in Latin America. And innate character traits and attitudes play a strong and expected role in mobility attitudes in both contexts. Respondents with higher levels of evaluative well-being are more likely to believe in hard work, while those with higher levels of stress are less likely to. [Table 2]

Another issue is whether stress varies as a “good” or “bad” influence depending on where in the income distribution respondents are. Stress which is related to daily struggles and an inability to plan ahead, as is typical for the poor (as in the case of unpredictable working hours cited above), is both bad for well-being and a constraint on investing in the future. In contrast, stress that is related to hard work aimed at future benefit, such as going to graduate school, could have quite different and even positive effects.

My above-referenced work with Ifcher and Zarghamee is suggestive of this “bad stress/good stress” distinction. We find that high levels of stress were associated with higher levels of average income (at both zip code and MSA levels). The main driving channel seems to be cost of living. At the same time, higher levels of stress were also associated with having individual incomes that were above the top income code and with being employed, both of which are also associated with higher levels of life satisfaction.

In order to test this good and bad stress influence explicitly, we ran a separate regression (ordered logit), with life satisfaction (BPL) as the dependent variable, and the usual socio-demographic and economic controls as well as reported stress and stress interacted with income on the right hand side. We began with our U.S. Gallup Healthways data.

$$b) Y(\text{life sat})_{it} = \text{xb1}(\text{socio-dem vector}) + \text{xb2}(\text{log income}) + \text{Xb3}(\text{health status}) + \text{xb4}(\text{reported stress}) + \text{xb5}(\text{stress} * \text{income}) + \text{xb6}(\text{year dummies}) + \text{epsilon}$$

As in the above regressions, life satisfaction is measured by the best possible life question in the Gallup Poll. Income in the Gallup Healthways is reported in ten brackets, with much smaller amounts of income in the bottom brackets (beginning with less than \$30 per month) and the top bracket being above \$10,000 per month. We took the log of the mid-point value in each bracket as the observation for each individual who reports to be in that respective bracket. We included the usual socio-demographic controls (age, age squared, gender, marital status, and education level) and then included BMI as a proxy for health status, as it was the one objective health indicator that was reported in all years. We also included year dummies.

Our results provide support for the idea that stress has a different relation with well-being depending on individuals' means and capabilities. [See Table 3] Not surprisingly, the coefficient on stress demonstrates a significant and negative correlation with life satisfaction – with a value that is significantly greater (in negative terms) than the main correlates of life satisfaction, such as marital status and income. Our interaction term, however, is significant and positive, suggesting that at a certain level of income, the negative effects of stress are mitigated. Stress even becomes positive for life satisfaction at the very highest part of the distribution.³

We then re-ran the same regressions, but in this instance with Gallup World Poll data for the U.S. and LAC respectively, and including country dummies for LAC. (STILL TO DO AFTER AEA)
RESULTS HERE [Table 4 to come]

We also explored the relationship between stress and hard work attitudes, interacting hard work attitudes with income in this instance (we could only do this in the Gallup World Poll as the Healthways data set does not have a hard work attitudes question.

$$c) Y(\text{stress})_{it} = \text{xb1}(\text{socio-dem}) + \text{xb2}(\text{log income}) + \text{xb3}(\text{health}) + \text{xb4}(\text{happy, 0-1}) + \text{xb5}(\text{hard work beliefs}) + \text{xb6}(\text{hard work beliefs} * \text{income}) + \text{controls}(\text{urban, year dummies, country dummies} - \text{for LAC only}) + \text{epsilon}$$

RESULTS HERE [Table 5 to come]

³ Based on the difference between the slopes of life satisfaction and income, and life satisfaction and stress interacted with income, we were able to roughly estimate the point at which stress becomes positive, and it seems to be at very high levels of income. Our precision is limited, of course, because income is top coded in the Gallup and we had to simply assign a plausible midpoint level of income for the highest bracket, which includes all income above \$10,000 per month.

Well-Being, Mobility Attitudes, and Behavioral Outcomes

A critical question, although one which is difficult to prove empirically, is the linkages between well-being and positive attitudes about the future on the one hand, and behavioral outcomes on the other. We lack sufficient data following the same people over time, which would allow us to compare their attitudes in t-0 with their outcomes in t-1, controlling for other factors. In addition, the causal channels entail a mix of objective circumstances which determine future outlooks on the one hand, and unobservable personality traits on the other. Despite these difficulties, there is a growing body of literature that suggests that these linkages indeed exist, and that they relate to outcomes in the health, income, and individual/social behavior arenas (see DeNeve et al. 2013 for an excellent summary).

Some of my own very early work in this area, co-authored with Andy Eggers and Sandip Sukhtankar, based on panel data for Russia, showed that residual or unexplained happiness in an initial period regression (in t-0) was correlated with higher levels of income and better health in later periods. The effects were greater for individuals at lower levels of income. And, indeed, one can imagine that for workers with less income and education to leverage, a positive attitude or cheery character may well have pay-offs in the labor market. Similarly, Ed Diener and colleagues, based on a study of college students, found that college students who had higher levels of cheerfulness did better in later life, in both the income and friendship realms.

More recently, DeNeve and Oswald (2012) used a large U.S. representative panel to show that young adults who report higher life satisfaction or positive affect grew up to earn significantly higher levels of income later in life. They used twins and siblings as comparison controls and accounted for factors such as intelligence and health, as well as the human capacity to imagine later socioeconomic outcomes and anticipate the resulting feelings in current well-being. Ifcher and Zarghamee (2011), based on experimental data, isolate the effects of mild positive affect in reducing time preferences over money and in the ability to delay gratification. Oswald and Proto (2012), also based on experimental data, showed that positive affect induced by video-clips resulted in subjects putting forth a greater quantity of output (10-12%) although no difference in quality. They also found that bad moods induced by bereavement or illness in the subjects' families had a negative effect on productivity.

Other studies isolate the effects life satisfaction and positive affect in the health arena, effects which include reduced inflammation, better cardiovascular health and immune systems, and healthier behaviors, among others (Blanchflower et al., 2012; Davidson et al., 2010; Kubzansky et al., 2012). The same studies identify stress as a factor which can hinder healing after injury. Of course it could be that healthier people are happier and not the other way around, or that causality runs in both directions (Graham, 2008). Some studies have been able to isolate the linkage from happiness to health, such as optimism predicting future outcomes such as immune function and cancer outcomes, controlling for health and demographic factors, and optimism and positive emotions protecting against cardiovascular disease (Rasmussen et al., 2009; Boehm et al., 2012).

A related and relevant area is individual and social behaviors. As noted above, positive affect seems to be linked to less preference for consumption in the present rather than in the future, and happy individuals seem to be motivated to pursue long-term goals despite short-term costs. In contrast, lack of

self-control is related to over-consumption and unhappiness, as in the case of excessive television watching, cigarette smoking, and obesity (Frey and Stutzer, 2007; Gruber and Mullanaithan, 2005; Graham, 2008). Greater self-control and longer term time preferences among happier people have also been linked to consumption and savings behaviors. Based on longitudinal household data from Germany and the Netherlands, Guven (2012) finds that happier people are more likely to consume less and save more than others, and also had higher perceived life expectancies. Goudie et al. (forthcoming) find that individuals with higher levels of subjective well-being were more likely to wear seatbelts and less likely to be in motor vehicle accidents, highlighting longer time preferences and less risk taking.

In short, while this is a novel area, there is sufficient and growing evidence to suggest that higher levels of well-being and optimism about the future are correlated with behavioral outcomes of interest, many of which hinge on the ability to invest in the future rather than simply living in the present. The latest developments in well-being measurement make clear distinctions between hedonic (daily experience) and evaluative (life-course) dimensions, and as such provide an additional opportunity for research to explore how the different dimensions relate to future outlooks, time preferences, and individual behaviors.

Some work suggests that respondents emphasize each of these dimensions differently because of their capabilities and abilities to plan for and determine their futures. The very poorest typically focus on the daily experience dimension of well-being, as they do not have the luxury of longer time horizons. “Poverty is a demanding, stressful, depressive, and often violent state. No one seeks it; they are born or thrust into it. In poverty, the whole of your life becomes an exercise in coping and correcting, searching for a way up and out, while focusing today on filling the pots and the plates, maintaining a roof and some warmth, and dreading the new challenges that tomorrow may bring” (Blow, 2014).

This contrasts strongly with the perspective of those with greater capabilities and life choices. Thus when respondents with more means are asked about their own lives and well-being, they are more likely to think about their lives as a whole - the evaluative dimension. This difference shows up in the data when specific questions pertaining to each dimension are included. The above-cited Kahneman and Deaton (2010) work shows that not having enough means is bad for both dimensions of well-being, but after a certain point more money does not make daily experience better. In contrast, the correlation between income and evaluative well-being continues up to the highest levels of income. This is because people with more income have greater capacity to lead the kinds of lives that they want to lead.

And, as noted above, our work on the Gallup Poll finds that friends and family are critical to the day to day survival challenges faced by the poor – and the most important variable to their reported well-being - while work and health are the most important variables for respondents with more means, as these things give them the capacity to make choices about the kinds of lives that they want to lead. More recent research based on experiments on the benefits of transfer programs in Kenya, finds that the stress associated with living day to day contributes to short-sighted and risk-averse decision-making. Stress may limit attention, resulting in an emphasis on habitual behaviors at the expense of goal-oriented ones (Haushofer and Fehr, 2014). Our initial look at the differences in well-being – across dimensions and quintiles – in the U.S. confirms the general direction of these findings (discussed above).

Some of our newest work is based on where respondents are in the *well-being distribution* and their associated behaviors and confirms this generally positive link between well-being, health, and productivity, on average. Yet we also find that respondents at the very top end of the well-being distribution (e.g. the happiest) diverge a bit, and value full-time employment and income less than the average, but learning and creativity more (Graham and Nikolova, forthcoming).

In a twist on this and building on the above section in the paper, we used quantile regressions to examine the correlation between well-being and mobility beliefs according to where in the *well-being* distribution respondents are. We follow the method in Binder and Coad (2011) and Koenker and Bassett (1978). While standard regressions describe the conditional mean, quantile regressions allow us to explore the entire conditional distribution by analyzing the effects of the covariates at different points of the well-being distribution. In essence, they work like OLS but instead of minimizing the sum of squared residuals, they minimize the sum of equally weighted absolute residuals (for the median), and the sum of differentially weighted residuals for the other quantiles.

We again compared the U.S. and Latin America and find important differences across the two regions. For the U.S. sample, the coefficient on belief in hard work falls monotonically from the least happy quantile (where it is highest) to the happiest quantile, where it loses significance. [Table 6a] Thus belief in hard work is most important for the least happy Americans, and not particularly important to the happiest, who are likely happy regardless. Another way to interpret these findings is that if you are in the unhappy part of the distribution in America, belief in hard work and the future makes a positive contribution.

In contrast, in Latin America, the coefficient is roughly the same across well-being quantiles, although slightly lower for the happiest quantile and the highest for the middle one. [Table 6b] As such, belief in hard work seems to be equally important to life satisfaction across the board in LAC. We noted above that hard work beliefs were more equally shared across income quintiles in LAC than in the U.S. We find here, in addition, that they are also more equally shared across well-being quantiles in LAC than in the U.S.

Tentative Conclusions

It is difficult to draw definitive conclusions based on so much work that is still in progress. Yet the simple patterns in the data are compelling. And our initial econometric work supports those patterns. We find stark evidence of major differences in well-being and in attitudes about the future between poor and rich Americans – perhaps not a surprise given the well-documented increases in inequality and stagnation in mobility trends.

Our well-being metrics depict “two” Americas: a wealthy group with high levels of life satisfaction and corresponding ability to plan for and invest in the future, and a poor group with lower life satisfaction, higher levels of stress, and much less optimism about the future. The gaps between the scores of the poor and the rich were the greatest in our variable measuring mobility attitudes – belief that hard work can get people ahead. And the gaps in well-being between poor and rich Americans are, for the most part, much greater than they are between poor and rich Latin Americans, a region long known for its high levels of income inequality.

We also find initial evidence that the stress experienced by the rich and the poor may be quite different, with the stress of the rich more likely to be associated with goal and performance seeking, while the stress experienced by the poor is more likely to be driven by circumstances beyond their control. While stress is negatively associated with life satisfaction in general, it has a modestly positive association with life satisfaction at the higher levels of the income distribution in the U.S.

An increasing body of well-being research is demonstrating the individuals with higher levels of well-being have better future outcomes, in the areas of productivity, health, and social behaviors, either because of intrinsic motivation or because of the capacity to have longer time horizons and preferences. If current patterns in well-being and attitudes about the future translate into behavioral outcomes in the U.S., then it is likely that the gaps between the lives of the rich and poor will only grow larger.

Finally, though, and a potentially more positive (if only suggestive) story, is that belief in hard work seems to mediate the unhappiness of the least happy Americans. Thus continuing to believe in the American Dream provides some solace for those respondents who do.

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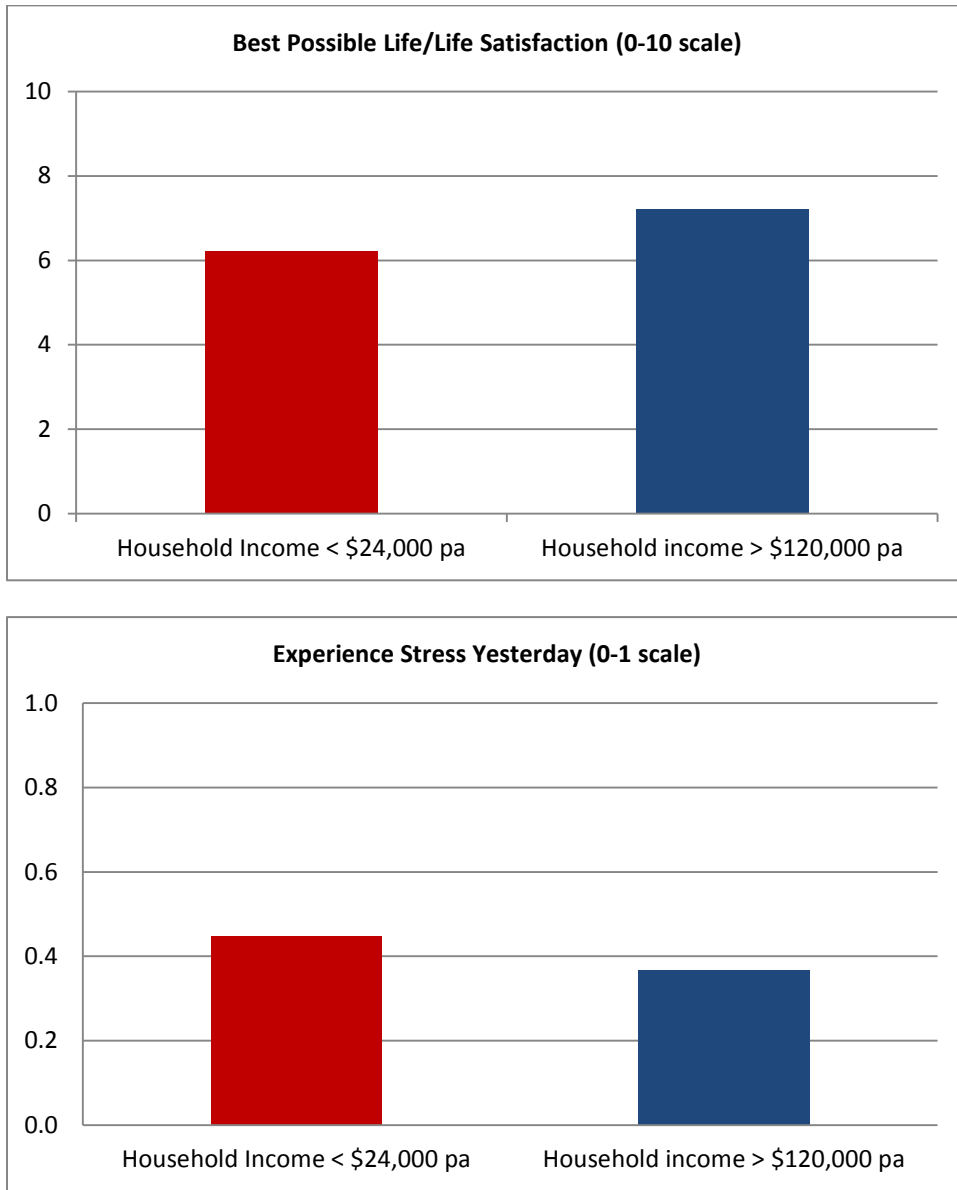
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Figure 1
Life Satisfaction and Stress Differences across Rich and Poor Americans



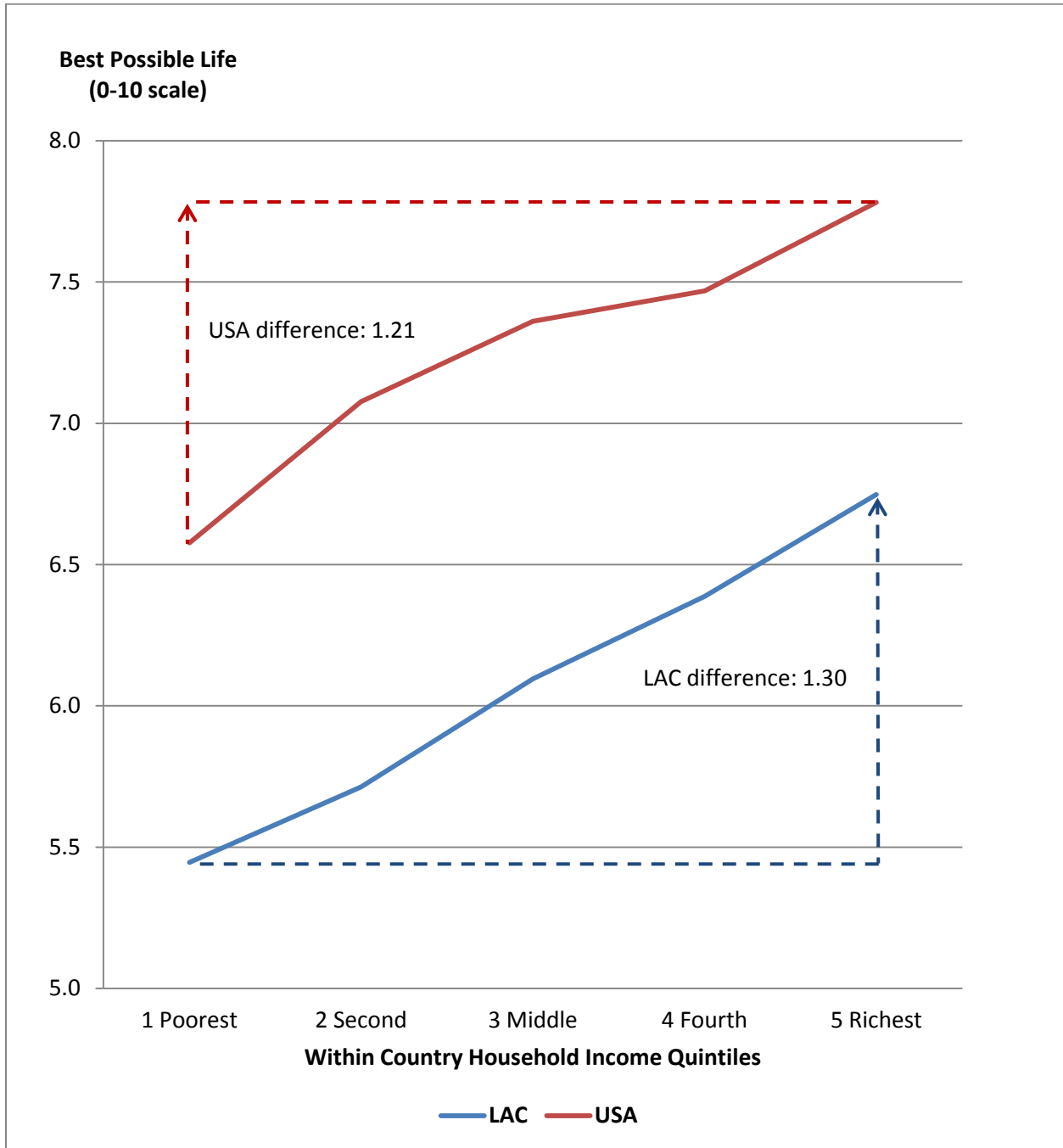
Note: Histogram bars indicate the mean response per income category in the Gallup poll and correspond, roughly, to income quintiles 1 and 5. All differences of response means are statistically significant at the 1% level. The best possible life (*bpl*) question scales run from the worst possible life imaginable (0) to the best one (10); stress yesterday is a simple yes (1) or no (0) response. The 10% difference on the *bpl* question is large and equivalent in life satisfaction terms to moving from Denmark – the happiest country in the world – to Qatar or Belgium, or, within the U.S., of getting a college degree rather than just a high school one. Source: Graham (2014b).

Figures 2 a-d

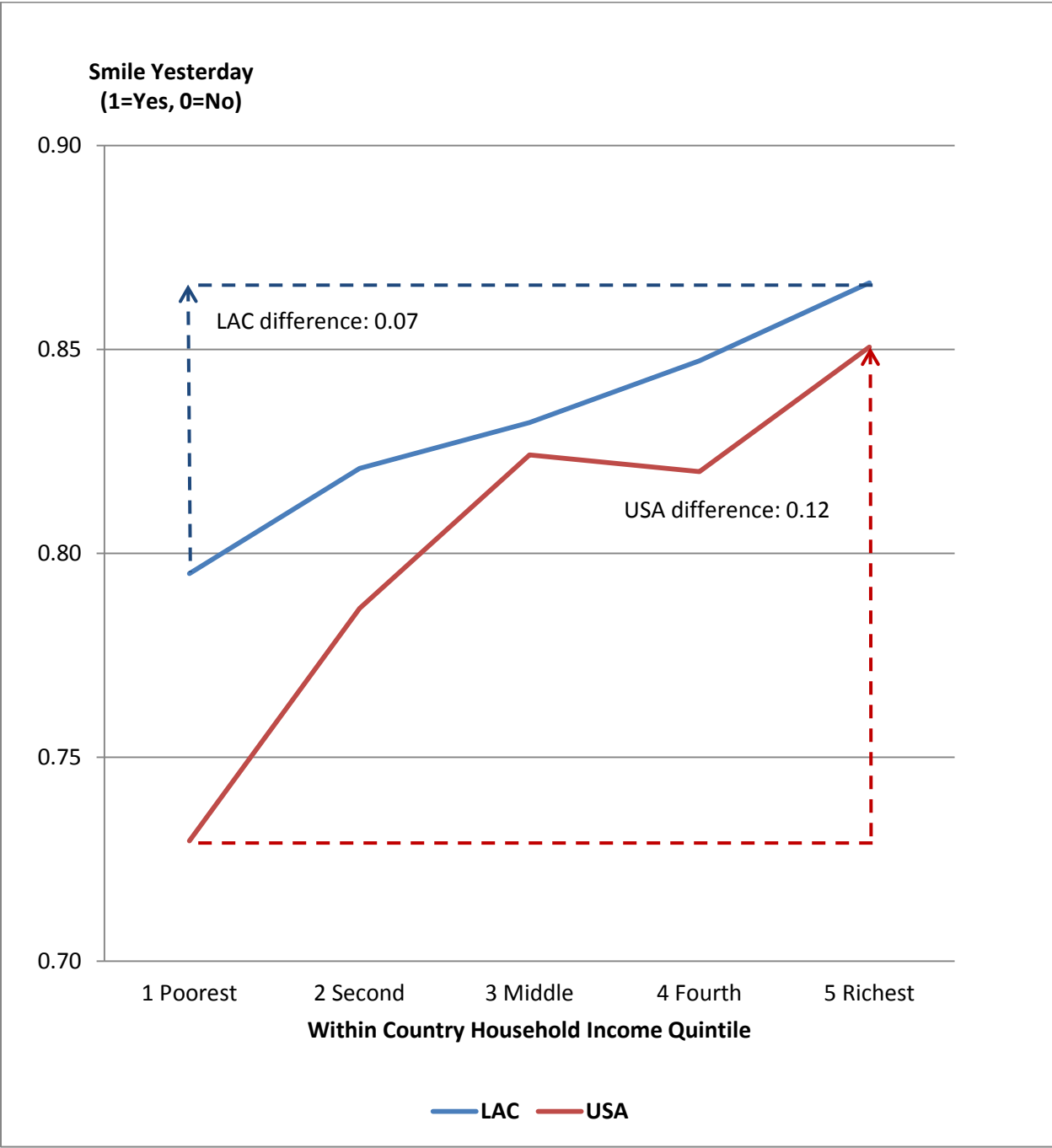
Gaps in Well-Being Scores between the Poor and the Rich: USA versus LAC

Source: Calculations by Chattopadhyay and Graham, based on the Gallup World Poll, 2006-2013.

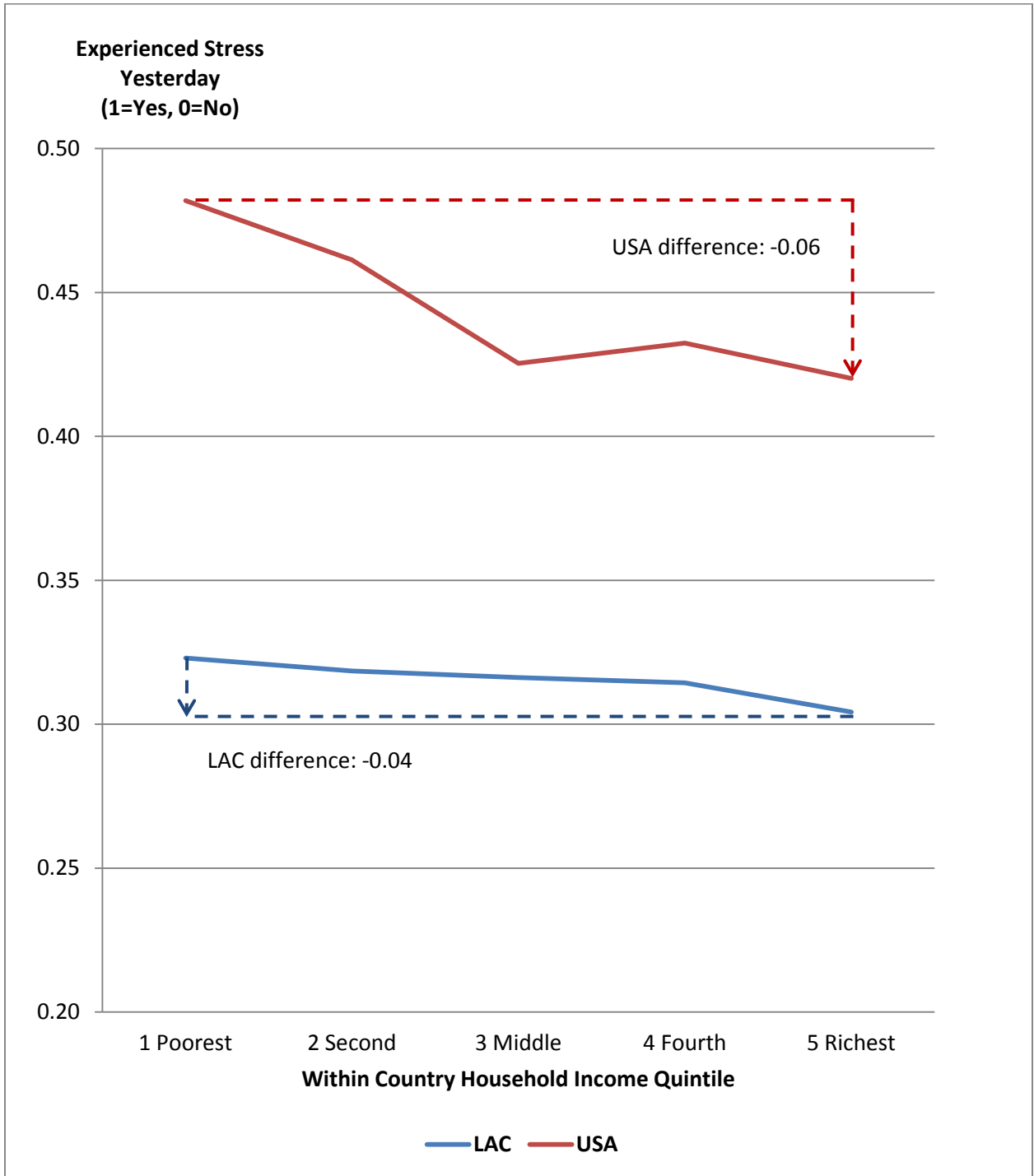
(a) Life Satisfaction/Best Possible Life



(b) Smiling Yesterday



(c) Stress



(d) Belief in Hard Work Gets You Ahead

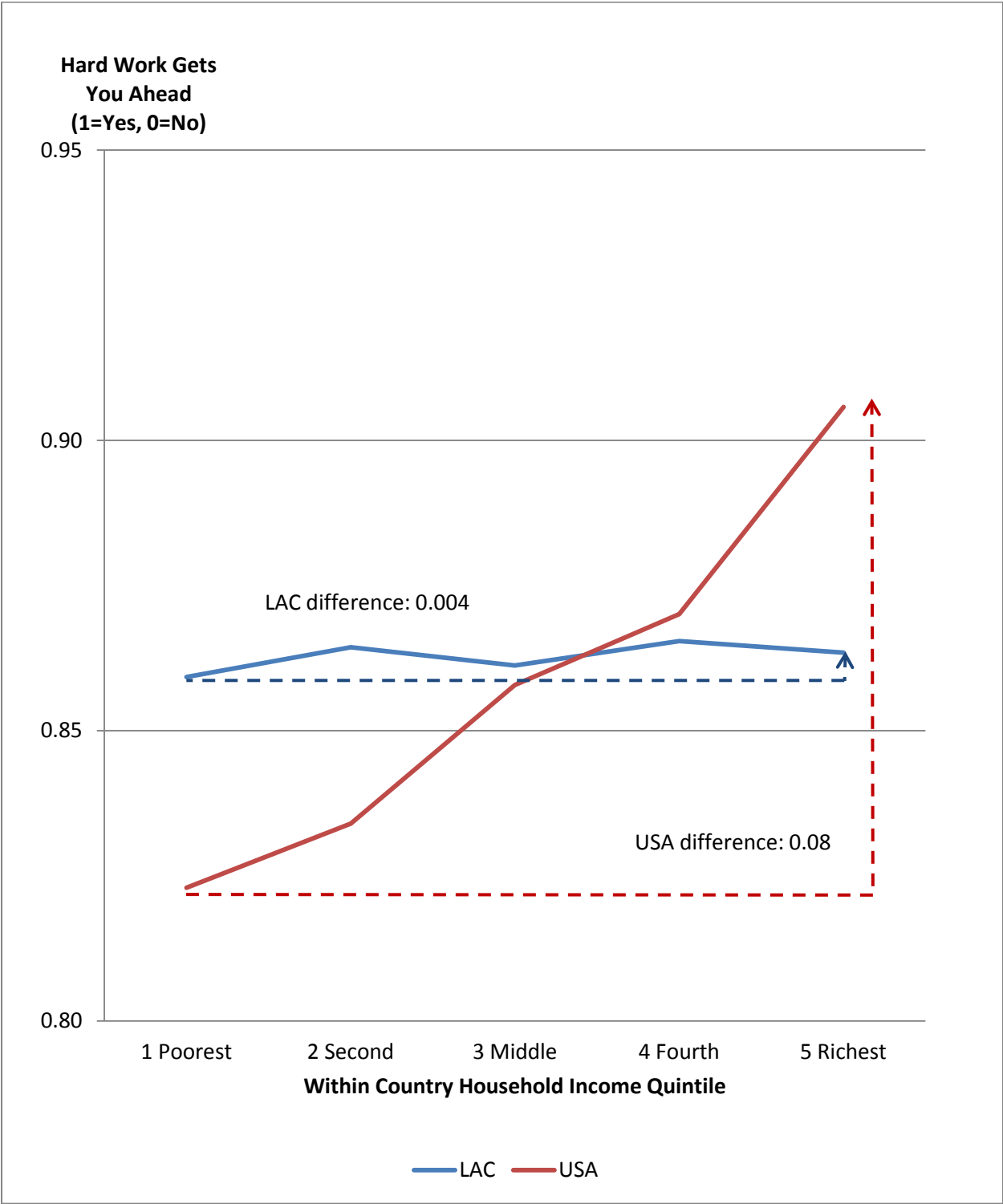


Table 1**Average Life Satisfaction, Smiling, Stress, and Hard Work Beliefs, USA vs. LAC (2006-2013)**

| hhincq | LAC | | | | USA | | | |
|--------------------------|-------------|--------------|-------------|-------------|-------------|--------------|-------------|-------------|
| | bpl | stress | smile | wrkhrd | bpl | stress | smile | wrkhrd |
| 1 Poorest | 5.45 | 0.32 | 0.80 | 0.86 | 6.58 | 0.48 | 0.73 | 0.82 |
| 2 Second | 5.71 | 0.32 | 0.82 | 0.86 | 7.08 | 0.46 | 0.79 | 0.83 |
| 3 Middle | 6.10 | 0.32 | 0.83 | 0.86 | 7.36 | 0.43 | 0.82 | 0.86 |
| 4 Fourth | 6.39 | 0.31 | 0.85 | 0.87 | 7.47 | 0.43 | 0.82 | 0.87 |
| 5 Richest | 6.75 | 0.30 | 0.87 | 0.86 | 7.78 | 0.42 | 0.85 | 0.91 |
| Difference: Q5-Q1 | 1.30 | -0.02 | 0.07 | 0.00 | 1.21 | -0.06 | 0.12 | 0.08 |

Calculations by Chattopadhyay and Graham, based on the Gallup World Poll, 2006-2013. Data from the Gallup World Poll survey, averaged over the period. Data for individual years is available from the author on request.

Table 2**Regression of Belief in Hard Work Attitudes – USA versus LAC**

| | USA | LAC |
|--|--|----------------------|
| | Hard Work Gets One Ahead: 1=Yes, 0=No | |
| Age | -0.008*** [0.001] | -0.003*** [0.000] |
| Age squared | 0.000*** [0.000] | 0.000*** [0.000] |
| Gender: 1=Female, 0=Male | -0.036*** [0.009] | 0.016*** [0.002] |
| Married: 1=Yes, 0=No | 0.006 [0.010] | 0.011*** [0.002] |
| HS Education or beyond: 1=Yes, 0=No | -0.006 [0.010] | -0.026*** [0.004] |
| Best Possible Life (0-10) | 0.025*** [0.002] | 0.007*** [0.000] |
| Experienced Stress Yesterday: 1=Yes, 0=No | -0.019** [0.010] | -0.029*** [0.002] |
| Household Income (International \$), in logs | 0.010** [0.005] | 0.001 [0.001] |
| <i>Controls</i> | | |
| Year dummy variables (Base: 2013) | Yes | Yes |
| Country dummy variables (Base: Argentina) | No | Yes |
| <i>Observations</i> | 4,960 | 118,413 |

Standard errors in brackets

*** p<0.01, ** p<0.05, * p<0.1

Data are from the Gallup World Poll for 2005-2013

Table 3 – Good Stress, Bad Stress?

| Regression Number | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] |
|--|---|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Dependent Variable | Best possible life (life satisfaction) 0-10 scale | | | | | | | |
| Regression Type | Ordered Logit | | | | OLS | | | |
| Age | -0.046*** [0.000] | -0.060*** [0.001] | -0.059*** [0.001] | -0.059*** [0.001] | -0.048*** [0.000] | -0.059*** [0.001] | -0.058*** [0.001] | -0.059*** [0.001] |
| Age Squared/100 | 0.046*** [0.000] | 0.060*** [0.001] | 0.059*** [0.001] | 0.060*** [0.001] | 0.045*** [0.000] | 0.057*** [0.001] | 0.056*** [0.001] | 0.056*** [0.001] |
| Gender (1=Men, 0=Women) | -0.283*** [0.003] | -0.300*** [0.003] | -0.298*** [0.003] | -0.299*** [0.003] | -0.281*** [0.003] | -0.291*** [0.003] | -0.289*** [0.003] | -0.290*** [0.003] |
| Marital status: 1=Married/Living w partner 0=Other | 0.487*** [0.003] | 0.354*** [0.004] | 0.357*** [0.004] | 0.354*** [0.004] | 0.503*** [0.003] | 0.348*** [0.004] | 0.352*** [0.004] | 0.348*** [0.004] |
| Body Mass Index | -0.022*** [0.000] | -0.020*** [0.000] | -0.020*** [0.000] | -0.020*** [0.000] | -0.021*** [0.000] | -0.019*** [0.000] | -0.018*** [0.000] | -0.018*** [0.000] |
| Experienced stress yesterday 1=Y 0=N | -0.892*** [0.003] | -0.864*** [0.003] | -1.958*** [0.024] | -1.260*** [0.010] | -0.965*** [0.003] | -0.908*** [0.004] | -2.099*** [0.030] | -1.327*** [0.011] |
| Highest Education Level, 1<HS to 5=PGrad | 0.164*** [0.001] | 0.124*** [0.001] | 0.126*** [0.001] | 0.089*** [0.001] | 0.176*** [0.001] | 0.127*** [0.001] | 0.130*** [0.001] | 0.089*** [0.001] |
| Ln(Household Income) | | 0.278*** [0.002] | 0.216*** [0.002] | 0.277*** [0.002] | | 0.281*** [0.002] | 0.211*** [0.002] | 0.279*** [0.002] |
| Interaction: Stress and Ln(Household Income) | | | 0.132*** [0.003] | | | | 0.145*** [0.004] | |
| Interaction: Stress and Education Level | | | | 0.095*** [0.002] | | | | 0.103*** [0.002] |
| Year: 2009 | 0.232*** [0.004] | 0.252*** [0.005] | 0.252*** [0.005] | 0.252*** [0.005] | 0.235*** [0.005] | 0.250*** [0.005] | 0.250*** [0.005] | 0.250*** [0.005] |
| Year: 2010 | 0.352*** [0.004] | 0.385*** [0.006] | 0.385*** [0.006] | 0.385*** [0.006] | 0.358*** [0.005] | 0.386*** [0.006] | 0.386*** [0.006] | 0.386*** [0.006] |
| Year: 2011 | 0.316*** [0.004] | 0.330*** [0.005] | 0.330*** [0.005] | 0.330*** [0.005] | 0.326*** [0.005] | 0.331*** [0.005] | 0.331*** [0.005] | 0.331*** [0.005] |
| Year: 2012 | 0.308*** [0.004] | 0.311*** [0.005] | 0.312*** [0.005] | 0.312*** [0.005] | 0.316*** [0.005] | 0.310*** [0.005] | 0.311*** [0.005] | 0.311*** [0.005] |
| Observations | 1,659,166 | 1,246,967 | 1,246,967 | 1,246,967 | 1,659,166 | 1,246,967 | 1,246,967 | 1,246,967 |
| R-squared | | | | | 0.111 | 0.139 | 0.141 | 0.141 |
| Standard errors in brackets | | | | | | | | |
| *** p<0.01, ** p<0.05, * p<0.1 | | | | | | | | |

Notes: Using Gallup Healthways Surveys 2008-2012. Household Income is in the group midpoint value, in natural logs.

Table 4 – Good Stress, Bad Stress – USA vs LAC here

Table 5 – Stress, Hard Work Beliefs, and Income – USA vs LAC here

Table 6a
Best Possible Life Quantile Regressions, United States

| | (1) | (2) | (3) | (4) | (5) |
|---|---------------------|----------------------|----------------------|---------------------|---------------------|
| | Q10 | Q25 | Q50 | Q75 | Q90 |
| No Health Problem | 1.266*** (0.241) | 1.373*** (0.275) | 0.797*** (0.194) | 0.542*** (0.155) | 0.215 (0.252) |
| Belief in Hard Work | 0.805** (0.357) | 0.654** (0.274) | 0.692** (0.301) | 0.659*** (0.245) | 0.371 (0.292) |
| Freedom | 1.268** (0.503) | 0.613** (0.301) | 0.589** (0.234) | 0.347* (0.202) | 0.054 (0.293) |
| Some College/College Diploma | 0.862*** (0.263) | 0.356** (0.145) | 0.278*** (0.091) | 0.096 (0.091) | -0.126 (0.114) |
| Log Household Income | 0.442*** (0.108) | 0.473*** (0.076) | 0.207** (0.096) | 0.028 (0.068) | 0.041 (0.059) |
| <i>Employment Categories (Ref. Group: Out of the Labor Force)</i> | | | | | |
| Full-Time Employee | 0.050 (0.288) | -0.249 (0.203) | -0.292** (0.145) | -0.321* (0.182) | -0.397* (0.202) |
| Self-Employed | 0.030 (0.566) | -0.365 (0.610) | 0.245 (0.434) | 0.150 (0.301) | 0.012 (0.365) |
| Voluntary Part-Time | 0.399 (0.291) | 0.176 (0.344) | 0.334 (0.218) | -0.109 (0.156) | -0.111 (0.193) |
| Unemployed | -1.362** (0.636) | -1.246*** (0.376) | -0.798** (0.361) | -0.746** (0.299) | -0.738* (0.385) |
| Involuntary Part-Time | -0.400 (0.343) | -0.376 (0.457) | -0.433 (0.320) | -0.451** (0.201) | -0.115 (0.368) |
| Smiled Yesterday | 1.221*** (0.364) | 1.004*** (0.195) | 0.722*** (0.224) | 0.716*** (0.156) | 0.567*** (0.150) |
| Learned Yesterday | 0.503 (0.323) | 0.498*** (0.129) | 0.441*** (0.104) | 0.308** (0.143) | 0.111 (0.110) |
| Age | -0.076** (0.033) | -0.048** (0.024) | -0.056*** (0.018) | -0.039* (0.021) | -0.016 (0.021) |
| Age Squared/100 | 0.075** (0.031) | 0.051* (0.026) | 0.056*** (0.019) | 0.043** (0.020) | 0.018 (0.020) |
| Female | 0.796*** (0.268) | 0.321*** (0.108) | 0.377*** (0.106) | 0.172 (0.130) | -0.004 (0.119) |
| Married or in Civil Partnership | 0.053 (0.248) | 0.133 (0.186) | 0.210* (0.118) | 0.234 (0.150) | 0.161 (0.152) |
| Urban Area | -0.298 (0.284) | -0.286* (0.147) | -0.318*** (0.117) | -0.311** (0.124) | -0.254** (0.121) |
| Child in Household | -0.123 (0.187) | -0.173 (0.225) | -0.269** (0.123) | -0.069 (0.141) | 0.220 (0.159) |

| | | | | | |
|-----------------------|-------------------|-------------------|-------------------|--------------------|-------------------|
| Household Size | 0.031 (0.068) | 0.004 (0.044) | -0.009 (0.020) | -0.025 (0.042) | -0.048 (0.050) |
| Religion Important | -0.089 (0.161) | -0.008 (0.132) | 0.055 (0.130) | 0.230** (0.112) | 0.281 (0.196) |
| Year Dummies | Yes | Yes | Yes | Yes | Yes |
| Observations | 1,417 | 1,417 | 1,417 | 1,417 | 1,417 |
| Pseudo R ² | 0.185 | 0.183 | 0.088 | 0.069 | 0.045 |

Source: Gallup World Poll.

Notes: All quantile regressions are for all available years of data for the 2009-2013 period and use bootstrapped standard errors (with 20 replications). Not all variables are available in all years. Household size data are not available for 2013. The dependent variable is BPL, which measures respondents' assessments of their current life relative to the best possible life they can imagine on a scale of 0 (worst possible life) to 10 (best possible life). Q10 corresponds to the 10th percent quantile, Q25 is the 25th percent quantile, Q50 is the 50th percent quantile (median), Q75 is the 75th percent quantile, and Q90 is the 90th percent quantile. Household income is log-transformed and in international dollars (ID), which allows comparisons across countries and time. The table reports the pseudo R² for each quantile regression.

*** p<0.01, ** p<0.05, * p<0.1

Table 6b

Best Possible Life Quantile Regressions, Latin America and the Caribbean

| | (1) | (2) | (3) | (4) | (5) |
|---|----------------------|----------------------|----------------------|----------------------|----------------------|
| | Q10 | Q25 | Q50 | Q75 | Q90 |
| No Health Problem | 0.722*** (0.043) | 0.514*** (0.031) | 0.501*** (0.027) | 0.498*** (0.031) | 0.236** (0.093) |
| Belief in Hard Work | 0.257*** (0.054) | 0.216*** (0.030) | 0.258*** (0.034) | 0.254*** (0.040) | 0.194** (0.082) |
| Freedom | 0.273*** (0.038) | 0.239*** (0.025) | 0.256*** (0.027) | 0.278*** (0.025) | 0.197*** (0.070) |
| Some College/College Diploma | 0.592*** (0.052) | 0.555*** (0.042) | 0.524*** (0.036) | 0.241*** (0.035) | -0.042 (0.027) |
| Log Household Income | 0.467*** (0.018) | 0.353*** (0.011) | 0.211*** (0.011) | 0.125*** (0.012) | 0.017 (0.014) |
| <i>Employment Categories (Ref. Group: Out of the Labor Force)</i> | | | | | |
| Full-Time Employee | 0.196*** (0.056) | 0.102*** (0.029) | 0.079** (0.036) | -0.003 (0.030) | -0.016 (0.035) |
| Self-Employed | -0.141*** (0.052) | -0.127*** (0.040) | -0.136*** (0.034) | -0.181*** (0.036) | -0.056 (0.045) |
| Voluntary Part-Time | 0.187*** (0.064) | 0.047 (0.039) | -0.051 (0.049) | -0.081* (0.049) | -0.031 (0.040) |
| Unemployed | -0.656*** (0.065) | -0.500*** (0.052) | -0.524*** (0.038) | -0.552*** (0.051) | -0.205* (0.109) |
| Involuntary Part-Time | -0.245*** (0.069) | -0.264*** (0.036) | -0.269*** (0.039) | -0.312*** (0.046) | -0.172** (0.082) |
| Smiled Yesterday | 0.581*** (0.044) | 0.483*** (0.035) | 0.474*** (0.033) | 0.496*** (0.028) | 0.559*** (0.159) |
| Learned Yesterday | 0.336*** (0.024) | 0.295*** (0.025) | 0.349*** (0.020) | 0.407*** (0.022) | 0.175** (0.074) |
| Age | -0.059*** (0.005) | -0.050*** (0.004) | -0.054*** (0.005) | -0.058*** (0.005) | -0.023*** (0.009) |
| Age Squared/100 | 0.048*** (0.006) | 0.042*** (0.004) | 0.047*** (0.005) | 0.056*** (0.005) | 0.025** (0.010) |
| Female | 0.044 (0.038) | 0.090*** (0.020) | 0.127*** (0.022) | 0.226*** (0.024) | 0.127*** (0.046) |
| Married or in Civil Partnership | 0.038 (0.034) | 0.004 (0.017) | -0.010 (0.028) | -0.017 (0.023) | -0.036 (0.024) |
| Urban Area | 0.243*** (0.030) | 0.201*** (0.029) | 0.201*** (0.027) | 0.180*** (0.019) | 0.062*** (0.023) |
| Child in Household | -0.159*** (0.034) | -0.184*** (0.022) | -0.147*** (0.029) | -0.122*** (0.030) | -0.023 (0.027) |

| | | | | | |
|-----------------------|---------|----------|----------|---------|---------|
| Household Size | 0.028** | 0.022*** | 0.030*** | 0.018** | 0.004 |
| | (0.012) | (0.007) | (0.008) | (0.009) | (0.008) |
| Religion Important | -0.019 | 0.004 | 0.064** | 0.072** | 0.098** |
| | (0.029) | (0.030) | (0.028) | (0.036) | (0.046) |
| Year Dummies | Yes | Yes | Yes | Yes | Yes |
| Country Dummies | Yes | Yes | Yes | Yes | Yes |
| Observations | 64,728 | 64,728 | 64,728 | 64,728 | 64,728 |
| Pseudo R ² | 0.146 | 0.097 | 0.103 | 0.056 | 0.060 |

Source: Gallup World Poll.

Notes: All quantile regressions are for 2009-2013 and use bootstrapped standard errors (with 20 replications). Not all countries and variables are available in all years. The countries included are: Argentina, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Puerto Rico, Suriname, Trinidad and Tobago, Uruguay, Venezuela. The dependent variable is BPL, which measures respondents' assessments of their current life relative to the best possible life they can imagine on a scale of 0 (worst possible life) to 10 (best possible life). Q10 corresponds to the 10th percent quantile, Q25 is the 25th percent quantile, Q50 is the 50th percent quantile (median), Q75 is the 75th percent quantile, and Q90 is the 90th percent quantile. Household income is log-transformed and in international dollars (ID), which allows comparisons across countries and time. The table reports the pseudo R² for each quantile regression.

*** p<0.01, ** p<0.05, * p<0.1