

# Fading Hope and the Rise in Inequality in the United States\*

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## Abstract

A substantial literature claims that the strong increase in inequality over the last decade in Western industrial countries such as the United States (US) would lead to increasing tensions between different socio-economic groups which might in turn hamper economic growth. The population's fading hopes regarding the outlook on the future seem to confirm this. This paper qualifies this interpretation using survey data collected by the Pew Research Center for the People covering 1999–2014. Over the first decade, the decline in hope cannot be traced back to the rising inequality. However, recent data from 2014 suggest that inequality is now a major driver of a lower than ever level of hope. Hence inequality is a recent factor, not the driver of the long-term decline in hope.

JEL Classification: D31, J15

Keywords: Confidence, ethnicity, hope, human capital, income inequality

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## 1. Introduction

In the eyes of some analysts like Tony Judt (2010, p. 21), Robert Reich (2010, pp. 5, 27, 123) or Raghuram Rajan (2010, p. 30), the world (or at least the US, the United States) seems to suffer from increasing tensions between socio-economic groups as a result of increasing inequality in Western societies, which in turn might affect economic growth negatively. Increasing inequality in these societies is a relatively recent phenomenon since the decades after the Second World War had been characterized by decreasing inequality. There were huge differences in inequality and there were also large differences in the speed of decline between nations. It was only at the turning point in the 1970s when inequality started increasing again in many industrial countries (see OECD, 2008, p. 33).

When presenting the OECD (2011) report on inequality to the media, Angel Gurría, OECD Secretary-General, stated (Gurría, 2011):

*Furthermore the economic crisis has added urgency to the need to address inequality. The social compact is starting to unravel in many countries. Uncertainty and fears of social decline and exclusion have reached the middle classes in many societies. People feel they are bearing the brunt of a crisis for which they have no responsibility, while those on high incomes appear to have been spared. Addressing the question of “fairness” is a condition-sine-qua-non for the necessary restoring of confidence today.*

Our paper analyzes whether this societal change is related to the attitudes of the population and in order to do this, we focus on a measure of "hope", defined as optimism about future life. We argue that hope is a decisive measure of societal stability that deserves further attention and analysis. It roots deeply in the economics literature with contributions by Adam Smith, Kenneth Boulding, Julian Simon and Albert A. Hirschman as it is artfully analyzed in

Genda (2016). The contributions in Swedberg and Miyazaki (2016) demonstrate the recent and rising interest in the topic. Genda (2016) finds that hope in Japan is substantially lower than in the US and the UK, while the family is the most important basis of hope in all three countries.

It seems that hope in the population has been in decline over the last decade, at least in the US, on which we focus in the empirical analysis of this paper. We examine whether a decline in hope can be traced to the observed higher level of inequality. If rising inequality has led to decreased hope, we assume that we would find a rising impact of the level of education and of being white (the advantaged group) on hope.

The topic connecting hope and inequality is not new. Krugman (1994) drew attention in the 1990s to “diminished expectations” in the US, while Hirschman and Rothschild (1973) discussed income inequality as the potential cause of development disasters (like in Nigeria and India/Pakistan). In his review of the relation between economic inequality and political conflict Lichbach (1989) concludes that the evidence in the literature is still contradictory. For the US, Fiorina and Abrams (2008) find little or no indication of increased mass polarization over “the past two to three decades. To date, there is no conclusive evidence that elite polarization has stimulated voters to polarize, on the one hand, or withdraw from politics, on the other”. This was a period of a substantial increase in inequality. In the recent past the issue of the relation between expectations on the future on the one hand and income inequality on the other in the US seems to have been shelved by political scientists and economist alike. This is in contrast to the EU where a large volume of studies on this relationship and its implication for politics exist (see for example: Ritzen et al., 2015 or Burgoon, 2013), despite the fact that income inequality in the EU is almost half that of the US (in terms of the Gini coefficient).

Section 2 documents the rising income inequality and the fading hope in the US. Section 3 studies the determinants of hope and provides an answer to the inequality and social cohesion hypothesis. Section 4 discusses the findings and concludes.

## **2. RISING INCOME INEQUALITY AND FADING HOPE IN THE US**

Figure 1 provides a detailed overview of income inequality's evolution in the US over time, from 1970 to 2015 (Statista, 2016). Dividing households into five parts, the mean household incomes of those quintiles are exposed in the figure. It is clear that there has been no income increase since 1967 in the bottom two quintiles, very little in the third quintile, some in the fourth, but a substantial increase only in the fifth (and top) quintile. The strong rise in inequality took place in two steps—first in the 1980s and then in the 1990s, with stagnation thereafter. Figure 2 details that it was in particular the 99<sup>th</sup> decile (the top 1% of income earners) who saw their share increasing.

It has to be expected that this rising income inequality has been perceived by substantial parts of society, in particular the lower income brackets, as having a bearing on themselves and their children's future. Maybe it is not the distribution itself that is startling for society but rather the dramatic speed of the increase: The changes in the distribution are the result of the fact that most of the benefits of economic growth in the period 1967 to 2010 were captured by the top 20 percent of the income earners while the lowest 80 percent saw hardly any income increase.

What do people expect regarding the future if they have experienced a standstill in income for many years? Table 1 presents the general view of US citizens' relative optimism in 1999, 2010 and 2014 using data provided by PEW (2010b, 2014), a well-known research center that has long conducted reliable surveys. It provides responses about long-term

expectations for the lives of individuals and families, the general future for the United States and perspectives on the US economy.

Our analysis makes use of the 1999 Millennium Survey, the April 2010 Political and Future Survey and the February 2014 US Views of Technology and the Future Survey provided by PEW. All three surveys were conducted by Princeton Survey Research Associates International (PSRAI) by order of PEW. The data collection relies on nationally representative samples of individuals who are 18 years or older. The field work was done in the English language by the help of telephone interviews. Interviews for the 1999 Millennium Survey took place between April 6 and May 6, 1999. The dataset initially included 1,546 adults. Due to missing values for some variables, we use only 1,460 individuals in the analysis. Data for the April 2010 Political and Future Survey were collected April 21–26, 2010. The dataset initially consisted of 1,546 observations from which we include 1,437 individuals in the study due to missing values in the data. The data for the February 2014 US Views of Technology and the Future Survey were collected during February 13–18, 2014. The dataset initially consists of 1,001 observations from which we include only 836 individuals due to missing values in the data. Detailed information on the surveys' methodology is provided by PEW (1999, 2010a, 2014).

The responses that enable us to measure individual hope come at first from the key inquiry in the 1999 and 2010 surveys: "I'm optimistic about life for me and my family over the next 40 years." In 2014, the respective question changed to "Over the long term, you think that... people's lives are mostly better". As Table 1 suggests, the 81 percent of US citizens who were optimistic in 1999 about the future was presumably based on income growth or overall betterment experienced in the preceding period. By 2010 this percentage had substantially decreased to 64 percent. In 2014, the comparable question was 59%, which is

again somewhat lower. However, it implies that most Americans were still optimistic about their long-term future; it is just the degree of confidence that had changed.

Other measures provided only in the 1999 and 2010 surveys confirm this trend (see Table 1): The respondents were also less optimistic about the future of the US, as optimism declined over the decade from 70 percent to 61 percent. This is correlated with the decline in the belief in the rising strength of the US economy from 64 percent in 1999 to 56 percent in 2010. In comparison, the Chinese rating of their country almost doubled between 2002 and 2008 based on the question: “Are you satisfied with your country’s direction?” (from 48 to 86 percent positive [PEW, 2008]).

We presume that these substantial changes could be associated with the documented rise in income inequality in the United States. If this is true, we would expect that differences in educational levels could cause stronger differences in hope over time as the level of education has been a strong wage dis-equalizer (OECD, 2011). We additionally would expect disadvantaged ethnic groups to become less optimistic since they would face even higher income inequality hence would also display less hope for the future. The next section explores these hypotheses.

### **3. EXPLAINING FADING HOPES**

We use regression analysis of individual data on hope, as discussed in the previous section, to study the effects of background variables such as gender, age, education, ethnicity and activity in the labor market on relative optimism. This allows us to separate the sizes and statistical significance of the factors driving the variable under consideration, hope.<sup>1</sup> Table 2 provides

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<sup>1</sup> See Angrist and Pischke (2015) chapter 2 for an introduction to regression analysis.

the variables used as determinants of hope for all three years (1999, 2010 and 2014) which are all available in a comparable form.

In the 1999 and 2010 surveys, we measure optimism or hope by the following question: “First, thinking about you and your family... Would you say you are very optimistic, somewhat optimistic, somewhat pessimistic, or very pessimistic about life for you and your family over the next 40 years?” This measured variable *hope* is ordinal with values 0, 1, 2 and 3 (representing: very pessimistic, somewhat pessimistic, somewhat optimistic, very optimistic). The 2014 survey has expressed the question as “Now I have a few questions about the future... Over the long term, you think that technological changes will lead to a future where people’s lives are mostly better or to a future where people’s lives are mostly worse?” Here the measured variable is again ordinal with values 0 and 1 (representing: worse, better). The Ordinary Least Squares (OLS) regression method allows us to statistically measure the aforementioned variables’ impact on hope, our independent variable. We present the findings of our OLS estimates using robust standard errors since probit regressions did not provide qualitatively different results.<sup>2</sup> The differences in the means of the values of the variable hope as measured in 1999 and 2010 in comparison with 2014 are extracted by differences in the estimated constant in the OLS regression.

The regressors used are 1, 0 dummy variables for gender (male), age categories (18–29, 30–49, 50–64, 65+), education categories (none, high school, some college, college), employed, and ethnicity (White, African American, Hispanic, Asian, other race). Table 2 provides a descriptive overview of all variables used. We were able to employ data from 1,460

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<sup>2</sup> It is known that since OLS and Probit are in the same class of models, they deliver similar conclusions if the standard errors in OLS are adjusted. On the suggestion of a referee we nevertheless provide the probit estimates in an Appendix table for demonstration. All findings are indeed identical.

individuals in 1999, 1,437 in 2010 and 836 in 2014. As the data displayed in Table 2 show, the population has become older and more educated since 1999; gender and the ethnic structure has remained fairly constant between 1999 and 2010; males have a higher and whites a lower share in 2014. The employed share declines over time.

Table 3 then contains the regression results. Individual measures of hope are linearly decomposed into the sum of the coefficients estimated times the values of the regressors listed in the first column for each respondent. The numbers below the coefficients are standard deviations measuring the precision of the coefficient estimates. Each additional asterisk indicates stronger statistical significance. The reference group in the regressions is female, young (18–29), with no education or high school incomplete, not employed, and African American.

Our findings suggest that in 1999 and 2010 males are less optimistic about their future than females (since the coefficients of "male" in Table 3 are negative for both years), and this difference has increased slightly over time. However, the coefficient in 2014 is positive, possibly because the question raised that year has made reference to technological change. This could be an indication that males are more confident than females about positive technical changes in the future, as is generally found (see e.g. Dorup, 2004 or Ardies et al., 2015).

In comparison to the age reference group 18 to 29, older age groups are clearly more pessimistic in 1999 and 2010, and this difference became much stronger during the decade. Furthermore in 2010, the older the individuals, the more pessimistic they are. This is in stark contrast to 1999 when the age group 50 to 64 was the most pessimistic and was the only age group significantly different from the young reference group. The most important change has occurred to those 65 and older, who seem to now have a substantially lower level of hope than the young (and all other age groups). This is a finding that is very likely driven not only by



concerns about their own perspectives but, given their age, also their expectations for their entire family. In the 2014 data, however, we do not find any differences between the age groups.

In the 1999 sample, those with more education were more optimistic. But by 2010 for the view of the future, or “hope,” education was no longer relevant (based on the low coefficients) and not statistically significant from those with no education. Being active in the labor market increased positivism but not to a significant degree. Those employed and active in the labor force were not different from those who were inactive, and this remained unchanged over the first decade and also in 2014. This is contrary to what we had expected to see if fading hope was rooted in income inequality. However, high education came strongly back in 2014: Those with a college graduate or post graduate training are much more optimistic about the future than those in the other educational groups or with no education. At the same time less people are in the highest educational category in 2014 compared to 2010 (see Table 2), which somewhat moderates the inequality effect.

Ethnicity is strongly and significantly correlated with optimism and pessimism in 2010, while it was not significant in 1999 and 2014 (except for Whites in 1999), and African Americans were the most optimistic. Those with the smallest amount of hope were Asians and Asian Americans, followed by Whites. Hispanics remained close to African Americans; this implies that the relative hope of Hispanics and African Americans in comparison to the Whites, Asians and Asian Americans improved over the first decade. The positivism among African Americans can perhaps be explained by the “Obama-effect:” It is widely recognized that electing an African American as the US President has boosted self-confidence among the African-American community. For 2014, we find no differences between the ethnic groups

concerning their hopes about the future, which can be interpreted to indicate that the recent decline of hope was unaffected by ethnicity.

To ensure that our results are strong and robust, we ran the regression with additional variables such as regional dummies in the US, religious affiliations, as well as the interactions of variables, none of which generated new insights. Hence the variables we presented here, as detailed in Table 3, are the ones that influence what we are measuring -- hope.

Some caveats on the comparability between the estimates in 2014 and the previous two years are appropriate in spite of the representative data sets, the largely consistent picture and the identical set of regressors across all years. First, there is a slightly different question for hope. Second, the variable has four categories in 1999 and 2010, but only two in 2014. Third, the sample size is substantially smaller in 2014.

#### **4. DISCUSSION AND CONCLUSIONS**

The PEW (2010b) surveys of 1999, 2010 and 2014 clearly show that US citizens have fading hope for betterment in the future. Optimism about this has declined from 81% (1999) of the population to 64% (2010) then to 59% (2014). It is even lower in other surveys like the CBS News Poll, reporting only 23% for 2014 (CBS, 2014). It asked 1,344 adults nationwide from July 29 to August 4, 2014, "Do you think the future of the next generation of your family will be better ... as your life today?" Hence, we can consider a substantial decline in optimism after the turn of the century to be well empirically documented. This is also consistent with findings in the happiness literature (Graham, 2016).

The hypothesis driven by the public debate has been that rising inequality in the first decade of the 21st century has changed the outlook of US citizens on their future and the future of their families. However, while it is true that a rising inequality was observed while hope

was declining, our regression analysis results do not support these being related in any relevant way when we compare survey data from 2010 with those of 1999. In particular, the hypothesis implies that the impact of education would have become more significant for the outlook of US citizens over the decade since educational differences reflect larger wage differences, causing income inequality. For the same reason we also should have found that disadvantaged ethnic groups would have become less optimistic. But in fact we observed the opposite result in both 1999 and 2010.

Over the first two thirds of the studied period, younger Americans (18 to 29 years old) remain the most optimistic group; the decrease in optimism with age is far more pronounced in 2010 than in 1999. More remarkable is that the correlation between higher levels of education and optimism in 1999 had disappeared by 2010. It is difficult to interpret the decreased optimism, as related to income development, since those in the higher educated group had benefited the most from economic growth over the period. Also the finding that African Americans were the most optimistic in 2010 does not clearly align with their labor market experience.

However, the situation turned around in 2014. High education came back strongly as a factor determining hope: Those with a college graduate or post graduate training are much more optimistic about the future than those in all the other educational groups or with no education. Moreover the achieved education level became the dominant term explaining differences in hope across the surveyed population in 2014. All other factors are now shown to be irrelevant—neither age, ethnicity, or employment status seem to play any statistically significant role. It seems as if the US development of increasing inequality needed some time before the fading hope of US citizens for the future actually reflected it. But there is no evidence in our data that the decline in hope, the *change* observed over 15 years was "caused"

or initiated by a rise in inequality. The decline in hope and the increase in inequality might simply be two phenomena that are occurring simultaneously and are sometimes more expressed (like in 2014) and sometimes less prominent (like in 2010).

In other words, the PEW observations, using education level and ethnic minority as a test, cannot sustain nor support the suggestions of several authors that the US development of increasing inequality drives the fading hope of US citizens for the future over time. These authors have identified what may seem like causation but reality is more complex. Hence this paper has sought to pinpoint this oversight and gap in the literature. The fact that a small proportion of the population possesses a great amount of the financial wealth is clearly a concern for many individuals, but readers must avoid jumping to the conclusion that this is the *only reason* that the US has been witnessing declining hope for some time. Since rising inequality and fading hopes separately motivate concerns for policymaking, our findings should demonstrate that these two important facts cannot be addressed in a similar pattern.

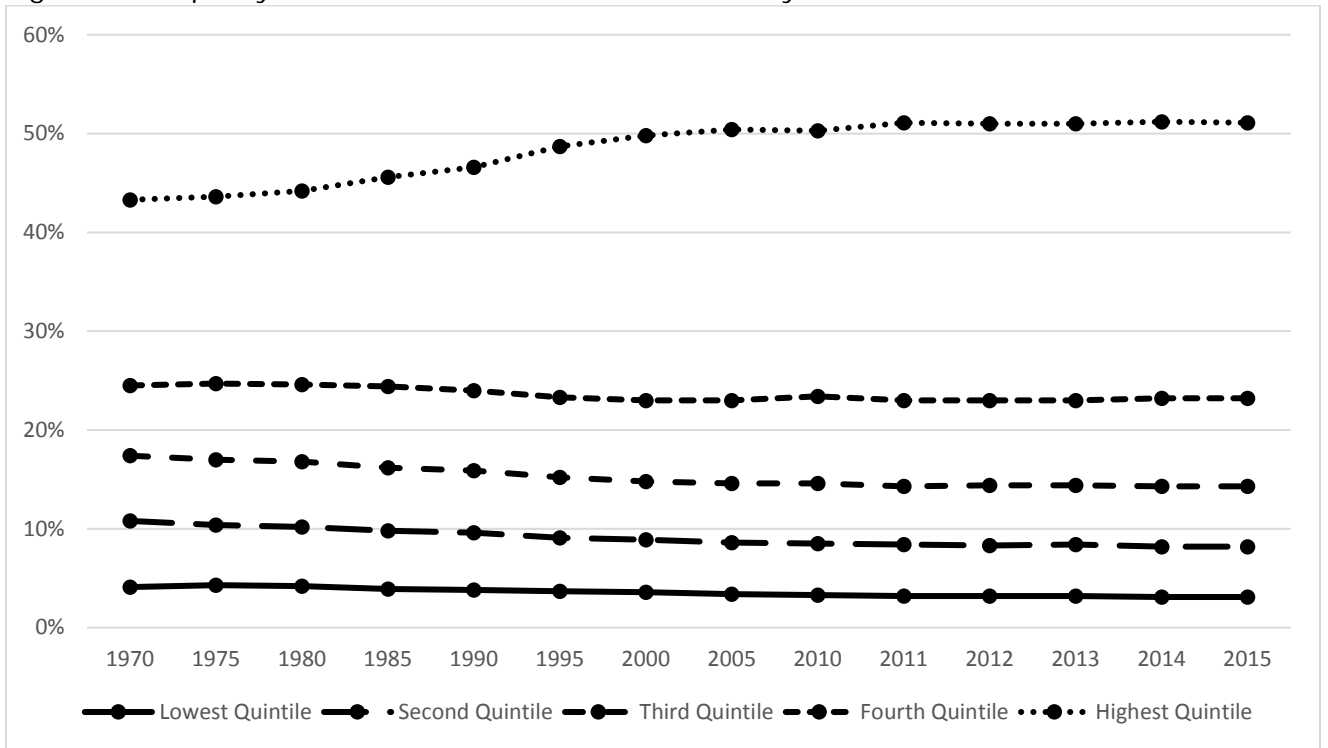
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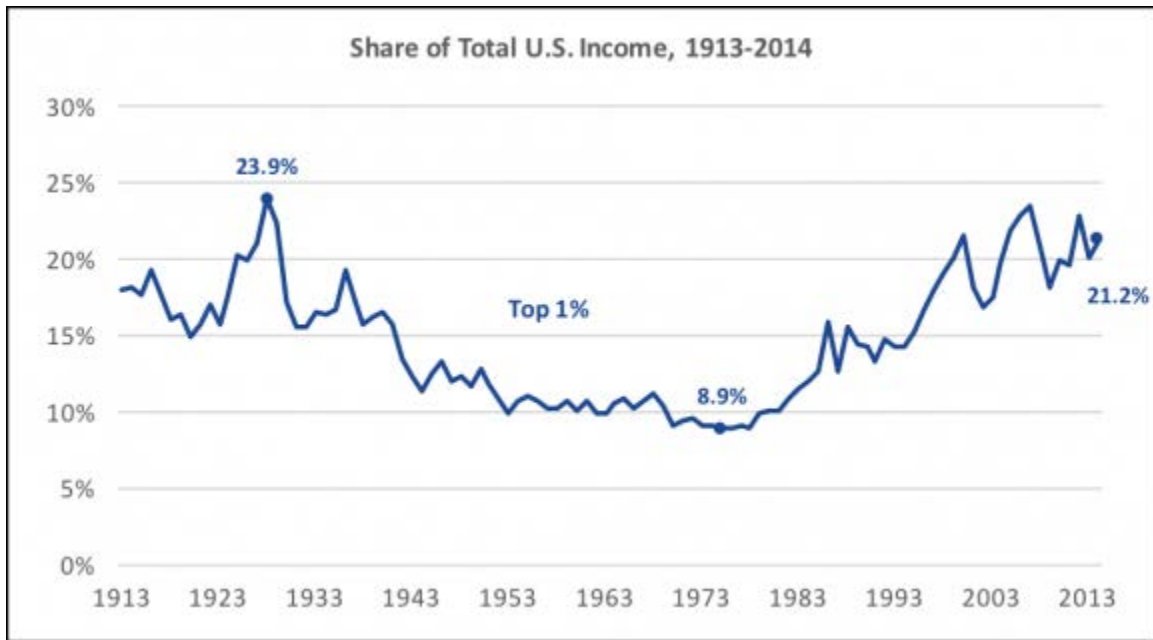
Figure 1: Inequality in the US: Mean Household Income by Quintiles, 1970-2015



Source: Statista (2016)



Figure 2: Income of Top 1% in US as Share of Total Income, 1913 - 2013



Source: Saez (2015), part of Fig. 2. Top 1% denotes the top percentile (families with annual income above \$392,000 in 2013)

**Table 1.** US optimism about the long-term future

Over the next 40 years, view of...	1999	2010	2014
<b>Life for You/Your Family<sup>a</sup></b>	%	%	%
Optimistic	81	64	59
Pessimistic	15	31	30
Don't know	4	4	11
	100	100	100
<b>Future of the US</b>			not asked
Optimistic	70	61	
Pessimistic	27	36	
Don't know	3	3	
	100	100	
<b>US Economy</b>			not asked
Stronger	64	56	
Weaker	31	39	
Neither/Don't know	5	5	
	100	100	

Source: PEW (1999); PEW (2010a); PEW (2014)

<sup>a</sup> In 2014, the question has been somewhat more general: "people's lives"

**Table 2.** Descriptive Statistics. Mean and Standard Deviation (Std. Dev.)

	<b>1999</b>		<b>2010</b>		<b>2014</b>	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
<b>Hope</b>	2.238	0.799	1.758	0.968	0.684	0.465
<b>Male</b>	0.482	0.500	0.479	0.500	0.537	0.499
<b>Age categories</b>						
18-29	0.242	0.429	0.147	0.354	0.153	0.360
30-49	0.408	0.492	0.289	0.454	0.252	0.435
50-64	0.224	0.417	0.328	0.470	0.306	0.461
65+	0.126	0.332	0.236	0.425	0.288	0.453
<b>Education categories</b>						
None, high school incomplete	0.089	0.285	0.066	0.249	0.101	0.301
High school graduate, technical, trade, or vocational school	0.345	0.475	0.286	0.452	0.262	0.440
Some college, associate degree, no 4-year completion	0.254	0.436	0.263	0.440	0.311	0.463
College, or post-graduate training	0.312	0.464	0.385	0.487	0.327	0.469
<b>Employed</b>	0.714	0.452	0.585	0.493	0.530	0.499
<b>Ethnicity categories</b>						
White	0.779	0.415	0.782	0.413	0.691	0.462
African-American	0.104	0.306	0.107	0.309	0.104	0.306
Hispanic	0.049	0.215	0.040	0.197	0.093	0.291
Asian, Asian-American	0.019	0.137	0.022	0.148	0.034	0.180
Some other race	0.049	0.217	0.048	0.214	0.078	0.268
<b>Observations</b>	<b>1,460</b>		<b>1,437</b>		<b>836</b>	

Source: PEW (1999), PEW (2010a) and PEW (2014), own calculations.

**Table 3.** Analysis of hope

	<b>1999</b>	<b>2010</b>	<b>2014</b>
<b>Male</b> , reference group female	-0.082* (0.042)	-0.146*** (0.050)	0.115*** (0.033)
<b>Age</b> , reference group: 18-29			
30-49	-0.106** (0.052)	-0.195** (0.077)	-0.022 (0.053)
50-64	-0.237*** (0.064)	-0.364*** (0.076)	0.031 (0.051)
65+	-0.147* (0.086)	-0.458*** (0.088)	0.034 (0.056)
<b>Education</b> , reference group: none, high school incomplete			
High school graduate, technical, trade, or vocational school	0.142 (0.093)	0.026 (0.126)	0.034 (0.065)
Some college, associate degree, no 4-year completion	0.179* (0.094)	0.035 (0.127)	0.061 (0.066)
College graduate, or post-graduate training	0.217** (0.092)	0.133 (0.124)	0.213*** (0.063)
<b>Employed</b> , reference group: not-employed			
	0.060 (0.057)	0.079 (0.059)	0.016 (0.037)
<b>Ethnicity</b> , reference group: African American			
White	-0.147** (0.074)	-0.533*** (0.083)	-0.022 (0.055)
Hispanic	-0.092 (0.113)	-0.209 (0.134)	0.072 (0.073)
Asian, Asian American	-0.167 (0.162)	-0.575*** (0.171)	0.109 (0.090)
Some other race	-0.129 (0.123)	-0.385*** (0.139)	0.028 (0.077)
Const.	2.316*** (0.116)	2.455*** (0.146)	0.506*** (0.088)
Obs.	1,460	1,437	836
R <sup>2</sup>	0.025	0.073	0.050

Source: PEW (1999), PEW (2010a) and PEW (2014), own calculations: OLS regressions using robust standard errors in parentheses.

Note: Question for 2009 and 2010: "First, thinking about you and your family... Would you say you are very optimistic, somewhat optimistic, somewhat pessimistic, or very pessimistic about life for you and your family over the next 40 years?" 0 indicates "Very pessimistic," 1 "Somewhat pessimistic," 2 "Somewhat optimistic," and 3 "Very optimistic." In 2014: "Now I have a few questions about the future... Over the long term, you think that technological changes will lead to a future where people's lives are mostly better or to a future where people's lives are mostly worse? 0 indicates "worse" and 1 is "better".

A "\*", "\*\*", and "\*\*\*" refers to significance at the 10%, 5% and 1% level, respectively, for the two-sided test.

## Appendix Probit estimates of hope

	1999	2010	2014
<b>Male</b> , reference group female	-0.114* (0.059)	-0.163*** (0.058)	0.332*** (0.094)
<b>Age</b> , reference group: 18-29			
30-49	-0.173** (0.078)	-0.236** (0.095)	-0.065 (0.151)
50-64	-0.352*** (0.090)	-0.431*** (0.093)	0.085 (0.147)
65+	-0.228* (0.118)	-0.534*** (0.105)	0.089 (0.160)
<b>Education</b> , reference group: none, high school incomplete			
High school graduate, technical, trade, or vocational school	0.177 (0.123)	0.019 (0.148)	0.101 (0.176)
Some college, associate degree, no 4-year completion	0.207* (0.124)	0.030 (0.149)	0.175 (0.177)
College graduate, or post-graduate training	0.254** (0.123)	0.138 (0.145)	0.645*** (0.180)
<b>Employed</b> , reference group: not-employed			
	0.078 (0.057)	0.088 (0.068)	0.040 (0.106)
<b>Ethnicity</b> , reference group: African American			
White	-0.267** (0.113)	-0.685*** (0.112)	-0.067 (0.153)
Hispanic	-0.187 (0.170)	-0.319* (0.170)	0.213 (0.212)
Asian, Asian American	-0.283 (0.237)	-0.748*** (0.203)	0.361 (0.320)
Some other race	-0.229 (0.177)	-0.509*** (0.175)	0.078 (0.218)
Obs.	1,460	1,437	836
<i>Pseudo R</i> <sup>2</sup>	0.012	0.030	0.042

Source: PEW (1999), PEW (2010a) and PEW (2014), own calculations: 1999, 2010 are Ordinal Probit estimates; 2014 Binary Probit estimates; standard errors in parentheses.

Note: Question for 2009 and 2010: "First, thinking about you and your family... Would you say you are very optimistic, somewhat optimistic, somewhat pessimistic, or very pessimistic about life for you and your family over the next 40 years?" 0 indicates "Very pessimistic," 1 "Somewhat pessimistic," 2 "Somewhat optimistic," and 3 "Very optimistic." In 2014: "Now I have a few questions about the future... Over the long term, you think that technological changes will lead to a future where people's lives are mostly better or to a future where people's lives are mostly worse? 0 indicates "worse" and 1 is "better".

A "\*", "\*\*", and "\*\*\*" refers to significance at the 10%, 5% and 1% level, respectively, for the two-sided test.