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# The Great Recession: Implications for Adolescent Values and Behavior

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The Great Recession:  
Implications for Adolescent Values and Behavior

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### Abstract

Based on Greenfield's (2009) theory of social change and human development, we predicted that adolescents' values, behaviors, and self-assessments would become more collectivistic and less individualistic during the Great Recession (2008-2010) compared to the pre-recession period (2004-2006) and in the context of long-term trends (1976-1978). Data came from Monitoring the Future, a nationally representative yearly survey of 12<sup>th</sup> graders. Concern for others and environmentalism increased from the pre-recession period to recession, reversing long-term declines. Long-term trends toward increasing materialism partially reversed: wanting a job making lots of money continued to increase, the increase in the importance of money leveled off, and the increase in desiring to own expensive material items reversed. Long-term trends toward increasingly positive self-views continued. Correlations with economic indicators (median income, employment rate) over the entire time period (1976-2010) showed that collectivism was high and individualism was low during times of economic deprivation, consistent with Greenfield's theory.

*Keywords:* Great Recession, adolescence, values, collectivism, individualism, materialism

The Great Recession:  
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During most of the 1990s and early 2000s, the United States enjoyed extensive economic prosperity. By 2008, however, the bottom fell out of the housing market, foreclosures became widespread, and major American banks and insurance firms were teetering on the brink of collapse. Soon after, unemployment soared to the highest rates in decades (Grusky, Western, & Wimer, 2011). An era of plenty had suddenly shifted into what many call the Great Recession, officially lasting from December 2007 to June 2009 but engendering higher rates of unemployment and poverty for several years following.

Such culture-wide economic trends may affect the values and behaviors of individuals (Elder, 1974; Greenfield, 2009). According to Greenfield's (2009) theory of social change and human development, economic hardship decreases individualism (focus on the self and personal possessions) and increases collectivism (focus on others). In the current study, we examined whether the Great Recession led to greater collectivism (e.g., concern for others and environmentalism) or halted rising individualism (e.g., materialism and positive self-views) among nationally representative samples of high school students. We used the Monitoring the Future (MtF) surveys to compare 12<sup>th</sup> graders' reported values, behaviors and self-assessments in the earliest years of the survey (1976-1978), the pre-recession period (2004-2006), and the recession years (2008-2010). Including the earliest years of the survey allowed us to understand short-term change in the context of long-term trends. In addition, we used all of the survey years (1976-2010) to examine the association between high school students' individualism/collectivism and national yearly economic indicators (median income adjusted for inflation and employment rate).

### **Young People's Rising Individualism and Declining Collectivism in the United States**

Young people in the U.S. increasingly endorse individualistic values. For example, cohort analyses show robust generational increases in assertiveness (Twenge, 2001a), extraversion (Twenge, 2001b), unrealistically high expectations (Reynolds et al., 2006), and narcissistic traits (Stewart & Bernhardt, 2010; Twenge & Foster, 2010; for a review, see Twenge, 2006). Recent generations are also more likely to endorse the individualistic idea that people get what they deserve and thus are responsible for their misfortunes (Malahy et al., 2009). Cultural products that socialize young people also reflect such generational changes; for example, popular preteen television shows declined in community feeling and increasingly emphasized fame from 1967 to 2007 (Uhls & Greenfield, 2011). Moreover, American books used more individualistic words and phrases between the 1960s and the 2000s (Twenge, Campbell, & Gentile, 2012).

The rise of individualism may be normative and even necessary as today's young people face the demand for self-assertion and achievement in a competitive market economy (Greenfield, 2009). However, the heightened focus on individualism may concomitantly cost collectivistic and community values. For instance, recent generations are lower in empathy for others (Konrath, O'Brien, & Hsing, 2011), civic orientation (Twenge, Campbell, & Freeman, 2012), and concern for others (Twenge et al., 2012), which may weaken relational and social ties. Additionally, excessive focus on the self may create a critical gap between self-expectations and realities (Reynolds et al., 2006; Uhls & Greenfield, 2012), which may negatively impact mental health.

### **The Nationwide Economic Downturn and Adolescents' Values and Behaviors: Questions, Theory, and Predictions**

Fundamentally, generational change is a reflection of cultural change. Adolescents' values and behaviors are particularly important because sociohistorical changes have the strongest effect on young people during the transition to adulthood (Stewart & Healy, 1989). Children and adolescents are clearly sensitive to economic hardship taking place in the context of the family (e.g. Conger, Conger, Elder, Lorenz, Simons, & Whitbeck, 1992; Conger, Conger, Elder, Lorenz, Simons, & Whitbeck, 1993; Conger, Rueter, & Conger, 2000); but it remains unclear whether and how adolescent development is modified under economically challenging situations at the societal level. Moreover, instead of examining values and behaviors, the traditional developmental approach has focused on the maladjustment and negative well-being of children and youth following economic strain (e.g. Conger et al., 1992, 1993, 2000). The current study uniquely investigates whether nationwide economic hardship may generate potentially positive values – specifically, the promotion of collectivistic and communitarian values and the decline of materialism.

According to the theory of social change and human development (Greenfield, 2009), cultural values adapt to alterations in sociodemographic ecologies, which, in turn, shift developmental pathways between the models of interdependence/collectivism and independence/individualism (Greenfield, Keller, Fuligni, & Maynard, 2003). The globally dominant direction of social change includes urbanization, increased wealth, and the expansion of formal education. Each of these shifts moves human development from a more interdependent/collectivistic model to a more independent/individualistic one. While the factors are interrelated and synergistic, they are also equipotential: each can, by itself, move human development in the same direction (Greenfield, 2009; Manago, 2011). In particular, material affluence is a cardinal sociodemographic feature that contributes to the cultural shift from

relative collectivism to greater individualism and materialism. Indeed, empirical findings from cross-cultural research suggest that, as a traditionally collectivistic community moves from a subsistence-based economy and relative poverty to a commerce-based economy and greater wealth, it experiences a rise in individualistic values across the generations (e.g., Greenfield, 2004; Manago & Greenfield, 2011; Manago, 2011).

Crucial to the present study, the theory (Greenfield, 2009) predicts a reversal such that wealth reduction promotes collectivistic values and diminishes individualistic and materialistic values. Thus, the reduction of economic affluence during the Great Recession could have halted or reversed the preexisting generational trend toward rising individualism and declining communitarian values in the U.S. (Fukuyama, 1999; Putnam, 2000; Twenge, 2006).

These societal-level phenomena are reflected in experimental findings and political surveys at the individual-level. Participants primed to think about growing up with abundant financial resources are less helpful to others and less likely to request help for themselves than participants primed to think about growing up with meager resources (Vohs, Mead, & Goode, 2006). Participants from lower-income families demonstrate more generous, charitable, and helpful behaviors towards others than those with more wealth, most likely due to their greater empathy and compassion (Piff, Kraus, Cote, Cheng, & Keltner, 2010). In addition, middle-class participants are more likely to value uniqueness; in contrast, working-class participants are more likely to value similarity to others (Stephens, Markus, & Townsend, 2007).

On the other hand, Kasser (2002) makes a contrasting prediction and theorizes that economic deprivation leads to greater materialism, a correlate of individualism. For example, youth from disadvantaged backgrounds evince more materialistic values (Kasser, Ryan, Zax, & Sameroff, 1995). Thus in the current study, we test Greenfield's (2009) theory against Kasser's

(2002) competing hypothesis by tracing adolescents' values and behaviors before and after the Great Recession, and by examining their correlations with national economic indicators across all 35 years of data collection.

### **The Current Study**

The current study aims to investigate the impact of the Great Recession on high school students' values, behaviors, and self-assessments. Has the nationwide economic downturn halted or reversed the preexisting trend of rising individualism and materialism and declining collectivism among adolescents in the U.S. (Greenfield, 2009)? Alternatively, could the Great Recession have promoted materialism (Kasser, 2002)? We used the nationally representative Monitoring the Future (MtF) survey of U.S. 12<sup>th</sup> graders, drawing from the pre-recession (2004-2006) and recession (2008-2010) periods to investigate short-term trends, and the earliest data collection period of the 1970s (1976-1978) to investigate long-term trends. Moreover, we examined the correlations among national economic indicators (median income adjusted for inflation and employment rate) and adolescents' individualism and collectivism across the entire 35 years of the survey from 1976 to 2010. This analysis allowed us to determine if any trends toward greater collectivism and lessened individualism are specific to the current economic downturn – and thus might be caused by other co-occurring factors – or if they systematically occurred with other economic cycles of the 1970s, 1980s, and 1990s. If the same trends systematically occurred with other economic cycles, it would strengthen the assertion that collectivism is high and individualism is low during times of relative economic deprivation.

To measure collectivism, we examined concern for others, as it focuses on groups and viewing the self as interrelated with others (Markus & Kitayama, 1991). We also included environmentalism given its significance to communitarian values in the U.S. The



environmentalism questions in MtF were particularly relevant to the concept of collectivism, as they specifically assessed self-sacrifice or adjusting one's own circumstances in the service of the larger group and environment. For individualism, we focused on positive self-views, which tap the individualistic tendency to view the self in positive—sometimes overly positive—terms (Heine & Lehman, 1995). Lastly, we examined materialism, a correlate of individualism (e.g., Uhls & Greenfield, 2011, 2012) and the focus of theorizing on the effects of economic deprivation (e.g., Kasser, 2002).

## **Method**

### **Participants**

Data were drawn from Monitoring the Future (MtF), which has surveyed a nationally representative sample of 12<sup>th</sup> graders (high school seniors) in the U.S. every year since 1975 (with the earliest available dataset from 1976; Johnston, Bachman, O'Malley, & Schulenberg, 2011). Using a multi-stage random sampling procedure, high schools across the nation, and then students within each school, are chosen to represent a cross-section of the U.S. high school senior population in region, race, gender, and socioeconomic status. Schools with similar demographic characteristics replace those that decline to participate. The participation rate of schools is 66-80%, and the student participation rate is 79-83% (Johnston et al., 2011). About 15,000 high school seniors are sampled each year in the spring, and most are 17 or 18 years old. The sample is divided into randomly selected subsamples of about 2,500, and each is asked a different set of questions, called a form (Johnston et al., 2011). However, some questions appear on all the forms.

We selected data from three distinctive time periods to compare pre-recession and recession years (short-term trends) in relation to the earliest data collection period (long-term

trends): 1970s (1976-1978, the earliest data collection years), pre-recession (2004-2006), and recession (2008-2010). Each period included three years to minimize error variance and capture the largest number of participants within each era. The recession officially lasted from December 2007 to June 2009. We excluded 2007 as a transitional year but included 2010 in the recession years as the U.S. poverty rate hit a 50-year high in 2010 (Lee et al., 2011). National statistics on median family income and the employment rate demonstrate this variation in the economic conditions of the three time periods (see Figure 1). That is, economic conditions improved between the 1970s and the pre-recession period, but worsened between the pre-recession period and the recession period. In addition, we matched the data by year with national economic indicators across all 35 years of survey (1976-2010).

The total sample size across the three eras varied depending on the item, as some were asked of the entire sample and others on only one form. *N*'s ranged between 5,657 and 50,261 for the 1970s, 6,402 to 42,708 for the pre-recession period, and 6,033 to 41,315 for the recession period.

## Measures

### **Concern for others.**

#### *Values.*

*Importance of correcting inequalities.* Participants indicated the personal importance of “working to correct social and economic inequalities” on a 4-point scale (1 = *not important*; 4 = *extremely important*).

*Job worthwhile to society.* They also reported the personal importance of having “a job that is worthwhile to society” on a 4-point scale (1 = *not important*; 4 = *very important*).

*Eat differently to help starving people.* On a 5-point scale (1 = *disagree*; 5 = *agree*), participants indicated how much they agreed or disagreed with the statement “I would be willing to eat less meat and more grains and vegetables, if it would help provide food for starving people.”

*Think about social problems.* Participants responded how much they “think about the social problems of the nation and the world, and about how they might be solved” on a 5-point scale (1 = *never*; 5 = *a great deal*). They were prompted with the statement that some people spend much time and others little time in thinking about social problems.

### ***Behavioral expectations.***

*Contribute to international relief fund.* Participants indicated the likelihood of their “making contributions to international relief organizations” on a 6-point scale (1 = *definitely not*; 6 = *already have*).

### **Environmentalism.**

#### ***Values.***

*Public and government environmental actions.* On a 5-point scale (1 = *disagree*; 5 = *agree*), participants indicated how much they agree with four statements concerning the general public and government actions towards conserving the environment: “People will have to change their buying habits and way of life to correct our environmental problems,” “Government should take action to solve our environmental problems even if it means that some of the products we now use would have to be changed or banned,” “Government should place higher taxes on products which cause pollution in their manufacture or disposal, so that companies will be encouraged to find better ways to produce them,” and “I wish that government would ban

throwaway bottles and beverage cans.” A composite score was created with adequate internal consistency ( $\alpha = .53$ ).

### ***Behaviors.***

*Personal environmental actions.* On a 4-point scale (1 = none; 4 = quite a bit), participants responded to the question, “How much of an effort do you make to conserve energy and protect the environment?”

*Saving energy.* Three items measured the effort to save energy: “Do you make an effort to cut down on driving, in order to save gasoline?” “Do you make an effort to cut down on the amount of electricity you use, in order to save energy?” and “In the house or apartment where you live, is an effort made to reduce heat during the winter, in order to save energy?” Participants answered on a 4-point scale (1 = not at all; 4 = quite a bit) across the items, and a composite score reached adequate reliability ( $\alpha = .61$ ).

### ***Behavioral expectations.***

*Use of bike or mass transit.* Participants indicated on a 5-point scale (1 = disagree; 5 = agree) how much they agree with the statement “I would probably be willing to use a bicycle or mass transit (if available) rather than a car to get to work.”

### **Materialism.**

#### ***Values.***

*Importance of owning expensive items.* Looking toward the future, participants reported the importance of having “a single family home”, “a vacation home,” “a recreational vehicle,” and “buying a new car every 2 or 3 years” on a 4-point scale (1 = not important; 4 = extremely important). The four items were combined to create a composite score ( $\alpha = .71$ ).

*Importance of having lots of money.* On a 4-point scale (1 = *not important*; 4 = *extremely important*), participants indicated the importance of “having lots of money” in their own life.

*Importance of having a job making lots of money.* Participants were asked to indicate the importance of having “a job which provides you with a chance to earn a good deal of money” on a 4-point scale (1 = *not important*; 4 = *very important*).

### **Positive self-views.**

#### ***Self-assessments.***

*Self-satisfaction.* On a 7-point scale (1 = *completely dissatisfied*; 7 = *completely satisfied*), participants indicated how satisfied they felt with themselves.

*Intelligence self-rating.* Participants’ perception of their own intelligence compared to others’ was assessed based on their answer to the question, “How intelligent do you think you are compared with others your age?” on a 7-point scale (1 = *far below average*; 7 = *far above average*).

*School ability self-rating.* Similarly, participants rated their “school ability compared with others their age throughout the country” (1 = *far below average*; 7 = *far above average*).

### **Correction for relative centrality**

Previous research on life goals (e.g., Grouzet et al., 2005) recommends calculating the relative importance of goals, as respondents may vary in their overall response style by rating most (or very few) goals as important. Such response tendencies may also vary systematically over time. We calculated the relative centrality of the two life goals on our list (correcting inequalities, money) by subtracting the grand mean across all 14 life goals in the survey for each participant.

### **National economic indicators**

We obtained national statistics on median income adjusted for inflation and the annual unemployment rate from the U.S. Census Bureau website. We calculated and used employment rate (100 - unemployment rate) so higher values would indicate better economic conditions. To examine the relationship between these indicators and adolescent values, we matched the yearly statistics with the yearly average of the adolescent survey responses on each item. We then conducted a regression analysis weighted by sample size of each year. For example, we examined the correlation between wanting a job worthwhile to society (an indicator of collectivism) and the employment rate. A positive correlation would mean that wanting a job worthwhile to society was highest in good economic times, and a negative correlation would mean that wanting a job worthwhile to society was highest in poor economic times. Greenfield's (2009) theory predicts the latter, expecting high collectivism and low individualism during times of economic deprivation.

## **Results**

### **Collectivistic Values, Behaviors and Behavioral Expectations**

**Concern for others.** As predicted by Greenfield's (2009) theory, concern for others declined significantly between the 1970s and the pre-recession period and then rebounded between the pre-recession period and the recession period (see Table 1 and Figure 2). Matched by year across the entire time period (1976-2010), the concern for others items were negatively correlated with median income and employment rate. Thus, concern for others was high during difficult economic times and low during prosperous times. Therefore, this effect was not limited to the 2000s (see Table 2).

**Environmentalism.** As predicted by Greenfield's theory, environmental concerns and behaviors declined between the 1970s and the pre-recession period, but then increased between the pre-recession period and the recession period (see Table 1 and Figure 3). Adding to the generality of the findings, environmentalism was negatively correlated with national economic indicators across all years from 1976 to 2010 (see Table 2).

### **Individualistic Values and Self-Assessments**

**Materialism.** Consistent with Greenfield's theory, participants increasingly rated expensive material items (such as new cars and vacation homes) as important between the 1970s and the pre-recession period, but then rated them as significantly less important during the recession years. Across the entire time period, the importance of owning expensive material items was higher in times of economic prosperity (see Table 2). Thus, the finding generalized beyond the period of the Great Recession. As predicted, the importance of "having lots of money" increased from the 1970s to the pre-recession period; it remained stable between the pre-recession period and the recession period, thus halting the long-term trend of increasing materialism.

However, the importance of having a job with the "chance to earn a good deal of money" increased from the 1970s to the pre-recession period and continued to increase between the pre-recession period and the recession period (see Table 1 and Figure 4). This pattern supported neither Kasser (who would have predicted a U-shaped curve) nor Greenfield (who would have predicted an inverted U). In addition, neither item was significantly correlated with national economic indicators from 1976 to 2010 (see Table 2). This pattern of results was in line neither with Kasser (who would have predicted a negative correlation between economic indicators and materialism) or Greenfield (who would have predicted a positive correlation).

**Positive self-views.** Positive self-views, an indicator of individualism, increased from the 1970s to the pre-recession period and continued to increase into the recession years (see Table 1 and Figure 5). While this pattern did not support Greenfield's (2009) theory, correlations across the entire time period did: Two of the three items measuring positive self-views showed significant positive correlations with median income and employment rate (Table 2).

Adolescents' self-assessments of intelligence and school ability were more positive during good economic times and less positive during difficult economic times.

### **Discussion**

Long-term trends toward declining collectivism reversed during the recession years, consistent with Greenfield's (2009) theory. Compared to high school students immediately before the recession, recession-era youth were more likely to express concern for others and take actions to help the environment. During the entire time period (1976-2010), adolescents expressed more concern for others and for the environment during times of relative economic deprivation, and less concern for others and the environment during times of greater economic prosperity. Thus the effect appeared during lesser economic swings during the 1970s, 1980s, and 1990s as well, suggesting a broader effect for economic conditions, rather than a pattern caused by specific co-occurring factors during the 2000s alone. Materialism, which had been rising, decreased during the recession years on one item (valuing expensive items), plateaued on another (the importance of money), and continued to increase on a third (the importance of a job making a lot of money). The importance of owning expensive material items was correlated with economic indicators over the entire time period (1976-2010), with higher materialism during prosperous times. For self-views, the predicted pattern held over the entire time period from



1976 to 2010: self-assessments of intelligence and school ability were more positive during good economic times.

### **Rising Concern for Others and Environmentalism**

The increases in concern for others and environmentalism between the pre-recession period and the recession period support the idea that a decline in economic wealth promotes collectivism (Greenfield, 2009). Concern for others and environmentalism did not return to the levels of the 1970s, but this is not surprising given the fairly large and consistent declines in collectivism over three generations (e.g., Twenge et al., 2012). Thus, the reversal of the long-term trend is noteworthy and demonstrates the impact of the nationwide economic decline on young people's values and behaviors despite the overall generational decline in collectivism.

Particular aspects of economic decline could have contributed to specific increases in environmental concerns. For instance, rising endorsement of saving energy could be related to the increasing price of gasoline and the lower cost of environmentally-friendly transportation options such as a bike or mass transit. The significant correlation of economic indicators with indices of concern for others and for the environment over a period of 35 years provides further support and generality for the pattern predicted by Greenfield's theory: more collectivism during times of economic deprivation and less collectivism during times of prosperity.

### **Halting and Reversing the Growth of Materialism**

Our hypothesis about halting or reversing the long-term trend of growing materialism between the pre-recession period and the recession period was mostly supported. As hypothesized, the long-term increase reversed (valuing expensive items) or halted (the importance of money); in addition, adolescents valued expensive material items more during prosperous times and less during worse economic times over the entire 35 years (1976-2010).

However, the importance of money did not decrease during the recession years. Whereas the importance of owning expensive items and having lots of money may tap the abstract materialistic desire for luxury, the job item may measure the concrete and realistic need to make a living. Overall, the results provide more support for Greenfield's theory than Kasser's, at least for the developmental stage of late adolescence.

### **Self-Views: Mixed Evidence**

We found a positive association between national economic indicators and self-assessments of academic ability and intelligence over the 30-year time period from 1976 to 2010. That is, historically, self-views were more positive during times of prosperity and less positive during times of deprivation. However, counter to prediction, from the pre-recession period to the recession period, high school students' level of self-satisfaction, as well as their self-assessment of intelligence and school ability, continued to increase. This pattern is consistent with previous research documenting rising individualism among young people through at least 2009 (e.g., Twenge & Campbell, 2008, Twenge & Foster, 2010). The rising level of self-assessment through the recession may reflect the meteoric rise of communication technologies such as Facebook and YouTube that encourage and promote self-display and fame-seeking, two highly individualistic, if not narcissistic traits (Uhls & Greenfield, 2012; Manago, Taylor, & Greenfield, 2012). Because of this, the recent cultural trend toward individualism and positive self-views may be too strong to be stopped by the economic recession (Twenge & Campbell, 2009). This trend is concerning since positive self-views do not necessarily lead to success (Baumeister, Campbell, Krueger, & Vohs, 2003), and the narcissistic effects of media may lead to a lack of realism concerning the necessity of hard work (Twenge & Kasser, 2013; Uhls & Greenfield, 2012).

### **Conclusions and Future Directions**

This study provides important contributions to the literature on the development of adolescents' values and behaviors by demonstrating the effect of the recent nationwide economic crisis on high school students' collectivistic and individualistic tendencies. During the Great Recession, adolescents show consistent evidence for increasing collectivism (concern for others and environmentalism) and some indication for decreasing or leveling individualism (materialism). The effect of economic depression on adolescent values is not isolated to the current recession but occurs systematically, with collectivism higher during times of economic deprivation and some indicators of individualism higher during times of economic prosperity.

Future research should explore the effects of the Great Recession on those who experienced it as children or as young adults, building on the idea that culture and economic conditions affect individuals differently depending on their developmental stage (e.g., Elder, 1974; Twenge & Kasser, 2013). In addition, given that the Great Recession appears to have had weaker effects on adolescents' individualistic tendencies—especially on positive self-views—than collectivistic tendencies, future studies should investigate why and how economic decline may affect certain value domains more than others.

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Table 1

*Values, Behaviors, and Behavioral Expectations of U.S. High School Seniors in the 1970s, Pre-Recession, and Recession Periods*

Constructs and Variables	1970s	Pre-Recession	Recession	1970s vs.		Pre-Recession	
	(1976-78)	(2004-2006)	(2008-2010)	Pre-Recession	Pre-Recession	vs. Recession	vs. Recession
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>d</i>	<i>Sig.</i>	<i>d</i>	<i>Sig.</i>
<b>Concern For Others</b>							
1. Important to correct inequalities	- .60 (.76)	- .69 (.79)	- .63 (.80)	-.12	<i>p</i> < .001	.08	<i>p</i> < .001
2. Job worthwhile to society	3.23 (.82)	3.15 (.88)	3.21 (.85)	-.10	<i>p</i> < .001	.07	<i>p</i> < .001
3. Eat differently to help starving people	3.81 (1.29)	3.51 (1.38)	3.59 (1.36)	-.23	<i>p</i> < .001	.06	<i>p</i> = .001
4. Contribute to an international relief fund	3.64 (1.28)	3.27 (1.22)	3.34 (1.25)	-.29	<i>p</i> < .001	.05	<i>p</i> < .001
5. Think about social problems	3.20 (.81)	3.03 (.88)	3.11 (.89)	-.20	<i>p</i> < .001	.09	<i>p</i> < .001
<b>Environmentalism</b>							
1. Public and government environmental actions	15.06 (3.32)	12.82 (3.33)	13.33 (3.48)	-.67	<i>p</i> < .001	.15	<i>p</i> < .001
2. Personal environmental actions	2.80 (.75)	2.43 (.85)	2.51 (.85)	-.47	<i>p</i> < .001	.09	<i>p</i> < .001
3. Saving energy	8.32 (1.86)	7.31 (2.07)	7.79 (2.08)	-.52	<i>p</i> < .001	.23	<i>p</i> < .001
4. Use of bike or mass transit.	3.06 (1.51)	2.46 (1.42)	2.75 (1.46)	-.41	<i>p</i> < .001	.20	<i>p</i> < .001
<b>Materialism</b>							
1. Importance of owning expensive items	7.23 (2.66)	8.08 (2.84)	7.81 (2.71)	.31	<i>p</i> < .001	-.10	<i>p</i> < .001
2. Important to have lots of money	-.28 (.82)	-.18 (.82)	-.19 (.82)	.12	<i>p</i> < .001	-.01	<i>p</i> = n.s.
3. Importance of having a job making lots of money	3.34 (.75)	3.43 (.77)	3.43 (.77)	.04	<i>p</i> = .002	.08	<i>p</i> < .001
<b>Positive self-views</b>							
1. Self-satisfaction	5.33 (1.52)	5.41 (1.54)	5.52 (1.52)	.05	<i>p</i> = .001	.07	<i>p</i> < .001
2. More intelligent than others	4.90 (1.10)	4.97 (1.19)	5.02 (1.19)	.05	<i>p</i> < .001	.04	<i>p</i> < .001
3. Better school ability than others	4.84 (1.13)	4.91 (1.20)	4.93 (1.20)	.06	<i>p</i> < .001	.02	<i>p</i> = .02

NOTE: *d* = difference in standard deviations (difference in means divided by pooled SD)

Table 2

*Correlations Between National Economic Indicators and Values, Behaviors, and Self-assessments of U.S. High School Seniors, 1976-2010*

Constructs and Variables	Median income (adjusted for inflation)	Employment rate (100 - unemployment)
<b>Concern For Others (Collectivism)</b>		
1. Important to correct inequalities	-.46**	-.24
2. Job worthwhile to society	-.69***	-.55**
3. Eat differently to help starving people	-.80***	-.34*
4. Contribute to an international relief fund	-.71***	-.47***
5. Think about social problems	-.77***	-.33†
<b>Environmentalism (Collectivism)</b>		
1. Public and government environmental actions	-.66***	-.16
2. Personal environmental actions	-.94***	-.54**
3. Saving energy	-.82***	-.51**
4. Use of bike or mass transit	-.65***	-.34*
<b>Materialism</b>		
1. Importance of owning expensive items	.55**	.38*
2. Important to have lots of money	.07	.04
3. Importance of having a job making lots of money	.01	-.08
<b>Positive self-views (Individualism)</b>		
1. Self-satisfaction	.01	-.18
2. More intelligent than others	.69***	.43***
3. Better school ability than others	.69***	.41*

Note. † $p < .10$ , \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

## Figure Captions

*Figure 1.* Z-score adjusted national statistics on median income (adjusted for inflation) and employment rate. Higher z-scores indicate better economic conditions.

*Figure 2.* Concern for others.

*Figure 3.* Environmentalism.

*Figure 4.* Materialism.

*Figure 5.* Positive self-views.









