WHERE IS THE POLITICAL RESPONSE TO INEQUALITY IN THE US?

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ABSTRACT

Why have significant increases in inequality in the US not met with greater popular demands for redistribution through government spending and services? The explanation advanced here relies on two, separate claims. The first is that attitudes to public programs may be more accurately described by models of spending as insurance (or public goods) than by models of public spending as redistribution, as in the well-known Meltzer-Richard model. This claim has implications for the effect of changes in real, disposable income on preferences. The second claim is that the real income of middle class, and “middle-skill” households has become painfully constrained, as the demand for workers with middling levels of skill has fallen. Combining the two, I argue that the political response to inequality has been muted because the “middle-skill” workers whose earnings and income have been most compressed have reduced their support for government spending and services in order to protect the disposable income available to them for private consumption. Because these skill groups are more likely than others to be in the middle of the income distribution, and moderate in their political preferences, these shifts in preferences imply a large potential impact on voting.
I. INTRODUCTION

In the years following World War II, and up to 1980, income inequality in the US fluctuated moderately with the business cycle but with no predictable movement in one direction or another. From 1980, however, the US has seen an increase in inequality that has continued, steadily, to the present.\(^1\) The pre-tax Gini coefficient for family income rose from 0.365 in 1968 (a little below its level at 0.376 in 1947, the first year of measurement) to 0.451 in 2012 (US Census Bureau, 2013, Table A-2: Selected Measures of Household Income Dispersion). Trends in the post-tax Gini measure of inequality tracked those found in the pre-tax coefficient closely (Kenworthy and Smeeding, 2013). Figure One charts the pre-tax Gini coefficient for US families and households from 1947 as a depiction of the general trend.\(^2\)

Longer-term analysis is facilitated by the work of Piketty and Saez (2003) which has tracked the share of total income accruing to the richest one percent and 0.1 percent of households since 1913. As this data indicates, much of the more recent rise in inequality can be attributed to a growing disparity between the incomes of the middle class and top earners (Piketty and Saez, 2003). Figure Two reproduces the Piketty and Saez data for the income shares of the wealthiest individuals, updated since their 2003 study. The graph shows the dramatic uptick in the share of national income going to those at the very highest reaches of the income distribution from approximately 1980 onwards. Those income shares now exceed those seen early in the 20\(^{th}\) century and approach the levels of the roaring twenties.

In addition, however, any review of income dispersion by quintile quickly finds that the relative position of median to poor households has barely budged, with the ratio between the 50\(^{th}\)

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\(^1\) Income disparities grew consistently except during the recessions of 1990-91, 2001, and 2007 (CBO, 2014).

\(^2\) The Gini coefficient measure of income inequality is available for family units from the US Census Bureau for 1947 onwards and for households for 1967 on. The Gini coefficients for households and families track each other closely with inequality higher for households because of the division of existing families into smaller and poorer households. Both indices rise in 1993 with changes in data collection methods for the CPS March supplement.
percentile and the 20th percentile of households approximately flat from 1967 to 2013 (US Census Bureau, 2013). By comparison, the ratio between households at the 95th percentile of income and the median of the income distribution has risen by over 40 percent. The increase in inequality, in other words, has occurred mostly through a growing gap between the top and the middle, with the position of the median household vis a vis those at low incomes approximately unchanged. Indeed, by some measures, the relative position of households in the middle of the income distribution has worsened since the late seventies relative to both poorer and richer households (CBO, 2014). Figure Three provides this analysis graphically. In addition, and crucially for the later analysis herein, the absolute position of middle income households, in terms of their disposable income, has by some estimates worsened just as inequality has grown most sharply (Center for American Progress, 2014, Department of Commerce, 2010).

Because much of the growing gulf between the income of upper-income and median households derives from changes in earned income, it is less easily addressed through instruments like the estate tax that were brought in during the Gilded Age (Bartels, 2008, CBO, 2011). Yet contemporary inequality could be addressed through greater use of government’s standard fiscal tools of taxation and spending. This has been the main vehicle through which governments have addressed inequality and developed economies that have higher rates of government spending and services are also more equal (Alesina and Glaeser, 2004). Indeed, given the significance that political science scholarship to preferences in determining social policy, it is imperative that we understand why the dramatic increase in inequality described above has not generated public demands for redistribution via the fisc (Brooks and Manza, 2007, Hacker and Pierson, 2011). Independent of any normative arguments, the standard intuitions of political economy imply that democratic voting should contain and counter inequality (Kelly and

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3 Bonica et al (2013) ask a similar question.
Enns, 2010). Inequality should be self-correcting (Salverda, Nolan and Smeeding, 2009). Evidence that this has not happened compels us to review those intuitions.

The answer does not appear to be that citizens are unaware of inequality or unconcerned about its effects (McCall, 2013). Yet, and while survey respondents state their opposition to inequality, they also express a reluctance to equalize incomes through additional public spending; “Americans do object to inequality and increasingly believe government should act to redress it, but not necessarily via traditional redistributive programs” (McCall and Kenworthy, 2009, 459). In light of the absence of a broad movement for redistribution (going beyond the “Occupy” events), and in the context of growing inequality, scholars have sought to explain why class war does not occur in the US (Page and Shapiro, 2009).

The import of this paper is to analyze the lack of a political response to inequality that could shift policy towards greater redistribution. More concretely, I analyze the forces that muted the response to inequality at the level of individual preferences and thus tempered demands for greater taxation and spending. Among those forces, I suggest that we must examine economic changes that have had fundamental and persistent effects on different groups, defined by their skills. The analysis below examines the impact of a transformation in the labor market that is known as “labor market polarization.” This shift is marked by a growing disparity in the earnings of high-skill and middle-skill workers with the integration of information technology into production. Labor market polarization can be tied to rising inequality but also left “middle-skill” households painfully constrained in their spending patterns. Indeed, the

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4 As McCall (2013, 5) notes, “Far from not caring about inequality, the small number of questions that do exist on this topic reveal a substantial share of Americans that have long desired less inequality, sometimes much less. This is something that specialists in the field have been documenting since at least the 1970’s.”

5 While the literature on attitudes towards redistribution gives careful consideration to the role of institutions, I treat preferences as causally prior. Further, the findings of McCall and Kenworthy (2009) suggest that at least part of the explanation for a lack of major political response lies with individual attitudes.
analysis below differentiates between the impact of a household’s relative income, which is the standard focus of discussions on inequality, and the effect of its absolute income level.  

We can think of decline in a household’s real, disposable income as a particular form of economic hardship. Existing theories of preferences over government’s welfare role indicate that hardship can, under certain circumstances, reduce demand for government taxation and spending. This holds particularly if and when voters perceive spending as insurance against particular classes of adverse life events. The argument presented here is that the impact of labor market polarization, considered within the framework of spending as insurance, can help us to explain the otherwise extraordinary lack of demand for redistribution in the US – even as inequality has risen to levels last seen under Theodore Roosevelt. Growing inequality, and widening dispersion in relative incomes, has been associated with stagnation or even decline in real income for many households around the median of the income distribution. Given the institutional structure of “residual” welfare states (Titmuss, 1974), we should not be entirely surprised if the effect of hardship has trumped that of inequality, reducing the demand for government programs by households at the middle of the income distribution. Moreover, and since those voters are frequently centrist in their partisanship and ideology, shifts in attitudes on issues of such core issues of economic policy are likely to have affected actual votes.

The remainder of the paper proceeds as follows. Section II reviews the models of public spending as redistribution or insurance and highlights their predictions for the effect of real income on preferences and its conclusions for earnings by different skill groups. The first part of the empirical analysis, in Section IV, is devoted to testing whether the predictions of the spending as insurance model, for the impact on real income on attitudes, are observed in micro-

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6 Here, relative income could define where a person is in the distribution (e.g., the 50th percentile) or the dispersion between households at different points on the distribution, as in the 95/50 ratio.
The second part of the empirical analysis, in Section V, tests whether we see a relationship between earnings growth and support for government spending and services in repeated cross sections. In other words, and as their earnings have come under greater pressure, have middle skill respondents shifted away from supporting government spending? Equally, has support risen among high-skill groups that have seen healthy earnings growth? Section VI concludes with a discussion of what these results imply for the coalition in support of government spending and redistribution.

II. Preferences over Government Taxation and Spending

In what follows, I describe two, prototypical models that explain government spending and taxation. These models derive from a literature that has sought to explain the size of government based on simple assumptions for individual utility and societal voting rules (Romer, 1975, Roberts, 1977, Bénabou, 2000). The two prototypes, following the typology in Moene and Wallerstein (2001) differ in their assumption of whether the purpose of government spending is primarily redistributive, going to all, or insurance, in that spending goes to sub-categories of the population who have qualified by virtue of particular life events. The purpose of this exercise is to isolate what those different categories of model imply for changes in absolute and relative income and thus to highlight predictions for the empirical section. These implications are also summarized in Figure Four. The description cannot hope to do justice to the rich literature on preferences over the fiscal and welfare role of government, but I allude, where possible, to related work.
The canonical model of public preferences over government spending and taxation, and for many authors the workhorse model of redistribution, is that of Meltzer and Richard (1981), henceforth MR. In this model, public spending is wholly redistributive. As the author’s note “we concentrate on the demand for redistribution and neglect any ‘public goods’ provided by government” (1981, 916). As in many fiscal systems, the redistributive import comes because wealthier citizens pay more in tax but all citizens receive benefits. In the MR framework, the government levies an ad valorem tax rate on earnings for all citizens and this tax rate is determined by a social decision rule that is differentiated by the identity of the “decisive voter.”

Democracy is the system in which the median voter is decisive. The crucial element of the model is that each household receives a given dollar transfer per period. The amount of this lump sum transfer is given by the tax rate multiplied by per capita income. Higher tax rates, and greater spending, are more attractive for poorer households for whom dollar tax payments are lower in comparison to the transfer they receive.

More precisely, for households whose income exactly matches per capita income, the benefits of taxation and spending are zero. Tax payments for these households are exactly equal to the transfer they receive, with government’s fiscal role neither increasing or decreasing consumption. Higher taxation and spending is attractive for all households below the mean level of household income at which the flow of net benefits from government is zero. Further, and because the income distribution is left-skewed in almost all human societies, with a large cohort of households of relatively limited means and a smaller number of wealthy, the mean income

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7 The model does not allow for rising marginal rates of taxation with income, as in the more progressive tax systems, although it could be extended in this way. Taxes are levied only on citizens with earned income and some citizens elect not to work.

8 The formal model stipulates that each citizen receives “r units of consumption per capita” to avoid having to deal with issues of prices and money, but we can think of a lump sum payment that would be equivalent to a certain number of units of consumption.
level will be above the median (and thus above the income level of the median voter). It thus follows that redistribution will result from democracy.

The main result of the MR model relates to our classic notion of inequality as being about the *relative* distribution of resources. It describes how the preferences of the median voter over the tax rate will change as the distance between his or her income and the societal mean increases. This distance is described as ratio, a relative distance. As the distance increases, the median voter will rationally prefer a higher rate of tax. Why is this? The benefit of taxation, for the median voter, is that he or she pays less in tax than she receives from the transfer. As the distance between mean and median increases, the tax paid by the median voter relative to the transfer received falls and government distribution adds more to consumption. When the median pays less in taxes for a given benefit, taxes become more attractive.

Thus, and within the MR framework, relative income dominates our predictions for tax rates and spending. As relative income, and the share of national income going to the median falls, his or her preferred level of taxation and transfer will rise (see Figure Four). Thus, the increasing inequality observed in the US, with a greater gap between mean and median, should increase the desired tax rate and level of spending. Indeed, government taxation and expenditure should in general be higher in countries with higher, pre-tax inequality of earnings. Turning to position within the income distribution, it is clear that rich voters dislike taxation and

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9 It is only the disincentive effect of taxes on labor supply, and therefore on mean income, that deter households form below the mean from setting a tax rate of 100 percent. Because the deterrent effect of taxation does not vary very much as the distance between mean and median changes, we can be fairly sure that increased disincentives will not offset the impact of a better redistributive “deal” as inequality changes. Setting constraints on the relevant second derivatives ensures that this follows (Meltzer and Richard, 1981, 922-923).
spending, while poor voters support it. One implication is that franchise expansion, a key reference case for MR, should generate increases in the size of government because, in general, the median voter will be drawn from a pool of poorer voters as the franchise grows.

While the model is almost silent on the role of absolute income, it is possible that a fall in the absolute income of the median voter (independent of his or her position vis a vis the mean) could also raise the desired tax rate because the marginal utility of consumption rises as consumption falls. As a society became poorer, then, desired taxes might rise, even with no change in relative incomes, because additional consumption through the fisc became more attractive to a cash-strapped median voter. In Figure Four, this hypothesized relationship is shown with a question mark; it follows from standard assumptions about the utility function but is not explicitly derived within the original MR model.

The second prototypical model is that of Moene and Wallerstein (2001), henceforth MW. This theoretical model analyzes the desired choices over tax rates when government spending goes either to insurance or towards redistribution through a lump-sum transfer (as in MR), or is operated as some combination of those types. However, the key innovation of the MW model is to consider that at least some government spending is likely to be of this insurance type and to derive the implications of this for preferences over taxation and spending. In what follows, therefore, I describe the implications of changes in relative and absolute income for the version of the MW model in which government spending is dedicated to the insurance role.

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10 Thus the MR model sees a decrease in relative income as raising the desired tax rate, whether we look at relative income as the distance between two points on the income distribution or an individual’s position on that distribution. This distinction becomes more meaningful in the model of spending as insurance.

11 An increase in public spending with overall decline in income would also contradict Wagner’s Law (Musgrave, 1969). The issue of whether absolute, as well as relative position, is relevant to attitudes has also reanimated a related literature on happiness. See the work of Stevenson and Wolfers (2008).
While the insurance model differs from MR in the nature of spending, many key features of MW are remarkably similar to the earlier model. A constant, ad valorem tax rate, set through voting, is levied on earned income. This tax rate, multiplied by average earnings, determines the lump sum benefits paid out. What differs is the recipient of these benefits. In the insurance model, spending goes only to citizens who are unemployed (the lump sum benefit thus also depends on the proportion of the population not in work). The tax rate is set by the decisive voter and, in MW, the decisive voter is drawn from a category of lower paid workers who face higher risks of unemployment than high-income earners. This group of low-income workers prizes government spending as insurance because it offers a mechanism for moving income to their households in the state of the world in which they have no earnings. Further, and given the constant percentage tax rate and the lump sum nature of unemployment benefits, lower-income workers are getting insurance at a relatively favorable “price.”

What will happen in this framework when a worker’s earnings fall, with a decline in his or her absolute income? This exercise is undertaken assuming that average earnings for society as a whole are unchanged. As MW show, the expected result of a fall in wages (and income) is that the lower-income workers, and the median voter, will rationally vote for lower taxes. Why does this result, which seems so counter-intuitive, follow from the assumptions of the model?

The models are also similar in assuming that voters are rational and that preferences for taxation and spending are not based on any form of “fiscal illusion.” MW note that we could consider these workers self-interested, in that they care about the conditions of their hypothetical selves in situations of unemployment, or we could perceive them as having altruistic concerns over the conditions of the unemployed (1981, 863). The comment highlights the difficulty of distinguishing between self-interest and other-regarding motivations for government spending since these can be observationally equivalent.

Moene and Wallerstein motivate this exercise by considering the impact of an increase in the distance between the median income and the mean, exactly the same thought experiment entertained by Meltzer and Richard, but their later exposition makes clear that their goal is to explicate the expected effect on taxes of a reduction in the earnings of lower-wage workers rather than a change in relative distance between mean and median that leaves absolute wages unchanged (Moene and Wallerstein, 2001, 863-4).
The result is crucially connected with the purposes of spending and the dollar amount of the benefit. Within the MW model, the benefits of government spending is that a given amount of money, the lump-sum benefit, goes to a household in specified conditions (unemployment). It is an insurance payout. While an employed household reaps the benefit of insuring against job loss, it receives no immediate benefit, in terms of current consumption, from government spending. The opportunity cost of this insurance payout, for an employed household, is the consumption that is currently foregone by the household because they pay tax.

In determining how much tax and insurance they want, households set the benefits of the insurance payout against the consumption foregone. As their income falls, workers will have to cut back on the dollar purchases of many different forms of consumption. Insurance, even though it is publicly provided, is no exception. Workers will rationally want to decrease the real, dollar amount of the insurance payout, just as they would rationally decrease the amount of insurance coverage that they purchased on the private market. Yet the real amount of insurance that workers consume is unchanged because it depends on the tax rate, the per capita earnings for society at large and the share unemployed. The only mechanism that lower-income workers can use to boost consumption in the present is then to vote for a lower tax rate – and since their category supplies the median voter this preference is enacted. The reduction in the tax rate lowers the dollar value of the insurance payout and allows workers to reallocate expenditures so that they can now decrease expenditure on other goods by less.

As wages fall, the insurance program offered through the state has become in many ways a better deal – the worker pays less in taxes for a given dollar insurance payout as his or her

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15 MW assume that the coefficient of relative risk aversion is greater than one, implying that “insurance is a normal good.” Consumers will therefore purchase a greater dollar amount of insurance as their income rises, even though the share of insurance in their budget will remain approximately constant. The same process will work in reverse as income falls, with the dollar amount of expenditure on insurance falling (2001, 862).
income falls. Thus, all else equal, we would expect the voter to want more insurance in dollar terms. Why is it still true that the worker will vote for a reduced tax rate? Unlike the voters in the MR setup, the workers in MW get no immediate, consumption benefit as employed persons from the additional share of tax contributed by wealthier households. Moreover, and since their income has fallen, these voters would like to cut back on their dollar expenditures on all normal goods. Insurance is a normal good so, by assumption, voters will want lower “expenditures” on insurance. Since the insurance “expenditure” is determined by a vote on the tax level, lower-income workers will vote for lower taxation and benefits. As shown in Figure Four, then, the implication is that a fall in absolute income, within the MW model and for spending as insurance, will trigger a desired reduction in taxation and spending.

One of the key predictions of the MW model, then, refers to absolute income (“What happens when wages fall?”) and is clearly distinct from the predictions of MR. Does MW have a prediction for changes in relative income? Where, by relative income, we mean changes in an individual’s position in the income distribution, the answer appears to be “yes.” While the authors are circumspect about this aspect of their model, they are clear that real world assumptions for the distribution of risks imply that higher income workers, who face lower risks of job loss, oppose taxation and spending for unemployment insurance. Equally, and although

16 See Moene and Wallerstein (2001, 863, Equation 8) on the inclusion of the marginal rate at which income can be transferred, via the welfare system, from income when employed to income when not in the first order condition for the optimal level of taxation and benefits. This marginal rate increases with greater distance between mean and median income because it implies that lower-income voters pay less in taxes, at any tax rate, for a given payout.  
17 A “normal” good is defined as one that has a positive income elasticity, meaning that consumers purchase more of it as income rises and less as income falls. 
18 Given the lower tax pay-in for insurance payout, it is plausible that dollar expenditures on insurance would fall less, in percentage terms, than dollar expenditures on goods for which prices had not changed. 
19 “Our approach does not yield a clear prediction regarding how support for insurance against the risk of income loss varies across individuals with different incomes. In our model, the demand for welfare spending comes from those who never work and low-wage workers who may lose their employment. High-wage workers, who, by assumption, face no risk of income loss, oppose spending on social insurance to the extent that they vote in a self-interested manner. In reality, however, the risk of income loss rises gradually as one rises up the income scale.”
their model does not incorporate a savings mechanism (and thus the potential for private insurance) it is also clear that if this alternative were available, richer households would prefer to self-insure.\textsuperscript{20}

Thus, the MW framework is consistent with the assumption that relative income matters, at least in so far as relative income is understood as one’s relative position on the income scale. Higher-income voters will be less likely to support government taxation and spending both because they face lower risks and because insurance through the fisc is less attractive than self-insurance. For this reason, Figure Four shows an increase in desired taxes and spending as relative income falls.\textsuperscript{21} It is presented with a question mark (as is the prediction for absolute income in the MR framework) because it is derived from the model but is not explicitly discussed by the original authors.

As Figure Four and this discussion illustrate, MR and MW start from many of the same assumptions, and consider the impact of the same event – a rise in ratio between mean and median incomes – but come to opposed conclusions on the effect of changes in absolute income. They do so because they look at very different mechanisms through which spending effects welfare. In the MR model, the distance between the mean and median income determines the additional consumption that the median voter receives as taxes rise. As the distance rises, so too

\textsuperscript{20} As such, the reading of MW offered here differs from that in Iversen and Soskice (2001, 878). However, Moene and Wallerstein (2001) clearly indicate that higher-income voters vote against taxation and spending in their model under the, plausible, assumption that they face a lower risk of unemployment.

\textsuperscript{21} The question of how lower-income workers will react to a change in relative income whereby the distance between mean and median increases but their absolute earnings are unchanged is more complex. In this case, mean earnings would have risen (in order to achieve a rise in mean over median). Given the increase in the mean, workers would be able to achieve a higher insurance payout at no additional cost to them. This would follow because while their earnings and tax payments would have remained constant, the insurance payout would rise with average earnings. In this example, there would be no “income effect” on the demand for insurance, but workers might vote for higher taxes and a greater amount of insurance as its effective “price” diminished. This provides an additional reason for inferring that a fall in relative income (separate from shifts in absolute income) is expected to raise the desired tax rate in the MW model.
does consumption for the median voter and thus preferred taxes rise. Absolute income matters little, if at all, because the voter do not need to compare the marginal benefits of different types of goods or of goods in different states of the world – distribution flows equally across goods and states. The distributive model, therefore, highlights the role of relative differences as inequality rises and predicts a rise in taxes.

In the MR model of spending as insurance, we can observe a very different result if the distance between mean and median income rises with a fall in the income of the median voter. In this case, and while the rich will pay more into the fisc (at least proportionally), the median voter does not benefit directly, in cash terms, from greater payments from the wealthy. Instead, and from the point of view of the median voter, the benefit of public spending goes to a hypothetical person – himself or herself when and if unemployed. Workers pay less tax for spending as insurance as their income falls, but they do not receive the difference between tax payments and spending as direct consumption. Indeed, the only mechanism through which they can increase consumption, in the face of hardship, is to cut back on the payment to their hypothetical unemployed self and increase disposable income in the straitened present. While such a choice may appear from some vantage points self-defeating, it is rational given the structure of incentives with which they are faced and when absolute income falls.

The distinction between predictions is central to our understanding of the political response (or non-response) to inequality. The key feature of recent years has been a widening gap between the mean and the median (as is implied by a rising ratio between the 95th and 50th percentile). The income distribution has become more unequal – exactly the change that both MR and MW consider. On the other hand, and alongside growing inequality, the disposable income of median income households has come under increasing pressure. The conflicting
predictions about the effect of changes in absolute income motivate imply very different outcomes following from these social transformations. Thus, the prototypical models, summarized above, motivate timely and serious arguments about whether inequality or hardship will have the greater effect on preferences.22

With this backdrop in mind, it is worth considering that the implications of the MW model also hold if we consider public spending as public goods – roads, defense, and education – as in Durr (1993).23 In Durr’s account, individuals consume private goods out of post-tax income but also consume public goods that are underwritten by tax revenue. Given a diminishing marginal utility of income, an increase in individual income will reduce the marginal utility of consuming private goods relative to the utility of public goods, leaving individuals simply more willing to pay taxes for public goods. This mechanism is exactly equivalent to that outlined in MW and underlies Durr’s description of liberalism as a luxury good.24 Thus the predictions of the MW model apply to a relatively broad range of spending programs.25

What can empirical testing tell us about the correspondence between theorized implications and actual outcomes? The most important empirical evidence in favor of the MR framework is

22 It could be argued that the current US situation differed from the scenario analyzed by MR and MW because, while the distance between mean and median income has definitely widened, this has been achieved through an increase in the mean, rather than in a decrease in median income. An increase in mean income, within the MW model, might increase the desired tax rate, among low-wage workers, because it would raise the benefit level. However, analysis conducted by the author, using the unemployment benefit data in Scruggs (2005), indicates that there has actually been, over the period for which benefit data is available, from 1971-2002, a negative correlation between mean income and real benefit levels. As such, it would appear that the predictions in the MR and MW is applicable to the contemporary case.
23 See also De Neve (2009).
24 As Durr writes, “expectations of a healthy (or improving) economy contribute to the willingness within the American public to undercut liberal policy agenda. Central to this hypothesis is the fact that such an agenda does not come cheap… While liberal elites may push such policies at all times, such an agenda can only be supported by … a populace enjoying the fruits of a healthy economy.” (1993, p. 159)
25 The discussion above elides an important literature on the relationship between risk and preferences over public spending (Iversen and Soskice (2001); Mares (2003); and Rehm (2011)) and emerging scholarship on the role of other-regarding preferences (Cavaille and Trump, 2015; Reuda and Stegmueller, 2015)). Section IV discusses the use of controls for occupational-specific risks of unemployment in the analysis of repeated cross-sections of data.
the often observed relationship between income and support for taxation and spending, with voters less likely to vote for redistribution as income rises.\textsuperscript{26} Researchers have had a harder time, however, finding a positive relationship between a country’s level of inequality and the amount of government taxation and spending, with much energy invested in different measures of income and its distribution (see Lindert, 2004, Alesina and Glaeser, 2004, Milanovic, 2000).\textsuperscript{27} In other words, and as views of the literature have noted, the expected feedback from inequality to expenditure is not generally evident across countries and not always across time.

Empirical analysis of the MW model of spending as insurance is sparse, but different attempts have been made. While Moene and Wallerstein (2001) look at the role of changes in the 90\textsuperscript{th}/10\textsuperscript{th} percentile ratio, other authors have examined the macro-economic equivalent of rising wages, or real growth in GDP per capita. Thus, Durr (1993) finds that voters lean left in times of greater economic growth. Equally, a decline in national income growth is associated with a more cautious attitude to government spending and a rightward drift in policy attitudes. Stevenson (2001) extends Durr’s empirical analysis to 14 western democracies, finding that national policy “mood” is likely to move left as economic conditions improve.

These last two studies, then, examine how aggregate preferences shift with real economic conditions. The findings are consistent with a model of spending as insurance in that they find a positive relationship between real income and preferences at the national level. They do not, however, examine how individuals behave and do not allow us to make inferences about how

\textsuperscript{26} As the section above explains, this association could also be expected under the MW framework and is not, therefore, compelling evidence \textit{against} the insurance framework.

\textsuperscript{27} Indeed, the standard result is that public spending is higher in countries with a more \textit{equal} pre-tax and transfer distribution of income. It has been much easier to show that the size of the fisc has grown as countries have become more democratic (see Acemoglu et al, 2013, Lake and Baum, 2001).
voters perceive the welfare state. What, then, can recent empirical and experimental analysis tell us about how public spending is actually structured or how it is perceived by voters?

Very recent work has attempted to differentiate between the effects of relative and absolute income, in a way that captures the different mechanisms summarized in Figure Four. For example, Mérola and Helgason (2014), vary relative and absolute income among experimental subjects. They find that increases in absolute income raise the desired level of public payout while increases in relative income decrease it. While the resulting shift in preferences is consistent with the theorized mechanism of the MW model, it may be argued that the benefit provided in the experimental treatment is not equivalent to an insurance payout provided in cases of qualifying life event. The question follows, then, how voters respond to absolute and relative income in observational data, where responses are informed by the experience of actual welfare states. Looking at this question, in data from Norway and the US, Finseraas et al (2014) first replicate the well-known result that income is negatively correlated with support for public transfers in any cross-section of public preferences. They are then able to show that this result is reversed, with a positive correlation emerging, once one controls for relative position in the income distribution. This empirical analysis appears to demonstrate that absolute increases in income will actually increase the demand for public transfers, as implied by the insurance model, while improvements in relative position will reduce demand, because of the relative costs of participating in the insurance program.28

This work is clearly new. In order to feel fully confident that the mechanisms outlined in the “spending as insurance” variant of the MW model hold, we must await further replication. The

28 This work is similar in spirit to analysis by Beramendi and Rehm (2013) and Barnes (2015) in that the authors examine how different design choices in the welfare state (eg: degree of progressivity) affect preferences over the level of spending and the tax rate. Scheve and Stasavage (2006) explore the impact on preferences when religious affiliation provides alternative mechanisms for safeguarding against risk.
literature described above, however, indicates that the implications of the MW model are not far-fetched. Rising real incomes have been associated with individual preferences for greater levels of taxation and social spending. The question advanced here is whether this mechanism has worked in reverse in recent years. As the next step in exploring that question, and in order to understand whether declining absolute income has actually been the norm for any group of citizens and voters, I turn to the literature on labor market polarization.

III. SKILLS, EARNINGS AND MIDDLE-CLASS INCOMES

In order to understand the effect of hardship, and who has been affected by it, we have to understand the major trends in earned income since the growth of inequality, especially given the focus on the labor market as the source of contemporary inequality (CBO, 2011). Increasingly, and especially in the last two to three decades, researchers have looked at returns to skill, and have argued that skills have become increasingly salient for earnings (Goldin and Katz, 2008).

Initial analysis of rising inequality in earnings, conducted in the 1980’s, highlighted the potential role of technology and its impact on low-skilled workers. Under this “skill-biased technological change” view, wages of lower-skilled workers were expected to fall as computer technology became more plentiful. This account was, however, challenged by later work that pointed to a particular decline in demand for workers with a “middling” level of skill, with a rise in demand for those with high levels of formal education and some rise in demand for workers whose occupations included purely manual tasks. This transformation in the labor market is
dubbed “labor market polarization” and was noted particularly from the 1990’s. The polarization hypothesis is that demand for “middle-skill” workers will fall, while that for high-skilled (and perhaps low-skilled) occupations will rise. This is because, while computing power (especially with the addition of robotics) can substitute for routine sorting, processing or even assembling tasks, it cannot substitute either for higher-level conceptual reasoning or for manual labor that requires many small adjustments (like brick-laying or waitressing).

The scholar most associated with labor market polarization is David Autor of MIT. One key implication of Autor’s (2006) theory is that the wages of highly-skilled “creative class” workers should rise while the wages of those employed, or formerly employed, in routine tasks should fall, producing a rise in inequality from the 50th to the 90th percentile of the income distribution relative to lower-tail inequality from the 10th to the 50th percentile – consistent with the pattern we have observed.

Autor et al (2006) test the polarization thesis in the U.S. by looking at changes in the share of work performed by individuals of different skill level. In particular, they look for a U-shaped relationship between skill level and growth in labor share, so that demand for workers with higher-level and manual skills is growing, while that for workers with middle-level skill shrinks.

The hypothesis of labor market polarization is buttressed by a replication of Autor’s work presented visually in Figure Five. This figure presents a smoothed (lowess) plot of the change in labor market share for each percentile of the skill distribution, so that occupations are sorted and

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29 From henceforth, in this essay, the term “polarization” will refer to the polarization of labor demand and not to the standard assumption of polarizing trends in attitudes, at the elite or mass level, that is the more standard usage of the term in political science.

30 Cheaper computing power is also seen as complementary to abstract reasoning and conceptual skills, adding to the productivity and earnings of those workers with the highest skills.

31 The predictions for wages of workers in manual occupations are less clear. These could rise (relative to those in routine tasks) because routine tasks are complementary to non-routine manual tasks and these now cost less. In this line of thinking, employers would demand more inputs by unskilled labor in manual tasks as the cost of workers in routine tasks fell. On the other hand, the supply of labor into non-routine manual tasks rises as workers are displaced from routine tasks, making the outcome for non-routine, manual wages ambiguous.
ranked by skill level, proxied in this case by the hourly wages the occupation received in 1980. Where the line is above zero, there has been an increase in labor demand for the occupation and an increase in the proportion of worker hours in this skill percentile for the labor force as a whole. Thus, values above zero indicate a favorable shock to labor demand. Where the line is below zero, the proportion of worker hours that is seen in this skill percentile has shrunk, indicating a negative shock to labor demand.

While there is little evidence for a U-shaped relationship in the eighties, there is for the latter two decades. In the nineties and aughts, in other words, workers in occupations that were clerical or routine saw jobs disappear. By contrast, there has been an increase in the labor share for workers above the 65th percentile for skills and below the 18th percentile. Similar findings are obtained for the UK by Goos and Manning (2007) and for the US by Acemoglu (1999) who uses a less fine-grained categorization of occupational skill and by Goldin and Katz (2007), who confirm that recent developments in the distribution of wages are consistent with polarization. Spitz-Oener (2006) also reports evidence of job polarization in West Germany.\textsuperscript{32}

Moreover, the unfavorable shocks to labor demand for middle-skill workers appears to have affected earnings.\textsuperscript{33} Figure Six presents a similar plot of annualized growth rates in real median hourly earnings for different decades, to test whether these also display a U-shaped relationship with skill.\textsuperscript{34} For the period in which labor market polarization was observed (1990 to 2000, and to some degree 2000 – 2010) we also see a quadratic relationship between skill and the

\textsuperscript{32} Examining the dynamics of labor demand, Smith (2013), along with Foote and Ryan (2012), highlight that polarization is less evident during recessions, which tend to reduce demand for labor among all skill groups. Beaudry, Green and Sand (2014) contend that demand for college-educated workers in occupations requiring abstract reasoning has risen less steeply since 2000.

\textsuperscript{33} Autor and Dorn (2013) point out that polarization in employment does not necessarily imply polarization in wages since outflows of workers from middle-skill occupations into lower-skill service jobs could depress earnings in the latter sector. See also Firpo, Fortin and Lemieux (2013).

\textsuperscript{34} Wage rates are calculated using micro-data from the March Supplement of the Current Population Survey. This data is accessed through IPUMS-CPS (King et al, 2010). Similar results can be obtained looking at real mean wages and looking at median or mean annual earned income.
annualized growth in real earnings by decade. This is particularly pronounced for the 1990’s but also apparent if we look at earnings during the decade up to 2007.\textsuperscript{35}

The differences in earnings growth across skill levels were also substantively important, with annualized growth rates for the $85^{th}$ percentile nearly twice as large as hourly earnings growth for those nearer to the center of the skill distribution.\textsuperscript{36} Nor was this pattern limited to the particular end years of 1990 and 2000. Another simple test of labor market polarization is to examine whether annualized growth in real hourly, median earnings by decade is significantly related to the measure of skills and the square of this measure (in order to capture the quadratic relationship). As this approach shows, polarization was a feature of the labor market from 1990 on, although less marked since 2008 and the Great Recession. Table One shows the F-statistic from a model in which the annualized growth in real, hourly, median earnings by decade is regressed on skills and its square. Entries colored in yellow record a year in which the probability of seeing this level of the F-statistic by chance was less than five percent. Entries colored in red indicate a level of the F-statistic for which the probability, under the null of no relationship, was less than one percent. As those entries indicate, labor market polarization was consistently evident, for earnings, from 1996 to 2004.

In order to connect changes in the labor market to outcomes for the middle class, however, we also have to have evidence that households reliant on the earnings of “middle-skill” workers are members of this class category. While the definition of middle class is contested, I look at the distribution of income for households that are categorized by their level of skill. This approach is similar to that of studies that implicitly define as “middle class” the households that

\textsuperscript{35} The financial crisis lowered the polarization in earnings seen at the upper end of the skill distribution because it reduced wage growth for the highest skilled workers.

\textsuperscript{36} The relationship for the decade of the 1980’s, prior to the first observation of labor market polarization, was more linear, with wage growth always higher for more skilled workers and with some low-skill workers actually seeing declines in real earnings per hour.
are around the median of the distribution of household income. Figure Seven graphs the kernel density of real household income per household member for households that are categorized as low, middle or high skill in the General Social Services data set. In this instance, low skill refers to a household in which the main income earner was in the bottom third of the distribution of household occupational skill percentiles defined based on 1980 wages, middle skill refers to a household in which the main earner is in the middle-third of the skill distribution, and so on. As the graph shows, households that we could identify as “middle-skill” are also middling in the distribution of income (and are close to the overall distribution of income). Their median household has a higher income than households with only low-skills but is lower than that of households which have access to high-skill workers. There is reason to believe, in other words, that the earnings outcomes for middle-skill workers are also relevant for the welfare and income of “middle-class” households, at least when we define this category based on income.

Next, we want to establish whether these middle-skill, and mainly middle-class, households have seen falling income, and actual hardship, given their earnings history. Certainly, declines in real earnings were not unknown during this period. Between 20 and 30 percent of all the occupational groups for which we have data saw negative real growth in hourly earnings over the prior decade, looking at either 2010 or 2000. In part because of higher wage gains for groups whose earnings rose, we still find that the predicted, real hourly growth in earnings was approximately 0.35 percent per annum for workers at the mid-point of the skill distribution. Such a rate might count as stagnation, particularly compared to overall growth rates in the economy. It would allow real, hourly earnings to rise by just 3.6 percent over a decade, far lower than the earnings growth seen at the extremes of the distribution. Since,

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37 The graph displayed is for the 1990’s but would be similar for the “aughts.” The reference group for the kernel density is all households for which we have at least one current or former income earner with a stated occupation.
38 This is not apparent in the lowess graphs because of the smoothing function.
However, real hourly earnings were still expected to rise, is it plausible to claim that middle-skill workers were affected by hardship? Certainly, we have evidence that the middle-skilled did less well than workers at the ends of the skill spectrum, but is there evidence that their well-being declined in absolute terms?

Recent analysis of costs for core household expenditure items imply that the data above, which focus on earnings, may not capture the reality of consumption for middle-skill households. In particular, analysis of health care costs borne by final consumers has shown the burden of health care increasing markedly since the 1990’s (Auerbach and Kellermann, 2011; Polsky and Grande, 2009; Kaiser Family Foundation, 2009; Cohen and Kirzinger, 2014). For instance, and as Auerbach and Kellerman relate, a typical family of four with employer-sponsored health insurance, saw their income increase by 30 percent in the ten years to 2009. The general inflation rate for that period was 29 percent, so that wages just exceeded inflation (as was the case for “middle-skill” workers). At the same time, the family’s monthly premium for health insurance went up by 128 percent; out of pocket expenses rose by approximately 78 percent. Because health care premiums are not included in the CPI (unlike out of pocket expenses) those stresses on a family budget are not incorporated in the basic measure of inflation used to calculate real wages (Auerbach and Kellerman, 2011, 1632, fn 19).

This exercise of cost analysis has also been conducted for the expenditure items that are considered core for the middle-class families whose members often overlap with the “middle-skilled” (US Department of Commerce, 2010). In particular, housing, health care, child care and education have all risen in real terms (US Department of Commerce, 2010; Center for American

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39 Some of this literature also considers the cost of health care through tax payments for government funded health care and the impact on earnings of the cost of employer contributions (Emmanuel and Fuchs, 2008). The discussion here focuses only on the costs to consumers and how these have risen vis a vis wages and general inflation.
These items represent such a large part of middle-class budgets, meaning that real growth in hourly earnings of less than 0.5 percent per annum may be experienced as hardship by households struggling to make ends meet.

The exercise of determining “disposable income” remaining after core expenditures on health, housing, education and child care (plus potentially retirement savings), has now been undertaken (US Department of Commerce, 2010; Center for American Progress, 2014). The Center for American Progress calculates that the income of a median family of two parents and two children was virtually frozen in the years 2000 to 2012, rising from $84,100 to $84,700. At the same time, the costs of five basic items (housing, college savings, health, childcare and some retirement savings) increased by $10,600. As a result, the household had far less to spend on travel and all other items. Their available income, once core expenditures had been met, was sharply reduced – a situation that may feel like hardship even as wages are still rising.

Finally, there is some evidence that this rise in costs may be worse for families at the middle of the income distribution than for either wealthy or poor households (US Department of Commerce, 2010). As the analysis from the US Department of Commerce indicates, households on lower incomes are partly sheltered against the rising cost of health insurance premiums because health care for children (and parents in some states) is covered by SCHIP (or the State Children’s Health Insurance Program). In almost all states, this covers households at 200 percent of the poverty line with some states including households with income significantly above this amount. By contrasts, households whose members are more skilled were likely to

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40 A separate literature, that seeks to compare inequality in consumption and income, touches on this issue of how consumption has grown for different types of family. Johnson, Smeeding and Torrey (2005) find that consumption on items apart from shelter, vehicles and medical care has fallen for couples without children and two-parent households with children over the period 1981-2001 (Johnson et al, 2005, 16). Romer and Duggan, year, as well as Emmanuel and Fuchs, year, relate health care to wages, analyzing the impact of rising employer contributions on demand for labor and thus on wages.
see increases in real earnings that cushioned the effect of rising health costs. Households at the middle of the income distribution, however, are more likely to face the brunt of real increases in health premiums and out of pocket expenses (and have a larger share of their budget devoted to health than wealthier households) but have seen little increase in earnings.41

The import of this section has been to indicate why skills have become more relevant for welfare and preferences in the twenty-five years since 1990. First, the substitution of technology for tasks that can be standardized has significantly reduced the demand for “middle-skill” labor. As shown here, that polarization has had a predictable impact on reducing the growth in real earnings for workers in “middle-skill” occupations. Their nominal wages continue to rise, and measures of real earnings based on the CPI show some modicum of real growth, although less than that of workers at the bottom and top of the skill distribution. In addition, however, a wider appreciation of the cost pressures facing working households, arising particularly from increased direct health care costs, imply that those households now have less to spend on almost everything else. If hardship relates to the ability to consume, as well as the ability to earn, then middle-skill households would also appear to have experienced a real and persistent hardship. Given the distinctions between the two prototypical models of public spending, the empirical section below tests the effect of changes in absolute income (proxied by changes in earnings) on preferences over public spending and taxes using observational data from the American National Election Study.

41 As Polsky and Grande write, “Middle-class workers face two immediate challenges. They are less able than higher-income workers to solve the problem by earning more money, because their wages are growing more slowly. And the growth in the rate of spending on health care hits their household finances harder, because health care makes up a larger proportion of their budget.” (2009, 439).
As Margalit (2013) notes, there are few panel analyses of attitudes to public spending and services. Such analyses are, however, indispensable, because they allow us to test how fundamental economic factors affect preferences, holding constant the particular socio-demographic and educational factors associated with a given individual. Thus, panel analysis allows us to approximate experimental tests of the effect of changes in absolute and relative income.

One of the few available panel data sets of individual preferences is the American National Election Study (ANES) panel study for the years 1992-96.42 For this panel, there are 1,791 respondents who were followed for all three waves of the survey (1992, 1994 and 1996) and another 1,762 respondents who were followed in two of the three waves. Approximately two-thirds of those respondents were also participating in the labor force (working, temporarily laid-off or unemployed) so that occupational earnings are extremely relevant for consumption levels.

We can also link these respondents to a given occupational category and, using this category, use the earnings level for that category among the overall CPS population as a proxy for their own, personal level of income and earnings.43 Thus, we have a measure available of a household’s absolute income and can test how changes in this factor are related to preferences,

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42 The panel data available for the waves of 2000 and 2004 covers many fewer respondents and is less consistent in its coverage of questions related to political beliefs and preferences over government spending and services.43 The ANES uses standard Bureau of the Census occupational codes to measure occupation but did not report these more detailed census codes in case this would inadvertently identify particular individuals. Instead, the ANES reports two less fine-grained occupational codes, broken down into 71 and 14 categories. Using the crosswalk between Census and ANES codes from the codebook appendix, I calculated the average hourly and annual earnings for each ANES 14- or 71 category occupational category for the nation as a whole and used this to proxy for the expected earnings of respondents from each category.
holding individual effects constant.\textsuperscript{44} While it would be preferable to examine an individual’s own, reported, changes in earned income with attitudes, we do not possess this fine-grained data in the data sets that also contain information on public attitudes. Moreover, the income measure within the ANES data set is highly aggregated, categorizing respondents into one of five “bins” of income.\textsuperscript{45} Thus, the only available measure of family income that is specific to each respondent in the ANES panel data set conflates relative and absolute income, since it indicates where a family is on the income scale, but large increases in real income may also induce a change in a family’s income category. The use of the earnings data described in the earlier section thus allows us to proxy for expected changes in earned income over time with greater accuracy than we could expect using standard income measures. Finally, we also see wide variation in earnings (and changes in earnings) over the panel period. While professional and managerial occupations saw real annual increases in earnings of five percent or more, workers from occupations described as “mechanics and repairers” and “precision metalworking” faced falls in real earnings of more than two percent per annum.\textsuperscript{46}

Another key issue is which variable we employ to measure preferences on the underlying issue of government spending and welfare policy. The main dependent variable for the time series analysis described below is a well-known ANES question that reads, “Some people think the government should provide fewer services, even in areas such as health and education, in order to reduce spending. Other people feel that it is important for the government to provide

\textsuperscript{44} However, we do not have information on family and household members and so we are unable to tell whether the respondent is the main economic provider for the household or family. \\
\textsuperscript{45} Those bins are based on the bottom sixth of households ranked by income, the next sixth, the middle third, households from the 68\textsuperscript{th} to the 95\textsuperscript{th} percentile of income and households above this level. This discussion uses family and household interchangeably. The ANES data set collects income data by family only. \\
\textsuperscript{46} In other ways, the panel is attractive in that it is not marked by large, macro-economic trends that could dwarf individual-level variation. On average, the surveyed respondents moved towards desiring less government spending and services from 1992 to 1994 before reversing course in a more liberal direction. Real earnings grew moderately in the first two years with greater growth from 1994 to 1996.
many more services even if it means an increase in spending. Where would you place yourself on this scale, or haven't you thought much about this?” Respondents are then shown a seven point scale, on which the value one is described as “Government should provide many fewer services, reduce spending a lot” and seven is described as “Government should provide many more services, increase spending a lot.” The coding of this, main variable is reversed in the specifications that follow so that one is the most generous level of spending and services and seven is the least.47

There are three reasons for the choice of this main dependent variable. First, it is a question that has been asked by ANES fairly consistently (thus allowing comparison with results across periods) and it is multi-category, so that it allows nuances in response. Second, and although it does not refer to taxes, it does highlight that services cost money, so that additional services are related to overall expenditures. When faced with questions that address revenue-raising and services separately, respondents often mentally divorce government activities from the need to fund services, indicating a desire to simultaneously lower taxes and raise spending (Citrin, 1979, Page and Shapiro, 1992, Welch, 1985). The government spending and services variable, however, avoids this one-sidedness in articulation and forces respondents to think about both service provision and cost. Third, work by Baldassarri and Gelman (2008) finds that, during this period, the question on government spending and services was the measure of economic attitudes most strongly correlated with both ideology (on the liberal-conservative scale) and partisanship in the ANES study. In examining the question on spending and services, therefore, we are looking at a variable that is also relevant for broader, ideological and electoral preferences.

47 The reversing of scores is done to facilitate comparison with alternative dependent variables that employ the liberal-conservative scale and where the liberal pole of the spectrum is the smallest, or most “leftward”, value.
In addition to the measure of expected, real earnings by occupation, I control for features of the respondent’s economic well-being that may change over time: the family income category, socio-economic prospections and unemployment. I control for socio-tropic prospections because the economic literature work has demonstrated the relevance of broader, social forecasts to individual attitudes and satisfaction. The family income variable is incorporated because, and while this variable is not expected to change much over time, it may capture the effect of changes in family or household composition that bring in new earners (or take them away). As such, the family income variable can capture the impact of demographic shifts that are not controlled for in the data on individual, occupational earnings. The measure of unemployment is included because shifts in or out of working are expected to have significant, and sizeable, impacts on preferences (Margalit, 2013).

The results of a simple, panel fixed effects regression of preferences over government spending and services, conditional on the variables above, is shown in Table One. The specification also includes a trend term to capture aggregate yearly shifts in preferences. Last, but not least, and because the measure of earnings in included in log form, the coefficient on earnings can be read as the expected change in the category of responses for a one percent change in the respondents annual real earnings. Similar results are obtained when the dependent variable is standardized to conform more closely to a standard normal distribution.

The results for the main dependent variable (government spending and services) are shown in the first column for all respondents, including those who are not participating in the

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48 This variable is recoded from the question that asks respondents whether the national economy will get better, stay the same or get worse and the original responses were recoded so that higher values connote more optimism. Results are robust to excluding socio-economic prospections.
49 I look forward to exploring the use of fixed effects, ordered logit following the methodology suggested by Baetschmann et al (2013).
50 The measure of earnings here is the overall, growth in annual real income seen for all respondents by the 71 category coding of occupation in the CPS survey.
labor force.\footnote{Results are very similar if the estimation is restricted only to those respondents who participate in the labor force (either working, temporarily laid off or unemployed) but the coefficient on unemployment is no longer significant for the smaller data set.} The results indicate that three measures of the respondent’s material welfare had a significant effect on preferences: unemployment, socio-economic prospects and the log of real annual earnings. Moreover, the sign on the coefficients implies that while unemployment is associated with a preference for higher government spending and services, a rise in household earnings and a better economic outlook also shift responses in the direction of greater spending and services.\footnote{The results are unchanged if we introduce demographic controls for movements into marriage, retirement and disability and these controls are never individually significant.} The effect of earnings also remains significant if we drop family income or socio-tropic prospects from the evaluation. Earnings are also significant if we use hourly earnings or measures of earnings from the fourteen category coding, although the results are less significant in this latter case.

The results, then, indicate that individual earnings and preferences for government spending are positively correlated, as found at the macro-level by Stevenson (2001). An increased income, in other words, is associated with a desire for more government services and a falling income with a desire for lower government outlays. This result is robust to various measures and inclusion of different control variables. Preliminary analysis indicates that this finding is particularly is seen specifically in questions that prime respondents to think about service levels and cost. Indeed, it is not possible to replicate the result for the broader index of economic policy preferences complied by Ansolabehere et al (2006) and which includes a number of questions on policy objectives.

Is the finding for overall government spending and services therefore relevant for policy preferences that are relevant to voting? Two extensions to the baseline specification for the panel analysis suggest that the result on overall government spending and services is more
broadly significant. First, and looking at the effect of economic well-being on a respondent’s position on the liberal-conservative spectrum, it appears that greater earnings and/or household income and more optimistic expectations are all associated with more liberal attitudes, and this effect is significant for household income. Thus, once again, better economic conditions over time seem to move preferences in a more liberal direction. The result is important because position on the liberal-conservative spectrum has become more predictive of voting behavior over the last twenty years (Baldassarri and Gelman, 2011).

Second, the impact of economic conditions on policy preferences may be stronger for respondents who describe themselves as politically “independent” and who may be less attached to any one model of the correct level of spending and services. Thus, and as does Margalit (2011), I estimate the same models for the subset of independent voters. For this population, the predicted change in preferences with changes in income and earnings is substantively large, statistically more significant and suggests, once again, that households that have seen a real decline in wages will desire a lower overall level of government spending.

These results imply that the mechanism outlined by Meltzer and Richard so clearly in their seminal 1981 work is not seen clearly in changes over time – at least not once we can also control for changes in real income. Once we control for all the individual factors that condition choices, we see that increases in absolute income, proxied by national earnings growth for the occupation of the respondent, have an impact on preferences. The direction of this impact is in line with a model of government spending as insurance.

The relevance of this analysis is not to stir questioning of the applicability of the Meltzer-Richard model or to deny its insights about relative income and preferences over government

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53 The question on liberal and conservative attitudes has seven responses with one as “extremely liberal” and seven as “extremely conservative.”
spending. The robust and strong relationship between income and preferences over spending and taxation, in any cross-sectional analysis that we can estimate, implies that the distributional intuitions of Meltzer-Richard are surely correct. The import of Section III, above, however, is to indicate that different groups with American society, organized by skill, have seen quite different outcomes for earnings growth over the last 25 years. As such, the Moene-Wallerstein model, and its predictions for the effect of real income, may be more helpful in explaining individual-level heterogeneity in attitudes over government’s role.

The import of the earnings shifts described in the earlier sections of this paper is that many, middle-skill families have been trying to make do with stagnating income (and downward pressure on consumption) for nearly the last twenty years. They have been living in hardship. If a decrease in earnings and income, for given families and individuals, is expected to reduce support for government spending and services, then it follows that these groups should have become less supportive of government spending over the last two decades. Equally, individuals in high-skill occupations, who have been seeing healthy earnings growth, should have become more supportive of an active government role. The next section tests these hypotheses looking at changes in the relationship between skill and attitudes over time.

SECTION V: VALIDATING RESULTS IN REPEATED CROSS SECTIONS

The data source for analysis of the propositions described above is the General Social Survey (GSS). One of the key advantages of this data set is that it has been fielded at least once every two years since 1975 by the National Opinion Research Center and that it has, during that time, maintained the consistency of the questions in its replicating core. As such, the GSS
enables us to see how attitudes have changed over time and whether the relationship between skill level and attitudes has changed as earnings of the middle-skilled have been affected by labor market polarization. In addition, the GSS has asked questions about occupation using standard occupational codes compiled for the Census (1970 and 1980 Census codes are used) and reports those codes. Using crosswalks compiled by Meyer and Osborne (2005) it is then possible to link occupational codes to a measure of skill. A skill ranking of zero would indicate that the respondent was in the lowest skill group, while a ranking of 99 would indicate the very highest level of skill. In addition, and because a GSS respondent may not be the main earner and contributor to the household, but may rely on the earnings of a main earner with a different occupation, I compile a household measure of skill. This measure takes into account the earnings of the key contributor to the household.

Because we would expect that people in the middle of the skill ranking have seen the greatest stagnation or decline in earnings, we would also expect that they could see the biggest drop in support for taxation and spending with an increase in support among those whose earnings have grown. In other words, the hypothesis tested here is that middle-skill respondents will have become more “conservative” in their attitudes towards government spending and taxation, ceteris paribus, and less supportive of an active government role. By contrast, higher-skill respondents are expected to have become more “liberal” in their attitudes, ceteris paribus, moving towards greater support of government’s role in spending and taxation.

To capture a quadratic relationship in attitudes towards government spending and taxation, we would include skills and the square of skills in a standard model of preferences over

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54 I use the occupational data to control for skill level using the same procedure as in Autor et al (2006). The current analysis is performed using 1980 hourly earnings as the basic for ranking.

55 This is the spouse if the respondent is not working while the spouse is or the spouse of the respondent if both are working but the spouse contributes a greater percentage of household income. A similar procedure is employed when a child of the household head, who is also of working age, is the survey respondent.
government spending. The GSS variables used to capture preferences on government spending and services are constructed so that higher values imply greater conservatism and opposition to higher spending. As such, a positive coefficient on the measure of household skills would mean that as skill levels first rise, households closer to the center of the skill distribution become more conservative. A negative coefficient on the square of the skills measure would, in turn, mean that as skill levels rise further, towards the upper end of the skill distribution, respondents become more liberal in their attitude to any particular program of government spending.

The hypothesis above does not imply that the coefficient on skills must be positive and the coefficient on the square of the skill measure must be negative. The level of each coefficient partly depends on how much respondents from middle-skill and upper-skill households have supported particular programs in the past. For instance, we can observe that middle-skill households have been more supportive, in general, of spending on health, education, and unemployment and retirement benefits than other respondents, ceteris paribus. Rather, if middle-skill households become more conservative in their preferences for spending, we should see an increase in the coefficient over time, whatever its starting level. By contrast, if households at the very top of the skills distribution are becoming more supportive of government spending, as we would expect if their earnings are rising, then we should see a decline in the coefficient on the square of skills. Thus, the concomitant of the results seen in the panel data, for cross-sectional data, is that the coefficient on skills should rise and that on its square should fall. The hypothesis, in other words, is that the coefficients on skill should rise over time, and the coefficients on the square of the skill measure should fall. This is the test that is run using the GSS data, estimating a separate voting function for each decade of data. To estimate the model, I also control for the standard battery of economic and demographic factors that are expected to
move preferences, including education, region, race, and real household income per household member with that data also from the GSS.\textsuperscript{56} The estimation in all specifications is an ordered logit since the underlying data is from multiple, ordered categories.

Because skills may also be correlated with exposure to risk, I control for the risks that are relevant for individuals of different occupations. To do so, I use two sources of data. The first is the measure of specific skills calculated by Iversen and Soskice (2001) where this measure captures the value to an individual of programs that protect him or her from the loss of an earnings premium reflecting specific skills that would ensue with job loss. The second is the occupation-specific risk of unemployment from Rehm (2011). In both cases, the risks are matched to respondents in the GSS via the Census occupational code.\textsuperscript{57}

A more difficult question is once again what measure of individual attitudes on public spending and tax to use as the dependent variable in empirical tests.\textsuperscript{58} In order to avoid cherry-picking questions that might be seen as favorable to the hypothesis, I estimate preferences, by decade, for each of five government spending items that are included in the GSS “replicating core” and for which we therefore have identical questions in each survey year.\textsuperscript{59} The advantage of these questions, apart from their consistency, is that respondents are also primed, indirectly, to think about cost. In addition, I look at responses to the question on levels of federal taxation that

\textsuperscript{56} The specification includes dummies for different educational levels and regions.
\textsuperscript{57} In controlling for risks associated with the loss of earnings derived from specific skills, I first calculate the mean level of the composite measure of s calculated by Iversen and Soskice by two-digit ISCO category and then assign each GSS respondent to such a category using crosswalks between ISCO and Census codes. In controlling for risks of unemployment by occupational groups, following Rehm (2011), I use the unemployment rate for each of the 22 major categories in the 2002 Census codes, which are mapped to the census codes employed in the GSS. The Rehm data allows for changes in risk over time while the measure of specific skills relates to the 1996 ISSP survey only.
\textsuperscript{58} I assume that none of the programs mentioned in the GSS is redistributive in the sense of transferring cash benefits directly to working households. As such, these programs could be seen as types of insurance or public goods, although the manner of financing those programs would indeed be redistributive.
\textsuperscript{59} The GSS asks respondents, “We are faced with many problems in this country, none of which can be solved easily or inexpensively. I’m going to name some of these problems, and for each one I’d like you to tell me whether you think we’re spending too much money on it, too little, or about the right amount.” The policy areas then listed are welfare, the environment, health, the problems of the cities, and education.
is included in the core. Many of these questions are included by Ansolabehere et al (2006) to generate their index of economic policy preferences, implying that they are highly salient for the economic dimension. Last, I include two questions on spending on retirement and unemployment benefits. While these questions are asked much less frequently (in 1985, 1990, 1996 and 2006), they address programs that exemplify forms of insurance valued by middle-class and middle-skill voters. Thus, demand for these programs should have fallen if the spending as insurance model holds and if middle-skill disposable income has dropped.

While the change over time in the coefficients on skills and its square, across different questions, is the key issue for the hypothesis, the full estimation is shown below, in Table Three, for the case of preferences over spending on welfare. The estimated coefficients and their level of significance on the main socio-economic controls are generally in line with previous findings, suggesting that the model specification is reasonable. Particular socio-demographic groups have distinct views on government programs with respondents who self-identify as black always and substantially more supportive of government spending on welfare (and other times). Women are also more likely to support higher spending on welfare, as well as other program categories, while married households are likely to indicate that spending on welfare is too high (with this difference significant). Furthermore, and as we anticipate, real household income is significantly and positively related with a desire to limit government, with the estimated coefficients for this variable always negative and significant (although the absolute size of the coefficient has halved in the “aughts”). The effect of occupational-specific unemployment risk to questions on spending is in the expected direction (being supportive of greater spending) but is significant only in the early decades.60

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60 The same holds using the measure of specific skills from Iversen and Soskice (2001).
Returning to the key issue for the hypothesis on skills and attitudes, I examine whether and how the coefficient on skills and the square of skills has changed over time with changing patterns of earnings growth. Each estimated coefficient on skills and its square, for each decade and question, is retained in a separate data set. Those coefficients are then shown, by survey question, as Figures Eight and Nine. In addition, I used a fixed effects regression to test whether the change over time in the coefficients, across different questions, has been significant and in the expected direction. The results are shown in Table Four.

No sophisticated analysis is required to interpret Figures Eight and Nine. In the first diagram, we can see that the coefficients generally rise over time, particularly from the nineties to the aughts. The change over time is not always monotonic, but the coefficient on household skill percentiles is always larger in the aughts for every item except the question on spending on retirement benefits. By contrast, the coefficient on the square of household skills always becomes more negative over time (with the exception of the same question on retirement). The pattern of change in these coefficients implies that households in the middle of the skill distribution, no matter where they started, are now less supportive of government spending and saving than they were in the 1980’s and 1990’s and that households at the ends of the skill distribution are now more favorable towards government’s role.

This is true regardless of whether the particular program was strongly supported by households reliant on middling skills (as in spending on the environment and health) or was regarded more skeptically (as with spending on welfare) at the beginning of the period. In either case, support for these programs from among middle-skilled respondents has waned while it has grown among high-skill respondents. Further, and importantly for our interpretation, this result is also consistent across spending programs like welfare, that are affected by racialized
perceptions of program recipients (Luttmer, 2001), and spending areas like health and the environment where these associations are unlikely to hold.

To round out the empirical analysis, I include two separate falsification exercises. The inference drawn from the results above is that respondents from households that are economically reliant on workers with middling skills have sought lower levels of taxation and spending as their disposable incomes have become more constrained. This hypothesis, however, is tested with observational data and, in that data, it is not possible to isolate only changes in a treatment variable. It is, however, possible to consider the other factors that may have varied and the observational consequences that would hold if those confounding factors were responsible for the results presented on skills and attitudes towards tax and spending.

We might believe, for instance, that shifts in attitudes over government spending and welfare were the ideological concomitant of the success of a neo-liberal political agenda. It is also conceivable that such an agenda might be more attractive to middle-skill households as they lost confidence in more traditional economic interventions. If this counter-hypothesis held, we would also expect that respondents from households reliant on middling skill workers would be supportive of markets and market actors.

As a falsification analysis, therefore, I test whether the middle-skilled have become more supportive of specific market actors (and high-skill actors less so) using three additional variables that completed the set of economic issue questions included in the index of economic policy preferences by Ansolabehere et al (2006). These questions ask respondents whether they have confidence in financial institutions and banks, in major companies, and in labor unions. The responses are recoded so that higher variables indicate a more “conservative” response (so
that less confidence in labor unions, for instance, would count as greater support for free markets).

The coefficients from these questions are displayed as Figures Ten and Eleven and the results from a fixed effects regression of the coefficients over time are given in Table Four. As will be swiftly evident, it is not the case that respondents from middle-skill households have embraced the unfettered operation of the market. Rather, their suspicion of firms as market actors has increased markedly since the nineties with regard for the financial sector decreasing steadily over the period. While there is no significant trend over time for the whole period, it is also clear that we cannot say that the middle-skilled are taken with a neo-liberal agenda. For the high-skilled, and looking at the coefficient on the square of skills, it is the reverse, with attitudes towards companies, whether in finance or overall, becoming more positive between the two last decades of the analysis.

A similar falsification analysis is conducted to examine the potential that households have been drawn to more conservative policy preferences on government spending and taxation as part of a package of programmatic appeals that also hews to more conservative opinions over social policy. This would imply that particular groups of households have become more conservative with regard to government’s role as part of a general switch in political mood (Stimson, 1991). For this analysis, I test whether we can see a systematic relationship between skills and the square of skills looking at the nineteen moral issue questions that are used by Ansolabehere et al (2006) to construct their index of preferences over social policy. Given the larger number of issue responses, I do not display the coefficients by issue area separately, but I give the results of the fixed effects regression over time in Table Four.
In this case, as will be seen, there is a significant rise in the coefficient on skills over time and a fall in its square. However, the relationship for skills is both less significant and less robust than that for the preferences over spending. In particular, if we drop the data from the seventies, we can no longer find any relationship between time and the coefficient capturing the marginal effect of skill on moral/social attitudes. In other words, examining the decades in which attitudes among different skill groups towards government spending changed most, there is essentially no shift in the relationship between skills and preferences on social issues.\textsuperscript{61}

To recap the findings of this section, the analysis of repeated cross-section indicates that respondents who are dependent on workers with middle-level skills have become more skeptical towards government taxation and spending in the most recent decades in which labor market polarization was most pronounced and pressures on earnings strongest. That process played out in reverse for high-skill workers who have benefited from earnings growth. Further, we can say that the shift does not seem to be explained by any ideological embrace of a neo-liberal view of markets, or by a wholesale shift towards more conservative stances on moral and social issues. This additional analysis strengthens the inference that middle-skill respondents are seeking to restrain government taxation and spending at a time when their own personal budgets are painfully constrained. As such, and despite growing inequality, those middle skill households have turned away from support of government programs that are the main vehicle for redistribution in advanced, industrial societies.

\textsuperscript{61} The coefficient on the square of skills continues to fall, implying that highly skilled workers become significantly more socially liberal over the period. However, and because there is little relationship between the time and the coefficient on skills, we cannot easily relate any shift in support among middle-skill and middle-class workers for the policies of the left to a growing, social conservatism.
VI. CONCLUSION

While this analysis is still preliminary, is of interest in shedding light on recent developments in American political economy. The literature in that field has asked, repeatedly, why inequality has seen so little political response. More detailed analysis of American policy preferences on welfare state programs, like the one performed by McCall and Kenworthy (2009) has highlighted the very cautious response of respondents, even when they are aware of inequality, towards solutions that involve increases in taxation and spending.

The explanation presented here is that the individuals and households affected most directly by earnings pressure, and whose relative position has suffered the most, are not those that are directly aided by existing government programs. I do not argue that these individuals are always and everywhere likely to perceive government programs as insurance or service provision. Rather, I suggest that we take a more “institutionalist” view of the welfare state and traditional programs. In order to understand what the popular response to inequality should be, we must look closely at how the actual welfare state functions, rather than assuming an a priori consistency with the Meltzer-Richard model.

Much of the existing welfare state was built to protect citizens from the risks of unemployment, so visible during the Great Depression, and from the economic consequences of household breakdown. Those programs are relatively ineffectual in supporting the income of those who are in employment, in households with a working adult, and whose earnings are constrained. In other words, existing government programs will not directly add to the purchasing power of those households. If contemporary programs cannot and do not support the income level of households strongly affected by changes in the labor market, we should not be
too surprised if those households view government program as insurance or services – public spending priorities that may come to seem increasingly costly.

That analysis relates to a literature on the welfare state that has highlighted the hidden mechanisms by which the US government benefits different groups. Mettler (2011), for instance, writes that the US welfare state is not widely supported because some of its effects are “submerged” as tax expenditures, including, for instance, tax savings on mortgages. Other scholars within this school have pointed to the implicit subsidies, through the tax system, to employer-funded health care (Garfinkel and Smeeding, 2015; Morgan and Campbell, 2011). Yet, and as employers transfer more of the cost of health care to workers, the American welfare state has become less valuable to households who still participate in the labor market (Hacker, 2004). Alongside hardship, in other words, there has been retrenchment. That retrenchment would be expected to pinch consumption and to reduce popular support for remaining government services further.

Finally, the analysis sheds light on the popular coalitions in support of Republican and Democratic policies and candidates. Recent election outcomes have caused political science to ask whether Americans are voting against their self-interest (Hacker and Pierson, 2013; Gelman et al, 2008). The lack of explanation has pushed scholars towards explanations that rely on the increasing importance of “second-dimension” concerns with morality or move towards assumptions of false consciousness. The conclusion of the analysis above is that it is not necessary to invoke these alternative explanations. A more nuanced, and complex understanding of what the welfare state is, and how households benefit, would allow us to understand better how and why households might have responded to inequality as they have done and to appreciate the unappealing choices faced by many American households.
Figures

Figure One: Gini Coefficients for Inequality in US Household and Family Income

Figure Two: US Income Shares of Top One percent and Top 0.1 Percent of Households

Source: Piketty & Saez – January 2015
Figure Three: Percent Change from 1979 to 2011 by Income Group

U.S. Income: Percent Change from 1979 to 2011 by Income Group

Source: CBO Data

Figure Four: Predicted Change in Preferred Tax and Spending with Income Shifts

<table>
<thead>
<tr>
<th>Melter-Richard</th>
<th>Moene-Wallerstein</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absolute</td>
<td>Relative</td>
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<tr>
<td>Income</td>
<td>Income</td>
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<tr>
<td>Up</td>
<td>Falls??</td>
</tr>
<tr>
<td>Down</td>
<td>Rises??</td>
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Figure Five: Labor Demand by Skill Percentile by Decade

Figure Six: Growth in Real Hourly Median Earnings by Skill Level by Decade
Figure Seven: Distribution of Income by Skill Category in the 1990’s

Figure Eight: Coefficients on Household Skill Variable over Time
Figure Nine: Coefficient on Square of Household Skill Variable over Time

Figure Ten: Coefficients on Household Skill Variable over Time
Figure Eleven: Coefficient on Square of Household Skill Variable over Time
### Tables

#### Table One: Labor Market Polarization in Real Median Hourly Earnings

<table>
<thead>
<tr>
<th>Year</th>
<th>F-Statistic</th>
<th>Year</th>
<th>F-Statistic</th>
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<td>1990</td>
<td>4.47</td>
<td>2000</td>
<td>5.73</td>
</tr>
<tr>
<td>1991</td>
<td>3.56</td>
<td>2001</td>
<td>10.51</td>
</tr>
<tr>
<td>1992</td>
<td>3.29</td>
<td>2002</td>
<td>14.34</td>
</tr>
<tr>
<td>1993</td>
<td>1.60</td>
<td>2003</td>
<td>6.89</td>
</tr>
<tr>
<td>1994</td>
<td>0.18</td>
<td>2004</td>
<td>4.36</td>
</tr>
<tr>
<td>1995</td>
<td>3.07</td>
<td>2005</td>
<td>3.11</td>
</tr>
<tr>
<td>1996</td>
<td>3.88</td>
<td>2006</td>
<td>3.44</td>
</tr>
<tr>
<td>1997</td>
<td>4.38</td>
<td>2007</td>
<td>3.55</td>
</tr>
<tr>
<td>1998</td>
<td>4.61</td>
<td>2008</td>
<td>2.17</td>
</tr>
<tr>
<td>1999</td>
<td>4.02</td>
<td>2009</td>
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#### Table Two: Panel Regression for Preferences for Government Spending and Services

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<tr>
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<th>All Respondents</th>
<th>Independents Only</th>
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<tr>
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<td>Lib-Con</td>
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<tr>
<td>Constant</td>
<td>-23.9</td>
<td>-4.57</td>
</tr>
<tr>
<td></td>
<td>(22.5)</td>
<td>(26.63)</td>
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<tr>
<td>Year</td>
<td>0.013</td>
<td>0.005</td>
</tr>
<tr>
<td></td>
<td>(0.05)</td>
<td>(0.013)</td>
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<tr>
<td>Unemployed</td>
<td>-0.23*</td>
<td>-0.06</td>
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<tr>
<td></td>
<td>(0.05)</td>
<td>(0.15)</td>
</tr>
<tr>
<td>Socio-tropic Prospections</td>
<td>-0.07**</td>
<td>-0.04</td>
</tr>
<tr>
<td></td>
<td>(0.03)</td>
<td>(0.04)</td>
</tr>
<tr>
<td>Family Income</td>
<td>0.008</td>
<td>-0.08*</td>
</tr>
<tr>
<td></td>
<td>(0.04)</td>
<td>(0.04)</td>
</tr>
<tr>
<td>Natural log of real annual earnings</td>
<td>-0.20**</td>
<td>-0.08</td>
</tr>
<tr>
<td></td>
<td>(0.09)</td>
<td>(0.11)</td>
</tr>
</tbody>
</table>

| N                     | 2470     | 2259     | 207      | 181     |
| Number of Groups      | 1202     | 1124     | 165      | 144     |
| F^2 for model         | 2.77     | 0.98     | 3.18     | 5.51    |
| Probability > F       | 0.02     | 0.43     | 0.017    | 0.0009  |
| R^2 Within            | 0.01     | 0.004    | 0.30     | 0.46    |
Table Three: Skill Level and Belief that Welfare Spending is “Too High” by decade

<table>
<thead>
<tr>
<th>Explanatory Variables</th>
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<th>1980’s</th>
<th>1990’s</th>
<th>2000’s</th>
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<tr>
<td>Age</td>
<td>0.037*** (0.012)</td>
<td>0.016 (0.010)</td>
<td>0.025** (0.010)</td>
<td>0.009 (0.011)</td>
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<tr>
<td>Age Squared</td>
<td>-0.00* (0.00)</td>
<td>0.00 (0.00)</td>
<td>-0.000** (0.00)</td>
<td>-0.000 (0.00)</td>
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<tr>
<td>Female</td>
<td>-0.047 (0.073)</td>
<td>0.137** (0.059)</td>
<td>0.015 (0.061)</td>
<td>-0.007 (0.065)</td>
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<tr>
<td>Black</td>
<td>-1.32*** (0.122)</td>
<td>-1.11*** (0.088)</td>
<td>-0.77*** (0.093)</td>
<td>-0.64*** (0.101)</td>
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<tr>
<td>Hispanic</td>
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<td>0.00 (0.00)</td>
<td>-0.000 (0.000)</td>
<td>-0.000 (0.000)</td>
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<tr>
<td>Married</td>
<td>0.26*** (0.07)</td>
<td>0.104* (0.058)</td>
<td>0.176*** (0.061)</td>
<td>0.168** (0.065)</td>
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<td>HH Size</td>
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<td>-0.00 (0.00)</td>
<td>-0.000*** (0.00)</td>
<td>-0.000*** (0.00)</td>
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<tr>
<td>Real HH income/person</td>
<td>0.009*** (0.002)</td>
<td>0.009*** (0.001)</td>
<td>0.004*** (0.001)</td>
<td>0.004*** (0.001)</td>
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<tr>
<td>Skill Percentile</td>
<td>0.006 (0.004)</td>
<td>0.005 (0.004)</td>
<td>0.009** (0.004)</td>
<td>0.017*** (0.004)</td>
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<tr>
<td>Skill Percentile Squared</td>
<td>-0.000 (0.000)</td>
<td>-0.000 (0.000)</td>
<td>-0.000* (0.000)</td>
<td>-0.0001*** (0.000)</td>
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<td>Specific Skill Risk</td>
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<td>-0.044 (0.029)</td>
<td>-0.035 (0.034)</td>
<td>-0.026 (0.041)</td>
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<td>Education Dummies</td>
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<td>YES</td>
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<td>YES</td>
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<td>Regional Dummies</td>
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<td>Year Dummies</td>
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<td>N</td>
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<tr>
<td>Likelihood Ratio $\chi^2$</td>
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<td>372</td>
<td>417</td>
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<td>Pseudo-R$^2$</td>
<td>0.07</td>
<td>0.04</td>
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<td>0.04</td>
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Table Four: Fixed Effects Regression of Coefficients on Skill and its Square over Time

<table>
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<th>Coeff's on Skill-Squared</th>
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<tr>
<td></td>
<td>Sign</td>
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<td>Spending and Tax</td>
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<tr>
<td>Social Issues</td>
<td>+</td>
<td>0.057</td>
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REFERENCES


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