

Does Knowledge of Inequality Affect Beliefs about Inequality?

Leslie McCall
Departments of Sociology and Political Science
Faculty Fellow, Institute for Policy Research
Northwestern University

Fiona Chin
Department of Sociology
Northwestern University

Paper presented at the Midwest Political Science Association Meetings
Chicago, IL
April 13, 2013

The Occupy Wall Street movement may have shifted the debate over inequality in a more contentious direction since 2011, but the predominant view among most observers remains that Americans are tolerant of income inequality. This view has deep roots, and has persisted through the period of rising inequality. Yet there has been surprisingly little empirical analysis of how much Americans really know about the widening chasm between income groups, and what impact this has on their views about inequality. We briefly review previous research on Americans' knowledge and beliefs about economic inequality (including beliefs about economic opportunity) and then examine data on both knowledge and beliefs about inequality from the General Social Survey and the International Social Survey Program. We also compare the public's knowledge and norms to those in other advanced capitalist countries and to those of the affluent from a representative survey of the top percent of wealth holders in the Chicago area. We find that Americans are both more knowledgeable and more critical of economic inequality than commonly assumed and that knowledge has a significant but relatively small effect on norms about inequality.

Do Americans Know and Care about Inequality?

Until recently, most research on Americans' beliefs about inequality in the era of rising inequality said little about whether Americans knew about rising inequality and claimed that Americans were largely accepting of inequality. Writing in the mid-1990s, for instance, Seymour Martin Lipset argued that the basic fairness and prosperity of the U.S. economy has never been in doubt to most Americans, even during difficult periods of economic restructuring. The payoffs to skill-biased technological change, in the form of more highly skilled jobs, more than offset its dislocations. To be sure, those in low-skill jobs were hurt, but unemployment was relatively low (in the 1990s), and higher education became more widely available. Lipset concluded that "stories of America's post-1970 economic decline have clearly been exaggerated," and the "leaner and meaner" restructuring of the American economy has led to a "rebirth of America's competitive standing" and "more improvements in occupational status than declines" (Lipset 1996: 55-59; see also Lane 1986).

The only other prominent public opinion experts who weighed in early on this subject came to the same conclusion, and they and Lipset were commonly cited in studies by economists on the subject. In a widely circulated study of the impact of inequality on levels of happiness across countries, economists Alesina, DiTella, and MacCulloch (2004) concluded that "[c]ountries differ greatly in the degree of income inequality that they tolerate ... Americans are willing to tolerate quite large disparities in wealth as long as they perceive that wealth is the result of effort and that everyone can make it if enough effort and talent is devoted to the task." In drawing this conclusion, Alesina and colleagues relied on the only study at that time of attitudes toward income inequality to be published after inequality began to rise.

Because of the paucity of data directly on inequality, however, the study surveys attitudes mainly about opportunity and redistribution rather than inequality. Despite this, the authors of the study, noted public opinion experts Everett Ladd and Karlyn Bowman (1998: 3), wrote that “there is some ambivalence about wealth in the United States but no particular resentment ... Americans tolerate great differences in wealth if they believe that opportunity is broadly present.” Bowman (2000) later argued in an op-ed that “there’s little evidence that rising income inequality ever captured the public’s imagination.” There is a growing literature on trends in intergenerational mobility motivated in part by this view. Researchers are asking whether social mobility *is* greater in the United States than elsewhere, justifying the alleged acquiescence to inequality among Americans. Most scholars come to the conclusion that mobility is not greater in the United States and then struggle to explain why Americans are so optimistic.¹

From the vantage point of trying to understand beliefs about income inequality, what is perhaps most notable about these studies is that there is almost no empirical evidence marshaled specifically on knowledge of and beliefs about income inequality to buttress claims of tolerance. More recently, those who have delved into such data resurface with a more nuanced view—what we refer to as the “ambivalence” view, as compared to the “tolerance” view described thus far—that is consistent with past interpretations by Jennifer Hochschild (1981) and James Kluegal and Elliot Smith (1986). For example, Benjamin Page and Lawrence Jacobs (2009) return to the territory explored by Free and Cantril (1968) forty years ago and show that little has changed: Americans are conservative in espousing free enterprise and limited government but liberal in desiring needed social programs. Page and Jacobs also show that the majority of Americans

¹ See, for example, Piketty 1995; Benabou and Ok 2001; Corak 2005; Morgan, Fields, and Grusky 2006. There are those who say that an increase in intergenerational mobility matters less than an increase in absolute mobility as measured by a boost in living standards. See various contributions to “Rising Wealth Inequality: Should We Care?” *New York Times* Room for Debate, March 21, 2011.

desires less income inequality. Yet this and other recent studies differ in their assessment of how much Americans know about income inequality, how much they care about it, and what they want done about it (McCall and Kenworthy 2009; Newman and Jacobs 2010).²

One of the biggest points of disagreement surrounds the question of how much Americans really understand about the economics of income inequality and the politics of income redistribution. In his book *Unequal Democracy*, Larry Bartels examines whether knowledge and norms about income inequality directly affect support for redistributive policies (i.e., taxes), rather than inferring such a relationship from separate responses to questions about inequality and social policy, as most other research does. He finds that responses to the 2002 and 2004 ANES questions about whether differences in income between rich people and poor people grew in the last twenty years, and whether this was a “bad thing” or a “good thing,” did not affect support for the Bush tax cuts that were skewed toward the rich. Knowledge about inequality was also shaped by political ideology, so that conservatives were less likely to recognize the “fact” of rising inequality as their level of general political knowledge rose. He found a similar interaction between knowledge and partisanship in support of the Bush tax cuts.³ Although Bartels acknowledges that Americans can have egalitarian views, and shows elsewhere in his book that low-income and high-income voters do have different, economically aligned policy preferences, he veers more persistently toward a view that we refer to as the “ignorance”

² See Page and Jacobs 2009: 95–96. Newman and Jacobs 2010: 126 are less sanguine about policy attitudes and reside more firmly in the ambivalence camp, but they too argue that “as the gap between rich and poor in America yawned wider, the public became increasingly dissatisfied with the inequality they saw around them.” Yet both books also note that the trend in public concern about income inequality is not linear during the period of rising inequality (McCall and Kenworthy 2009).

³ Lupia et al. (2007), however, countered that conservative interpretations of the tax cuts as boosting economic growth were plausible.

perspective, arguing that factual information about inequality is both low and distorted by ideology.⁴

Several not-altogether-compatible positions veer in this same direction. In the work of the economists Benabou and Tirole (2006), the tendency for ordinary people to believe (erroneously) in a just world is said to help them navigate an insecure economic environment; such beliefs nurture the incentives needed to keep up the good fight. Also consistent with the ignorance perspective, but in contrast to both Bartels and proponents of the just-world thesis, is the argument that the public, both liberals and conservatives, would protest if only they were better informed of the extremes of income inequality in the nation today (this was prior to the Occupy movement). They believe the crux of the matter is not that Americans are satisfied with high levels of inequality or too conflicted or partisan to form coherent opinions on the issue, but that they “drastically underestimate” how much inequality exists, a tendency well known from research dating back to the 1980s and 1990s.⁵

For example, in a recent and widely publicized article, Michael Norton and Daniel Ariely (2011) find that families in the top fifth of the income distribution are estimated by respondents to take in only 59 percent of national income when in reality they rake in 80 percent. Norton and Ariely believe that this lack of information has significant immobilizing consequences. They may indeed be right that there is some line in the sand across which inequality is excessive enough to incite protest, and that this line is between the upper fifth holding 59 and 80 percent of national income. But one could just as reasonably argue that an adequate degree of information

⁴ For example, see Bartels (2005: 19) in which he argues that “[t]aken as a whole, the data from the 2002 NES survey reveal very little popular enthusiasm for economic inequality,” and Bartels (2008: chapter 9) on the different and unequally represented policy preferences of low-income and high-income constituents.

⁵ Norton and Ariely (2011: 12). Verba and Orren (1985), Kluegal and Smith (1986), and Osberg and Smeeding (2006) also showed that estimates of occupational earnings disparities were smaller than actual disparities.

about levels of inequality already exists (i.e., that the top fifth owns three times its share of national income).⁶ It is therefore unclear whether the updating of facts alone would prevail against the headwinds of elite manipulation, partisanship, and psychological orientations toward the status quo catalogued by Bartels and others. Jacob Hacker and Paul Pierson (2010), who also decry Americans' lack of information, thus pinpoint the media and strong progressive organizations as the solution not only to popular ignorance but to political powerlessness.

Measuring Knowledge and Beliefs about Inequality

With the exception of Bartels (2005, 2008), none of the previous studies empirically measure both knowledge about inequality and the impact of such knowledge on egalitarian norms or policy preferences. Moreover, Bartels's analysis examines the consequences of knowledge and beliefs about inequality with respect to support for only a single policy, the Bush tax cuts. While Bartels did not find a relationship between knowledge and norms regarding income inequality on the one hand, and support for the Bush tax cuts on the other hand, McCall and Kenworthy (2009) and McCall (2013) find that increasing concerns about income inequality resulted in growing support for spending on education, particularly in the 1990s. No such effect was found consistently for traditional redistributive policies, consistent with Bartels. However, they did find a strong and consistent relationship between beliefs about inequality and support for traditional redistributive policies in the cross-section. They contend that increasing concerns about inequality are more likely to be manifested in desires for policies that clearly enhance opportunities in the labor market rather than redistribute income by the government.

⁶ Consistent with Page and Shapiro's *The Rational Public* (1992), for instance, Page and Jacobs 2009: 100 conclude from their research that "the general accuracy of the public's perceptions is remarkable, given the complexity of government policy, deliberate efforts to sow confusion, and the wide range of topics there are to think about."

In this paper, we build on McCall (2013) to more thoroughly measure and test the role of knowledge about inequality on beliefs about inequality. Beliefs or norms about inequality in turn affect policy preferences, but we do not examine policy preferences in this paper. We also focus on what might be described as “issue-specific” knowledge, following Gilens’ (2001) analysis of “policy-specific” knowledge, which he contrasts with general political knowledge. General political knowledge is the focus of Bartels’ (2008) analysis, and thus no previous research has examined the impact of issue-specific knowledge on norms about inequality. Unfortunately, we do not have a measure of general political knowledge in the same data set that has issue-specific knowledge about inequality to compare the two effects.

For a measure of issue-specific knowledge, we rely primarily on existing survey data stretching back to the late 1980s from the General Social Survey (GSS) and the International Social Survey Program (ISSP). These survey data contain questions about perceptions of earnings for occupations such as the “chairman of a large national corporation” (what we refer to as executive or CEO pay) and an “unskilled worker in a factory.” Using previously undisclosed responses to the top-coded categories of executive pay, we report on the public’s perception of pay levels and pay ratios to determine how knowledgeable they are about the scale of earnings inequality. We also explore the extent to which these perceptions can plausibly be enlisted to measure knowledge about rising inequality, and then we investigate their impact on desires for less inequality (e.g., whether “differences in income in America are too large”). Finally, because a common explanation of alleged tolerance for inequality in the U.S. is the notion that hard work is sufficient for getting ahead, we also take a closer look than previous studies at adherence to these ideas in the U.S. relative to other advanced capitalist societies. Although little utilized, the

GSS/ISSP data provide the most thorough documentation of these topics, at least among high-quality, nationally representative surveys.

We supplement the GSS/ISSP data with a few additional data sources. First, we canvassed other representative surveys for questions that might be suitable for measuring knowledge about inequality. We found a few appropriate questions in the American National Elections Studies 2008-2010 Panel, and we report on the responses to these questions. Second, we draw on a unique survey of affluent Americans conducted by Benjamin Page and Larry Bartels that replicates many of the questions about inequality and opportunity that we analyze from the GSS/ISSP.⁷ The survey is asked of a representative sample of the top 1 to 2 percent of wealth holders in the Chicago area; we refer to this population as the “top one percent.” Thus we have two different populations from which to investigate knowledge about inequality and its impact on beliefs about inequality. In sum, our aim is to interrogate the “ignorance” hypothesis from multiple angles.

Descriptive Evidence

Most previous research focuses on the divide between the U.S. and other countries in the degree to which Americans believe in the role of hard work rather than luck in getting ahead (Alesina and Glaeser 2004; Benabou and Tirole 2006; Sawhill and Morton 2007). The inference is then

⁷ The Survey of Economically Successful Americans and the Common Good (SESA), led by Benjamin Page and Larry Bartels, and funded partially by the Russell Sage Foundation, was conducted in 2011, targeting the wealthiest Chicago-area residents. The survey’s original sampling method was revised after the first 21 cases had lower than anticipated wealth. This first sample had median wealth of \$3.3 million, which situates them in the top quintile of the wealth distribution. For this paper, we use only the 83 cases (reflecting a 37 percent response rate) that were identified through a revised sampling method and who held a median wealth of \$7.5 million. This latter group, therefore, represents the top 1-2% of wealth holders. (For more on SESA’s sampling and interview methods, please see Page, Bartels, and Seawright 2011.) SESA covers a range of topics, from civic engagement to beliefs about economic mobility and politics. It is the only representative survey that includes questions on economic inequality and public policy preferences.

drawn that faith in the American dream of upward mobility permits Americans to tolerate high levels of inequality and shun government policies that redistribute income. The first and second panels of Table 1 confirm this impression only in part, however. On the one hand, nearly all Americans (96 percent) say that hard work is essential or very important in getting ahead, whereas this notion is endorsed by a significantly smaller majority in other countries (76 percent in Sweden and a median of 68 percent in Western countries and 76 percent in all countries participating in the ISSP).⁸ As getting ahead is presumably within an individual's control, Americans are substantially less likely than individuals in other countries to say that it is the responsibility of the government to reduce income differences between those with high and low incomes, as shown in the second panel of Table 1.

On the other hand, the picture changes when we consider perceptions of *barriers* to opportunity. Factors such as “coming from a wealthy family,” “having well-educated parents,” and “knowing the right people” translate and operationalize the concept of luck, which is arguably an opaque one in American society, into everyday language.⁹ Americans are as or more likely than individuals in Sweden and other Western countries to view these as essential or very important factors in getting ahead (in all but one instance in 2000). Recognition of such barriers constitutes generally less than half the population in the U.S., but this is the case in other Western countries as well (just as more than half in all Western countries recognize the importance of hard work). Thirty percent of Americans believe that coming from a wealthy family is essential or very important for getting ahead in 2010, whereas the median in Western

⁸ We use Sweden as an illustrative contrast case to the U.S. because of the different institutional structures of the two countries (i.e., social democratic versus liberal market), which are likely to affect beliefs about inequality, opportunity, and redistribution.

⁹ To compare US attitudes to those in other countries, most previous studies rely on a single question from the World Values Survey which asks, on a scale from 1 to 10, whether “In the long run, hard work usually brings a better life” or “Hard work doesn’t generally bring success—it’s more a matter of luck and connections” (e.g., Alesina and Glaeser 2004).

countries is just 13 percent; in 2000, 20 percent thought so in both the U.S. and in Western countries (at the median). Substantially higher shares in the U.S. perceive barriers resulting from parents' education and knowing the right people (50 and 46 percent, respectively), whereas these figures are 32 and 39 percent for the typical Western country in 2010. The general public in the U.S. is especially cognizant of class barriers to upward mobility when compared to the top percent of Americans. Remarkably, only 1 percent of the top percent views coming from a wealthy family as "very important," whereas having well-educated parents and knowing the right people are considered very important by less than half as many as in the general public.¹⁰

A more proximate set of measures of "issue-specific" knowledge is an estimate of earnings levels for the "chairman of a large national corporation," "an unskilled worker in a factory," and the ratio between them. In Table 2, we provide information on actual pay from various studies of executive compensation in the first panel; average and median *perceptions* of earnings levels from respondents in the ISSP and SESA in the second panel; and average and median *desired* earnings levels from respondents in the ISSP and SESA in the third panel. Comparisons of the ratios in panel (2) to those in panel (1) will reveal the extent to which Americans at large, as well as the top one percent, grasp the level of earnings and earnings inequality in the country.

¹⁰ The response categories in the SESA study (3 categories) differ from those in the ISSP (5 categories). Still, we see that the SESA "very important" category is comparable in size to the combined GSS "essential" and "very important" categories when it comes to views about the role of hard work, with each above 90 percent. This implies that hard work is universally seen as important while barriers to opportunities are grasped much more frequently by the general public than by the upper class. Note also that 65 percent of SESA respondents reported that their fathers were either business owners, investors, business managers or administrators, or professionals. Moreover, 44 percent said that they had "inherited a substantial sum of money." Thus the low (1 percent) response that coming from a wealthy family is very important is not a reflection of a skewed SESA sample in which the respondents came from unusually modest backgrounds.

As shown in the first panel of Table 2, there is a fair degree of uncertainty about the total compensation levels of CEOs, given that population surveys on this topic do not exist. We provide the best available calculations from social science research on executive compensation, and these generate ratios of CEO to worker (in manufacturing) pay from 243 to 313. In addition, we provide an estimate from Osberg and Smeeding (2006), because they compare their estimate to the public's estimate using the ISSP as well. Using 2000 data, they report an actual ratio of 44, as shown in panel (1), and a perceived average ratio of 8, as shown in panel (2). They also note the degree to which the public underestimates inequality (a ratio of 8 versus 44). Their calculation of the public's perceived average ratio is, however, based on top-coded data, in which the top category is one million dollars, comprising nearly a quarter of the sample. We recalculate the perceived ratio from raw data rather than from the top-coded data that is publicly available. We find that the average perceived ratio is 46 in 2000 and 153 in 2010. The conclusions one can draw from these different calculations vary dramatically. The public appears much more informed when the raw data are utilized. Americans at large are not as informed, however, as the top one percent. Their average perceived ratio is 196, which nevertheless also falls outside of the range estimated by experts on executive compensation.¹¹

Does increased knowledge of the extent of inequality result in more dissatisfaction with inequality? We evaluate this question more rigorously in a multivariate context in the next section, but for the moment we describe differences in preferences for reducing inequality for

¹¹ The raw data from the GSS/ISSP was also top-coded to eliminate outliers, following previous research on top-coding reported income categories. McCall (2013) identified extreme outliers in each year (according to both the increment from one value to the next and sensitivity analyses in regression models), top-coded all outliers to the value immediately below the top-coded range, and then replicated this procedure for a uniform percentage of cases in all years. This percentage is taken from the year that had the highest percentage of outliers. This resulted in the top .2 percent of cases being top-coded for unskilled workers and the top .7 percent for executives. We also eliminate one extreme outlier in the SESA data from our calculations in Table 2.

these different samples of the public and the top one percent, which exhibit different degrees of knowledge of earnings disparities. We also note briefly, as shown in greater detail in the next section, that perceptions of executive pay in the ISSP are strongly associated with the characteristics of upper class individuals, such as being white, being older, having higher income, and having higher education. Meanwhile, perceptions of executive pay are not associated with political views or party identification. Thus we believe that these perceptions are a reasonable (but by no means perfect) indicator of exposure to high incomes and, in turn, knowledge of high incomes.

As shown, then, in panel (3) of Table 2, the mean *desired* ratio of CEO/worker pay is just 32 among Americans in the 2010 ISSP, whereas it is nearly twice as high (63) in the 2011 SESA. The mean desired level of executive pay is nearly two and a half times higher among SESA respondents (\$2,487,500) than among the public (\$1,062,158), while desired levels of worker pay are comparable. At least according to this measure of “issue-specific” knowledge (i.e., perceptions of actual executive pay), there is little indication that it affects norms regarding inequality in the predicted direction, in which higher estimates of CEO pay and the CEO/worker ratio should result in greater opposition to inequality.

Table 3 provides further evidence along these lines. The ANES Panel study of 2008 to 2010 introduced a new attitudinal question that incorporated information about inequality. Specifically, it provided the average income of households in the top and bottom 5 percent in one version of the question and the top and bottom 20 percent in another version. The respondents were asked “should this difference be smaller, bigger, or about what it is now.” In a subsequent question, those who said that the difference should be smaller or bigger were asked whether the difference should be a great deal, moderately, or only a little smaller or larger. Between 55 and

61 percent responded that the difference should be smaller in the 5 percent version of the question and between 53 and 68 percent said so in the 20 percent version. At around the same time, a comparable share of General Social Survey (the U.S. version of the ISSP) respondents—64 percent—agreed that “differences in income in America are too large,” even though they were not exposed to information about inequality. Similarly, 62 percent of SESA respondents, who presumably have greater exposure to actual levels of pay inequality, agreed to the same question.

In sum, descriptively, the share of individuals expressing a desire for less income inequality appears to vary little by exposure to information about levels of inequality. A majority of all Americans, including the top one percent, agree that income differences should be smaller, despite having different exposure to information about inequality. Americans also appear more aware of social and class barriers to upward mobility and the high degree of earnings inequality than is commonly assumed, once more in depth and accurate data about these topics are examined. And in this regard, the top one percent, who are typically more exposed to information about pay disparities, have much less critical attitudes than the general public.

Multivariate Evidence

Our main issue-relevant measures of knowledge of inequality are the perceived level of earnings and earnings ratios in the ISSP and SESA data. Such measures can be subject to biases of partisanship and economic self-interest, however (Bartels 2008; Lupia et al. 2007). Liberals who dislike inequality may perceive it to be especially large whereas conservatives who defend inequality’s productive role in motivating effort might underestimate inequality, thinking that more is needed to spur growth. In addition, as we saw in the last section, the top one percent estimate executive earnings and executive to worker earnings ratios that are more accurate than

the estimates of the public. This suggests that they are more informed about pay levels and disparities in pay levels, yet this knowledge will not necessarily translate into more critical views about income inequality, as the “ignorance” thesis implies, because it may be countered by a material interest in maintaining and affirming the status quo. For these reasons, it is necessary to control for other factors in determining the role of this particular measure of knowledge on norms about inequality.

As a check on the reliability of this measure of knowledge, we first compared the factors that are associated with perceptions of actual earnings ratios with those that are associated with desired earnings ratios. The results are presented in Table 4, and they demonstrate the plausibility of using perceptions of earnings ratios to measure knowledge. All of the demographic characteristics that are associated with exposure to higher earnings are positively and significantly associated with earnings ratios: being white, male, married, older, and more educated, and having higher income. At the same time, political views and partisanship have no significant effect, although they do trend in the predicted direction: liberals and self-identified “strong” Democrats (the excluded categories) report higher ratios of inequality. Moreover, the demographic characteristics are much less successful in predicting *norms* of inequality (as shown in Model 2), and the ideological and party orientations trend in the opposite direction as they do for perceptions of actual inequality: Republicans are significantly more inclined to desire a higher ratio of executive to worker earnings (the other conservative ideological and partisan variables are positive but not significant). We believe that this offers some reassurance that perceptions of facts are at least somewhat independent of norms, especially given a zero-order correlation of 0.62 between the two.¹²

¹² In fact, observers may have noted in Table 2 the increase in desired levels of earnings inequality from 2000 to 2010, but rather than indicate an increase in tolerance for higher levels of earnings inequality

We turn now to the effect of facts and norms about *earnings* inequality on norms about *income* inequality. In Table 5, we show the impact of perceptions of the actual ratio of executive to worker pay on norms of income inequality. The latter is measured as an index of agreement to three questions about income inequality, ranging from -3 to +3, and in which agreement to these questions represents a critical orientation toward inequality. According to the ignorance hypothesis, then, a positive effect ought to indicate that greater knowledge about the extremes of inequality will result in more critical views of inequality. This is what we find in model (1), and the effect is significant, lending support to the ignorance thesis. In the next model, we substitute desired levels of earnings ratios for perceived levels and also find a significant effect. Those who desire less earnings inequality also express more critical views of income inequality, perhaps not surprisingly. The effect size is larger than the effect size of the knowledge variable, however, and this is the case in all specifications of the explanatory variables (not shown), whether measured as earnings levels, earnings ratios, or standardized by year or across years, though the effect size difference varies across specifications. Although facts are important determinants of norms, then, and no doubt influence norms (as the two are correlated), norms have strong effects regardless of facts (or perhaps more accurately, given a base level of common knowledge).

We also examine the potential impact of more accurate knowledge about earnings ratios on critical views about income inequality (in the bottom panel of Table 5). As in previous studies of the role of knowledge on policy preferences, we manipulate knowledge so that everyone has the same elevated awareness of the earnings ratio, defined as two standard deviations above the mean, and fully interact knowledge with all covariates (Gilens 2001). Because we are pooling four years of data over the 1987 to 2010 period, a time of substantial growth in earnings

over time, an alternative explanation is that perceptions of higher actual earnings, which are probed first, set the context for responses to desired earnings, inflating them. This leads to the high correlation between perceived and desired earnings.

inequality, and a corresponding rise in awareness of earnings inequality, we standardize knowledge by year so that two standard deviations above the mean is equivalent across years. When we recalculate views about income inequality assuming this level of knowledge about earnings inequality for everyone, the index increases from 0.69 to 0.81, a little more than a tenth of a standard deviation of the index.

To compare effects, we show the range of the index across years as well. The change over time in the index, at existing levels of knowledge, is more substantial from 1987 to 2000 than the change induced by greater knowledge. At the same time, the change in the index from 2000 to 2010 is about the same as the change induced by greater knowledge. When we apply this method to a logistic regression with agreement to the question about “differences in income in America” being too large (see Table 3), elevated knowledge results in an increase of strong agreement from 23 to 28 percent and of total agreement from 66 to 68 percent. In the analysis of SESA data, we find that neither the estimated CEO/worker pay ratio nor the desired CEO/worker pay ratio affect agreement to the question about income differences being too large (in a logistic regression model). A combination of the two pieces of information—the ratio of desired to perceived CEO pay—does have a significant effect, however, net of ideology and partisanship.

In short, knowledge alone can shift norms about inequality in a more critical direction, but the average net effect is relatively small. This is because there is substantial heterogeneity in norms among those with similar perceptions of executive pay (as shown in model 3 of Table 5). It also likely reflects a baseline level of knowledge and concern about inequality that already exists, making additional information less consequential than the factors that affect underlying perceptions and norms to begin with.

Conclusion

We show that critical perceptions of economic opportunity, earnings inequality, and income inequality are greater than commonly assumed. Moreover, these critical perceptions of inequality are heightened among the public relative to the top one percent (residing in the Chicago area). These differences between the public and the top one percent are especially notable when it comes to desired levels of earnings inequality and an awareness of constraints on economic opportunity. Only 1 percent of the top one percent believes that coming from a wealthy family is very important for getting ahead, whereas 20 to 30 percent of the public believe this (which is also the same or more than the median share among Western countries, which are typically seen to be more critical of American-dream-type ideologies). Moreover, only a quarter of the top one percent believes that having well-educated parents is very important, whereas nearly half of Americans think so (also more than the median share among Western countries). The public also desires, on average, about half the disparity in pay between executives and workers as the top one percent, though both desire a major reduction in this disparity.

Using previously undisclosed data of perceptions of top-end pay from the General Social Survey, we also find considerably higher and more reliable estimates of pay disparities than found in previously published research, as well as awareness that such disparities have risen significantly over time. Given this, we argue that these data can be used to measure “issue-specific” information and the impact of such information on norms about inequality. Such information does affect norms about inequality but the effects are relatively small. On the one hand, a substantial portion of individuals with better information are in higher income groups themselves (e.g., whites, men, older individuals, and the well-educated), and are not seeking to reduce top-end pay as much as others from more modest backgrounds. On the other hand,

simulating more accurate knowledge of pay disparities for less-informed individuals does not dramatically alter their norms regarding inequality, which already tend in a critical direction. Thus, our evidence suggests that the ignorance of the American public regarding income inequality is likely overstated.

References

- Alesina, Alberto and Edward L. Glaeser. 2004. *Fighting Poverty in the US and Europe: A World of Difference*. New York: Oxford University Press.
- Alesina, Alberto, Rafael Di Tella, and Robert MacCulloch. 2004. "Inequality and Happiness: Are Europeans and Americans Different?" *Journal of Public Economics* 88: 2009-2042.
- Bartels, Larry M. 2005. "Homer Gets a Tax Cut: Inequality and Public Policy in the American Mind." *Perspectives on Politics* 3(1): 15-31.
- Bartels, Larry M. 2008. *Unequal Democracy*. Princeton, NJ: Princeton University Press.
- Benabou, Roland and Efe A. Ok. 2001. "Social Mobility and the Demand for Redistribution: The POUM Hypothesis." *Quarterly Journal of Economics* 116: 447-87.
- Benabou, Roland and Jean Tirole. 2006. "Belief in a Just World and Redistributive Politics." *Quarterly Journal of Economics* May: 699-746.
- Corak, Miles, ed. 2005. *Generational Income Mobility in North America and Europe*. NY: Cambridge University Press.
- DiPrete, Thomas, Gregory Eirich, and Matthew Pittinsky. 2010. "Compensation Benchmarking, Leapfrogs, and the Surge in Executive Pay." *American Journal of Sociology* 115(6):1671-1712.
- Free, Lloyd, and Hadley Cantril. 1968. *The Political Beliefs of Americans*. New York: Simon and Schuster.
- Frydman, Carola, and Raven Saks. 2010. "Executive Compensation: A New View from a Long-Term Perspective, 1936-2005." *Review of Financial Studies* 23(5): 2099-2138.
- Gilens, Martin. 2001. "Political Ignorance and Collective Policy Preferences." *American Political Science Review* 95(2):379-96.
- Hacker, Jacob and Paul Pierson. 2010. *Winner-Take-All Politics*. New York: Simon & Schuster.
- Hochschild, Jennifer. 1981. *What's Fair? American Beliefs about Distributive Justice*. Cambridge, MA: Harvard University Press.
- Cluegal, James R., and Eliot R. Smith. 1986. *Beliefs about Inequality: Americans' Views about What Is and What Ought To Be*. New York: Aldine De Gruyter.
- Ladd, Carll Everett and Karlyn H. Bowman. 1998. *Attitudes Toward Economic Inequality*. Washington, DC: American Enterprise Institute.

Lane, Robert E. 1986. "Market Justice, Political Justice." *American Political Science Review* 80: 383-402.

Lipset, Seymour Martin. 1996. *American Exceptionalism: A Double Edged Sword*. New York: W.W. Norton.

Lupia, Arthur, Adam Seth Levine, Jesse Menning, and Gisela Sin. 2007. "Were Bush Tax Cut Supporters 'Simply Ignorant?' A Second Look at Conservatives and Liberals in 'Homer Gets a Tax Cut.'" *Perspectives on Politics* 5(4):773-784.

McCall, Leslie. 2013. *The Undeserving Rich: American Beliefs about Inequality, Opportunity, and Redistribution*. Cambridge University Press.

McCall, Leslie and Kenworthy, Lane. 2009. "Americans' Social Policy Preferences in the Era of Rising Inequality." *Perspectives on Politics* 7(3):459-484.

Morgan, Stephen, Gary Fields and David Grusky, eds. 2006. *Mobility and Inequality: Frontiers of Research from Sociology and Economics*. CA: Stanford University Press.

Newman, Katherine and Elisabeth Jacobs. 2010. *Who Cares? Public Ambivalence and Government Activism from the New Deal to the Second Gilded Age*. Princeton, N J: Princeton University Press.

Norton, Michael and Daniel Ariely. 2011. "Building a Better America – One Wealth Quintile at a Time." *Perspectives on Psychological Science* 6(1):9-12.

Osberg, Lars and Timothy Smeeding. 2006. "'Fair' Inequality? Attitudes toward Pay Differentials: The United States in Comparative Perspective." *American Sociological Review* 71: 450-73.

Page, Benjamin I. and Robert Y. Shapiro. 1992. *The Rational Public: Fifty Years of Trends in Americans' Policy Preferences*. Chicago: University of Chicago Press.

Page Benjamin I., and Lawrence R. Jacobs. 2009. *Class War: What Americans Really Think About Class War*. Chicago, IL: University of Chicago Press.

Page, Benjamin I., Larry M. Bartels, and Jason Seawright. 2011. "Interviewing Wealthy Americans." Presented at the annual meeting of the Midwest Political Science Association, March 31, Chicago, IL.

Piketty, Thomas. 1995. "Social Mobility and Redistributive Politics." *Quarterly Journal of Economics* 110: 551-84.

Sawhill, Isabel and John Morton. 2007. *Economic Mobility: Is the American Dream Alive and Well?* Washington, DC: The Pew Charitable Trusts.

Verba, Sidney and Gary Orren. 1985. *Equality in America: The View from the Top*. Cambridge, MA: Harvard University Press.

Table 1. Perceptions of opportunities for getting ahead and government redistribution in cross-national perspective.

		Essential or Very Important (%)		
(1) To begin we have some questions about opportunities for getting ahead. How important is:	U.S.	Sweden	Western Countries (median)	All Countries (median)
2010 ISSP				
(a) Coming from a wealthy family?	30.5	13.5	12.6	31.9
(b) Having well-educated parents?	49.9	21.1	31.6	39.3
(c) Knowing the right people?	46.4	40.1	38.9	55.0
(d) Hard work?	95.5	75.7	68.4	76.1
2000 ISSP				
(a) Coming from a wealthy family?	20.5	19.0	19.2	29.5
(b) Having well-educated parents?	NA	NA	NA	NA
(c) Knowing the right people?	47.2	56.5	47.2	56.5
(d) Hard work?	NA	NA	NA	NA
2011 SESA				
(a) Coming from a wealthy family?	1.2			
(b) Having well-educated parents?	24.1			
(c) Knowing the right people?	20.5			
(d) Hard work?	91.6			
		Agree or Strongly Agree (%)		
(2) It is the responsibility of government to reduce differences in income between those with high incomes and those with low incomes.				
2010 ISSP	32.6	57.8	58.0	74.9
2000 ISSP	35.3	59.5	59.5	71.9

Source: Authors' analysis of International Social Survey Program (ISSP) and Survey of Economically Successful Americans (SESA) data.

Notes: Response categories to panel (1) ISSP questions are "essential," "very important," "somewhat important," "not very important," and "not at all important." Response categories to panel (1) SESA questions are "very important," "somewhat important," and "not very important at all," and responses are shown only for the "very important" category. Response categories to panel (2) questions are "strongly agree," "agree," "neither agree nor disagree," "disagree," and "strongly disagree." Western countries included in 2000 are Australia, New Zealand, Japan, West Germany, Great Britain, Austria, Norway, Sweden, Spain, France, Portugal, and the United States. Western countries included in 2010 are Australia, New Zealand, Japan, Austria, Norway, Sweden, Spain, France, Portugal, United States, Denmark, Finland, and Switzerland.

Table 2. Knowledge of and views toward earnings inequality in the U.S.

	CEO	Worker	CEO/Worker Ratio
(1) Calculations of actual CEO pay			
Average in 2001 (Osberg & Smeeding 2006)	\$1,305,012	\$29,391	44
Average in 2006 (DiPrete et al. 2010)	\$7,100,000	\$29,391	242
Median in 2000-2005 (Frydman & Saks 2010)	\$9,200,000	\$29,391	313
(2) Estimated CEO and worker pay			
ISSP average in 2000 (Osberg & Smeeding 2006)	\$218,601	\$30,161	8
ISSP average in 2000	\$927,235	\$20,292	46
ISSP average in 2010	\$4,121,243	\$27,018	153
SESA average in 2011	\$7,210,526	\$36,707	196
ISSP median in 2000	\$227,500	\$18,025	13
ISSP median in 2010	\$800,000	\$25,000	32
SESA median in 2011	\$3,250,000	\$35,000	93
(3) Desired CEO and worker pay			
ISSP average in 2000	\$333,202	\$26,335	13
ISSP average in 2010	\$1,062,158	\$33,699	32
SESA average in 2011	\$2,487,500	\$39,587	63
ISSP median in 2000	\$100,000	\$25,000	4
ISSP median in 2010	\$200,000	\$30,000	7
SESA median in 2011	\$2,000,000	\$40,000	50

Sources: Authors' analysis of International Social Survey Program and Survey of Economically Successful Americans data, unless otherwise noted. All figures are in current dollars.

Notes: Worker pay in panel (1) is from Osberg & Smeeding (2006), calculated as the average pay for a "production worker in manufacturing." The wording of the question on perceived/estimated pay in panel (2) is: "We would like to know what you think people in these jobs actually earn. Please write in how much you think they usually earn, each year, before taxes. Many people are not exactly sure about this but your best guess will be close enough. This may be difficult, but it is very important, so please try." The wording of the question on desired pay in panel (3) is: "Next, what do you think people in those jobs ought to be paid – how much do you think they should earn each year before taxes, regardless of what they actually get?" Executive pay is derived from questions about "the chairman of a large national corporation," and unskilled worker pay from questions about "an unskilled worker in a factory." Raw responses were obtained and then top coded to eliminate extreme outliers. Osberg & Smeeding (2006) used publicly available data that is topcoded at \$1,000,000 (a quarter of the 2000 sample). One outlier is eliminated from the SESA data.

Table 3. Knowledge of and views toward income inequality in the U.S.

	ANES Panel 2008 to 2010			
	Great Deal Smaller	Moderately Smaller	Little smaller	Same
(1) American households with incomes in the top 5% earn an average of \$300,000 per year, and households with incomes in the bottom 5% earn an average of less than \$10,000. Should this difference be smaller, bigger, or about what it is now?	30 – 33%	22 – 24%	3 – 4%	32 – 38%
(2) American households with incomes in the top 20% earn an average of \$170,000 per year, and households with incomes in the bottom 20% earn an average of less than \$11,000. Should this difference be smaller, bigger, or about what it is now?	29 – 38%	21 – 25%	3 – 5%	23 – 37%
	General Social Survey and SESA			
	Strongly Agree	Agree	Neither	Total Disagree
(3) Differences in income in America are too large.				
2008 and 2010 GSS	26%	38%	19%	17%
2011 SESA		62%		38%

Source: Authors' analysis of ANES Panel (2008, 2009, and 2010), General Social Survey (2008 and 2010), and Survey of Economically Successful Americans data.

Notes: Response categories for questions (1) and (2) also include "a great deal larger," "moderately larger," and "a little larger," but these are not shown. Response categories for question (3) in the GSS include "disagree" and "strongly disagree," but these are combined into the "total disagree" column. Response categories for question (3) of SESA only includes an "agree" and a "disagree" option.

Table 4. Effects of covariates on perceptions of CEO/worker pay ratio and desired level of pay ratio in the U.S., 1987 to 2010 (linear regression estimates).

	Outcome Variable	
	Perceived CEO/ Worker Ratio Model (1)	Desired CEO/ Worker Ratio Model (2)
White	0.191 (.04)***	0.014 (.05)
Male	0.221 (.03)***	0.256 (.03)***
Age	0.029 (.01)***	0.007 (.01)
Age squared	-0.000 (.00)***	-0.000 (.00)
Married	0.113 (.04)**	0.012 (.04)
Family Income	0.031 (.01)***	0.046 (.01)***
Education	0.125 (.01)***	0.096 (.02)***
Standard of living will improve	-0.044 (.02)**	0.059 (.02)***
Independent/Democrat (relative to strong Dem)	-0.053 (.04)	0.063 (.05)
Republican (relative to strong Democrat)	-0.059 (.05)	0.202 (.05)***
Moderate (relative to liberal)	-0.056 (.04)	0.041 (.04)
Conservative (relative to liberal)	-0.004 (.04)	0.082 (.05)
N	3,011	3,011
Adjusted R squared	0.24	0.15
Root MSE	0.84	0.91

Source: Authors' analysis of General Social Survey and International Social Survey Program data, 1987, 1992, 2000, and 2010.

Notes: For a description of outcomes variables, see notes to Table 2. In this table, the outcomes are pooled across years, logged, and standardized. Other variables included in the model are household size; dummies for whether there are children under 18 in the household, subjective class location (3 dummies for working, middle, and upper class, all relative to lower class), living in the South, being employed, and year. Family income is measured in 2008 dollars divided by 10⁴; education is measured in five categories, coded 1-5, for less than high school, high school, some college, college degree, and more than college degree. "Standard of living will improve" is measured in five categories, coded 1-5, from strongly disagree to strongly agree.

Table 5. Effects of knowledge of pay inequality on beliefs about inequality in the U.S., 1987 to 2010 (linear regression estimates).

	Outcome: Index of Inequality Attitudes (-3=accepting to +3=critical; 0=neutral)		
	Model (1)	Model (2)	Model (3)
Perceived CEO/worker pay ratio (logged and standardized by year)	0.069 (.02)***	-----	0.223 (.03)***
Desired CEO/worker pay ratio (logged and standardized by year)	-----	-0.130 (.02)***	-0.256 (.02)***
All controls (no interactions)	YES	YES	YES
N	2,793	2,793	2,793
Adjusted R squared	0.19	0.20	0.22
Root MSE	1.00	0.99	0.98
Predicted outcome in full interaction model (perceived CEO/worker ratio, standardized by year, is interacted with all covariates)			
With existing perceived pay ratio	0.69		
With perceived pay ratio at +2 sd	0.81		
With existing perceived pay ratio:			
In 1987	0.47		
In 1992	0.91		
In 2000	0.64		
In 2010	0.78		
With perceived pay ratio at +2 sd:			
In 1987	0.41		
In 1992	1.09		
In 2000	0.70		
In 2010	1.09		

Source: Authors' analysis of General Social Survey and International Social Survey Program data, 1987, 1992, 2000, and 2010.

Notes: For a description of pay ratio variables, see Table 2. All variables included in Table 4 models (and described in the notes to that table) are included here, except linear specifications are used instead of dummies where possible (e.g., party identification and political views). The outcome is an additive index of three questions about beliefs regarding income inequality. Each

question is coded as -1 (strongly disagree), -.5 (disagree), 0 (neither), .5 (agree), 1 (strongly agree); the range of the index is therefore -3 to +3, with positive values indicating more critical views of income inequality. The questions are posed as statements to which respondents agree or disagree: “Differences in income in America are too large,” “Inequality continues to exist because it benefits the rich and powerful,” and “Large differences in income are unnecessary for America’s prosperity.”