

TRENDS IN YOUNG ADULT HAPPINESS: 1990 TO 2022

Nicholas H. Wolfinger



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ABOUT THE AUTHOR

Nicholas H. Wolfinger is professor of family and consumer studies and adjunct professor of sociology at the University of Utah.

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Introduction

Maybe you're feeling just a little less happy than you used to be? Not a huge change, not sad or anything, but less joyful compared to the old days?

This is the story of happiness for young adults over the past few decades. In 1990, the Berlin Wall had just fallen, a well-liked moderate, Republican George H.W. Bush, occupied the White House, and the economy had been expanding for nearly a decade. That year, 36% of Americans aged 18-35 reported being very happy.¹ It would never happen again. Later that year the economy slipped into recession, and by 1991 only 28% of young adults said they were very happy. For almost three decades happiness hovered around 30%. Following the COVID pandemic, happiness fell to an all-time low of 15% in 2021. By the next year, it had rebounded to 24%, a big improvement but still a few points off the long-term trend.



Once-in-a-century pandemics aside, happiness has been pretty stable and rebounded quickly after shocks like the 2008 financial crisis. Its stability is remarkable given how many things in America have changed in the past three decades. Few people had cell phones in 1990, nobody surfed the web, and the *Simpsons* was in its inaugural season (it's now in its 35th season—and counting). Many fewer Americans had graduated from college; many more were raised in two-parent families and attended religious services regularly. Of course, all this only scratches the surface, but it provides some indication that America, not to mention the world, is a much different place than it was in 1990.

This research brief explores the changing predictors of happiness for young adults. How has America changed so much, while at the same time happiness has changed so little, at least until the pandemic? My analysis is based on over three decades of data from the General Social Survey (GSS), an annual or biennial survey that polls Americans on a wide range of attributes, behaviors, and beliefs. Every year Americans are asked how happy they are on a scale of 1 to 3:

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?

- 1. Very happy
- 2. Pretty happy
- 3. Not too happy

Young adults in America, all told, are a happy bunch. Since 1990, 89% report being either very happy or pretty happy. Among that 89%, "pretty happy" outweighs "very happy" by about two to one. The results that follow explore what distinguishes the very happy among us from everyone else. Psychologists wouldn't be wrong to criticize the crudity of the GSS happiness measure, but they can't match its broad advantages: nationally representative data, with the same questions repeated over time, coupled with a very extensive battery of covariates. I'll consider how the following attributes affect happiness: age, race, education, sex, marital status, family structure of origin, attendance at religious services, income, age, employment, and whether respondents have children. My analyses omit the 2021 data, because they depart so meaningfully from the longstanding trend.² Pandemics are the exception in modern America, not the rule.

Let's start with how much America and its young adults have changed between the early 1990s and 2022 according to the GSS. The major trends shown in Table 1 can be summarized in a single sentence. Compared to 1990-1991, young adults are less white, more educated, less likely to be married, less religious, more likely to come from a single-parent family, less likely to be employed, and a bit wealthier. (They're also a bit younger and a bit more likely to be female, but these changes are nugatory.) All of the changes shown in Table 1 can be measured in single digits, more or less, with one big exception: the percentage of young adults who are married has fallen from 45% to 28%.

	<u>1990-1991</u>	<u>2022</u>
White	78%	61%
Black	11	15
Latino	8	13
Other	3	10
Didn't finish high school	20%	13%
High school graduate	31	30
Some college	30	32
Four-year college graduate	12	17
Graduate degree	7	8
Is respondent married?		
No	55%	72%
Yes	45	28
Regularly attend religious services		
No	75%	85%
Yes	25	15
Respondent from two-parent family?		
No	30%	40%
Yes	70	60
Family income in 2023 dollars		
\$0-32,999	26%	27%
\$33,000-\$65,999	28	30
\$66,000-\$99,000	16	14
\$100,000-\$150,000	17	14
\$150,000+	13	15
Employment		
Working full-time	55%	48%
Working part-time	27	27
Not working	18	25
Is respondent a parent?		
No	55%	65%
Yes	45	35
Sex		
Women	52%	54%
Men	48	46

Table 1. The Changing Attributes of Young Adults, 1990-91 vs. 2022

The positive correlation between marriage and happiness is a well-established social science finding, although it should be noted that some studies in the past decade have questioned the causality: rather than marriage making people happy, perhaps happy people

are more likely to get married and stay married.³ The scholarship in this area is ongoing, but for now it seems safe to say that the relationship between happiness and marriage can be attributed to both causality and selectivity: marriage makes people happier, and happier people are more likely to get married in the first place. It's also well documented that more money makes people happier, although there's a ceiling on its benefit—having a stratospheric income doesn't make you stratospherically happy.⁴ Regular attendance at religious services also seems to help.⁵ On the flip side, people who weren't brought up by two married parents have worse mental health on average.⁶ So, too, do folks who are unemployed.⁷ And traditionally parents are less happy than non-parents, although this may be changing in recent years.⁸

All the changes between the early 1990s and 2022, especially in marriage rates, raise an intriguing question. If married people are much happier and people are less likely to be married, then why has happiness not fallen faster and farther? I'll start off with a broad examination of the predictors of young adult happiness since 1990, based on logistic regression models predicting which respondents identified as very happy.⁹ I present the results as predicted probabilities, shown in Table 2 on the next page (*the regression table itself appears in Appendix A*).

Table 2. Who's Happy? Ages 18-35, 1990-2022

NAD 10-	000/
White	28%
Black	24%
Latino	30%
Other	23%
Didn't finish high school	22%
High school graduate	24%
Some college	28%
Four-year college graduate	33%
Graduate degree	31%
Is respondent married?	
No	21%
Yes	40%
Regularly attend religious service	es
No	25%
Yes	34%
Respondent from two-parent famil	lv2
No	25%
Yes	28%
Family income in 2023 dollars	
\$0-32,999	27%
\$33,000-\$65,999	27 %
\$66,000-\$99,000	25%
\$100,000-\$150,000	20%
\$150,000+	32%
Freedown and	
Employment	0.004
Working full-time	28%
Working part-time	27%
Not working	25%
Is respondent a parent?	
No	27%
Yes	27%
Sex	
Women	28%
Men	26%

By far the largest predictor of happiness is marriage. Marriage almost doubles the chances of identifying oneself as "very happy," from 21% to 40%. Even under the most conservative interpretation of this result—that it entirely reflects sample selection, not causation—it

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cannot be disputed that marriage is a strong marker of happiness in contemporary America.

The next two strongest predictors of happiness are education and attendance at religious services. Survey respondents who didn't complete high school, or finished but didn't go to college, are less happy than people who spent at least some time in college. Graduates make more money and are more likely to have fulfilling jobs. College may also impart problem-solving skills and other social capital that somehow redound to personal satisfaction.

Attending religious services several or more times a month increases the odds of being very happy by 9%. In *Soul Mates: Religion, Sex, Love, and Marriage Among African Americans and Latinos*, Brad Wilcox and I explored why many people benefit from regular attendance at a church, synagogue, or mosque. The reasons are both spiritual and temporal. Faith often gives people purpose and a framework for coping with life's tribulations. Regular attendance also embeds people in a community of like-minded peers. Wilcox and I showed that being part of a network of like-minded believers can explain up to one half of the association between religious participation and marital happiness.

All of the other predictors in the model offer modest and largely predictable effects on happiness. Higher incomes increase the odds of happiness, although the difference between a family income of under \$33,000 and a family income of over \$50,000 (all in 2023 dollars) is only 5 percentage points. Money, it seems, only buys happiness for a few people. Whites and, especially, Latinos are a bit happier than African Americans and members of other population groups (predominantly Asian Americans and American Indians). People from two-parent families are slightly happier, consistent with a long line of research on the consequences of family structure. And predictably, people who are unemployed are less happy than workers. So, too, are men, compared to women. Perhaps this reflects burgeoning challenges that have affected boys and men in schooling, employment, and myriad other life domains.¹⁰

Curiously parents are no less happy than non-parents, a result that's contrary to an extensive body of research. I'll hint at why this might be the case in the next section.

So, What's Changed?

I've documented only a modest dip in happiness over the past three decades—at least until COVID—but large shifts in many of the social and demographic characteristics generally associated with happiness. This seeming contradiction can be explored by evaluating how the relationship between these social and demographic attributes and happiness has itself changed over time.

It's relatively straightforward to determine if the consequences of, say, marriage on young adult's happiness has grown stronger or weaker over time. The results of such an inquiry

are modest.¹¹ Earlier I showed that the Big Three predictors of happiness are marriage, education, and regular attendance at religious services. None of these three relationships have gotten stronger or weaker since the early 1990s. The only groups of Americans to have grown more likely to be very happy since 1990 are African Americans and Latinos. Indeed, the change for Latinos is remarkable. As shown in Figure 2, the percentage identifying as very happy jumped from 22% in 1990 to 39% in 2023, far and above higher than any other population group. For Blacks, the percentages increased from 20% to 28%. In 1990-1991, white Americans were the most likely to be very happy. By 2023, Blacks had matched them, and Latinos had pulled ahead. More happiness is certainly a welcome development, as it suggests less discrimination and weaker social boundaries. On the other hand, there were larger racial/ethnic disparities in happiness in 2023 than in 1990-1991 as Latino happiness soared.



The other question we can ask about the changing determinants of happiness is what matters more, changing attributes or changing returns to these attributes. By decomposing the differences from the early 1990s and 2022, we can answer this key question about happiness: have Americans remained relatively happy because of changes in their fundamental social and demographic attributes, or in spite of these changes? Decomposition is a statistical technique that breaks down change into two components: a) change attributable to changing individual characteristics; and b) change in the returns to a given level of individual characteristics.¹²

A familiar example is useful. A bit of social science that's worked its way into the popular imagination is the college wage premium: the bump in wages conferred by a college degree. According to a brief from the San Francisco Fed, in 2022 college graduates had

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75% higher wages than high school grads.¹³ The comparable figure in 2000 was only 68%. In the intervening 22 years, both the number of college graduates and the economic returns to a college degree rose. Each of these developments had implications for American's incomes.

I'll ask these same questions about the predictors of happiness. Marriage rates have fallen, for instance, yet rates of happiness have largely held fast. Perhaps marriage is now less related to happiness than in the past? Decomposition may answer this question.

Regression decomposition calls for a strong note of caution. First is its requirement of two discrete groups (in this case, 1990-1991 vs. 2022). This means discarding the decades of data collected between those two endpoints. The choice of these years is somewhat arbitrary compared to analysis that, for instance, decomposes sexual or racial/ethnic differences between two groups. Second, and more important, decomposition is not *well identified*.

I'll take a shot at explaining what that means in the next three paragraphs. Feel free to skip over them if just want to get straight to the results. Just keep in mind that the statistical basis for decomposition is weaker than for the other statistics presented here, so you should take these results with a grain of sand.

A statistical model is identified if it has one unique mathematical solution. Consider the most simple statistical model, the mean or average. If I ask you to compute the average of 10 and 20, the only answer is 15. Full stop. Model identification becomes an issue in statistics when the model is complicated, and there's either too much or too little information available to solve the model.

The fundamental identification problem with decomposition is that it can employ either of the two groups in the analysis to serve as the basis for the decomposition. There is no reason, substantive or statistical, to choose one or the other. What's more, decomposing on the basis of each of the two groups will produce different results—similar, to be sure, but different. The same holds true for the significance tests performed on the decomposition estimates. What's more, the same identification problem affects categorical variables like race/ethnicity and marital status, the variables of greatest interest in this particular decomposition analysis. Choosing a different reference category (e.g., Latinos vs. members of other population groups rather than whites vs. members of other population groups) produces different results. Again, there is no statistical rationale for choosing one group rather than another.

What can be done about these identification problems? To facilitate presentation of the results, I'll take the average of the two separate decompositions, based on the 1990-1991 and 2022 data (the separate tables appear in the appendices). This will provide a single set of numbers to ponder. Readers should keep in mind that these aren't exactly the right numbers, only an approximation of the trends in the data.

Similarly, we shouldn't pay too much attention to the tests of statistical significance. As for the categorical variables: there is a mathematical solution, but it produces results that are more difficult to interpret. This solution is to adopt effects coding for categorical data, rather than the more familiar dummy coding (and its omitted categories). ¹⁴ Results based on effects coding also appear in the appendices. For the statistically curious they provide a way to check my work.

Decomposition produces multiple statistics for each independent variable in my regression model, representing changing effects (that is, changes in the returns to education and other variables) and changing levels on independent variables. Each of these statistics is accompanied by a test of statistical significance, along with the percentage contribution to happiness. The decomposition also includes totals, which show how much the (non)trend in happiness is attributable overall to changes in the levels of independent variables, as opposed to changes in the effect of each independent variable.

The totals, shown at the bottom of Table 3 (*see next page*), make clear that the trend in happiness is primarily attributed to changing returns to the independent variables (67%), rather than changes in the levels (e.g., declining marriage rates) of the independent variables. For what it's worth, this figure is statistically significant. As Table 1 makes clear, all the predictors of happiness, like marriage, attendance at religious services, and so on changed appreciably between 1990-1991 and 2022, yet happiness declined only modestly. And now we know why: collectively all these predictors of happiness mattered less in 2022 than they did 30 years prior.

	Change in attributes			Change i	ze	
Didn't finish high school						
High school graduate	-0.0235		2%	0.0007		-14%
Some college	-0.0049		-3%	0.0000		1%
Four-year college graduate	-0.0176		-7%	-0.0003		-2%
Graduate degree	-0.0043		-1%	0.0000		-1%
White						
Black	-0.0170		2%	-0.0013		-12%
Latino	-0.0571	(**,**)	-3%	-0.0048	(**,**)	-27%
Other	0.0010		-5%	0.0029		6%
Married	0.0859	(*,*)	34%	-0.0025		11%
Attends religious services regularly	0.0162	(+,*)	11%	0.0005		-2%
Two-parent family of origin	0.0627	*	7%	-0.0024		26%
\$0-32,999						
\$33,000-\$65,999	-0.0339		0%	0.0007		-17%
\$66,000-\$99,000	0.0215		1%	-0.0012		46%
\$100,000-\$150,000	-0.0173		-2%	0.0010		-7%
\$150,000+	-0.0008	+	-1%	0.0000		0%
Missing data	-0.0081		1%	-0.0012		-5%
Working full-time						
Working part-time	-0.0534		0%	0.0004		-29%
Not working	0.0035		-2%	0.0004		4%
Respondent is a parent	-0.0617		-1%	0.0037		-29%
Male	0.0754	*	0%	-0.0017		39%
Age	-0.5122		-3%	0.0087		-268%
OVERALL	0.1899	**	34%	-0.0041	(*,+)	67%

Table 3. Average Decomposition of the Difference Between Being "Very Happy" in 1990-1991 and2022 (1990-1991 basis)

What's more, all the independent variables together are indeed more important than any one of them individually. Only one of the percent differences in the "change in effect size" column is statistically significant, the percentage for Latinos (-27%; p < .01). In plain English, if Latinos from 1990-1991 entered a time machine and materialized in 2022, they'd be 27% less likely to be very happy than their modern peers. Yet the change in attributes percentage for Latinos is also negative and statistically significant: if the number of Latinos had stayed the same since 1990, they'd be 3% less happy.

Statistics like this could only coexist when the composition of the population is changing rapidly—which of course is the story of Latinos in the United States in recent decades. Since 1990 the number of American Latinos has almost tripled, growing from 22.4 million to 62.1 million in 2020.¹⁵ And while Mexico remains the ancestral home for the majority of Latinos, the number of Venezuelans and Central Americans has exploded while the proportion of Puerto Ricans is now half what it was in 1990. What's more, many Latino immigrants assimilate quickly, and social scientists have observed big differences between first-generation Latino immigrants and successive generations.¹⁶ Whatever the reason, Latino happiness has skyrocketed both in relative terms, and in comparison to Americans from other racial and ethnic groups.

Predictably, the falling marriage rate has had a big effect on happiness: if young adults in 2022 married at the same rate their parents did in 1990-1991, they'd be 34% more likely to say they were very happy. Conversely, the size of the marriage boost has increased less. Marriage produces a 11% bigger bump in happiness in 2022 than it did 30 years prior. This makes sense: as marriage rates declined, we'd expect the remaining marriages to be happier, as they're more selective of people enthusiastic about matrimony.

Two smaller effects of note in the decomposition analysis concern religious attendance and family structure. Table 1 shows that between 1990 and 2002, the number of people attending religious services weekly fell by 40%. According to Table 3, young adults in 2022 would have 11% higher odds of being very happy if they attended church, synagogue, or mosque at 1990-1991 rates. What didn't change is the relationship between attendance and happiness—attending a house of worship has the same positive consequences in 2022 as 30 years prior.

The effect for family structure is even smaller. Young Americans would have 7% higher odds of happiness in 2022 had their families of origin been intact at mildly higher 1990-1991 levels.

The final statistically significant dynamic in Table 3 concerns the changing sexual composition of the population of young adults in America (or perhaps the changing population willing to participate in the GSS). Table 1 shows that the number of women increased by two percentage points between 1990-1991 and 2022, while Table 2 shows that women are more likely to describe themselves as being very happy. It's therefore not

surprising that young adults in 2022 would be a bit less happy if the gender ratio hadn't changed over the years.

The foregoing findings—about marriage, religion, family structure, and the Latino population—all make sense given what we know about how the population of young adults has changed over the decades, but they don't speak to the decomposition's bottom line: since 1990-1991, happiness has declined predominantly—recall that 67%—because of changes to returns, rather than changes to composition. Why is this the case? Table 3 makes clear that it's not just a couple of different factors we can readily identify. Instead, it's a lot of different things that produce this 67%: observe how much larger the percentages are in the second column of percentages, corresponding to changing effect sizes, compared to those in the first column, reflecting compositional changes.

Or it's nothing, or at least nothing that can be captured by these data. Perhaps other factors are more responsible, namely the COVID hangover that drove happiness to its lowest-ever levels in 2021. And decomposing a logit doesn't provide insight into what percent of the decline in happiness can be captured with the independent variables analyzed here. Surely that percentage is small; in the social sciences, it almost always is.¹⁷ Keep in mind, too, that the change the decomposition attempts to explain is only about an 8 percentage-point dip in the percentage of people who think of themselves as very happy from 1990 to 2022.

America has changed a lot over the past three decades, but we remain a pretty happy people. Young adult happiness hasn't dipped a great deal despite demographic changes that in a vacuum would portend less happiness. And based on this track record, there's every reason to believe that happiness will rebound after its pandemic-induced slump.

An Unhappy Sidebar

This research brief has reflected the felicitous choice of focusing on the young adult Americans who think of themselves as very happy, but curious or morose readers might be wondering about the comparably small number of Americans who describe themselves as "not too happy."

Levels of unhappiness were at their lowest levels in the early 1990s, around the same time the largest number of Americans thought of themselves as very happy, as shown below in Sidebar 1. Unhappiness increased after trials like the great recession, but then reset to a baseline of around 10% up until COVID. In 2021, unhappiness spiked at 29% before returning to around 20% a year later. These fluctuations are mirror images of the trend in young adult happiness shown in Figure 1 above.



If unhappiness was nothing more than the statistical antipode of happiness, there wouldn't be much point to looking at it with the GSS data. And for the most part, this is true, as the Sidebar 2 table shows. Married people are less likely to say they're unhappy, just as they're more likely to label themselves as very happy. Ditto people who attend religious services, or those come from a two-parent family (though the latter difference is trivial).

Sidebar 2. Who's Not Very Happy? Ages ' 1990-2022	18-35,
White	9%
Black	15%
Latino	10%
Other	12%
Didn't finish high school	15%
High school graduate	11%
Some college	9%
Four-year college graduate	9%
Graduate degree	8%
Is respondent married?	
No	14%
Yes	6%
Regularly attend religious services	
No	11%
Yes	9%
Respondent from two-parent family?	
No	12%
Yes	10%
Family income in 2023 dollars	
\$0-32,999	13%
\$33,000-\$65,999	12%
\$66,000-\$99,000	9%
\$100,000-\$150,000	8%
\$150,000+	6%
Employment	
Working full-time	9%
Working part-time	10%
Not working	17%
Is respondent a parent?	
No	10%
Yes	10%
Sex	
Women	10%
Men	11%

But there are a couple of differences, and they both concern money. Unlike happiness, income has a monotonic relationship to unhappiness: the more money you make, the less likely you are to be unhappy. The unhappiness-income gap is larger than the happiness-income gap in relative terms: survey respondents with family incomes between zero and

\$33,000 dollars are more than twice as likely to be unhappy compared to their more fortunate peers with annual incomes of over \$150,000. Still, the absolute difference is small, because in the final analysis Americans remain a happy people. Only 13% of people with incomes below \$33,000, close to the federal poverty line for a family of four, say they're not too happy. The other difference concerns unemployment, which boosts the odds of being unhappy more than it reduces the odds of being very happy. This is hardly a surprise.

Appendix Tables

Appendix A. What Makes Adults Aged 18-35 Very Happy? Logistic Regression Results, 1990-2023.

Didn't finish high school High school graduate Some college Four-year college graduate Graduate degree	0.15 0.37 *** 0.59 *** 0.50 ***
White Black Latino Other	 -0.23 ** 0.10 -0.29 *
Married	0.92 ***
Attends religious services regularly	0.43 ***
Two-parent family of origin	0.16 **
Family income in 2023 dollars	
\$0-32,999 \$33,000-\$65,999 \$66,000-\$99,000 \$100,000-\$150,000 \$150,000+ Data missing	 -0.09 -0.04 0.04 0.23 * 0.13
Age	-0.01 +
Respondent is a parent	-0.02
Working full-time Working part-time Not working	-0.03 -0.13 +
Male	-0.15 **
Survey year	0.00
Constant Log likelihood N	-0.24 -7361.61 11,697

+p < .10 ; *p < .05 ; **p < .01 ; *** p < .001 (two-tailed tests)

Source: General Social Survey. Data are weighted.

Appendix B1. Decomposition of the Difference between Being "Very Happy" in 1990-1991 and 2022 (1990-19 basis).

	Change in attributes		Change in effect size	
Didn't finish high school High school graduate Some college Four-year college graduate Graduate degree	 -0.002 0.003 0.006 0.001	- 2% -3% -7% -1%	0.013 -0.001 0.001 0.001	 -15% 1% -2% -1%
White Black Latino Other	0.000 0.009 ** 0.000	- 0% -11% -1%	 0.009 0.018 ** -0.002	 -10% -21% 2%
Married	-0.025 *	29%	-0.012	14%
Attends religious services regular	-0.009 +	11%	0.002	-3%
Two-parent family of origin	-0.004	4%	-0.024	29%
\$0-32,999 \$33,000-\$65,999 \$66,000-\$99,000 \$100,000-\$150,000 \$150,000+ Missing data	 0.000 0.001 0.000 0.001 0.000	- 0% -1% 0% -1%	 0.015 -0.010 0.007 0.000 0.003	 -18% 11% -8% 0% -4%
Working full-time Working part-time Not working	0.000 0.001	- 0% -1%	 0.025 -0.003	 -29% 3%
Respondent is a parent	-0.006	7%	0.028	-33%
Male	0.003 *	-3%	-0.035	41%
Age	-0.003	3%	0.237	-279%
OVERALL	-0.023	28%	-0.060 *	72%
Constant			-0.335 +	393%

+p < .10; *p < .05; **p < .01

Appendix B2. Decomposition of the Difference between Being "Very Happy" in 1990-1991 and 2022 (2022 basis).

	Change in attributes		Change in effect size	
Didn't finish high school High school graduate Some college Four-year college graduate Graduate degree	 0.001 -0.003 * -0.005 -0.001 *	 1% -4% -6% -1%	-0.012 0.001 -0.002 -0.001	 -14% 1% -2% -1%
White Black Latino Other	0.004 0.004 -0.008	 5% 4% -9%	-0.011 -0.028 ** 0.008	 -13% -33% 9%
Married	0.032 ***	38%	0.007	8%
Attends religious services regula	0.009 *	10%	-0.001	-2%
Two-parent family of origin	0.008 *	10%	0.020	23%
\$0-32,999 \$33,000-\$65,999 \$66,000-\$99,000 \$100,000-\$150,000 \$150,000+ Missing data	0.000 0.001 -0.002 -0.001 + 0.003	 0% 1% -3% -1% 3%	-0.014 0.007 -0.005 0.000 -0.006	 -16% 81% -6% 0% -7%
Working full-time Working part-time Not working	0.000 -0.002	 0% -2%	-0.0239 0.0038	 -28% 4%
Respondent is a parent	-0.001	-1%	-0.0209	-25%
Male	-0.001	-1%	0.0313	37%
Age	-0.005	-6%	-0.2193	-257%
OVERALL	0.033 **	39%	0.052 +	61%
Constant			0.318 +	4%

Appendix C1. Normalized. Decomposition of the Difference between Being "Very Happy" in 1990-1991 and 2 (1990-1991 basis).

	Change in attributes		Change in effect size	
Didn't finish high school High school graduate Some college Four-year college graduate Graduate degree	0.0070 -0.0002 0.0004 0.0003 0.0004	-8% 0% 0% 0%	-0.0026 0.0091 -0.0051 -0.0001 0.0001	3% -11% 6% 0% 0%
White	0.0076	-9%	-0.0435	51%
Black	-0.0021	2%	0.0026	-3%
Latino	0.0068 **	-8%	0.0136 *	-16%
Other	-0.0030	3%	-0.0036 +	4%
Unmarried	-0.0125 *	15%	0.0073	-9%
Married	-0.0125 *	15%	-0.0060	7%
Doesn't attend services	-0.0046 +	5%	-0.0036	4%
Attends religious services regular	-0.0046 +	5%	0.0012	-1%
Not from a two-parent family	-0.0019	2%	0.0052	-6%
Two-parent family of origin	-0.0019	2%	-0.0122	14%
\$0-32,999	0.0002	0%	-0.0027	3%
\$33,000-\$65,999	-0.0003	0%	0.0122	-14%
\$66,000-\$99,000	0.0014	-2%	-0.0114	13%
\$100,000-\$150,000	0.0008	-1%	0.0054	-6%
\$150,000+	0.0005	-1%	-0.0017	2%
Missing data	-0.0009	1%	0.0021	-2%
Working full-time	0.0013	-2%	-0.0138	16%
Working part-time	0.0001	0%	0.0180	-21%
Not working	-0.0005	1%	-0.0075	9%
Age	-0.0028	3%	0.2380	-279%
Not a parent	-0.00294	3%	-0.0171	20%
Respondent is a parent	-0.00294	3%	0.0141	-17%
Male	0.0014 *	-2%	-0.0174	20%
Female	0.0014 *	-2%	0.0186	-22%
OVERALL	-0.02405	28%	-0.06111 *	72%
Constant	-0.26035			306%

+p < .10; *p < .05; **p < .01

Appendix C2. Normalized. Decomposition of the Difference between Being "Very Happy" in 1990-1991 and 2022 (2022 basis).

	Change in attributes		Change in effect size	
Didn't finish high school	-0.006 *	-7%	0.002	2%
High school graduate	0.000	0%	-0.008	-10%
Some college	-0.001	-1%	0.005	6%
Four-year college graduate	0.000	0%	0.000	0%
Graduate degree	0.000	-1%	0.000	0%
White	0.003	3%	0.033	38%
Black	0.003	4%	-0.003	-4%
Latino	0.003	3%	-0.021 *	-25%
Other	-0.009 +	-11%	0.013 +	16%
Unmarried	0.016 ***	19%	-0.009	-11%
Married	0.016 ***	19%	0.004	4%
Doesn't attend services	0.004 *	5%	0.004	5%
Attends religious services regular	0.004 *	5%	-0.001	-1%
Not from a two-parent family	0.004 *	5%	-0.007	0%
Two-parent family of origin	0.004 *	5%	0.010	0%
\$0-32,999	0.000	0%	0.002	3%
\$33,000-\$65,999	0.000	0%	-0.011	-13%
\$66,000-\$99,000	0.001	1%	0.009	10%
\$100,000-\$150,000	-0.002 +	-3%	-0.004	-5%
\$150,000+	-0.001 *	-1%	0.002	2%
Missing data	0.003	4%	-0.004	-4%
Working full-time	0.001	1%	0.011	13%
Working part-time	0.000 +	0%	-0.017	-20%
Not working	-0.003	-3%	0.010	11%
Age	-0.005	-6%	-0.219	-257%
Not a parent	-0.001	-1%	0.019	23%
Respondent is a parent	-0.001	-1%	-0.010	-12%
Male	0.000	0%	0.016	18%
Female	0.000	0%	-0.018	-22%
OVERALL	0.033 **	39%	0.052 +	61%
Constant			0.247	290%

+p < .10; *p < .05; **p < .01

¹ The General Social Survey has been fielded since 1972, so is starting this data analysis in 1990 consequential? To a certain extent: for the most part, happiness in the 1980s looked like happiness in the 1990s, hovering around 30%.

But here and there—like in 1990—there were echoes of a happier time. In the mid 1970s, despite inflation, oil shortages, and malaise, around 35% of the population routinely reported being very happy.

² The same argument could be made for not using the 2022 data, but doing so would make 2018 the most recent wave of data.

³ The canonical reference on marriage and happiness is Waite, Linda, and Maggie Gallagher. The case for marriage: Why married people are happier, healthier and better off financially. Crown, 2001. Studies questioning the causal effects of marriage include Beam, Christopher R., Diana Dinescu, Robert Emery, and Eric Turkheimer. "A twin study on perceived stress, depressive symptoms, and marriage." *Journal of health and social behavior* 58, no. 1 (2017): 37-53; Horn, Erin E., Yishan Xu, Christopher R. Beam, Eric Turkheimer, and Robert E. Emery. "Accounting for the physical and mental health benefits of entry into marriage: a genetically informed study of selection and causation." *Journal of Family Psychology* 27, no. 1 (2013): 30.

⁴ ONE RECENT PAPER SUGGESTS THAT MORE COMPLEX DYNAMICS LURK BENEATH THE SURFACE OF THE CORRELATION BETWEEN INCOME AND HAPPINESS. MATTHEW A. KILLINGSWORTH, DANIEL KAHNEMAN, AND BARBARA MELLERS. 2023. "INCOME AND EMOTIONAL WELL-BEING: A CONFLICT RESOLVED." PNAS, AVAILABLE AT HTTPS://WWW.PNAS.ORG/DOI/10.1073/PNAS.2208661120 (ACCESSED 10/13/2023).

⁵Wilcox, W. Bradford, and Nicholas Wolfinger. *Soul mates: Religion, sex, love, and marriage among African Americans and Latinos*. Oxford University Press, 2016.

⁶ Cherlin, Andrew J., P. Lindsay Chase-Lansdale, and Christine McRae. "Effects of parental divorce on mental health throughout the life course." *American Sociological Review* (1998): 239-249.

⁷ McGee Robin E. and Nancy J. Thompson. "Unemployment and Depression Among Emerging Adults in 12 States, Behavioral Risk Factor Surveillance System, 2010." *Prev Chronic Dis* 2015. (accessed 10/13/2023).

⁸ Glass, Jennifer, Robin W. Simon, and Matthew A. Andersson. "Parenthood and happiness: Effects of work-family reconciliation policies in 22 OECD countries." *American Journal of Sociology* 122, no. 3 (2016): 886-929; on recent change, Herbst, Chris M., and John Ifcher. "The increasing happiness of US parents." *Review of Economics of the Household* 14 (2016): 529-551.

⁹ The weighted sample size of adults from 1990 to 2022 is 11,697. Logistic regression models control for survey year. I report results based on robust standard errors to account for design effects. Table 2 is based on predicted probabilities obtained from a regression standardization.

¹⁰ Reeves, Richard. *Of Boys and Men: Why the Modern Male is Struggling, why it Matters, and what to Do about it.* Brookings Institution Press, 2022.

¹¹ I tested for changes in the predictors of marriage by estimating logit models with multiplicative interactions. Aside from what's presented here, none of these interactions are statistically significant.

¹² Decomposition, sometimes called Blinder-Oaxaca decomposition, is more properly referred to as Kitagawa decomposition (sociologist Evelyn Kitagawa proposed decomposition in 1955, 17 years before economists Alan Blinder and Ronald Oaxaca). I rely on the STATA command MVDCMP, which extends the Kitagawa decomposition to select generalized linear models. Powers, Daniel A., Hirotoshi Yoshioka, and Myeong-Su Yun. "mvdcmp: Multivariate decomposition for nonlinear response models." *The Stata Journal* 11, no. 4 (2011): 556-576; for Kitagawa's introduction of decomposition, <u>https://www.jstor.org/stable/2281213?origin=crossref/</u>.

¹³ Leila Bengali, Marcus Sander, Robert G. Valletta, and Cindy Zhao. "Falling College Wage Premiums by Race and Ethnicity." Economic Letters, August 23, 2023. Federal Reserve Bank of San Francisco.

¹⁴ In effects coding, categorical variable indicators as normalized as deviations from the grand mean, rather than from the omitted category. MVDCMP (see Footnote 10) performs the normalization using the DEVCON command

in STATA. Jann, Benjamin. 2005. devcon: Stata module to apply the deviation contrast transform to estimation results. Statistical Software Components S450603, Department of Economics, Boston College, available at http://ideas.repec.org/c/boc/bocode/s450603.html (accessed 10/3/2023).

¹⁵FUNK, CARY AND MARK HUGO LOPEZ. "A BRIEF STATISTICAL PORTRAIT OF U.S. HISPANICS." PEW RESEARCH, AVAILABLE AT <u>HTTPS://WWW.PEWRESEARCH.ORG/SCIENCE/2022/06/14/a-brief-statistical-portrait-of-u-s-hispanics/</u> (Accessed 10/4/23).

¹⁶ Oropesa, R. Salvatore, and Nancy S. Landale. "The future of marriage and Hispanics." *Journal of Marriage and family* 66, no. 4 (2004): 901-920.

¹⁷ The statistically-savvy reader may be thinking about pseudo R-squared statistics. But they shouldn't. Compared to the real thing, the pseudo R-squared statistics are really only useful for contrasting a set of similar regression models. They don't offer the "explained variance" interpretation provided by normal R-squared in an ordinary least squares regression.