The expanding class divide in happiness in the United States, 1972-2016

Jean M. Twenge

San Diego State University

A. Bell Cooper

Lynn University

Author note: Address correspondence to Jean M. Twenge, Department of Psychology, San Diego State University, 5500 Campanile Drive, San Diego, CA 92182-4611; or by electronic mail to jtwenge@mail.sdsu.edu.

Abstract

Is there a growing class divide in happiness? Among U.S. adults ages 30 and over in the nationally representative General Social Survey (n = 44,198), the positive correlation between socioeconomic status (SES, including income, education, and occupational prestige) and happiness grew steadily stronger between the 1970s and the 2010s. Associations between income and happiness were linear, with no tapering off at higher levels of income. Between 1972 and 2016, the happiness of high-SES White adults was fairly stable, while the happiness of low-SES White adults steadily declined. Among Black adults, the happiness of low-SES adults was fairly stable, while the happiness of high-SES adults increased. Thus, the happiness advantage favoring high-SES adults has expanded over the decades. Age-period-cohort analyses based on hierarchical linear modeling demonstrate that this effect is primarily caused by time period rather than birth cohort or age.

The expanding class divide in happiness in the United States, 1972-2016

After the 2016 U.S. Presidential election, much attention was devoted to the idea that there was a growing class divide in the country. Americans lower in socioeconomic status (SES) – especially those without college degrees -- were increasingly unhappy, the narrative went, while higher-SES individuals ("elites") were enjoying more prosperity and happiness (Galston & Hendrickson, 2016; Illing, 2016; McGill, 2016).

This idea is supported by several observations. Income inequality has risen, with high-income individuals gaining more resources while lower- and middle-income individuals found their incomes shrinking (Michel, Bivens, Gould, & Shiefholz, 2012), a pattern associated with lower happiness (Oishi & Kesebir, 2015). More jobs require a four-year college degree, with the wages of high school graduates stagnating (Bernstein, 2016; Pew Research Center, 2014). In addition, behavioral differences between higher-income, college-educated individuals and those with less income and education have increased. For example, while there were once few class differences in marriage rates or religious service attendance, lower-income individuals are now less likely to marry (Lundberg & Pollak, 2015; Wilcox, Wolfinger, & Stokes, 2015) or attend religious services (Twenge et al., 2016; Wilcox, Cherlin, Uecker, & Messel, 2012), two behaviors linked to greater happiness (Childs, 2010; Grover & Helliwell, 2019; Lee & Bulanda, 2005). Thus, SES may be more related to happiness now for several reasons, including the greater salience of SES in an age of income inequality and growing behavioral differences based on SES.

Another line of research, on physical health, also suggests the possibility of a growing class divide, particularly among White Americans. Case and Deaton (2015) found that the mortality rate among White Americans, especially those without four-year college degrees,

increased after 2000. Given the links between mental and physical health (e.g., Lyubomirsky et al., 2005), it follows that the malaise among this group may extend to lower happiness. This study also suggests that the reasons behind a class divide may differ by race, as the mortality rate only increased among Whites. This trend may partially be the result of improving SES for Blacks; for example, Black Americans' educational attainment has increased considerably over the last few decades (Bureau of Labor Statistics, 2019), suggesting race may be an important moderator of the class divide.

However, the possibility of a growing class divide in happiness in the U.S. has not, to our knowledge, been empirically tested. Thus, our goal in this paper is to examine whether the relationship between SES and general happiness has changed over the decades, drawing from a large, nationally representative sample of U.S. adults conducted since 1972.

This question emerges from the broader context of research on the determinants of happiness, in particular associations with SES. In other words, do money and prestige buy happiness? Many research studies have asked this question over the years, with widely varying answers. Some studies have concluded that income and other SES indicators make little difference for happiness (Diener, Ng, Harter, & Arora, 2010; Lykken & Tellegen, 1996; Stewart-Brown et al., 2015), while others find that income up to a certain threshold (about $75,000 to $100,000 a year) matters most for happiness, with little benefit beyond the saturation point (Jebb et al., 2018; Kahenman & Deaton, 2010).

In Study 1, we examine associations between SES and happiness and determine whether they have changed in the years between 1972 and 2016. In Study 2, we examine change over time in happiness 1972-2016 within SES and racial groups, also using a hierarchical linear

modeling technique to separate the effects of age, time period, and cohort (Yang & Land, 2006, 2013).

Study 1

In Study 1, we examined the association between happiness and SES and whether it has changed over the years. We draw from the General Social Survey (GSS), a nationally representative sample of Americans over 18 collected between 1972 and 2016. The GSS includes a measure of general happiness as well as measures of income, education, and occupational prestige, three key elements of SES. We also examined whether these effects held when the correlations were controlled for religious service attendance and marital status, two factors that have diverged by social class in the last few decades. These latter analyses may identify possible causes for trends over time. If, for example, the correlation with year is reduced or eliminated when marital status is controlled, the growing class divide in marriage may be partially behind the change over time.

Method

Participants

The GSS data and codebooks are publicly available on the GSS website (Smith et al., 2015). As suggested by the GSS administrators, we weighted the analyses by the weight variable WTSSALL and excluded the Black oversamples of 1982 and 1987 to make the sample nationally representative of individuals rather than households and to correct for other sampling biases. We restricted our analyses to adults age 30 and over to focus on adults who are more likely to have finished their education and are more likely to be economically independent of their parents, n = 44,198.

Measures

For household income, we relied on the GSS variable ConInc, which reports household income for all years of the survey 1972-2016 in constant year-2000 dollars. Following the recommendation of Kahneman et al. (2010), we also report a natural log transform (ln) of income, following the idea that the percentage change in income matters more than the absolute change (for example, that a $100 raise has more significance at the lower end of income than at the higher end; thus, happiness and well-being may be more influenced by percentage change than absolute change).

The GSS includes two measures of education: Highest educational degree earned (less than high school, high school, junior college, bachelor's degree, and graduate degree) and highest year of school completed (range: 0 to 20).

For occupational prestige, we used the occupational prestige classification of jobs in the GSS based on the 2010 Census; range = 16 to 80 (Hout, Smith, & Marsden, 2012).

The GSS asks an item on general happiness: "Taken all together, how would you say things are these days—would you say that you are very happy, pretty happy, or not too happy?" with the response choices coded 1, 2, or 3. We coded the variable so higher numbers indicated more happiness.

In some analyses, we included demographic controls; these were sex (male and female), age (in years), and race (Black, White, and other; coded for regressions with dummy variables for Black and other). We also examined religious service attendance ["How often do you attend religious services?" (never, less than once a year, about once a year, about once or twice a year, several times a year, about once a month, 2-3 times a month, nearly every week, and every week] as well as marital status (married, widowed, divorced, separated, never married; we combined the last 4 categories into not married to create a dichotomous variable).

Data analysis plan

To examine associations between SES indicators and happiness, we categorized the income variables and occupational prestige variable into quintiles. Degree earned was already measured using 5 categories: Less than high school, high school, junior college, bachelor, and graduate. (We were not able to examine years of schooling using quintiles as the distribution was uneven). For income, we also examined deciles.

To examine trends in the correlations between the SES indicators and happiness, we performed regressions with year as the independent variable and the correlation between SES indicators and happiness as the dependent variable, weighted by the sample size for each year. We also performed these analyses for White respondents only (to eliminate possible confounding between the racial composition of the population and year), controlling for demographic factors, controlling for religious service attendance, and controlling for marital status.

Results

American adults higher in income, education, and occupational prestige were happier than those lower in in SES (see Figures 1 and 2). The effect size difference between the lowest and highest quintiles was $d = .59$ for income, $d = .29$ for highest educational degree, and $d = .27$ for occupational prestige (see Table 1; results were very similar for log-transformed income). Twenty-four percent of adults in the lowest quintile of income described themselves as "very happy," compared to 44% of those in the top quintile; thus, those at the top of the income scale were 83% more likely to be very happy than those at the bottom. There was not a tapering off at the top levels of income; those in the top (5^{th}) quintile were 13% more likely to be very happy than those in the next-to-top (4^{th}) quintile (16% more likely when income was log-transformed; for means, $d = .12$ for income and $d = .14$ for log-transformed income).

The linear pattern persisted when income was split into deciles. Twenty-one percent of those in the lowest decile described themselves as "very happy," compared to 45% of those in the top decile; thus, those at the top of the income scale were more than twice as likely to be very happy than those at the bottom (for means comparing the bottom and top decile, $d = .71$). Even with deciles, there was not a tapering of happiness at the top: Adults in the top decile of household income ($108,410 and up) were significantly happier than those in the 9th decile ($77,233-108,150), $t(7653) = 2.21$, $p = .027$, $d = .05$. Those in the 10th (top) decile were 5% more likely to be very happy than those in the 9th decile. Thus, among U.S. adults over age 30, money, education, and prestige are associated with more happiness, with no tapering off at higher levels of income as found in some previous studies (Jebb et al., 2018; Kahneman et al., 2010).

We confirmed the linear pattern using regression. When linear and quadratic variables for the SES indicators were entered into a regression equation along with controls for age, sex, and race to predict happiness, linear effects were consistently larger than quadratic effects. For example, for income, Beta = .27, $p < .001$ for linear, and Beta = -.13, $p < .001$ for quadratic; for log-transformed income, Beta = .22 $p < .001$ for linear and Beta = .04 $p < .001$ for quadratic; for years of education, Beta = .09, $p > .001$ for linear, and Beta = .01 $p = ns$ for quadratic; for degrees earned, Beta = .10, $p < .001$ for linear, and Beta = -.03, $p < .001$ for quadratic; for occupational prestige, Beta = .10, $p < .001$, and Beta = -.02, $p < .01$ for quadratic.

Next, we examined whether SES and happiness were more (or less) strongly correlated during more recent years. We found that the linear correlation between SES and happiness grew in strength over the years (see Figure 3). Ranging from $r = .05$ to $r = .15$ in 1972-74, the correlation between happiness and income, education, and occupational prestige was higher in

2014-16 (ranging from $r = .12$ to $r = .26$). For example, in 1972-74, those in the 5th quintile of income were $d = .42$ higher in happiness than the 1st quintile, but by 2014-16 they were $d = .70$ higher in happiness. The increase over the years was primarily linear, with little evidence of quadratic patterns (see Supplemental Table 1).

Thus, income, educational attainment, and occupational prestige were more strongly associated with happiness in recent years compared to past decades. The trends were similar when examining Whites only, suggesting confounding by changes in racial composition were not playing a part. The trends were also similar when controlling for religious service attendance, suggesting the growing class divide in religious commitment did not play a strong role. However, the trend was mitigated somewhat when marital status (married vs. not) was controlled, though was still significant in most analyses (see Table 2). This suggests that the growing gap in marriage by social class may play a role in the stronger association between SES and happiness in recent years.

Study 2

If SES indicators are increasingly related to happiness (as we found in Study 1), time trends in happiness may differ based on SES group and racial group. In other words, which class and racial groups have decreased in happiness, which have increased, and which have stayed the same? In other words, is SES more strongly related to happiness because high-SES Americans are happier, or because low-SES Americans are less happy? Examining the data in this way may help address why the link between SES and happiness increased over time. A previous study found declines in happiness among U.S. adults (Twenge et al., 2015) but did not examine SES as a moderator.

Thus, in Study 2 we examined change over time in happiness among adults grouped by income, education, and occupational prestige. Given that race and SES are confounded and may vary separately over time, we performed analyses separately by race. To determine whether trends are caused by age, cohort, or period, we employed the hierarchical linear modeling technique known as age-period-cohort (APC) analysis (Yang & Land, 2006, 2013). Age-period-cohort (APC) analysis, which is based on hierarchical linear modeling, allows us to disentangle the effects of each of the three factors on happiness. Yang and Land (2006; 2013) demonstrate the application of APC on repeated cross-sectional data sets similar to the GSS and delineate the three factors as follows: *Age* represents the variation associated with age group due to factors that affect all individuals at certain ages, such as physiological or developmental changes. *Period* represents the variation across time periods that all age groups experience simultaneously, such as those due to social or cultural environments. *Cohort* represents the variation associated with individuals who are born in the same time period, such as generational differences. APC analysis is more suitable than typical regression analysis because it accounts for violation of the assumption of independence-of-errors in repeated cross-sectional data sets.

Method

Participants

We used the same GSS sample of adults ages 30 and over as in Study 1.

Measures

We used the same GSS items as Study 1, splitting each SES indicator into two groups. For income, log-transformed income, and occupational prestige, we used the median of the sample to examine those below and above the median. For degree earned, we divided those who had a 4-year college degree (bachelor's) to those who did not, a common dividing point (Case &

Deaton, 2015). For highest year of school completed, we used the approximate median: completing high school (12 years or less) versus going beyond high school (13 years or more).

Data analysis plan

Given the possibility of trends over time being confounded by changes in the racial composition of the population and the possibility of differing trends by race suggested by previous research (Case & Deaton, 2015; Twenge et al., 2015), we analyzed trends separately by race (Whites and Blacks; there was not sufficient *n* within cells to examine the third category of "other" race). First, we examined mean happiness within SES groups over time, grouping years into five-year blocks as in previous research (Twenge et al., 2015), but using two-year groups in the 2010s to avoid examining 2016 by itself. We report the *d* between the first group of years and the last group of years, as well as the means and SDs across the year groups. Using figures, we also display the data by individual years for Whites; for Blacks the *n*'s were too low (in some cases < 10) to display reliable data within individual years and SES groups.

Second, we examined the linear relationship between mean happiness and year within groups via correlations, both at the individual level and at the group level using the mean for each year. Third, we examined the percentage within each group who described themselves as "very happy" over time.

Fourth, to separate the influences of age, cohort, and period on happiness within SES groups, we performed APC analyses for Whites (as *n*'s within cells were again too low for Blacks). We grand mean centered age before estimating a model predicting happiness. We estimated a model each for linear, quadratic, and cubic effects of age. We performed chi-square tests to compare nested models and chose the best fitting model in terms of incremental explanatory power and parsimony. The cubic model for age was the best fitting model (null –

linear comparison: χ^2=2.542, p = .111; linear – quadratic comparison: χ^2=.410, p = .522; quadratic – cubic comparison: χ^2=34.011, p < .001).

Results

The happiness of low-SES White American adults declined (*d*'s = -.22 to -.20) between the 1970s and the mid-2010s, while the happiness of higher-SES White adults was stable or declined less steeply (*d*'s = -.03 to -.10; see Table 3 and Figures 4-6). Group-level correlations between mean happiness and year were significant for White low-SES adults across all SES indicators, and rarely significant for White high-SES adults. Black low-SES adults instead showed relative stability in happiness over the years, and Black high-SES adults showed increases in happiness over the years in most cases (see Table 3). Thus, among both Blacks and Whites, the happiness advantage of high-SES individuals increased over time.

The percentage of White low-SES adults describing themselves as "very happy" declined steadily over time, while the percentage of White high-SES adults who said they were "very happy" stayed steady or declined less (see Table 4). For example, 28% fewer White adults without a college education were "very happy" in 2014-16 compared to 1972-74, but the same percentage of adults with a college education were "very happy" in both time periods. Twenty-nine percent fewer White adults below the median income were "very happy" in 2014-16 compared to 1972-74, compared to the 9% fewer adults above the median income who were "very happy." For Blacks, low-SES adults showed small declines in happiness, while high-SES adults showed large increases in most cases. For example, 12% fewer Black adults without a college education were "very happy" in 1972-74 compared to 2014-16, but 63% more Black adults with a college education were "very happy" in 2014-16 compared to 1972-74.

This results in a larger "happiness gap" by SES in recent years compared to previous eras (see Tables 3-4 and Figures 4-6). For example, in 1972-74, White adults with a college degree were only d = .03 happier than those without, but by 2014-16 that had increased to d = .32. The happiness gap by income for Whites was d = .26 in 1972-74 and d = .47 in the mid-2010s; by occupational prestige, it was d = .12 in 1972-74 and d = .27 by 2014-16. In 1972-74, White adults with and without a college degree were equally likely to say that they were "very happy," but by 2014-16, those with a college degree were 38% more likely to be very happy. Those with incomes above the median were 25% more likely to be very happy in 1972-74, which rose to 67% more likely by 2014-16. Among Blacks, the pattern was more mixed. The happiness gap by income increased from d = .13 to d = .46, but there was not a growing happiness gap by college degree, schooling, or occupational prestige, although low n's make these findings difficult to interpret.

To separate the influences of age, cohort, and period on happiness within SES groups, we performed APC analyses among White Americans (there was not sufficient n within cells to perform these analyses for Black Americans). These models showed more variance in happiness due to time period (SD = .030) than birth cohort (SD = .012). Thus, the decline in mean happiness among White low-SES adults was primarily driven by time period rather than cohort effects (for example, see Figure 7 for degree attainment). With age and cohort controlled, mean happiness among White adults over 30 without a college degree declined d = -.23 between 1972-74 and 2014-16, compared to d = -.01 for those with a college degree. For those with 12 or fewer years of education, d = -.32, while for those with more education, d = -.16. For low occupational prestige, d = -.21; for high occupational prestige, d = .00. For income, those below the median

declined d = -.21, compared to d = -.02 for those with income above the median. Thus, APC analyses also document a growing class divide in happiness, primarily due to time period.

General Discussion

Between the early 1970s and the mid-2010s, socioeconomic status (SES) indicators such as income, education, and occupational prestige became stronger predictors of happiness among American adults over age 30. The happiness of low-SES White adults declined between 1972 and 2016 while the happiness of high-SES White adults stayed steady or declined less steeply; the happiness of low-SES Black adults generally stayed steady, while the happiness of high-SES Black adults generally increased. The result is a growing class divide in happiness, with the happiness advantage of high-SES individuals growing steadily larger over the decades.

Contrary to some previous studies, we did not find SES to be a weak or non-existent correlate of happiness (Diener, Ng, Harter, & Arora, 2010; Lykken & Tellegen, 1996; Stewart-Brown et al., 2015), especially in recent years. Instead, we found robust associations, particularly for income (with d = .59 between the 1st and 5th quintiles of income, and correlations as high as r = .26). The median effect for actual observed effect sizes in psychology is r = .19, and r = .29 is in the top 25% (Gignac & Szodorai, 2016); thus, the association between income and happiness is moderate to large. The difference in happiness between the lowest and highest deciles of income is also large (d = .71). Nor did we find a satiation point or a tapering off at higher levels of income as some have found using other datasets (Jebb et al., 2018; Kahneman et al., 2010); in the GSS sample, associations between income and happiness were steady and linear. Thus, at least in this sample, money and prestige do appear to buy happiness, and more is continuously better, especially in recent years.

This study was limited by several factors. First, the measure of happiness was a single item rather than a more psychometrically vetted multiple-item scale of well-being or mental health symptoms. Although we were able to use four measures of SES, all were self-reported rather than objectively verified. In some cases, *n*'s were too low for Black Americans to perform certain analyses. Our analysis was restricted to the U.S.; thus, we do not know if these findings extend to other nations (such as the UK) also rumored to have a growing class divide in well-being and other factors.

Finally, we were unable to definitively determine the causes of the growing class divide in happiness. However, the analyses controlling for marital status suggest the trend may be partially rooted in the growing class divide in rates of marriage. Although we did not directly examine marriage as a determinant of happiness, the reduced correlations with year when marital status was controlled are consistent with the general conclusion that marriage exerts a positive influence on happiness (Grover & Helliwell, 2019). However, controlling for religious service attendance did not substantially alter the correlations with year, suggesting that the increasing class divide in religious commitment is not the cause of the growing class divide in happiness. Another possibility is that SES has become more salient as income inequality has grown; we were not able to address this possibility with this dataset, but this may be an avenue for future research. We found that the reasons for the growing class divide differed by race, with declines in happiness among low-SES Whites but little change for low-SES Blacks, and a rise in happiness among high-SES Blacks but little change for high-SES Whites. Although we can only speculate, it is possible that the increase in Black Americans' educational attainment may play a role; increases in high school graduation rates likely lifted the prospects of non-college-educated Blacks, and increases in college graduation rates may have created a larger critical mass of

college-educated Blacks, which may have had benefits for happiness. Declines in explicitly stated racial prejudice may also play a role (Marsden, 2012), especially if these declines primarily benefited high-SES Blacks.

The idea of a growing class divide was a common point of discussion after the 2016 U.S. Presidential election (e.g., Galston & Hendrickson, 2016), and will likely continue to occupy the national conversation for years to come. If Americans without a college degree – who remain the majority of the population – are increasingly unhappy, politicians who promise change may be more attractive, and there will be growing class polarization in views of political candidates. Growing dissatisfaction among those with less income may also make political systems such as socialism and government policies such as universal basic income more popular. Although happiness among Black Americans instead increased over time, the increases were limited to high-SES individuals, which may also prompt discussion of a class divides among Black Americans.

In a follow-up study to their findings on the growing mortality gap by social class in the U.S. (Case & Deaton, 2015), Case and Deaton (2017) concluded that much of the excess mortality among less educated White Americans was due to "deaths of despair" from drugs, alcohol, and suicide. The current results suggest that the growing class divide extends to broader measures of well-being such as general happiness. Between the 1970s and the 2010s, many of the "have nots" of the economy became increasingly unhappy, with potential downstream consequences for mental health, physical health, and the political climate of the nation.

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Table 1: Mean happiness of adults ages 30 and over, by quintiles of SES indicators

	1st	2nd	3rd	4th	5th	*d*, 4th vs. 5th quintile	*d*, 1st vs. 5th quintile
Income	2.02 (.67)	2.17 (.64)	2.25 (.61)	2.32 (.60)	2.39 (.58)	.12***	.59***
Income (log-transformed)	2.02 (.68)	2.17 (.64)	2.25 (.61)	2.31 (.60)	2.39 (.58)	.14***	.59***
Highest degree	2.15 (.69)	2.23 (.63)	2.23 (.62)	2.31 (.60)	2.34 (.60)	.05*	.29***
Occupational prestige	2.15 (.66)	2.18 (.65)	2.24 (.63)	2.26 (.62)	2.32 (.60)	.11***	.27***

NOTES: 1. * $p < .05$, ** $p < .01$, *** $p < .001$; *p*-value associated with *t*-test comparing 2 groups 2. For income and occupational prestige, divisions are by quintiles (0-20%, 21%-59%, 60%-79%, 80% to 99%); for highest degree categories are less than high school, high school, junior college, 4-year college degree, and graduate or professional degree.

Table 2: Change over time (*r* with year, weighted by sample size) in correlations between SES indicators and happiness, bivariate and with controls, 1972-2016

	All adults 30+	White adults 30+	All adults 30+ controlled for sex, age, and race
Income			
Bivariate	.74***	.71***	.67***
Controlled for marital status	.45*	.50**	.30
Controlled for religious service attendance	.72***	.72***	.67***
Income log-transformed			
Bivariate	.76***	.77***	.61***
Controlled for marital status	.52**	.60***	.35
Controlled for religious service attendance	.76***	.76***	.63***
Highest educational degree attained			
Bivariate	.63***	.72***	.57**
Controlled for marital status	.42*	.61***	.32
Controlled for religious service attendance	.65***	.71***	.62***
Years of school completed			
Bivariate	.55**	.62***	.51**
Controlled for marital status	.45*	.54**	.31
Controlled for religious service attendance	.59**	.63***	.56**
Occupational prestige			
Bivariate	.66***	.66***	.64***
Controlled for marital status	.52**	.51**	.46**
Controlled for religious service attendance	.67***	.66***	.69***

NOTE: * $p < .05$, ** $p < .01$, *** $p < .001$

Table 3: Mean happiness of Americans ages 30 and over by year, SES group, and race, 1972-2016

Race and SES group	*n*	72-74	75-79	80-84	85-89	90-94	95-99	00-04	05-09	10-12	14-16	*r* with year (indiv)	*r* with year (group)	*d* 72-74 vs. 14-16
Whites														
Income														
Below median	15346	2.19 (.67)	2.21 (.64)	2.18 (.66)	2.19 (.63)	2.16 (.62)	2.16 (.63)	2.15 (.62)	2.05 (.64)	2.05 (.66)	2.05 (.65)	-.08***	-.73***	-.21***
Above median	17231	2.36 (.63)	2.37 (.59)	2.37 (.60)	2.35 (.58)	2.34 (.59)	2.35 (.57)	2.38 (.57)	2.34 (.59)	2.30 (.60)	2.34 (.59)	-.02*	-.29	-.03
Income log-transformed														
Below median	15419	2.19 (.67)	2.21 (.64)	2.18 (.66)	2.19 (.63)	2.16 (.63)	2.16 (.63)	2.15 (.62)	2.05 (.64)	2.06 (.65)	2.05 (.65)	-.08***	-.79***	-.21***
Above median	16944	2.36 (.63)	2.37 (.59)	2.37 (.60)	2.35 (.58)	2.34 (.59)	2.35 (.57)	2.38 (.57)	2.34 (.59)	2.31 (.60)	2.34 (.59)	-.02*	-.29	-.03
Degree earned														
Without 4-year college degree	27,668	2.28 (.66)	2.27 (.64)	2.25 (.65)	2.26 (.62)	2.23 (.61)	2.23 (.62)	2.24 (.62)	2.20 (.64)	2.15 (.66)	2.14 (.65)	-.06***	-.72***	-.21***
With 4-year college degree	8,538	2.30 (.64)	2.35 (.59)	2.38 (.59)	2.30 (.58)	2.35 (.61)	2.36 (.59)	2.34 (59)	2.34 (.59)	2.31 (.60)	2.34 (.58)	.00	.04	-.07
Highest year of school completed														
Below median	19,469	2.26 (.66)	2.27 (.64)	2.25 (.66)	2.25 (.63)	2.22 (.61)	2.22 (.61)	2.22 (.62)	2.15 (.65)	2.13 (.67)	2.11 (.67)	-.07***	-.73***	-.22***
Above median	16,806	2.33 (.65)	2.33 (.59)	2.32 (.60)	2.29 (.59)	2.30 (.61)	2.30 (.59)	2.32 (.60)	2.30 (.61)	2.26 (.61)	2.27 (.61)	-.03**	-.48**	-.10*
Occupational prestige														
Below median	18,536	2.25 (.66)	2.25 (.65)	2.24 (.65)	2.24 (.63)	2.21 (.62)	2.21 (.64)	2.22 (.62)	2.17 (.65)	2.13 (.67)	2.11 (.65)	-.06***	-.68***	-.20***
Above median	17,739	2.33 (.65)	2.33 (.60)	2.31 (.62)	2.30 (.59)	2.30 (.60)	2.31 (.59)	2.33 (.60)	2.30 (.60)	2.27 (.61)	2.28 (.61)	-.02*	-.31	-.08
Blacks														
Income														
Below median	3476	1.96 (.72)	2.02 (.67)	2.00 (.67)	1.97 (.65)	1.99 (.62)	2.03 (.66)	2.05 (.68)	1.99 (.73)	1.93 (.66)	1.97 (.69)	.00	.08	.01
Above median	1506	2.10 (.68)	2.20 (.65)	2.06 (.62)	2.16 (.59)	2.17 (.61)	2.16 (.64)	2.26 (.61)	2.27 (.62)	2.15 (.64)	2.28 (.62)	.08***	.43*	.28*
Income log-transformed														
Below median	3493	1.96 (.72)	2.02 (.67)	2.00 (.67)	1.97 (.65)	1.99 (.62)	2.03 (.66)	2.05 (.68)	1.99 (.73)	1.95 (.66)	1.97 (.69)	.00	-.04	.01
Above median	1476	2.05 (.68)	2.20 (.65)	2.06 (.62)	2.16 (.59)	2.17 (.61)	2.16 (.64)	2.26 (.61)	2.27 (.62)	2.14 (.66)	2.28 (.62)	.08***	.43*	.36**
Degree earned														
Without 4-year college degree	4945	2.00 (.71)	2.03 (.68)	2.00 (.67)	2.02 (.65)	2.07 (.64)	2.07 (.65)	2.10 (.66)	2.07 (.71)	2.00 (.68)	2.05 (.71)	.03	.20	.07
With 4-year college degree	737	1.76 (.73)	2.30 (.53)	2.23 (.56)	2.14 (.53)	2.11 (.50)	2.10 (.61)	2.25 (.67)	2.19 (.69)	2.08 (.60)	2.16 (.59)	.01	.06	.66**
Highest year of school completed														
Below median	3536	2.00 (.72)	2.04 (.69)	1.98 (.68)	2.02 (.68)	2.08 (.67)	2.06 (.65)	2.03 (.68)	2.10 (.72)	2.00 (.70)	2.02 (.73)	.02	.13	.03
Above median	2175	1.89 (.69)	2.10 (.61)	2.15 (.60)	2.03 (.55)	2.06 (.56)	2.09 (.63)	2.24 (.64)	2.07 (.69)	2.02 (.63)	2.12 (.64)	.04	.16	.35**
Occupational prestige														
Below median	3650	1.99 (.70)	2.05 (.69)	2.02 (.65)	2.04 (.66)	2.06 (.64)	2.05 (.66)	2.07 (.67)	2.02 (.72)	1.98 (.67)	2.03 (.73)	.01	.03	.06
Above median	2062	1.97 (.77)	2.05 (.62)	2.04 (.68)	2.00 (.61)	2.08 (.62)	2.11 (.61)	2.20 (.66)	2.17 (,68)	2.05 (.66)	2.13 (.62)	.06**	.41*	.24*

NOTES: 1. * $p < .05$, ** $p < .01$, *** $p < .001$. 2. For *d*'s, *p*-value associated with *t*-test comparing 1972-74 and 2014-16.

Table 4: Percent "very happy" among Americans ages 30 and over by year, SES group, and race, 1972-2016

Race and SES group	*n*	72-74	75-79	80-84	85-89	90-94	95-99	00-04	05-09	10-12	14-16	% change 1972-74 vs. 2014-16
White												
Income												
Below median	15346	34%	34%	32%	31%	29%	28%	23%	24%	24%	24%	-29%
Above median	17231	44%	43%	43%	40%	40%	40%	42%	40%	38%	40%	-9%
Income log transformed												
Below median	15,419	34%	34%	32%	31%	29%	29%	28%	23%	25%	24%	-29%
Above median	16,944	44%	43%	43%	40%	40%	40%	42%	40%	38%	40%	-9%
Degree earned												
Without 4-year college degree	27,668	40%	38%	37%	35%	33%	33%	34%	32%	30%	29%	-28%
With 4-year college degree	8,538	40%	41%	44%	36%	42%	41%	42%	40%	39%	40%	0%
Highest year of school completed												
Below median	19,469	38%	38%	37%	35%	32%	34%	32%	30%	30%	28%	-26%
Above median	16,806	43%	40%	39%	36%	38%	37%	39%	38%	35%	35%	-19%
Occupational prestige												
Below median	18,536	37%	37%	37%	35%	32%	33%	32%	31%	30%	28%	-24%
Above median	17,739	43%	40%	40%	37%	38%	39%	40%	38%	36%	37%	-16%
Black												
Income												
Below median	3,476	24%	24%	23%	19%	19%	23%	26%	26%	18%	22%	-8%
Above median	1,506	28%	33%	22%	27%	29%	29%	35%	37%	29%	37%	+32%
Income log transformed												
Below median	3,493	24%	24%	23%	19%	19%	23%	26%	26%	19%	22%	-8%
Above median	1,476	26%	33%	22%	27%	29%	29%	35%	37%	29%	37%	+42%
Degree earned												
Without 4-year college degree	4,945	25%	25%	22%	22%	24%	25%	28%	29%	23%	28%	-12%
With 4-year college degree	737	16%	33%	29%	22%	19%	24%	38%	35%	22%	26%	+63%
Highest year of school completed												
Below median	3,536	26%	25%	22%	25%	27%	24%	25%	31%	25%	28%	-8%
Above median	2,175	18%	24%	26%	17%	19%	25%	35%	28%	21%	27%	+50%
Occupational prestige												
Below median	3,650	24%	26%	22%	24%	24%	24%	26%	27%	21%	28%	+17%
Above median	2,062	28%	22%	25%	19%	23%	25%	34%	33%	24%	26%	-7%

NOTE: % change is calculated using the formula % 1972-74 - % 2014-16 / % 1972-74, to capture the percentage change in the number of people identifying as "very happy."

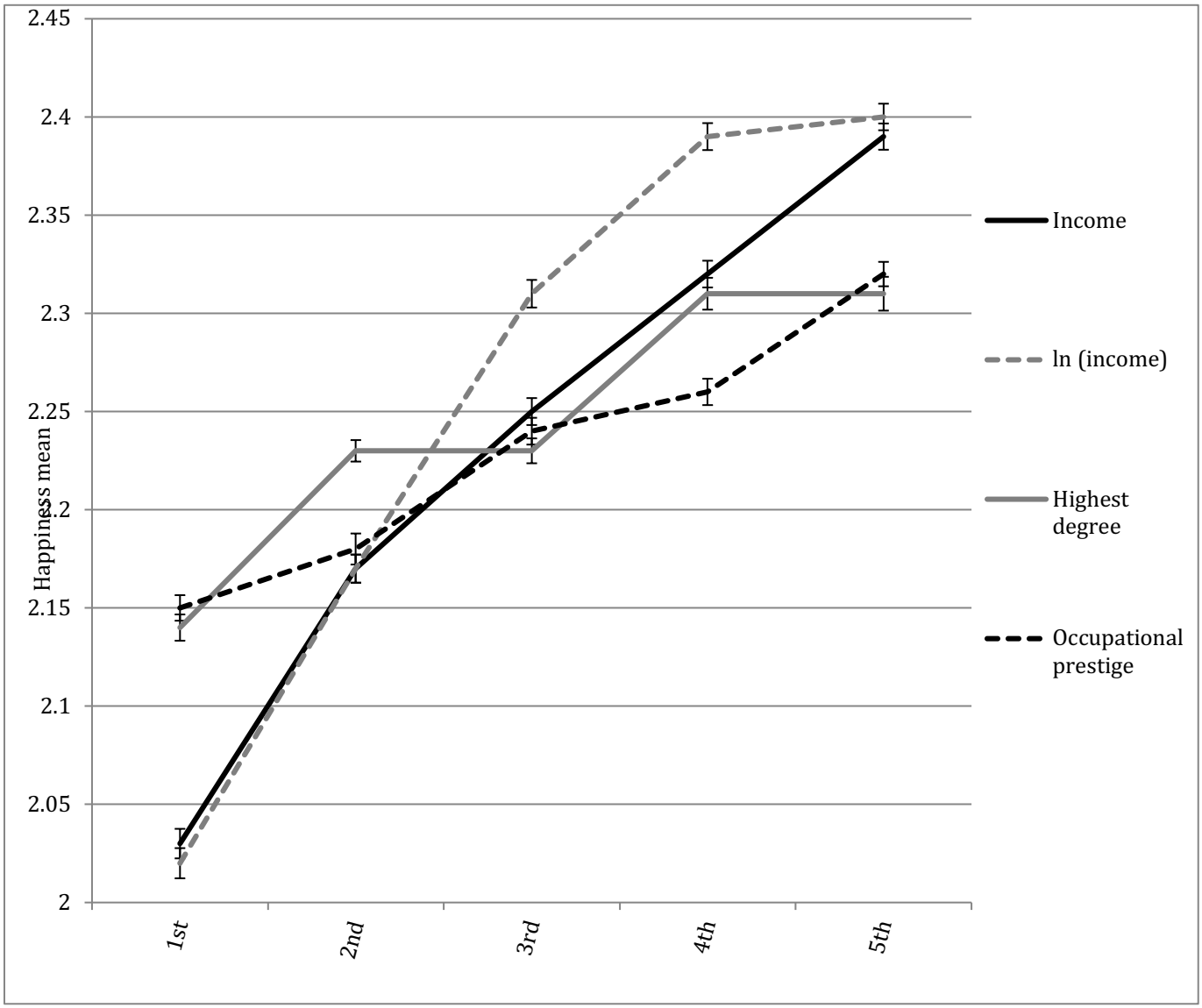


Figure 1: Happiness by SES quintile based on income, log-transformed income, highest educational degree, and occupational prestige, American adults ages 30 and over, 1972-2016

NOTE: For income, log-transformed income, and occupational prestige, divisions are by quintiles (0-20%, 21%-40%,41%-60%, 61%-80%, 80% to 99%); for highest degree, categories are less than high school, high school, junior college, 4-year college degree, and graduate or professional degree. Error bars are ± 1 SE.

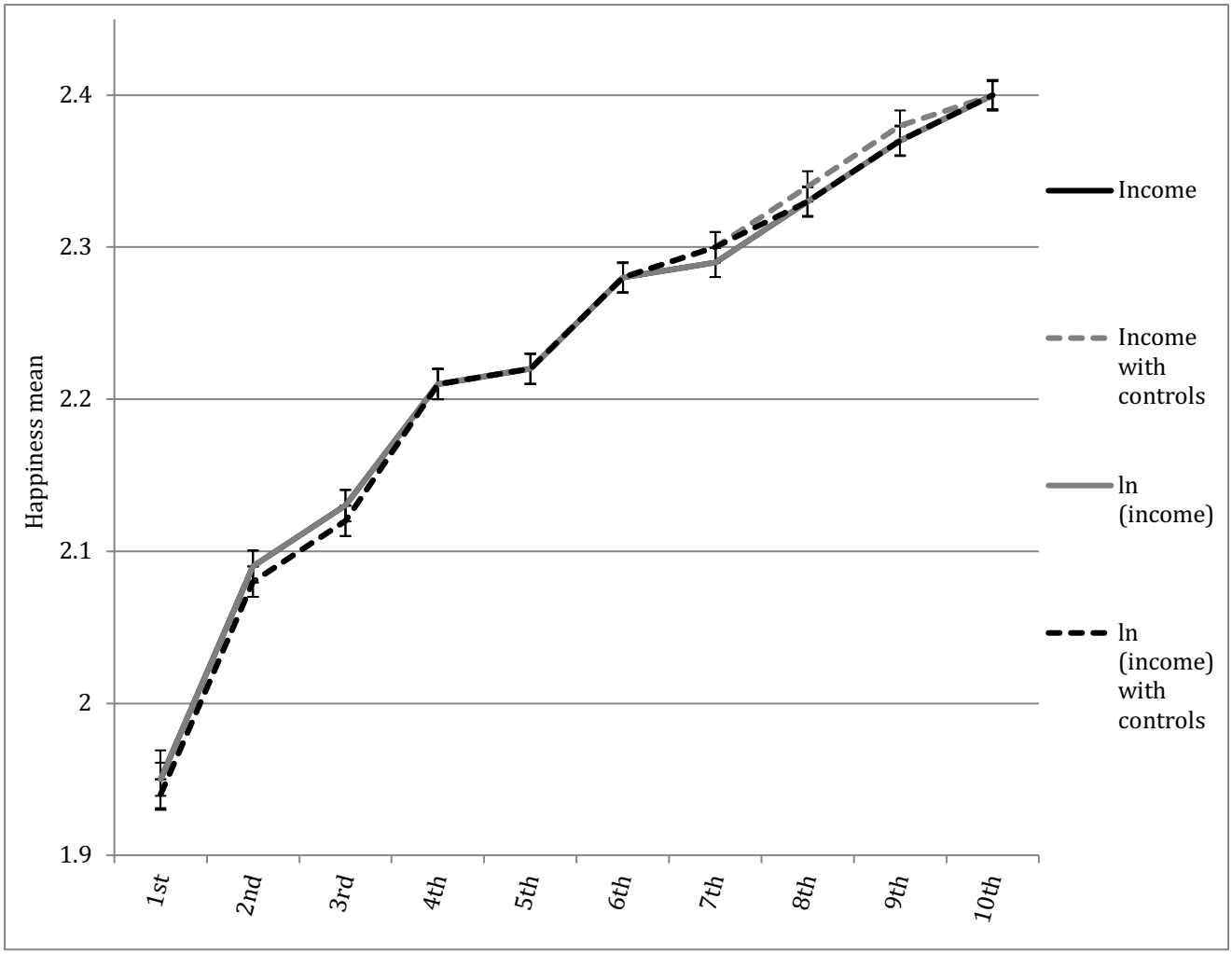


Figure 2: Happiness by income decile and log-transformed income decile, without and with controls, American adults ages 30 and over, 1972-2016

NOTE: Error bars are ± 1 SE. Controls are for sex, age, and race.

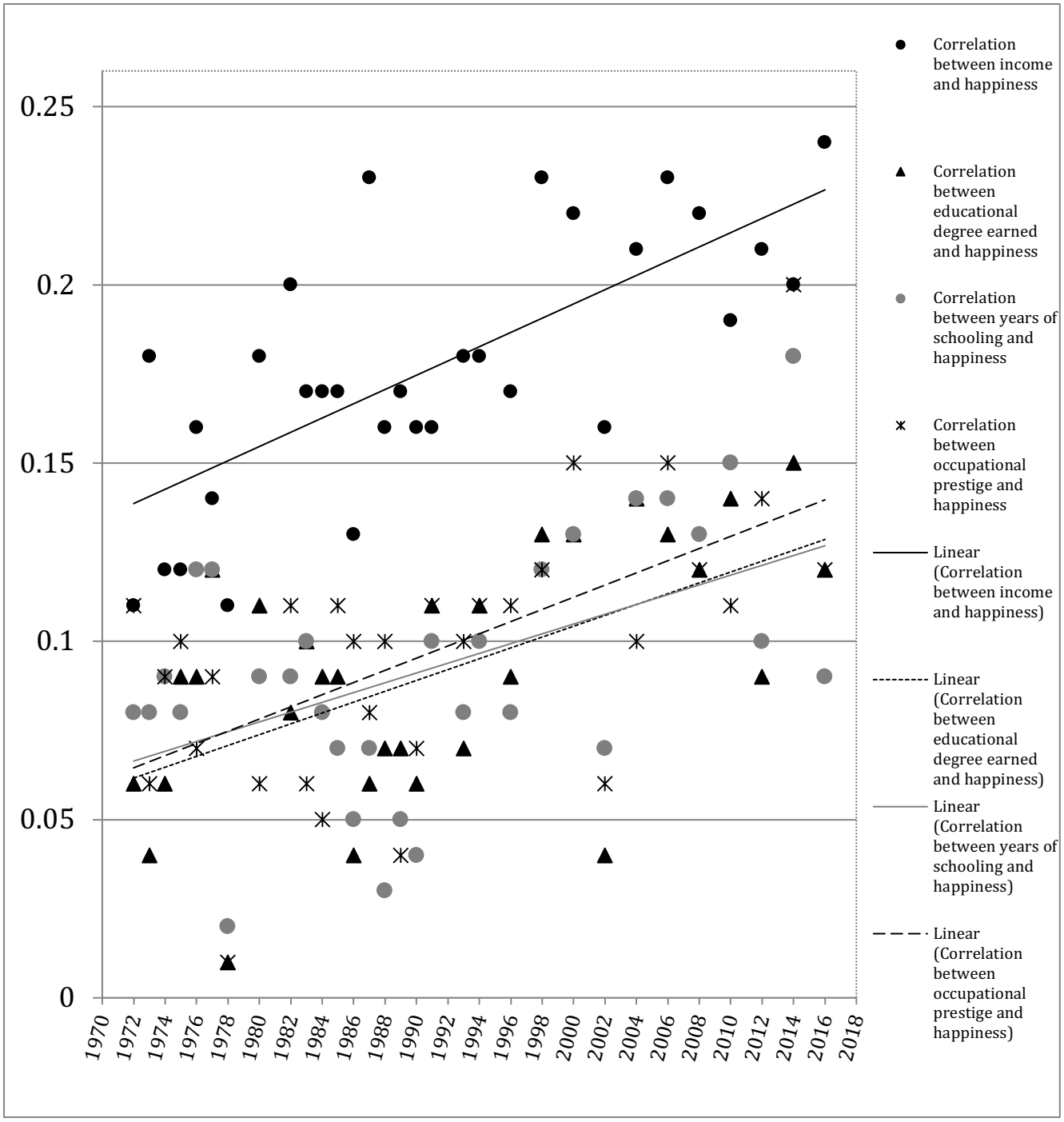


Figure 3. Correlation between SES indicators (income, degree earned, years of schooling, and occupational prestige) and happiness by year, American adults ages 30 and over, 1972-2016

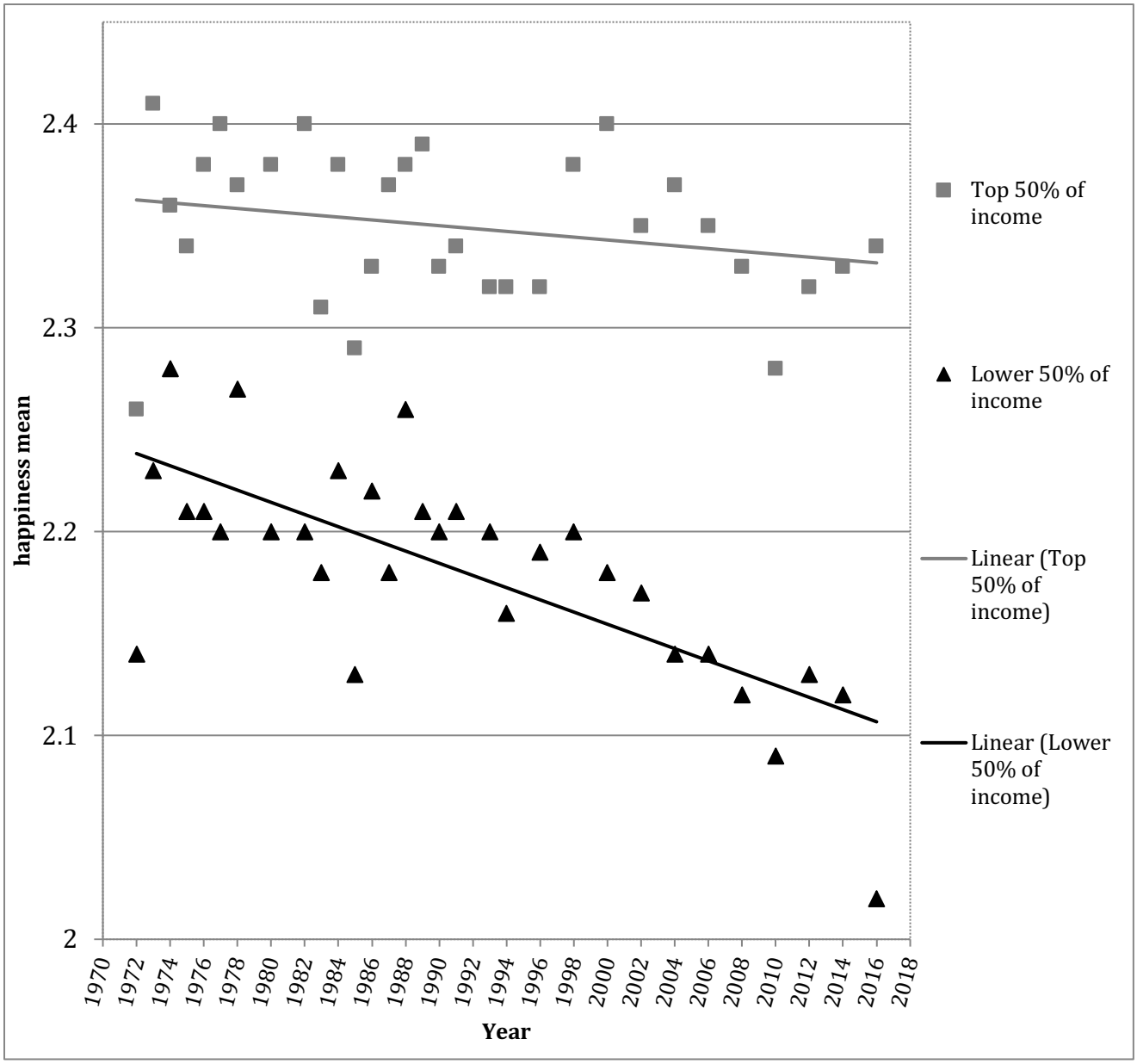


Figure 4: Happiness of White American adults ages 30 and over below and above the median of income, 1972-2016

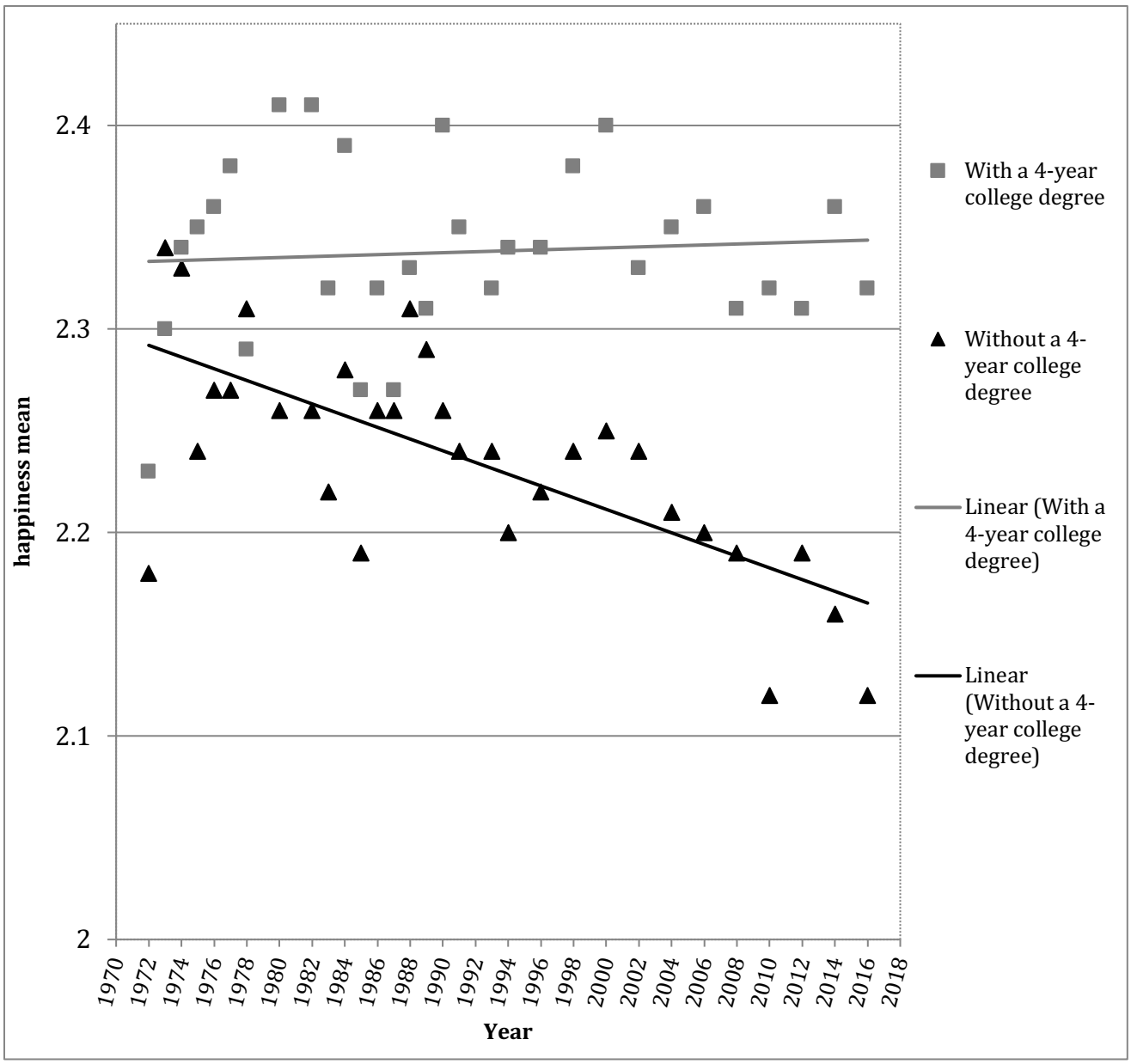


Figure 5: Happiness of White American adults ages 30 and over with and without a 4-year college degree, 1972-2016

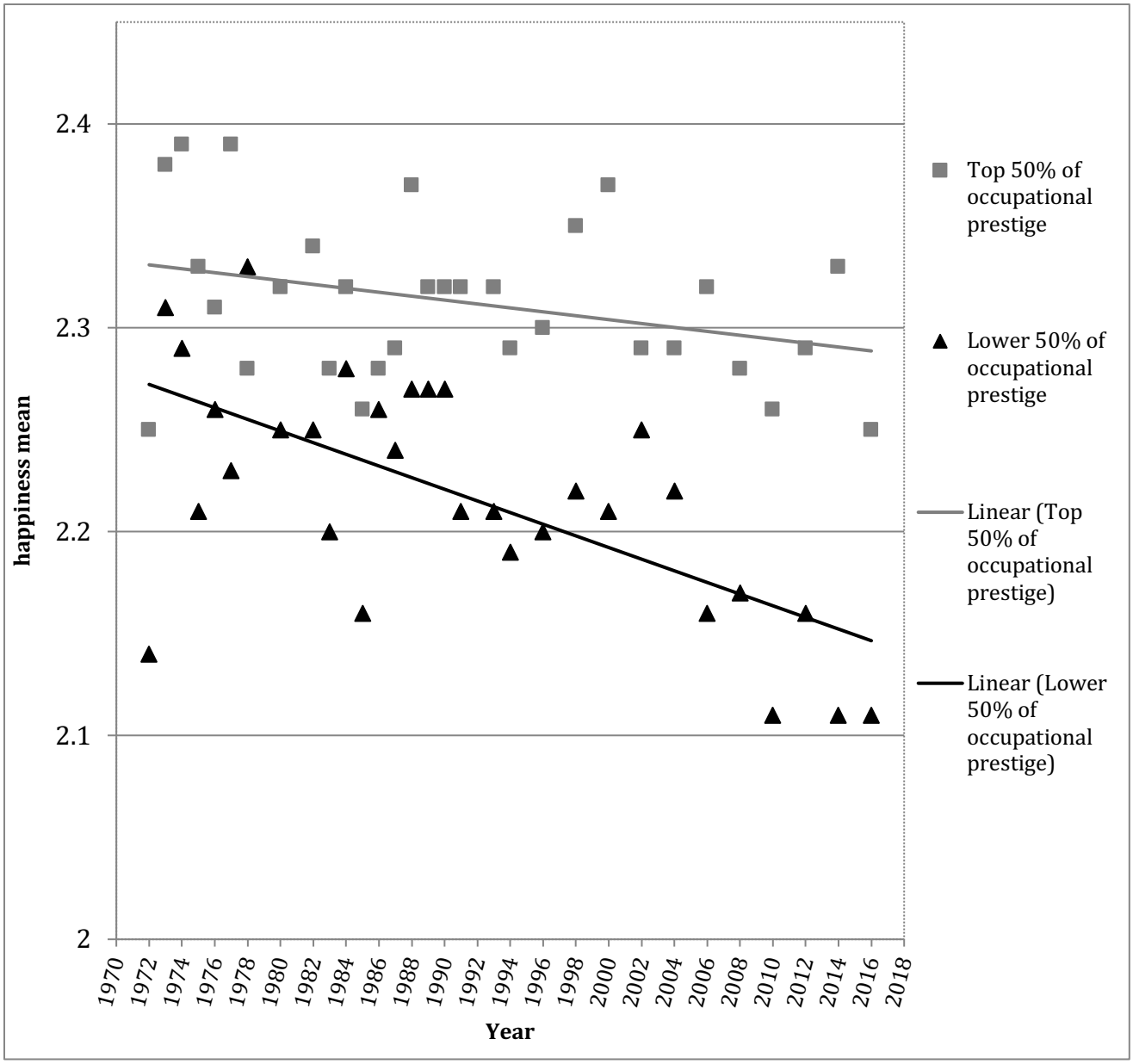
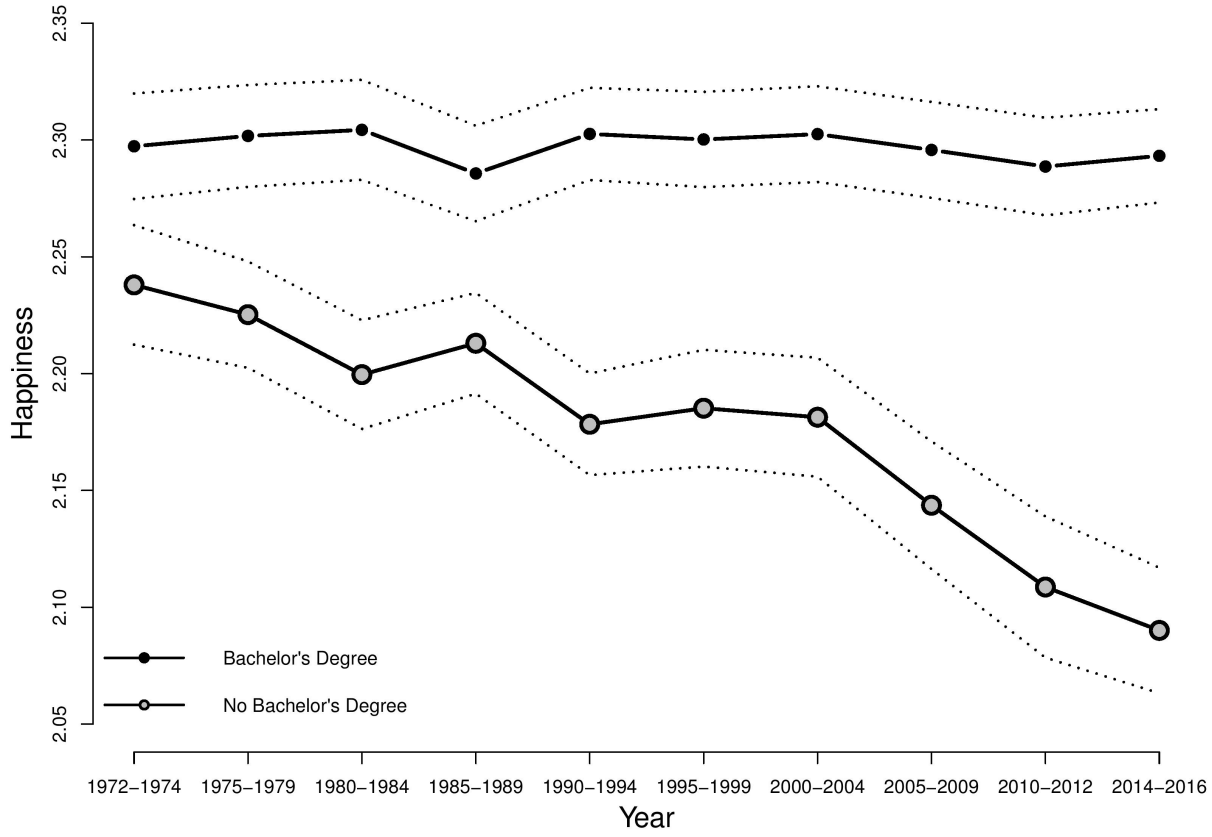
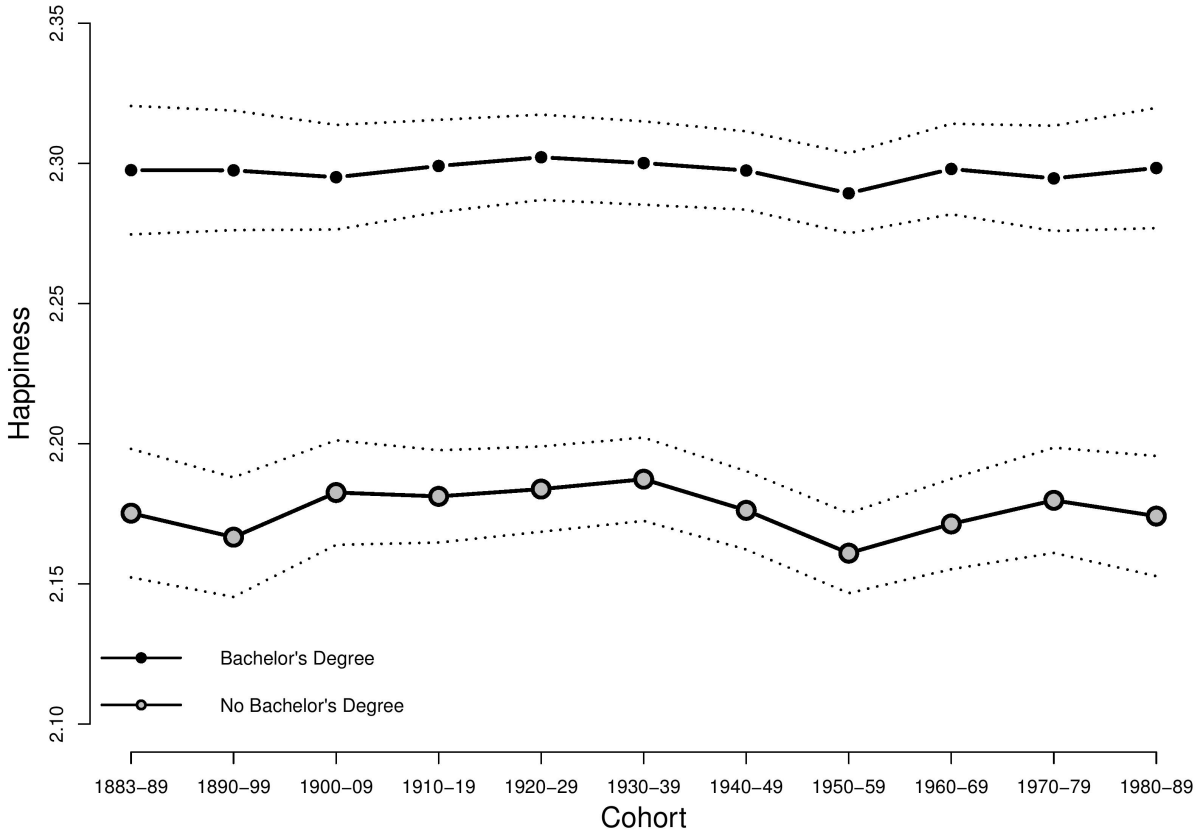


Figure 6: Happiness of White American adults ages 30 and over below and above the median of occupational prestige, 1972-2016


Happiness
2.35
2.30
2.25
2.20
2.15
2.10
2.05
Bachelor's Degree
No Bachelor's Degree
1972–1974
1975–1979
1980–1984
1985–1989
1990–1994
1995–1999
2000–2004
2005–2009
2010–2012
2014–2016
Year

A)



B)

Figure 7: A) Time period effects controlled for age and cohort and B) cohort effects controlled for age and time period, in the happiness of White American adults ages 30 and over with and without a 4-year college degree, in APC analyses, 1972-2016