Living in the Garden of Eden: Mineral Resources Foster Individualism*

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Abstract

This paper explores the relationship between mineral resources abundance and individual values. Using discoveries of mineral resources in the United States since 1800, we find that mineral resources foster individualism. Measuring individualism and the demand for redistribution by questions of the General Social Survey, we show that individuals living in states with large mineral resources endowment are more individualistic and support less redistribution by the government. We uncover two channels. The *experience* channel arises because of direct observation of discoveries by individuals. The *transmission* channel consists in the persistence of specific values across generations. These results are robust to the introduction of various explanatory variables that may explain individualistic values.

KEYWORDS : Natural Resources, Individualism, Redistribution.

JEL CODES : Q00, Z10, O13.

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1 Introduction

In recent years, beliefs and values have gained much attention as determinants of economic outcomes. The effect of values is actually largely documented by a growing literature (see Fernandez (2010) for a recent review). However, the question of their formation remains broadly unexplored in the empirical literature. At the individual level, values may be transmitted by peers or formed through experience.

In this paper, we find that mineral resources foster individualism, using discoveries of mineral resources in United States over the 1800-2000 period. We refer to "individualism" as the set of values opposed to public intervention in income allocation and favorable to individual self-responsibility. We measure individualism by three questions from the General Social Survey. We show that individuals living in states with large mineral resources endowment support less redistribution by the government, less public assistance to the poor, and are more favorable to individual self-responsibility. Then, we highlight two channels through which mineral resources foster individualism: either by transmission of values formed in the past, or by experience of mineral discoveries at a specific point in life-time of individuals.

The Mineral Resources Data System lists all mineral discoveries since 1800 in the United States. It allows us to observe both the effects of the spatial and temporal differences in the distribution of mineral discoveries across states and time on values held by individuals. We show that individuals living in states with large mineral resources endowment are more individualistic and support less redistribution. This result persists when controlling for individual characteristics, but also for characteristics of the state such as its geographic location, political orientation, wealth and inequalities. Using the number of places where mining has taken place in each state during the past century, we also find that the higher the number of mines in a state, the lower the support for governmental redistribution by its residents.

This result can be explained by the following mechanism. Natural resources represent a windfall which is likely to induce both an increase of current and expected income. Their existence create more wealth opportunities. As a consequence, a society with natural resources is richer than a society without any natural resources endowment. Local residents consider mineral resources (and natural resources in general) as a treasury belonging to them and exploitable by their efforts. This windfall induced by natural resources can be related to the well-known effect of income on the demand for redistribution. Increasing current or expected income is known to be associated with less willingness to redistribute. To sum up, the larger the mineral resources endowment, the wider wealth opportunities, and the lower the support for redistribution by people surrounded by the resources.

As Bisin and Verdier (2001), the literature points out two main channels through which values are formed at the individual level. First, values can be inherited through family transmission of traits. Second, values can be shaped through the socialization process: individuals interact with others and mix their traits. The first process refers

to transmission, whereas the second concerns the context in which individuals evolve. Applying this framework to the relationship between individualistic values and mineral resources, we also consider two channels. The first channel is linked to the question of transmission and persistence of beliefs. It occurs within society, across and within generations.[1] In other words, values are inherited from the family or from "others" and transmitted over time in a given group. In what follows, we refer to this channel as the "*transmission*" channel. The second channel is linked to the direct effect mineral resources abundance havce on individualistic values. Values depend on events that happened during the life of an individual. Hence, "shocks" on mineral resources abundance are likely to directly shape the values held by individuals if they have been affected by these shocks. In what follows, we refer to this channel as the "*experience*" channel.

In this paper, we disentangle the existence and the relative importance of these two channels for the main relationship described above. We claim that both channels matter in the understanding of the effect of mineral resources on individualism. First, we focus on individuals living in states with lots of mineral resources and compare individuals that experienced mineral resources discoveries during their impressionable years to those who did not. Following Giuliano and Spilimbergo (2009), the "impressionable years" hypothesis refers to the hypothesis that "*core attitudes, beliefs, and values crystallize during a period of great mental plasticity in early adulthood and remain largely unaltered throughout the remaining adult years*".[2] This approach uncovers the *experience* channel. Second, we compare individuals living in states with few or no mineral resources to individuals living in states with lots of mineral resources, but who did not experience mineral resources discoveries during their impressionable years. By removing the direct effect of mineral resources on individualistic values, this approach uncovers the *transmission* channel.

This paper provides micro-economic evidence that mineral resources influence the values of people living in areas that are abundant in such resources. It shows one channel through which values may form and is therefore related to the literature interested in the formation of values and beliefs. The empirical side of this literature is still in infancy. This question has been directly addressed by Nunn and Wantchekon (2009) who show that the volume of past slave trade shapes today's mistrust in Africa; and by Giuliano and Spilimbergo (2009) who show that macroeconomic fluctuations during early adulthood partly determine the support for redistribution and confidence in institutions. Other papers indirectly address this question, linking today's beliefs to distant institutions. For example, Guiso et al. (2008) link today's social capital in Italy to medieval institutional arrangements. These authors show that values persist over time, but do not provide direct evidence on the contemporaneous effect of institutions on values. On the contrary, we observe the direct effect of exogenous changes in the environment on individual values when uncovering the *experience* channel.

[1] This channel is close to the "direct vertical socialization" proposed by Bisin and Verdier (2008) but where the cultural transmission is done within the family.

[2] In our empirical strategy, we adopt the same approach as Giuliano and Spilimbergo (2009) and assume that impressionable years are located between 18 and 25.

Our results mean that economic and natural environments have an effect on the preference for redistribution. Diamond (2006) offers a first insight into this question with the case study of Montana. He shows the interplay between the abundance of natural resources and individual orientations. According to this author, natural resources abundance is part of the state's identity and partly shapes individual beliefs about economic organization.[3] To our best knowledge, Di Tella et al. (2010) are the first to provide empirical evidence about this issue. They study the correlation between individualism and a measure of "luck" in the United States. They approximate the idea of luck, i.e. the belief that income is more linked to chance than to effort, by the "*share of the oil industry in the state's economy multiplied by the price of oil*". They conclude "*that societies that depend heavily on oil [...] will experience heavier demand for government intervention*".

Our paper also illustrates the link between wealth and the willingness to redistribute. Following Romer (1975), Meltzer and Richards (1981) and Piketty (1995), this relationship has been documented by Alesina and La Ferrara (2005), Alesina and Angeletos (2005) and Alesina and Giuliano (2009) among others. Considering mineral resources as realized or expected increasing income, mineral endowment can influence the support for redistribution both by the transmission of values over time or by the update of individualistic values. We show that mineral endowment has a strong negative effect on the support for redistribution and that this effect is still observable when alternative explanations are taken into account. In particular, we control for current individual income and current state income, which suggest that it is more a question of expected than realized income.

Finally, this paper sheds light on a new channel for the "resource curse". Indeed, a vast literature debates on the significant negative role played by natural resources dependence or abundance on economic growth (see Frankel (2010) for a survey of the resource curse literature). A widely accepted consensus considers natural resources as a potential curse hindering development.[4] In developing countries, Isham et al. (2005) claim that "*[...] resource abundance simultaneously "strengthens states" and "weakens societies", and thus yields - or at least perpetuates - low levels of development*". Many papers point out the issue of the reaction of economic agents to financial windfalls induced by natural resources abundance. They mainly focus on incentives played by financial windfalls in developing countries on the elite's behavior or on the government's behavior (see Robinson et al. (2006) or Mehlum et al. (2006) for example). Surprisingly, Papyrakis and Gerlagh (2007) show that some states in United States, one of the most developed country in the world, suffer from the resource curse. Thus, this paper presents some elements to the challenge to understand how resources abundance weakens civil societies, i.e. how they modify the beliefs and the behavior of the whole society (not only elite) living in

[3] See the appendix for a short presentation of the text by Diamond (2006) on Montana.

[4] Institutions appear to be a decisive factor for the resource curse (see Mehlum et al. (2006) or (Andersen and Alasken (2008)). Empirical studies of this issue face the problem that countries differ in many dimensions. To avoid this problem, many papers focus only on one country : the United States for Papyrakis and Gerlagh (2007), Peru for Aragon and Rud (2009) or Brazil for Casselli and Michael (2010).

resources abundant areas: our results show that mineral resources foster individualism in the entire population. Our results can be interpreted as a channel for the resource curse since Grorodnichenko and Roland (2010) argue that individualism favors innovations but deteriorates the quality of institutions. Hence, if the latter effect dominates, individualism can be a channel through which mineral resources hinder development.

This paper is organized as follows. Section 2 presents the data and the methodology. Section 3 presents empirical results about the relationship between mineral resources and individualism. In section 4, we uncover the *transmission* and the *experience* channels. Finally, section 5 briefly concludes.

2 Data and Methodology

This section describes the data and the methodology used in this paper.

2.1 Mineral Resources

The Mineral Resources Data System[5] (MRDS) describes mineral resources throughout the world. The data set for the United States contains more than 25,000 observations. About 50% of them have lead to the installation of a mine. For each observation, the data set contains information about the localization, the year of discovery, the year of first production (if any production has been operated), and the type of commodities, but also various geologic characteristics. Missing information of major importance are those about quantities found and extracted. To our knowledge, this paper is the first to use this database in economic research.

Figure 1 presents the distribution of mineral resources discoveries in the United States over the 1800-2000 period. Most of the discoveries have been made between 1875 and the late 50's. However, the distribution is quite heterogeneous across time. Figure 2 displays the spatial distribution of mines in the United States according to the MRDS database. This spatial distribution is also very heterogeneous. Clearly, West states have larger endowments in mineral resources than others. Table 9, presented in appendix, shows the number of mines in each states. We distinguish between all observations and places where a production was (or is still) operated. Both distributions are very similar. Since we want to make the distinction between states with and without mineral resources, we have to establish a criterion to split our sample in two parts. The simplest criterion is the median of the sample according to the number of present or past mines. This is where we place the threshold between states with and without mineral resources.[6] In tables of the paper, the variable *mineral state* equals 1 if the respondent lives in a state with mineral resources, 0 otherwise.

[5] http://tin.er.usgs.gov/mrds/

[6] An alternative approach would be to create a measure of "mineral density" by dividing the number of mines by the surface of the state. Such an approach leads to a virtually identical classification between states with and without mineral resource.

Using MRDS observations to track the extent of mineral resources available in each state offers the advantage of being almost completely exogenous. Papyrakis and Gerlagh (2007) and Di Tella et al. (2010), among others, measure natural resources using the share of local GDP of a specific sector and the price of commodities. This measure is clearly endogenous to economic activity and development, and consequently to social attitudes provided that the latter have an effect on the former (see Brunnschweiler (2008) for example). On the contrary, the tenor of the ground itself cannot be influenced by economic activity, nor by values. To a certain extent, one can argue that the discovery of mineral resources is however endogenous to economic development, what is likely to be true. However, it is also possible that once economic development is launched, mineral resources are searched everywhere. Hence, on the one hand, the precise date of discovery of mineral resources can be seen as endogenous to economic activity. On the other hand, if we consider that all mineral resources have been searched for (as suggested by figure 1 which shows that discoveries are scare since 1960), the categorization of states with and without mineral resources cannot be endogenous to values at the time of interview (the sample of the GSS we use begins in 1974).

Table 10, presented in appendix, describes the main types of mineral commodities found in the MRDS database. Gold, silver and other valuable ores represent a substantial part of the mining activity in the United States.

2.2 Data on Individualism

We measure individualism at the individual level in the United States by using three questions of the General Social Survey (GSS).

The first question used also by Di Tella et al. (2010) is: "*Some people think that the government in Washington should do everything possible to improve the standard of living of all poor Americans. Other people think it is not the government's responsibility, and that each person should take care of himself. Where would you place yourself on this scale?*". The possible answers are "*1 (I strongly agree that the government should increase living standards), 2, 3 (I agree with both answers), 4, 5 (I strongly agree that people should take care of themselves)*". We call this variable "*responsibility*".

The second question is: "*Some people think that the government in Washington ought to reduce the income differences between the rich and the poor, perhaps by raising the taxes of wealthy families or by giving income assistance to the poor. Others think that the government should not concern itself with reducing this income difference between the rich and the poor. What score between 1 and 7 comes closest to the way you feel?*". The possible answers are "*1 (Government should do something to reduce income differences), 2, 3, 4, 5, 6, 7 (Government should not concern itself with income differences)*". It what follows, we refer to this variable as "*inequalities*".

The last question is: "*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 money, or about the right amount. Are we spending too much, too little, or about the right amount on assistance to the poor?". The possible answers are "*1 (Too little), 2 (About right), 3 (Too much)*". We call this variable "*assistance*".

These questions offer a converging picture toward individualism and the demand for redistribution. According to Di Tella et al. (2010), the set of values associated with these variables can also be seen as associated with political ideas that are on the right of the political system.

All regressions presented in this paper include individual characteristics as control variables. Namely, we control for gender, age, age^2, marital status, religion, education, employment status, race and income.[7] Once the availability of control variables is taken into account, we are left with more than $17,500$ observations for *responsibility*, $20,000$ for *inequalities*. For the variable *assistance*, we have a little more than $13,500$ observations. Figures 3, 4, and 5 present the mean of *responsibility*, *inequalities*, and *assistance* by state over the period 1975-2004. At the first sight, variables are higher in the West part of the Unites States, which means that a larger share of the population living in those states holds individualistic values.

2.3 Methodology

The population observed in this paper is made of Americans interviewed in the General Social Survey. The first relationship we estimate in section 3 is the difference in individualism between individuals living in states with and without mineral resources. By doing this, we take into account differences in the composition of the population, i.e. we take individual characteristics into account. Formally, we look at the difference

$$\mathbb{E}(Y|\text{Mineral state} = 1, X) - \mathbb{E}(Y|\text{Mineral state} = 0, X),$$

where Y is a measure of individualism, and X denotes individual characteristics. This difference is captured by the estimation of the following equation:

$$y_{its} = \delta + \alpha M_s + \beta X_{it} + \gamma Z_{ts} + \varepsilon_{its}, \tag{1}$$

where the dependent variable y_{its} is the answer of individual i, interviewed at time t and living in state s, to the questions associated with *responsibility*, *inequalities* or *assistance*. The variable M_s is labeled "*mineral state*" in tables and indicates the "mineral status" of state s, equals 1 if the respondent lives in a state with mineral resources, 0 otherwise. The vector X_{it} contains individual characteristics. The vector Z_{ts} contains time fixed effects, as well as state-level variables or geographic characteristics in some specifications. Finally, ε_{its} is the error term.

[7] See the appendix for a complete presentation of individual control variables and associated summary statistics.

To uncover the *experience* and the *transmission* channel in section 4, we create subsamples of the observed population. We first focus on individuals living in states with large mineral resources endowment and compare those who experienced mineral discoveries during their "impressionable years" to those who did not experienced mineral discoveries during the same period. This approach allow to identify the *experience* channel. Accordingly, the difference we are looking at is

$$\mathbb{E}(Y|\text{Discovery} = 1 \cap \text{Mineral state} = 1, X) - \mathbb{E}(Y|\text{Discovery} = 0 \cap \text{Mineral state} = 1, X),$$

where Discovery $= 1$ is the set of individuals that experienced mineral discoveries during early adulthood. We use the "impressionable years" hypothesis already presented by Giuliano and Spilimbergo (2009). This hypothesis states that "*core attitudes, beliefs, and values crystallize during a period of great mental plasticity in early adulthood and remain largely unaltered throughout the remaining adult years*". We follow Giuliano and Spilimbergo (2009) by assuming that "impressionable years" take place between 18 and 25 years. Hence, we are interested in whether an individual observed mineral discoveries when he was between 18 and 25 years old. For example, if an individual aged 50 is interviewed in 1980, its "impressionable years" are located between 1948 and 1955. Hence, the estimated equation is following:

$$y_{itst'} = \delta + \alpha D_{ist'} + \beta X_{itt'} + \gamma Z_{tst'} + \varepsilon_{itst'}, \tag{2}$$

where subscript t' denotes the birth date of the respondent, and $D_{ist'}$ is a dummy equal to 1 if individual i, living in state s, and born at time t' has experienced mineral discoveries between 18 and 25. This variable is labeled "*mineral discoveries observed*" in tables. Consequently, we also include some individual characteristics to take into account individual and state situations during those years, what explains subscript t' for vectors X and Z. The General Social Survey does not allow us to know in which state respondent was living when he was young. However, we know if the respondent is still living in the same state as when she was 16 years old. Thus, we have to restrict ourselves to individuals that did not move between the two dates. This left us with around $5,000$ individuals who were and are still living in mineral states. Thanks to the MRDS database, we know if they experienced any mineral resources discoveries during their early adulthood. This allows to uncover the *experience* channel.

We uncover the *transmission* channel by comparing individuals living in states with large mineral resources endowment who do not experienced mineral discoveries during their "impressionable years" and those living in states without mineral resources. Using the same notations as above, the difference we are looking at is

$$\mathbb{E}(Y|\text{Mineral state} = 1 \cap \text{Discovery} = 0, X) - \mathbb{E}(Y|\text{Mineral state} = 0, X).$$

This difference is captured by the estimation of equation (1), but on a different sample.

Since our classification of individuals between those living in states with or without mineral resources is logically made at the state level, all our estimations are made using clustered standard errors at the state × year level. Rigorously, since our dependent variables are qualitative variables, ordered logit or ordered probit models should be used. However, all reported results are estimated using linear ordinary least squares such that we can interpret and compare the size of the coefficients. All results are comparable using ordered logit or probit models.[8]

An implicit assumption that we make when estimating the above relationships is that the effect of mineral resources abundance or discovery is the same across state. A key point that may invalidate this assumption is the heterogeneity of mining laws across states. Indeed, the initial formation as well as the transmission of values could be different depending on the legislative environment. However, mining law appears to be remarkably homogeneous across states. Although marginally amended since the late 19$^{\text{th}}$ century, the General Mining Act of 1872 is still the main law used to regulate mining prospection in the United States. This law codifies the way individuals may claim property rights on deposits and subsequent rights and duties. It applies the same way everywhere in the United States. This law encompasses the first laws of 1866 and 1870, as well as the informal regulation system for the acquisition and the protection of mines set up by the first prospectors. In addition, the informal system itself was virtually identical across places. See Mayer (1986) and Braunstein (1985) for more explanations.

3 Empirical Results

In this section we compare individuals living in states with large mineral resources endowment and those living in states without large mineral resources endowment. We also provide a large number of robustness checks.

3.1 Main Results and Discussion

We first start by simple tests of equality of the means of our individualism measures across states with and without mineral resources. Table 1 presents the standard t-tests for variables *responsibility*, *inequalities* and *assistance*. In all cases, the average answer is higher in states with mineral resources than in states without mineral endowments.

Main results

We now regress our measures of individualism on the state's mineral status variable, controlling by individual characteristics to check if the earlier results are not driven by composition effects. Our baseline specification includes usual control variables for gender, age, age squared, marital status, religion, education, employment status, race and income, as well as fixed effects for the year of interview. Time fixed effects control for potential

[8] Results using ordered logit or probit models are available in the online appendix.

common temporal determinants of beliefs. Summary statistics of individual co-variates are presented in table 11 in appendix. The repartition of observations between mineral and non-mineral states is summarized in table 12, presented in appendix. Each group of states is made of one half of the sample. The estimated coefficients of equation (1) for dependent variables *responsibility*, *inequalities* and *assistance* are presented in table 2. The estimated coefficients of all individual variables are consistent with the literature (see Alesina and La Ferrara (2005) among others). Males are more individualistic than females. Being married or employed increases the answers to the three questions. The educational level decreases the demand for redistribution. White are more individualistic than others. Being protestant or catholic rather than atheistic also increases individualism and decreases the support for redistribution. Income captures the current income and has a positive effect on the three left-hand variables.

As stressed in the introduction, we argue that the effect of mineral resources on the preferences for redistribution is likely to be driven by increasing current or expected income. Here, we control for individual income. The introduction of this variable leaves the estimated coefficient of the variable *mineral state* unchanged with respect to table 1. This result suggests that the effect of mineral resources does not transit through current individual income and does not invalidate the expected income explanation.[9].

In all columns of table 2, the estimated coefficient of the dummy variable for individual living in states with mineral resources is positive and significant. The estimated coefficient is about 0.05 when *responsibility* is the dependent variable. As a comparison, the effect of being catholic equals 0.08, the reference being "none/other"; whereas the estimated effect of being married equals 0.16. Hence, the effect of living in a mineral state on *responsibility* is of the same order of magnitude as the one of religion or marital status. Moreover, this effect represents up to one third of the effect of being married, one of the variables with the largest effect on *responsibility*. Using *inequalities* as dependent variable, the estimated effect of the mineral status of the state represents up to half of the effect of being married or protestant. In the case of *assistance*, the estimated effect is even stronger.

These estimations allow us to conclude that differences in individualism between states with or without mineral resources are not driven by a composition effect of the populations surveyed, i.e. individuals living in mineral states do not systematically share observable characteristics that favor individualism. The effect of residence in a mineral state still holds when controlling for a large set of individual characteristics.

Discussion

At a first sight, these results are opposite to those of Di Tella et al. (2010). These authors show that there is a negative relationship between individualism and oil in the United States. How can we conciliate this two sets of results?

[9]GSS data does not allow to test directly the hypothesis that living in a mineral state as a positive effect on expected income

First of all, Di Tella et al. (2010) argue that the importance of oil industry is a proxy for *luck* at the state level. This, in turn, influences the demand for redistribution of individuals. Indeed, the greater the feeling that luck instead of hard work determines income, the larger the demand for redistribution. Symmetrically, if an individual thinks that income is primarily determined by individual effort, he will exhibit less willingness to redistribute. In fact, the feeling that success is determined by luck is less widespread in our states with mineral resources as shown by table 13 presented in appendix. The dependent variable is the answer to the following question: "*Some people say that people get ahead by their own hard work; others say that lucky breaks or help from other people are more important. Which do you think is most important?*". The possible answers are "*1 (Hard work most important), 2 (Hard work, luck equally important), 3 (Luck most important)*". We created a dummy variable equal to 0 if the respondent thinks that luck is most important, and 1 otherwise. The estimated coefficient of the dummy variable for mineral state is positif and significant. Which means that individual living in mineral states are less likely to think that luck is most important. This differs from the assumption of Di Tella et al. (2010) on the positive effect of oil on luck.

Second, there is also another way to conciliate these two results on the link between resources and individualism. This divergence can be driven by the differences in the characteristics of oil and mineral resources. We focus on mineral resources, as described by table 10 in appendix, whereas Di Tella et al. (2010) focus on oil industry. This difference remains to be explored. This can be done by looking at the work by Boschini et al. (2007). These authors argue that the effect of natural resources on economic performance depends on the types of resources owned. In this framework, they point out the role of resource's *appropriability*. According to them, "*the concept of appropriability captures the likelihood that natural resources lead to rent-seeking, corruption or conflicts which, in turn, harm economic development*". Boschini et al. (2007) distinguish between *institutional* and *technical* appropriability. The first type of appropriability is related to the institutional capacity to manage natural resources exploitation. Given that we focus only on the United States, institutional appropriability is fairly homogeneous in our study and thus cannot explain the puzzle presented above. On the other hand, "*due to their physical and economical characteristics, certain resources are more likely to cause appropriative behavior*". This is what Boschini et al. (2007) define as technical appropriability. This allows to make a crucial distinction between mineral resources and oil. Indeed, mineral resources in general, and gold and silver in particular (what represent more than 50% of our observations that have led to production) are more appropriable than oil. Mineral resources are intrinsically more valuable, transportable and storable. Moreover mineral resources exploitation is more labor intensive than oil production.[10] On top of this, the exploitation of mineral resources is painful and requires hard work.

[10]The fact that mining is more labor intensive that oil extraction can be checked by looking at figure 8 presented in appendix. This figure plots the ratio of labor to value added for both industries between 1998 and 2009.

Such resources are thus more likely to raise individualistic incentives and behaviors. In our opinion, this approach offers a valuable way to account for the opposite effects of natural resources on individualism found in Di Tella et al. (2010) and our paper.

Intensity effect

In table 21, presented in appendix, we replace the mineral status variable by a broad measure of the abundance of mineral resources, i.e. by the number of mines in the state as described by table 9 in appendix. We found that the number of mines has a positive effect on our three measures of individualism at the individual level. This suggests that even within mineral states, the more mineral resources in the state, the more individualistic the state's residents.

3.2 Robustness Checks

In this sub-section, we present objections that can be raised against our main result and show that it is robust to the introduction of a large number of confounding factors as explanatory variables.

Individual omitted variables

First of all, despite the large number of control variables used in the above regressions, our results could be due to omitted individual variables. In table 3, we explore whether the origin or the occupation of individuals can explain the relationship between mineral resources and individualism.

Cultural origin: As pointed out by Grosjean (2010), geographic and economic conditions can lead to a selection of inhabitants across immigration destinations. Consequently, we have to take into account the possible selection of immigrants from different countries toward places with and without mineral resources. This approach relies on the assumption that immigrants bears different values depending on their origin country. In columns 1, 4, and 7 of table 3, we introduce forty fixed effects that correspond to the individual's ancestors country.[11] The estimated coefficient of the variable *mineral state* is unaltered by the introduction of this set of variables.

Industry: It is also likely that the composition of occupations within states determines part of individual preferences toward redistribution. Hence, in columns 2, 5, and 8 we introduce industry fixed effects. The introduction of these variables leaves the estimated coefficient of our variable of interest virtually unchanged.

In columns 3, 6, and 9, we include both ancestors country and industry fixed effect. Estimated coefficients are unchanged. This result means that the effect of mineral resources on individualistic values persists when controlling for origin or industry.

[11] The question asked in the GSS is: "*From what countries or part of the world did your ancestors come?*".

State-level omitted variables

The positive effect of mineral endowment on individualism could also be determined by state-level omitted variables. In table 4, we add following control variables to our specifications: region fixed effects, longitude of the state capital, population density, political orientation, state per capita income, the coefficient of Gini, and mineral mining dependency.[12]

Geographical bias: As shown by figure 2, the spatial distribution of mining activity in the United States is broadly polarized between West and East. Hence, our correlation could be driven by a simple omitted variable due to common characteristics shared by geographically close states. This is why we use the regional divisions of the United States Census Bureau as control variables. This division imply the use of four region fixed effects for Northeast, Midwest, South and West. We control also for the West-East dispersion of states using the longitude of the state capital. Columns 1, 7, and 13 of table 4 present the results. The estimated coefficient of the mineral status remains significant in the case of *inequalities* and *assistance*. The estimated coefficient when *responsibility* is the dependent variables is no more significant, but not far from the 10% significance level. These results confirm that the correlation between mineral resources and individualistic values is strong in the West part of the country. However, the longitudinal position of states does not seem to explain all the relationship between mineral resources and individualism.

Population density: Diamond (2006) stresses that "*Montanans tend to be conservative, and suspicious of governmental regulation. That attitude arose historically because early settlers were living at low population density [...]*". The geographical conditions of Montana, in which many mineral discoveries took place, induces a very low population density which could explain the attitudes of citizens and more particularly why individuals in this state are more individualistic. As shown by table 4 in column 2, 8, and 14 the estimated coefficient of our variable of interest is unaffected by the introduction of population density. The coefficient of population density is negative as expected.

Political orientation: As mentioned above, the values we consider as reflecting greater individualism can also be simply associated to right-wing orientations. In order to show that we are not capturing only right-wing ideas, we control for political orientation at the state level using the Ranney index in columns 3, 9, and 15. We use a version of the Ranney index that captures the extent to which either the Democratic or Republican Party dominates the upper and lower houses of the state legislatures.[13] This variable increases when the Democratic Party dominates the state at the time of interview. As shown by table 4, the estimated coefficient of our variable of interest is unaffected by the introduction of this variable for the three dependent variables. The estimated coefficient of the Ranney index is logically negative. This means that people living in states dominated by the Democratic Party have less individualistic values and support more redistribution.

[12] All these variables are defined at the time of interview.

[13] See Berkowitz and Clay (2010) for more explanation on Ranney index building

Aggregate wealth: In columns 4, 10, and 16 we include income per capita in the state at the time of interview to control for differences in aggregate wealth and development. Adding income per capita in the regressions does not harm the significance, nor the magnitude of the mineral status variable. As for current individual income (see above), this result means that mineral resources have an effect on preferences for redistribution which does not act solely through current aggregate income.

Inequalities: Next, we take into account the potential effect of inequalities in columns 5, 11, and 17. We introduce the Gini coefficient in the state at the time of interview as a control variable. We find no significant relationship between this variable and individualism. Once again, this does not harm the estimated coefficient of our variable of interest.

Share of mining activity: In columns 6, 12, and 18, we introduce local mineral mining dependency of the state of residence at the time of interview as a control variable.[14] Once again the estimated coefficient of our variable of interest is unchanged.

All in all, the relationship between the variable *mineral state* and our three measures of individualism appears robust to the introduction of a large set of state-level co-variates. Hence, we are confident that the effect of the mineral status is not totally driven by omitted variables such as region fixed effects, longitude, population density, political orientations, income per capita, inequalities or the mineral dependency. However, the introduction of such variables changes the size of the coefficient of *mineral state*. The relative importance of such changes can be used to asses the potential omitted variable bias as suggested by Altonji et al (2005). This approach, implemented in appendix, confirms that it is unlikely that supplementary omitted variables drive the results presented here.

Selection Effect

A concern about the relationship documented here is that it could be driven by a selection effect, i.e. more individualistic individuals could have been attracted by the prevailing "spirit" in mineral state or by the opportunities offered by these states. Similarly, a specific "spirit" may push individuals who do not share this trait to move out. We can identify three issues related to the selection effect.

The first two issues concern today's self-selection. It is possible that non-individualistic people may moved out of mineral state. By construction, this kind of migration would mechanically foster the proportion of individualistic people in mineral states. Symmetrically, more individualistic individuals could have been attracted to mineral states. This interpretation is tackled in table 5. We create a dummy variable equals to one if respondent as changed state since he was 16 years old. This also allows to check if movers are more individualistic than non-movers. Furthermore, interacting this variable with the mineral status variable, we are able to check if movers toward mineral states support

[14] Mineral mining dependency is measured by the share of mining activity in the state GDP.

less redistribution than others. When the dependent variable is *responsibility* or *assistance* we do not find any support for the hypothesis that movers are more individualistic than non-movers, nor for the idea that mineral states could attract mainly individualistic individuals. In the case of the variable *inequalities* the estimated coefficient on the mover variable is significant and positive. This suggests that movers tend to be more adverse to the reduction of income inequalities than non-movers. However the estimated coefficient of the interaction term is negative, ruling out the former interpretation. The other selection mechanism, i.e. the selection of less individualistic out of mineral states is completely symmetric. Associated regressions are presented in table 14 in appendix. As expected, results are converging. Hence, we can conclude that the relationship between the mineral status of the state and the demand for redistribution and individualism is not driven by selection effects.

The last issue is linked to initial selection of inhabitants of mineral states. Mineral discoveries in the mid-19$^{\text{th}}$ century may have attracted individuals characterized by specific traits. Such individuals are likely to be characterized by a very small risk aversion, very developed entrepreneurship values, and *ex-ante* aversion for redistribution. Settlement of such pioneers would then launch the transmission of individualistic values to next generations. The values observed in the late 20$^{\text{th}}$ century would thus originate from a transmission of values from people who were individualistic before their arrival in mineral states. In order to tackle this issue, we reverse the epidemiological approach used in cultural economics. Following this approach, Americans inherited attitudes toward various subject that reflect the culture of their ancestors' origin country. If initial selection took place, then American immigrants from more individualistic countries should have settled in mineral states. A direct test of this hypothesis requires precise information about the origin of early settlers in the United States. Such information would thus allow us to check whether there is systematic variations in origin countries among individuals who settled in mineral or non-mineral states. Early information about origin countries are scarce. As noted by Grosjean (2010), early US Census data list only few different origin countries. We thus use directly information provided by the General Social Survey about ancestors' countries. Table 6 presents origin countries listed in the survey and the share of respondents living in mineral or non-mineral states for each origin country. Some origins are well-balanced. For example, the population of Americans with French or Italian ancestors is almost equally balanced across the two groups of states. However, strong differences appear across other origins. For example, 83 percents of Americans with Finnish ancestors live in non-mineral states. On the opposite, 86 percents of respondents with Spanish ancestors live mineral states. All in al, there are thus differences in allocation across origins. This argues in favor of the initial selection hypothesis.

However, a complete validation of this hypothesis requires that individuals with more individualistic culture settled in mineral states. In other terms, the lower the cultural support for redistribution in an origin country, the higher should be the share of Americans from this country who initially migrated to mineral states. To check this, measure

aversion for redistribution in a set of origin countries using the World Values Survey. We follow Algan et al. (2011) and construct the average answer by country to the following question: "*I'd like you to tell me your views on various issues. How would you place your views on this scale?* 1 *means you agree completely with the statement on the left;* 10 *means you agree completely with the statement on the right; and if your views fall somewhere in between, you can choose any number in between. Incomes should be made more equal* versus *We need larger income differences as incentives*".

Figure 6 plots the average aversion for redistribution in origin countries and the share of Americans of specific origins living in mineral states. Information available in the General Social Survey and the World Values Survey only enable to obtain both variables for 27 origin countries. No clear relationship appears between both variables. In other words, the share of Americans of a given origin living in mineral states is not increasing as aversion for redistribution in their origin country increases. This invalidates the hypothesis that our results are driven by initial selection of Americans pioneers.

Individualism or distrust in institutions?

In table 22, presented in appendix, we rule out the possibility that we are documenting a broad distrust to the government and not a specific effect of mineral status on individualism. We measure the general trust in the government and in television using questions of the General Social Survey. The common question reads as "*I am going to name some institutions in this country. As far as the people running these institutions are concerned, would you say you have a great deal of confidence, only some confidence, or hardly any confidence at all in them?*". We use answers for the following institutions : "*Executive branch of the federal government*", "*Congress*" and "*Television*". We find no significant relationship between our mineral status variable and confidence in the government or in television. This suggests that we are indeed documenting a relationship from mineral resources to individualism and not a broad distrust in public institutions.

Spurious correlation

Two other falsification exercises can be proposed to check that the relationship we are presenting is not purely spurious. Both rely on random allocations of the mineral status.

First, we randomly assign each individual to a new state, leaving the mineral status of the state unchanged. We estimate $1,000$ times equation (1) with individual co-variates (as in table 2) and present the distribution of estimated coefficients of *mineral state* in figures 9 to 11, presented in appendix, for each of the three dependent variables. Only 0.3% of randomly simulated coefficients are above the estimated coefficient of *mineral state* in table 2 if the dependent variable is *responsibility*. Corresponding numbers amount 0% for *inequalities* and 0% for *assistance*.

Second, we randomly assign the mineral status of each state, leaving unchanged the individual composition of each state. We estimate $1,000$ times equation (1) with indi-

vidual co-variates (as in table 2) and present the distribution of estimated coefficients of *mineral state* in figures 12 to 14, presented in appendix, for each of the three dependent variables. Only 6.7% of randomly simulated coefficients are above the estimated coefficient of *mineral state* in table 2 if the dependent variable is *responsibility*. Corresponding numbers amount 0.3% for *inequalities* and 2.5% for *assistance*. Note that the results of this exercise are less favorable than those of the first one. This is natural, since the procedure we implement is more likely to reproduce the original sample.

These falsification exercises make us confident that the relationship we document is not purely spurious.

4 Identification of Channels

Results presented in section 3 show the importance of mineral resources for individualistic orientations. In the introduction, we stressed two potential channels through which values are formed: the *transmission* channel and the *experience* channel. In this section we identify both channels and show that both matter.

4.1 The *Experience* Channel

The *experience* channel is linked to the direct effect mineral resources abundance on individualistic values. Values depend on events that happened during the life of an individual. Hence, "shocks" on mineral resources abundance are likely to shape directly the values help by individuals if they have been affected by these shocks.

The best way to identify this channel would be to exploit a natural experiment as in Di Tella et al. (2007). Unfortunately, it is impossible to implement this methodology according to the nature of our data. As underlined in section 2, mineral discoveries occurs in the US until the late 60's and data on individualism are available since the mid-70's. Moreover, the General Social Survey does not provide information on the city of birth but only if the respondent was living in the same state when it was 16 years old. This information allows to control (partially) for the question of migration but is a limit to the implementation of a natural experiment.

To overcome this issue we propose another methodology in order to identify the *experience* channel. Focusing on states with mineral resources, we now distinguish between individuals who observed mineral resources discoveries in the state when they where young and those who did not. This strategy imposes us to focus only on individuals who did not change state between early adulthood and the time of interview. Indeed, let us recall that we are not able to know where individuals were living when they were young. Instead, we know if they stayed in the same state. These conditions lead us to restrict the number of observations used. As show by table 12, presented in appendix, we only use 29% of the full sample in regressions presented in this sub-section.

We create a dummy variable equals to one if the respondent is likely to have observed

mineral resources discoveries between 18 and 25. This period corresponds to the "impressionable years" hypothesis presented above. In this subsection, we estimate equation (2), i.e. we compare individuals living in states with large mineral resources endowment who experienced mineral discoveries during their "impressionable years" to those living in the same group of states but who did not experience mineral discoveries during their "impressionable years". More than one third of the individuals have experienced mineral discoveries during their impressionable years.

Figure 7 presents the share of each cohort who observed mineral discoveries. Estimated coefficients of equation (2) for dependent variables *responsibility*, *inequalities* and *assistance* are presented in table 7. The estimated coefficient of the variable *mineral discoveries observed* is always positive and significantly different from zero. This means that having observed mineral discoveries fosters individualism and harms the individual demand of redistribution. The estimated coefficient is about 0.08 when *responsibility* is the dependent variable. As a comparison, the effect of being protestant equals 0.26, the reference being "none/other"; whereas the estimated effect of being married equals 0.18. Hence, the effect of observed mineral discoveries on *responsibility* is of the same order of magnitude as the one of religion or marital status. Moreover, this effect represents up to half of the effect of being married, one of the variables with the largest effect on *responsibility*. In the case of *inequalities* and *assistance*, the effect is even stronger. The estimated coefficients of the variable *mineral discoveries observed* are larger compared to the coefficients in table 2. The magnitude of estimated coefficients of the variable *mineral discoveries observed* suggests that the effect of having observed mineral resources discoveries is slightly larger than the simple effect of the mineral status previously estimated.

In what follows, we present now objections that can be raised against the identification of the *experience* channel and show that it is robust to the introduction of a large number of co-variates.

First, we introduce origin and industry fixed effects as previously done in table 3. Estimated coefficients presented in table 15 in appendix show that the effect of *mineral discoveries observed* holds for all dependent variable when taking origin and industry into account separately. In addition, this coefficient is still positive and significant for *inequalities* and *assistance* if we include both sets of fixed effects simultaneously.

Second, we face the same concerns about state-level omitted variables as those raised above. Accordingly, we introduce the population density, political orientation, per capita income, the Gini coefficient, and the measure of mining dependency in table 16 presented in appendix.[15] Estimated coefficients show that our results still hold except for *responsibility* with the inclusion of state population density or per capita income.

An obvious requirement when estimating equation (2) is to take into account other factors that may have shaped values during impressionable years. In appendix, table 17 presents estimated coefficients of *mineral discoveries observed* when introducing such

[15]Unlike in table 4, we do not control for geographical bias in table 16. Here, we focus explicitly on mineral states. Such co-variates would thus be irrelevant.

variables as co-variates. We first introduce birth cohort fixed effects in columns 1, 5, and 9. The estimated coefficient of our variable of interest is unchanged whatever the dependent variable. Second, we include the variable *past family income* in columns 2, 6, and 10 to control for respondent's situation when it was 16 years old.[16] Estimated coefficients of the variable of interest are still positive and statistically significant except for *assistance*. In columns 3, 7, and 11, we control for the *past per capita income* defined at the state level when the respondent was 20 years old. Results still hold. Last, we control for parents education using a set of fixed effects in columns 4, 8, and 12. Once again, the estimated coefficient of *mineral discoveries observed* stay positive and significant, except for *assistance*.[17]

By underlying the role of mineral discoveries during early adulthood, these results show that mineral discoveries strengthens individualistic values in the population. This supports the idea that experiences of mineral discoveries play a role in the formation of individualistic values.

4.2 The *Transmission* Channel

This channel is linked to the question of transmission and persistence of beliefs. It occurs within the society, across and within generations. In order to uncover the *transmission* channel, we compare individuals living in states with large mineral resources endowment who does not experienced mineral discoveries during their "impressionable years" to those living in states without mineral resources. In other words, we estimate again equation (1), but excluding individuals who experienced mineral discoveries during their "impressionable years". This cleans out the effect of the *experience* channel.

Estimated coefficients of equation (1) for dependent variables *responsibility*, *inequalities* and *assistance* are presented in table 8. The estimated coefficient of the variable *mineral state* are lower than in table 2. In column 1, when *responsibility* is the dependent variable, the estimated coefficient of the variable of interest is not statistically significant. The estimated coefficient is about 0.11 when *inequalities* is the dependent variable. In the case of *assistance*, the estimated coefficient of the mineral status is positive and statistically significant, but smaller than in table 2.

In what follows, we present now objections that can be raised against the identification of the *transmission* channel and show that it is robust to the introduction of a large number of co-variates.

As above, we introduce origin country and industry fixed effects as explanatory variables in table 18, presented in appendix. As the estimated coefficient of the variable of interest is estimated to be significant for *responsibility* and *inequalities* when introducing

[16] *Past family income* is the answer, on a 5 items scale, to the following question: "*Thinking about the time when you were* 16 *years old, compared with American families in general then, would you say your family income was far below average, below average, average, above average, or far above average?*".

[17] Estimating equation (2) only on individuals for which *past family income* or *parents education* are available suggests that this is not the introduction of this variable that makes the variable of interest not significant, but the smaller size of the sample.

both sets of fixed effects, it is just below the 10% significance level when *assistance* is the dependent variable.

In table 19, presented in appendix, we replicate exercises of table 4 by introducing state-level variables. We control separately for geographical characteristics, population density, political orientation, per capita income, inequalities, and mineral dependency. Evidence that values persist are weak for *responsibility* when introducing these variables. On the opposite, the estimated coefficient of *mineral state* remains highly significant and remarkably stable across specifications when the dependent variable is *inequalities* or *assistance*.

These results point out that there is a transmission of individualistic values in mineral states: individual living in states with lots of mineral resources are more individualistic than others even if they did not experienced mineral discoveries during their impressionable years.

4.3 Persistence across time

As the two above sub-sections show that both experience and transmission matter in the evolution of individualistic values associated with mineral resources, an natural question that arises concerns the strength of persistence. To tackle this question, we focus only on individuals living in states with mineral resources and construct for each of them a "distance to discoveries".

This requires us to define a "peak" of mineral discoveries for each state by taking the five years period with the most discoveries. According to all the former results, this "peak" should be a key date in the evolution of mineral resources related individualism in the state. Then, we construct the *distance to discoveries* of each individual by taking the difference between the year of interview and the "peak" in the state.[18]

The effect of the *distance to discoveries* on individualism is presented in table 20 in appendix. The estimated coefficient of this variable is negative and statistically significant only when *responsibility* is the dependent variable. This patterns seems coherent with other results presented in this paper since *responsibility* is the dependent variable for which evidence of persistence were weaker. On the contrary, estimated coefficients presented in table 20 suggest that attenuation is weak for *inequalities* or *assistance*. All in all, these results confirm the strong persistence of individualistic values associated with mineral resources. In other words, the effect of mineral resources on individualism seems to vanish very slowly, if it ever does.

[18] We restrict the sample to individuals living in state for which the "peak" can be clearly identified as period where the number of discoveries is substantially higher than during other periods.

5 Conclusion

In this paper, we show that there is a strong relationship between mineral resources abundance and individualism. Individuals living in states with lots of mineral resources are more individualistic and support less redistribution than others. This result is robust to various alternative explanations.

This relationship may arise either because of the transmission of specific values within the society across time, or because of direct observations of mineral resources discoveries by individuals. We uncover these two channels and show that both matter. In states with lots of mineral resources, individuals who observed resources discoveries during their early adulthood are also more individualistic and support less redistribution than others. In the same time, individuals living in states with lots of mineral resources but who did not experienced mineral resources discoveries during their impressionable years are more individualistic than those who live in states without mineral resources. All in all, results presented in this paper stress the high persistence of individualistic values associated with mineral resources.

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Figure 1: Distribution of mineral resources discoveries in the United Sates (1800-2000).

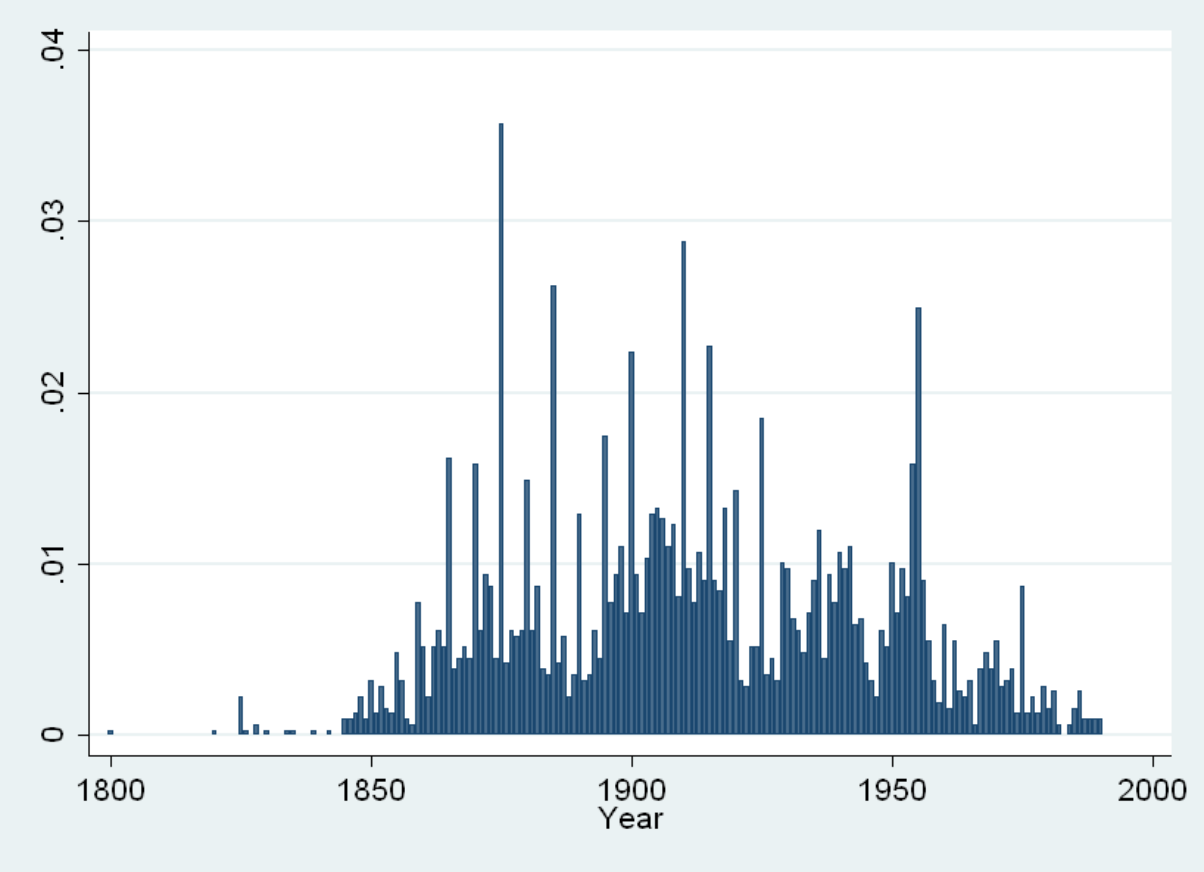
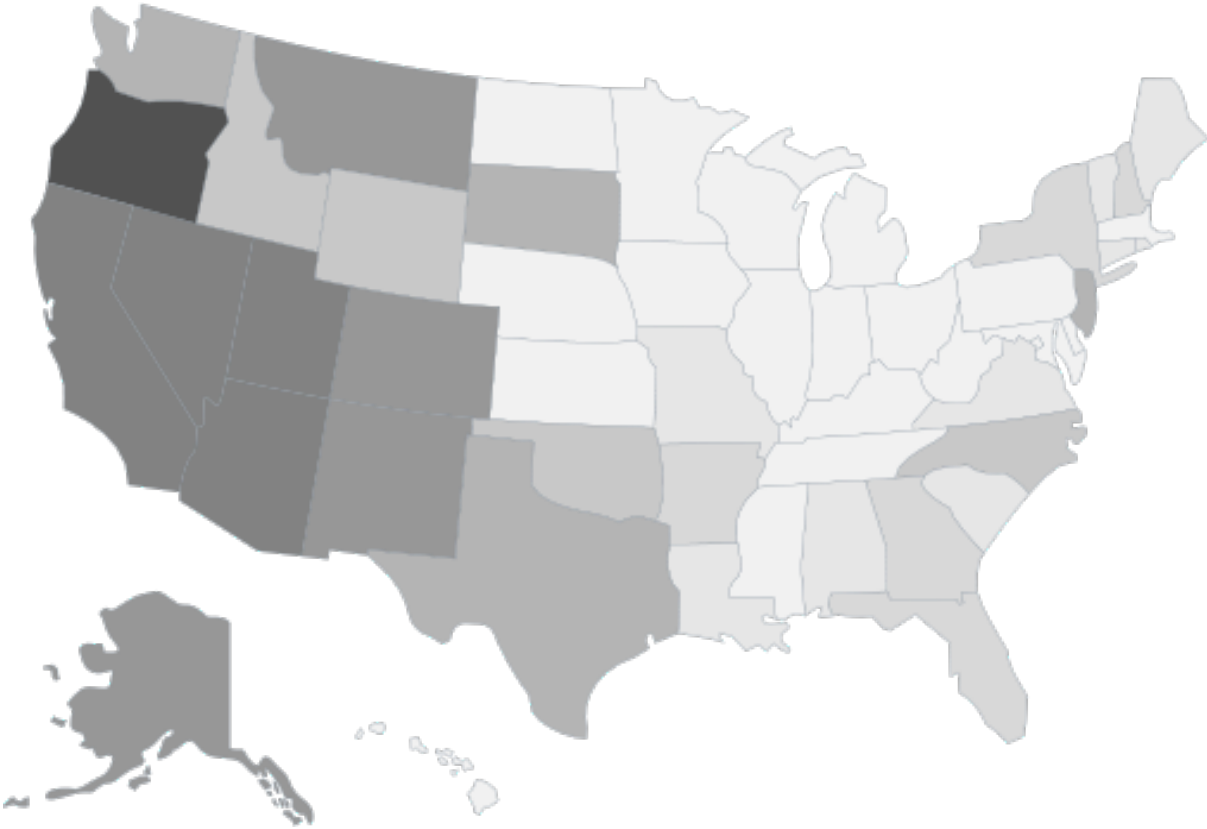
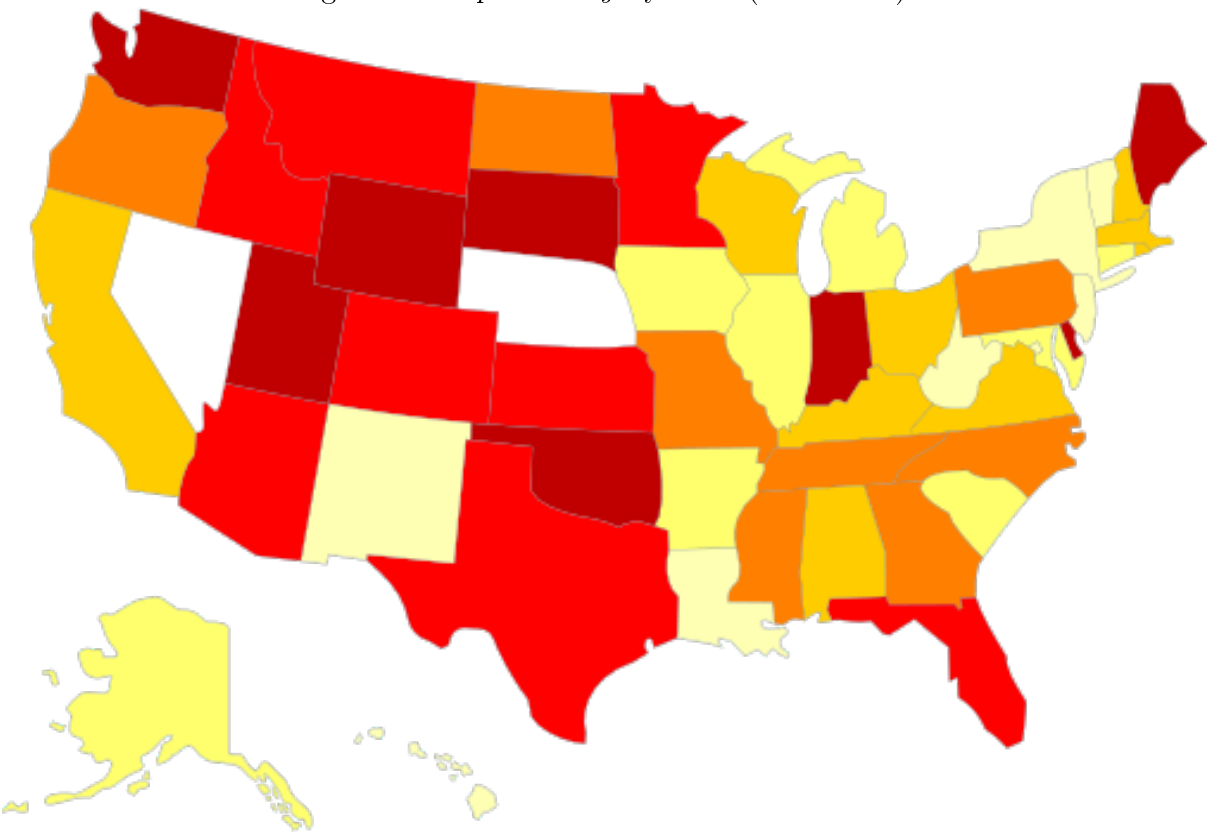


Figure 2: Distribution of mines in the United States (1800-2000).



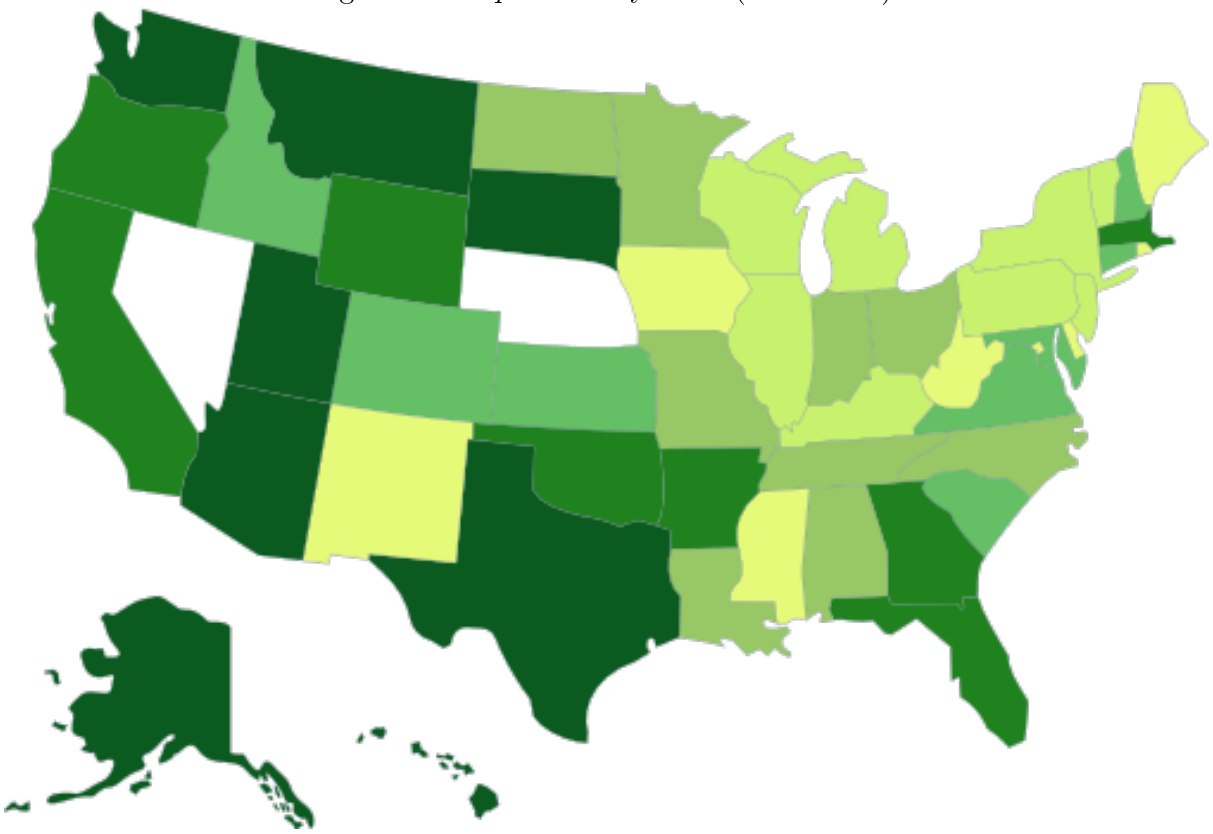
Deeper grey indicates higher number of mines. Lighter grey indicates no mines. This map is constructed from data presented in table 9 presented in appendix.

Figure 3: *Responsibility* by state (1975-2004).



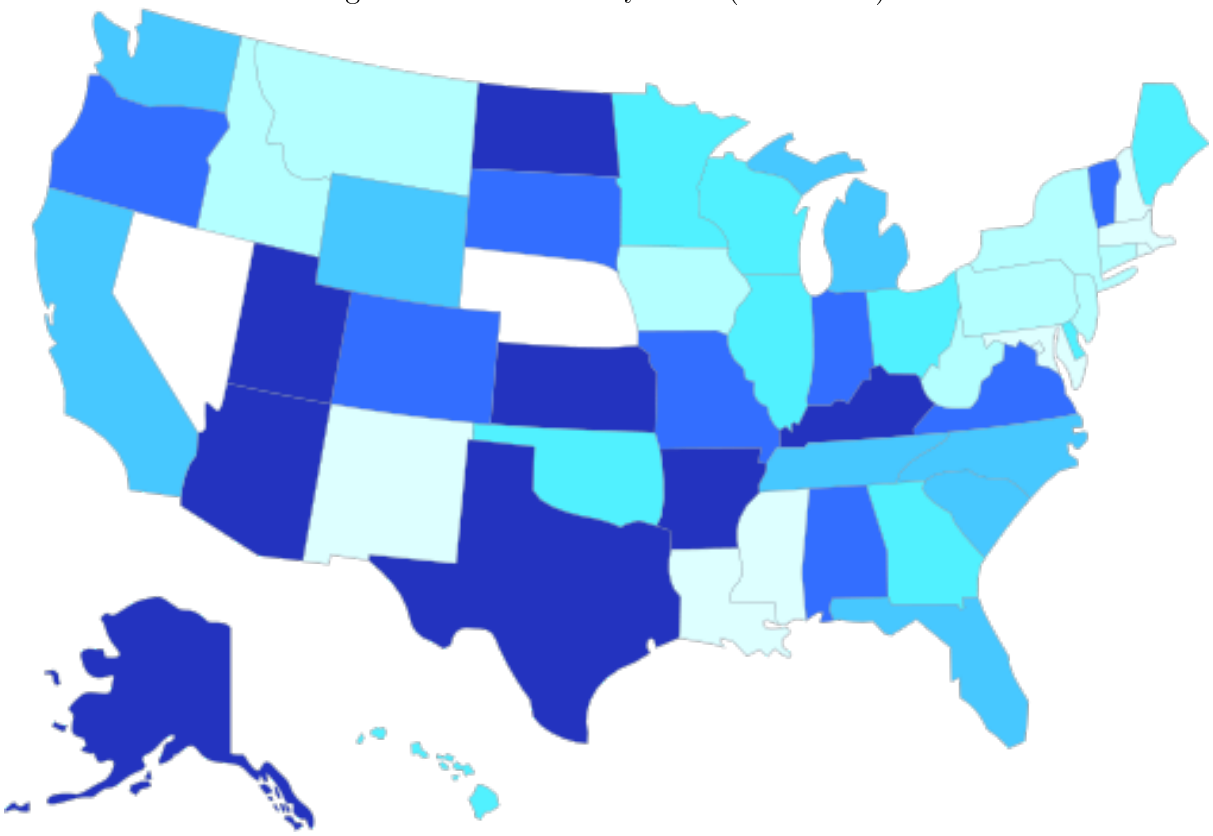
Deeper red indicates higher average answer. Mean by state of the answer, on a scale from 1 to 5, to the following question: "*Some people think that the government in Washington should do everything possible to improve the standard of living of all poor Americans. Other people think it is not the government's responsibility, and that each person should take care of himself. Where would you place yourself on this scale?*". Data are missing for Nevada and Nebraska.

Figure 4: *Inequalities* by state (1975-2004).



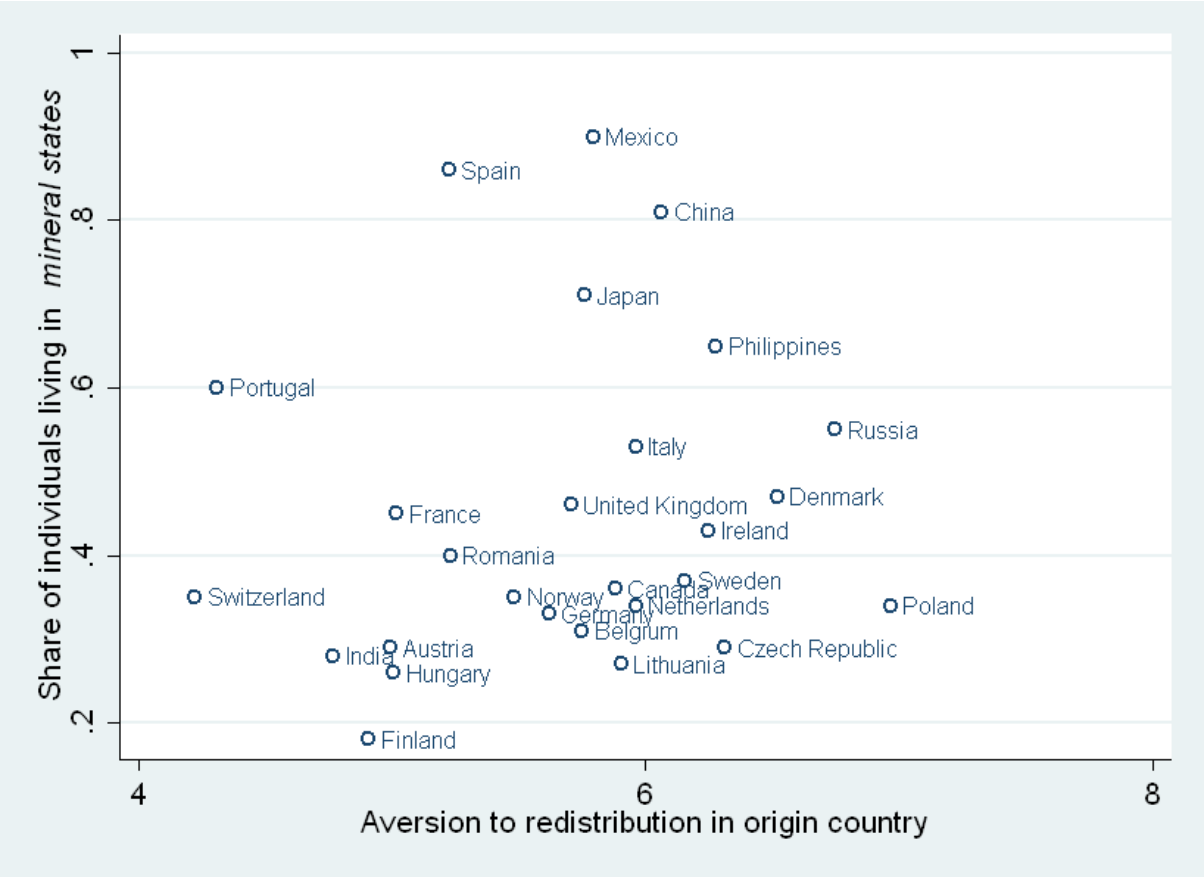
Deeper green indicates higher average answer. Mean by state of the answer, on a scale from 1 to 7, to the following question: "*Some people think that the government in Washington ought to reduce the income differences between the rich and the poor, perhaps by raising the taxes of wealthy families or by giving income assistance to the poor. Others think that the government should not concern itself with reducing this income difference between the rich and the poor. What score [...] comes closest to the way you feel?*". Data are missing for Nevada and Nebraska.

Figure 5: *Assistance* by state (1975-2004).



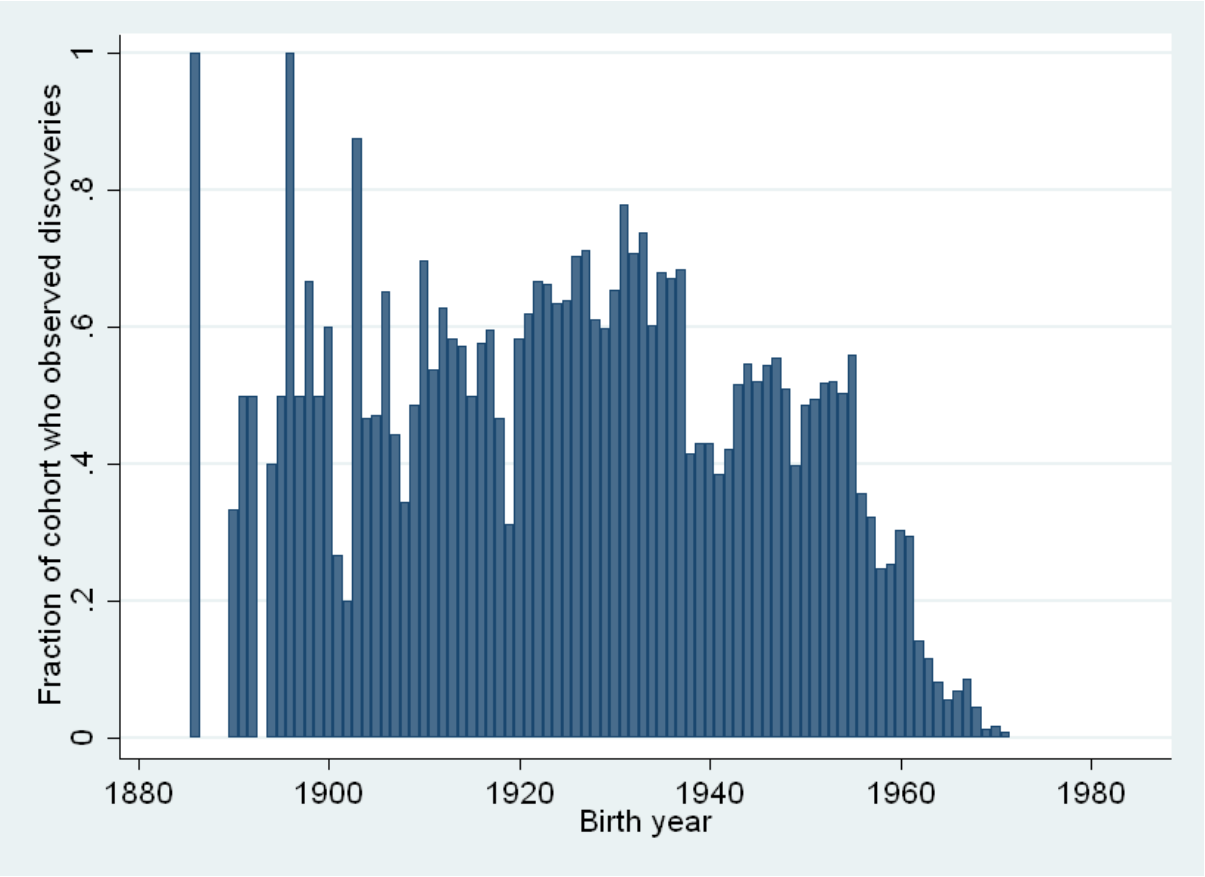
Deeper blue indicates higher average answer. Mean by state of the answer, on a scale from 1 to 3, to the following question: "*We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. Are we spending too much, too little, or about the right amount on assistance to the poor?*". Data are missing for Nevada and Nebraska.

Figure 6: Relationship between the share of individuals living in *mineral* states and aversion to redistribution in origin country.



Origin country is determined using the answer to the following question: "*From what countries or part of the world did your ancestors come?*". See the text for the definition *mineral* and *non-mineral* states. *Aversion to redistribution in origin country* is constructed using the average answer by country to the following question from the World Values Survey: "*I'd like you to tell me your views on various issues. How would you place your views on this scale?* 1 *means you agree completely with the statement on the left;* 10 *means you agree completely with the statement on the right; and if your views fall somewhere in between, you can choose any number in between. Incomes should be made more equal* versus *We need larger income differences as incentives*".

Figure 7: Share of cohort who observed mineral discoveries during impressionable years.



The share of cohort who observed mineral discoveries during impressionable years may be equal to 1 or 0 for some cohorts because we have only few respondents born respectively in some specific years. This is particularly likely for cohorts born before 1900.

Table 1: Mean-comparison tests.

	Observations	Mean	Standard error	P-value of t-test
Responsibility				
Mineral states	8776	2.92	.012	
Non-mineral states	9072	2.88	.012	
Difference		.041	.017	.0094
Inequalities				
Mineral states	9716	3.81	.020	
Non-mineral states	10340	3.65	.019	
Difference		.163	.028	.0000
Assistance				
Mineral states	6581	1.47	.008	
Non-mineral states	6680	1.44	.008	
Difference		.036	.012	.0010

Reported p-values are associated to the following test: $\mathbb{E}(Y|\text{Mineral states}) > \mathbb{E}(Y|\text{Non mineral states})$ where Y is *responsibility*, *inequalities*, or *assistance*. See the text for the distinction between *mineral states* and *non-mineral states*. *Responsibility* is the answer, on a scale from 1 to 5, to the following question: "*Some people think that the government in Washington should do everything possible to improve the standard of living of all poor Americans. Other people think it is not the government's responsibility, and that each person should take care of himself. Where would you place yourself on this scale?*". *Inequalities* is the answer, on scale from 1 to 7, to the following question: "*Some people think that the government in Washington ought to reduce the income differences between the rich and the poor, perhaps by raising the taxes of wealthy families or by giving income assistance to the poor. Others think that the government should not concern itself with reducing this income difference between the rich and the poor. What score [...] comes closest to the way you feel?*". *Assistance* is the answer, on a scale from 1 to 3, to the following question: "*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 money, or about the right amount. Are we spending too much, too little, or about the right amount on assistance to the poor?*".

Table 2: Residence in a mineral state and individualism.

	(1) *Responsibility*	(2) *Inequalities*	(3) *Assistance*
Mineral state	0.046**	0.146***	0.043***
	(0.019)	(0.031)	(0.013)
Male	0.143***	0.287***	0.043***
	(0.017)	(0.028)	(0.012)
Age	-0.128***	-0.044	-0.065***
	(0.032)	(0.048)	(0.021)
Age^2	0.018***	0.009*	0.010***
	(0.003)	(0.005)	(0.002)
Married	0.164***	0.273***	0.071***
	(0.019)	(0.031)	(0.012)
Protestant	0.213***	0.306***	0.058***
	(0.023)	(0.041)	(0.017)
Catholic	0.082***	0.165***	-0.005
	(0.028)	(0.044)	(0.019)
Education	0.034***	0.094***	0.012***
	(0.004)	(0.005)	(0.002)
Employed	0.098***	0.049	0.051***
	(0.021)	(0.032)	(0.014)
White	0.521***	0.695***	0.240***
	(0.028)	(0.039)	(0.014)
Income	0.050***	0.078***	0.016***
	(0.006)	(0.008)	(0.004)
Year fixed effects	Yes	Yes	Yes
Observations	17,848	20,056	13,261
Adjusted R-squared	0.086	0.084	0.057

*** p<0.01, ** p<0.05, * p<0.1. Robust standard errors in parentheses, clustered by year of interview × state. OLS regressions. All regressions include a constant term. *Mineral state* is equal to 1 if the respondent lives in a state with lots of mineral resources, 0 if not. See the appendix for a presentation of other co-variates. *Responsibility* is the answer, on a scale from 1 to 5, to the following question: "*Some people think that the government in Washington should do everything possible to improve the standard of living of all poor Americans. Other people think it is not the government's responsibility, and that each person should take care of himself. Where would you place yourself on this scale?*". *Inequalities* is the answer, on scale from 1 to 7, to the following question: "*Some people think that the government in Washington ought to reduce the income differences between the rich and the poor, perhaps by raising the taxes of wealthy families or by giving income assistance to the poor. Others think that the government should not concern itself with reducing this income difference between the rich and the poor. What score [...] comes closest to the way you feel?*". *Assistance* is the answer, on a scale from 1 to 3, to the following question: "*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 money, or about the right amount. Are we spending too much, too little, or about the right amount on assistance to the poor?*".

Table 3: Residence in a mineral state and individualism: controlling for ancestors' country and industry fixed effects.

	(1)	(2)	(3)
		Responsibility	
Mineral state	0.045**	0.060***	0.059***
	(0.019)	(0.020)	(0.021)
Origin country fixed effects	Yes		Yes
Industry fixed effects		Yes	Yes
Observations	16,926	14,081	13,408
Adjusted R-squared	0.086	0.090	0.088
	(4)	(5)	(6)
		Inequalities	
Mineral state	0.142***	0.119***	0.113***
	(0.032)	(0.033)	(0.034)
Origin country fixed effects	Yes		Yes
Industry fixed effects		Yes	Yes
Observations	18,984	15,806	15,029
Adjusted R-squared	0.087	0.083	0.086
	(7)	(8)	(9)
		Assistance	
Mineral state	0.046***	0.033**	0.039**
	(0.013)	(0.015)	(0.015)
Origin country fixed effects	Yes		Yes
Industry fixed effects		Yes	Yes
Observations	12,573	10,441	9,931
Adjusted R-squared	0.057	0.063	0.062

*** p<0.01, ** p<0.05, * p<0.1. Robust standard errors in parentheses, clustered by year of interview × state. OLS regressions. All regressions include a constant term, fixed effects for the year of interview, and following individual co-variates: gender, age, age^2, marital status, religion, education, employment status, race, and income. *Mineral state* is equal to 1 if the respondent lives in a state with lots of mineral resources, 0 if not. See the appendix for a presentation of other co-variates. *Origin country fixed effects* are created using the answer to the following question: "*From what countries or part of the world did your ancestors come?*". *Industry fixed effects* are created using a 10 items classification. *Responsibility* is the answer, on a scale from 1 to 5, to the following question: "*Some people think that the government in Washington should do everything possible to improve the standard of living of all poor Americans. Other people think it is not the government's responsibility, and that each person should take care of himself. Where would you place yourself on this scale?*". *Inequalities* is the answer, on scale from 1 to 7, to the following question: "*Some people think that the government in Washington ought to reduce the income differences between the rich and the poor, perhaps by raising the taxes of wealthy families or by giving income assistance to the poor. Others think that the government should not concern itself with reducing this income difference between the rich and the poor. What score [...] comes closest to the way you feel?*". *Assistance* is the answer, on a scale from 1 to 3, to the following question: "*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 money, or about the right amount. Are we spending too much, too little, or about the right amount on assistance to the poor?*".

Table 4: Residence in a mineral state and individualism: controlling for state-level variables.

	(1)	(2)	(3)	(4)	(5)	(6)
	Responsibility					
Mineral state	0.030	0.039**	0.044**	0.060***	0.052**	0.045**
	(0.026)	(0.020)	(0.019)	(0.018)	(0.023)	(0.019)
Longitude	0.023					
	(0.144)					
Population density		-0.016*				
		(0.008)				
Ranney index			-0.174***			
			(0.056)			
Per capita income				-0.019***		
				(0.003)		
Gini coefficient					-0.150	
					(0.553)	
Mineral dependency						-0.003
						(0.010)
Region fixed effects	Yes					
Observations	17,848	17,848	17,755	17,848	14,760	17,848
Adjusted R-squared	0.088	0.086	0.087	0.088	0.092	0.086
	(7)	(8)	(9)	(10)	(11)	(12)
	Inequalities					
Mineral state	0.089**	0.142***	0.139***	0.163***	0.155***	0.146***
	(0.041)	(0.032)	(0.031)	(0.031)	(0.039)	(0.031)
Longitude	0.300					
	(0.258)					
Population density		-0.011				
		(0.013)				
Ranney index			-0.410***			
			(0.074)			
Per capita income				-0.022***		
				(0.006)		
Gini coefficient					0.452	
					(0.941)	
Mineral dependency						-0.002
						(0.012)
Region fixed effects	Yes					
Observations	20,056	20,056	19,959	20,056	16,926	20,056
Adjusted R-squared	0.086	0.084	0.086	0.085	0.086	0.084
	(13)	(14)	(15)	(16)	(17)	(18)
	Assistance					
Mineral state	0.065***	0.032**	0.042***	0.050***	0.046***	0.043***
	(0.018)	(0.013)	(0.013)	(0.013)	(0.018)	(0.013)
Longitude	0.193*					
	(0.101)					
Population density		-0.025***				
		(0.005)				
Ranney index			0.029			
			(0.038)			
Per capita income				-0.010***		
				(0.002)		
Gini coefficient					0.105	
					(0.425)	
Mineral dependency						0.004
						(0.008)
Region fixed effects	Yes					
Observations	13,261	13,261	13,177	13,261	9,679	13,261
Adjusted R-squared	0.060	0.059	0.057	0.058	0.061	0.057

*** p<0.01, ** p<0.05, * p<0.1. Robust standard errors in parentheses, clustered by year of interview × state. OLS regressions. All regressions include a constant term, fixed effects for the year of interview, and following individual co-variates: gender, age, age^2, marital status, religion, education, employment status, race, and income. *Mineral state* is equal to 1 if the respondent lives in a state with lots of mineral resources, 0 if not. See the appendix for a presentation of individual co-variates. See footnotes of other tables for the definitions of *responsibility*, *inequalities*, and *assistance*. See the appendix for a presentation of state-level co-variates.

Table 5: Residence in a mineral state and individualism: movers incidence.

	(1) *Responsibility*	(2) *Inequalities*	(3) *Assistance*
Mineral State (A)	0.054**	0.196***	0.044***
	(0.023)	(0.039)	(0.015)
Mover (B)	0.012	0.112**	-0.002
	(0.028)	(0.048)	(0.019)
$A \times B$	-0.030	-0.160**	0.000
	(0.037)	(0.064)	(0.025)
Observations	17,742	19,940	13,201
Adjusted R-squared	0.086	0.084	0.057

*** p<0.01, ** p<0.05, * p<0.1. Robust standard errors in parentheses, clustered by year of interview × state. OLS regressions. All regressions include a constant term, fixed effects for the year of interview, and following individual co-variates: gender, age, age^2, marital status, religion, education, employment status, race, and income. *Mineral state* is equal to 1 if the respondent lives in a state with lots of mineral resources, 0 if not. See the appendix for a presentation of other co-variates. *Mover* is equal to 1 if the respondent does not live in the same state as when it was 16 years old. *Responsibility* is the answer, on a scale from 1 to 5, to the following question: "*Some people think that the government in Washington should do everything possible to improve the standard of living of all poor Americans. Other people think it is not the government's responsibility, and that each person should take care of himself. Where would you place yourself on this scale?*". *Inequalities* is the answer, on scale from 1 to 7, to the following question: "*Some people think that the government in Washington ought to reduce the income differences between the rich and the poor, perhaps by raising the taxes of wealthy families or by giving income assistance to the poor. Others think that the government should not concern itself with reducing this income difference between the rich and the poor. What score [...] comes closest to the way you feel?*". *Assistance* is the answer, on a scale from 1 to 3, to the following question: "*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 money, or about the right amount. Are we spending too much, too little, or about the right amount on assistance to the poor?*".

Table 6: Share of individuals living in *mineral* or *non-mineral* states by origin country.

Origin country	Share living in *mineral states*	Share living in *non-mineral states*	Origin country	Share living in *mineral states*	Share living in *non-mineral states*
Africa	.41	.59	Lithuania	.27	.73
Arabic	.60	.40	Mexico	.90	.10
Austria	.29	.71	Netherlands	.34	.66
Belgium	.31	.69	Norway	.35	.65
Canada	.36	.64	Other Asian	.86	.14
China	.81	.19	Other European	.50	.50
Czech Republic	.29	.71	Other Spanish	.79	.21
Denmark	.47	.53	Philippines	.65	.35
Finland	.18	.83	Poland	.34	.66
France	.45	.55	Portugal	.60	.40
Germany	.33	.67	Romania	.40	.60
Greece	.45	.55	Russia	.55	.45
Hungary	.26	.74	Spain	.86	.14
India	.28	.72	Sweden	.37	.63
Ireland	.43	.57	Switzerland	.35	.65
Italy	.53	.47	United Kingdom	.46	.54
Japan	.71	.29	Yugoslavia	.17	.83

The table presents the share of individuals living in *mineral* or *non-mineral* states by origin country. *Origin country* is the answer to the following question: "*From what countries or part of the world did your ancestors come?*". See the text for the definition *mineral* and *non-mineral* states. Only individuals who did not change state between their early adulthood and the time of interview are used to construct the shares.

Table 7: *Experience* channel: Mineral resources discoveries during impressionable years and individualism.

	(1) *Responsibility*	(2) *Inequalities*	(3) *Assistance*
Mineral discoveries observed	0.084**	0.178***	0.051**
	(0.036)	(0.058)	(0.024)
Male	0.169***	0.282***	0.026
	(0.034)	(0.051)	(0.023)
Age	-0.137**	-0.048	-0.059
	(0.061)	(0.097)	(0.040)
Age^2	0.017***	0.005	0.009**
	(0.006)	(0.010)	(0.004)
Married	0.180***	0.249***	0.090***
	(0.030)	(0.059)	(0.024)
Protestant	0.263***	0.315***	0.058**
	(0.035)	(0.078)	(0.027)
Catholic	0.073	0.088	0.009
	(0.045)	(0.080)	(0.031)
Education	0.042***	0.086***	0.013***
	(0.007)	(0.010)	(0.005)
Employed	0.103**	0.092	0.055*
	(0.041)	(0.066)	(0.029)
White	0.482***	0.717***	0.223***
	(0.048)	(0.066)	(0.025)
Income	0.048***	0.069***	0.029***
	(0.012)	(0.015)	(0.007)
Year fixed effects	Yes	Yes	Yes
Observations	5,218	5,803	3,952
Adjusted R-squared	0.091	0.079	0.064

*** p<0.01, ** p<0.05, * p<0.1. Robust standard errors in parentheses, clustered by year of interview × state. OLS regressions. All regressions include a constant term. The sample is restricted to individuals living in mineral states at the time of interview and when they were young. *Mineral discoveries observed* equals 1 if there has been mineral discoveries in the state during the respondent's impressionable years. See the appendix for a presentation of other covariates. *Responsibility* is the answer, on a scale from 1 to 5, to the following question: "*Some people think that the government in Washington should do everything possible to improve the standard of living of all poor Americans. Other people think it is not the government's responsibility, and that each person should take care of himself. Where would you place yourself on this scale?*". *Inequalities* is the answer, on scale from 1 to 7, to the following question: "*Some people think that the government in Washington ought to reduce the income differences between the rich and the poor, perhaps by raising the taxes of wealthy families or by giving income assistance to the poor. Others think that the government should not concern itself with reducing this income difference between the rich and the poor. What score [...] comes closest to the way you feel?*". *Assistance* is the answer, on a scale from 1 to 3, to the following question: "*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 money, or about the right amount. Are we spending too much, too little, or about the right amount on assistance to the poor?*".

Table 8: *Transmission* channel: Residence in a mineral state and individualism, excluding individuals who experienced discoveries during their impressionable years.

	(1) *Responsibility*	(2) *Inequalities*	(3) *Assistance*
Mineral state	0.033	0.109***	0.033**
	(0.020)	(0.033)	(0.014)
Male	0.144***	0.293***	0.042***
	(0.018)	(0.030)	(0.012)
Age	-0.144***	-0.079	-0.073***
	(0.034)	(0.048)	(0.022)
Age^2	0.020***	0.013***	0.011***
	(0.003)	(0.005)	(0.002)
Married	0.155***	0.264***	0.060***
	(0.020)	(0.033)	(0.013)
Protestant	0.200***	0.284***	0.049***
	(0.025)	(0.044)	(0.017)
Catholic	0.089***	0.163***	-0.013
	(0.029)	(0.047)	(0.020)
Education	0.032***	0.098***	0.012***
	(0.004)	(0.006)	(0.003)
Employed	0.101***	0.039	0.052***
	(0.022)	(0.034)	(0.014)
White	0.519***	0.677***	0.235***
	(0.029)	(0.042)	(0.014)
Income	0.048***	0.079***	0.015***
	(0.006)	(0.008)	(0.004)
Year fixed effects	Yes	Yes	Yes
Observations	15,927	17,816	11,863
Adjusted R-squared	0.085	0.084	0.054

*** p<0.01, ** p<0.05, * p<0.1. Robust standard errors in parentheses, clustered by year of interview × state. OLS regressions. All regressions include a constant term. *Mineral state* is equal to 1 if the respondent lives in a state with lots of mineral resources, 0 if not. The sample is restricted to individuals living outside mineral states and individuals living in mineral states but who did not experienced any discoveries during their impressionable years. See the appendix for a presentation of other co-variates. *Responsibility* is the answer, on a scale from 1 to 5, to the following question: "*Some people think that the government in Washington should do everything possible to improve the standard of living of all poor Americans. Other people think it is not the government's responsibility, and that each person should take care of himself. Where would you place yourself on this scale?*". *Inequalities* is the answer, on scale from 1 to 7, to the following question: "*Some people think that the government in Washington ought to reduce the income differences between the rich and the poor, perhaps by raising the taxes of wealthy families or by giving income assistance to the poor. Others think that the government should not concern itself with reducing this income difference between the rich and the poor. What score [...] comes closest to the way you feel?*". *Assistance* is the answer, on a scale from 1 to 3, to the following question: "*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 money, or about the right amount. Are we spending too much, too little, or about the right amount on assistance to the poor?*".

Appendix

Natural resources and beliefs in Montana

As indicated by its title *Collapse : How societies choose to fail or to survive* , the book of Jared Diamond presents a large number of cases where societies face challenges at some point in their history. Some of them succeed, whereas others fail in doing so.

The first chapter of the book - *Under Montana's big sky* - is devoted to the American state of Montana. This state faces major challenges regarding the evolution of its economy and various natural disasters are threatening its survival. Indeed, the economy of Montana heavily relies on natural resources exploitation. According to Diamond, this economic organization has strong ties with inhabitants attitudes and political orientations. As a consequence, individual attitudes becomes in turn a barrier to solve new problems:

> "*Despite Montanans' longstanding embrace of mining as a traditional value defining their state's identity, they have recently become increasingly disillusioned with mining and have contributed to the industry's near-demise within Montana.*"[19]

> "*In modern times a reason why Montanans have been so reluctant to solve their problems caused by mining, logging, and ranching is that those three industries used to be the pillars of the Montana economy, and that they became bound up with Montana's pioneer spirit and identity.*"[20]

Diamond points out the crucial role of natural resources in Montanan's values by describing "*old timers*" as

> "*[...] people born in Montana, of families resident in the state for many generations, respecting a lifestyle and economy traditionally built on the three pillars of mining, logging, and agriculture [...].*"[21]

These values are linked to right-wing orientations and have their roots in the deep history of American development:

> "*[...] Montanans tend to be conservative, and suspicious of governmental regulation. That attitude arose historically because early settlers were living at low population density on a frontier far from government centers, had to be self-sufficient, and couldn't look to government to solve their problems.*"[22]

The work by Jared Diamond offers an rich an interesting case study of the link between natural resources and individual orientations. The book does not offer any support for

[19] *Collapse: How societies choose to fail or to survive*, by Jared Diamond, Penguin Book, 2006, page 37.
[20] Ibid., page 432.
[21] Ibid., page 57.
[22] Ibid., page 63.

the hypothesis that natural resources abundance *induces* selfish and anti-redistributive behaviors, however, it documents the interplay between natural resources and individualist orientations. The latter have thus an impact both on general economic orientations and on the management of natural resources.

To sum up, Jared Diamond description of Montana's society illustrates the interplay between natural resources, values and economic organization.

Assessing the importance of the omitted variables bias

The introduction of additional explanatory variables changes the size of the coefficient of *mineral state*. The relative importance of such changes can be used to asses the potential omitted variable bias as suggested by Altonji et al (2005). Here, we follow the method as implemented by Bellows and Miguel (2009) using ordinary least squares.

In table 23, we present the estimated coefficient of the variable *mineral state* when different sets of co-variates are introduced. No co-variates are included in columns 1, 4, and 7. In columns 2, 5, and 8 we introduce the set of individual characteristics already presented. In columns 3, 6, and 9, we add all state-level variables. In order to make coefficients comparable across specifications, we restrict the sample of observations to individuals for which all individual as well as state-level variables are available.

In the upper part of table 23, the dependent variable is *responsibility*. The comparison of the coefficient of the variable of interest across columns does not convey any information. In the bottom part of the table, the dependent variable is *assistance*. In this case, the estimated coefficient of *mineral state* is equal to 0.042 without co-variates, to 0.047 with individual characteristics only, and to 0.071 with individual and state characteristics. It is thus increasing as we introduce co-variates. This suggests that it is unlikely that the effect of *mineral state* fades away if supplementary variables were introduced (see Altonji et al (2005) or Bellows and Miguel (2009)).

In the middle part of the table, the dependent variable is *assistance*. In this case, the estimated coefficient of *mineral state* is equal to 0.173 without co-variates, to 0.159 with individual characteristics only, and to 0.122 with individual and state characteristics. It is thus decreasing as co-variates are introduced. Accordingly, this suggests that the further inclusion of more controls would lower the estimated effect of *mineral state*. The change of the coefficient between columns 4 and 5 amounts 0.014. Following Bellows and Miguel (2009), this implies that the explanatory power of further individual characteristics should be more than 11 times larger than the one of observed characteristics to eradicate the effect of the variable of interest. The change of the coefficient of *mineral state* between columns 5 and 6 amounts 0.037. The same calculation as above implies that the explanatory power of further state characteristics should be 3.3 times larger that the one of observed state characteristics to cancel the effect of the variable of interest.

All in all, these results make us confident that results are not driven by omitted variables.

Individual co-variates

All our results are robust to alternative definitions of the variables.

Male Respondent's gender. Equals 1 for males, and 0 for females.

Age Respondent's age in years. Coefficients presented in tables correspond to age divided by 10.

Age^2 Square of respondent's age. Coefficient presented in tables correspond to age^2 divided by 100.

Married Respondent's marital status. Equals 1 if married, and 0 if not.

Protestant and Catholic Respondent's religious affiliation. The omitted category is "other" or "none".

Education Completed years of formal education.

Employed Respondent's employment status. Equals 1 for "full time", "part time" or "self employed". The omitted category is "retired", "housewife", "student", "unemployed" or "other".

White Respondent's skin color. Equals 1 for "white". The omitted category is "black" or "other".

Income Respondent's family income, corrected for family size. Our measure of income is slightly different from the one use in other analysis using the GSS. Usually, the GSS variable INCOME is used as a measure of income differences. This variable gives information about the respondent's total family income and is coded using 12 income brackets for the entire period covered by the survey. Using this variable without any transformation has two drawbacks. First, this does not take into account the size of the family. Second, the fact that the same coding is used for the whole period makes it an inappropriate measure because both of inflation and the increasing standard of living. Hence, we first create broad family income deciles using the income variables definer for shorter time periods (INCOME72, INCOME77, etc.). Then, we divide this new variable by the household's size using the HOMPOP variable.

State-level co-variates

Longitude Longitude of the capital of the state. Coefficients presented in tables correspond to the original longitude divided by 100.

Population density State population in thousands at the time of interview, divided by the surface of the state in squared miles. Source: Bureau of Economic Analysis.

Ranney index Share of Democrats in the two main chambers of each state at the time of interview, betwenn 0 and 1. Source: Berkowitz and Clay (2010).

Per capita income Per capita income of the state at the time of interview, in thousands dollars. Source: Bureau of Economic Analysis.

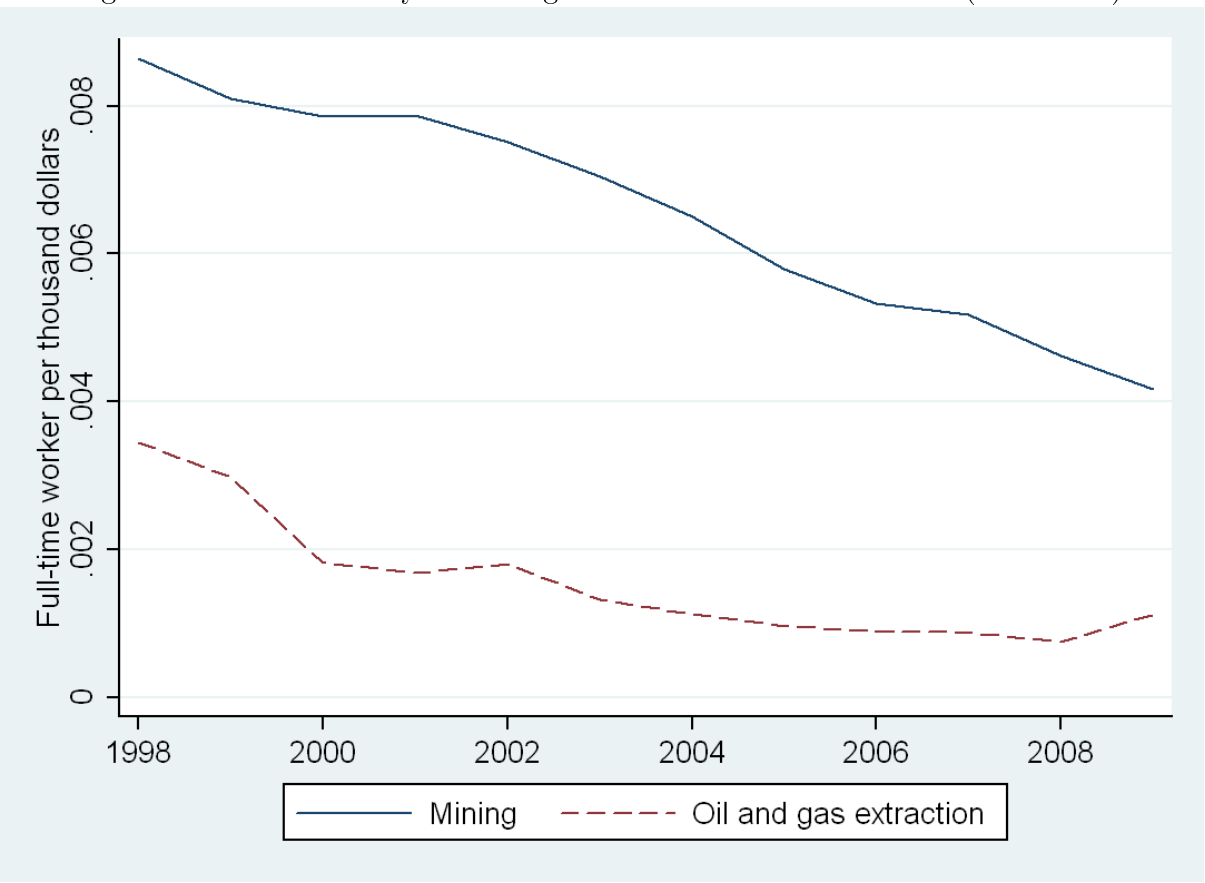
Past per capita income Per capita income of the state when respondent was 20 years old, in thousands dollars. Source: Bureau of Economic Analysis.

Gini coefficient Gini coefficient of the state at the time of interview, between 0 and 1. Source: US Census Bureau.

Mineral dependency Share of mineral mining industry in state domestic product at the time of interview, between 0 and 100. Source: Bureau of Economic Analysis.

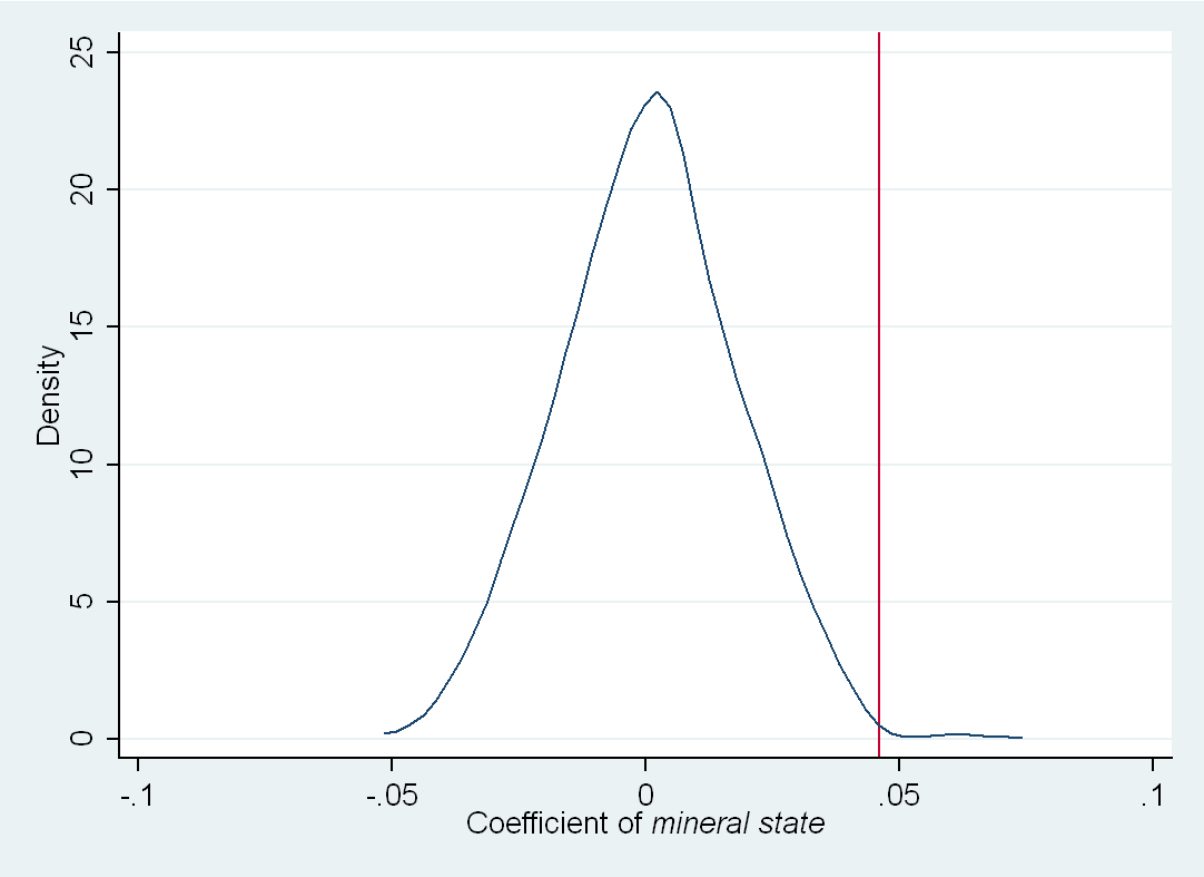
Region fixed effects Set of four fixed effects for the following regions: Midwest, Northeast, South, and West. Source: US Census Bureau.

Figure 8: Labor intensity in mining and oil extraction industries (1998-2009).



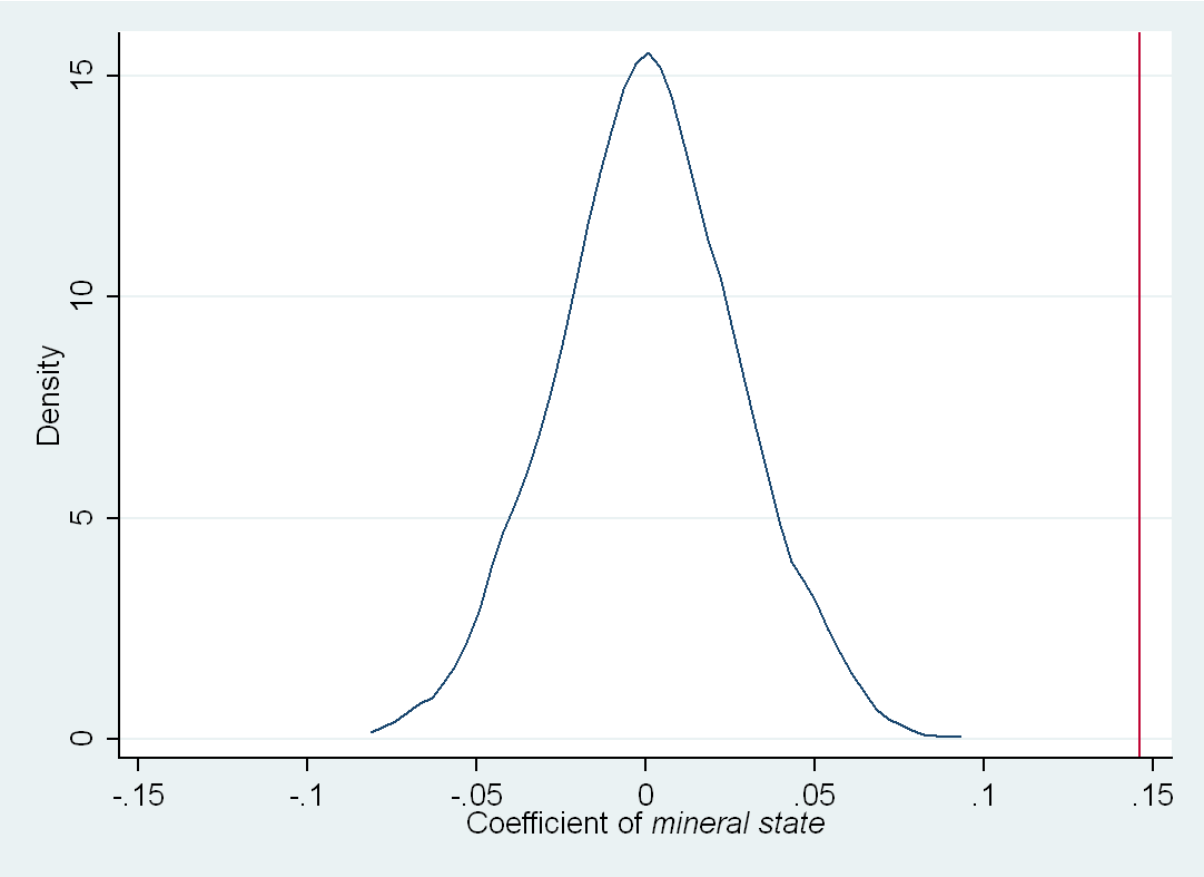
Yearly ratio of labor (in full-time equivalent employees) to value added (in dollars) in the mining industry and in the oil and gas extraction industry from 1998 to 2009. The ratio is expressed in worker per thousand dollars. Data from the Bureau of Economic Analysis.

Figure 9: Falsification test with randomization at the individual level: *Responsibility* as dependent variable.



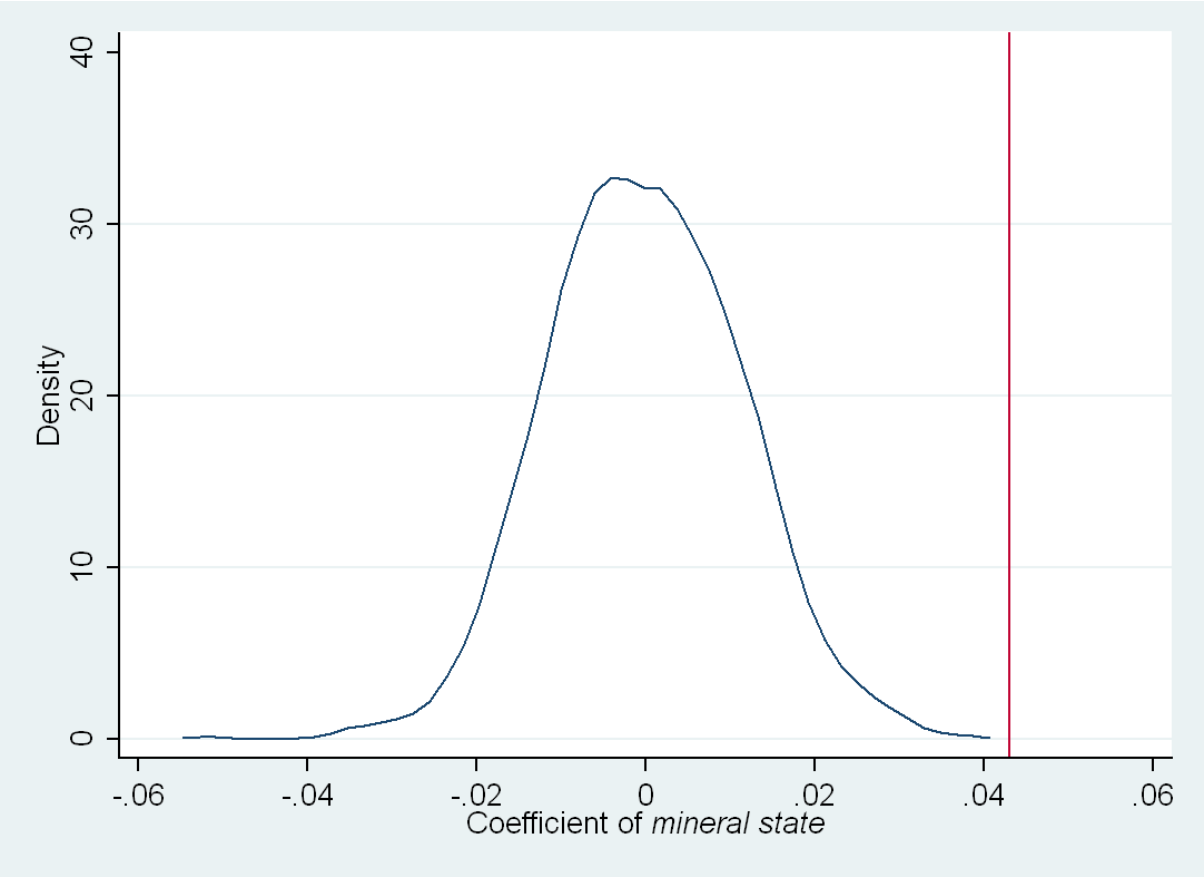
Distribution of coefficients of *mineral state* from 1,000 estimations of equation (1) with individual co-variates. Each simulation randomly assigns each individual to a new state, keeping the mineral status of the state unchanged. The vertical line indicates the estimated coefficient of *mineral state* as in table 2 when *responsibility* is the dependent variable.

Figure 10: Falsification test with randomization at the individual level: *Inequalities* as dependent variable.



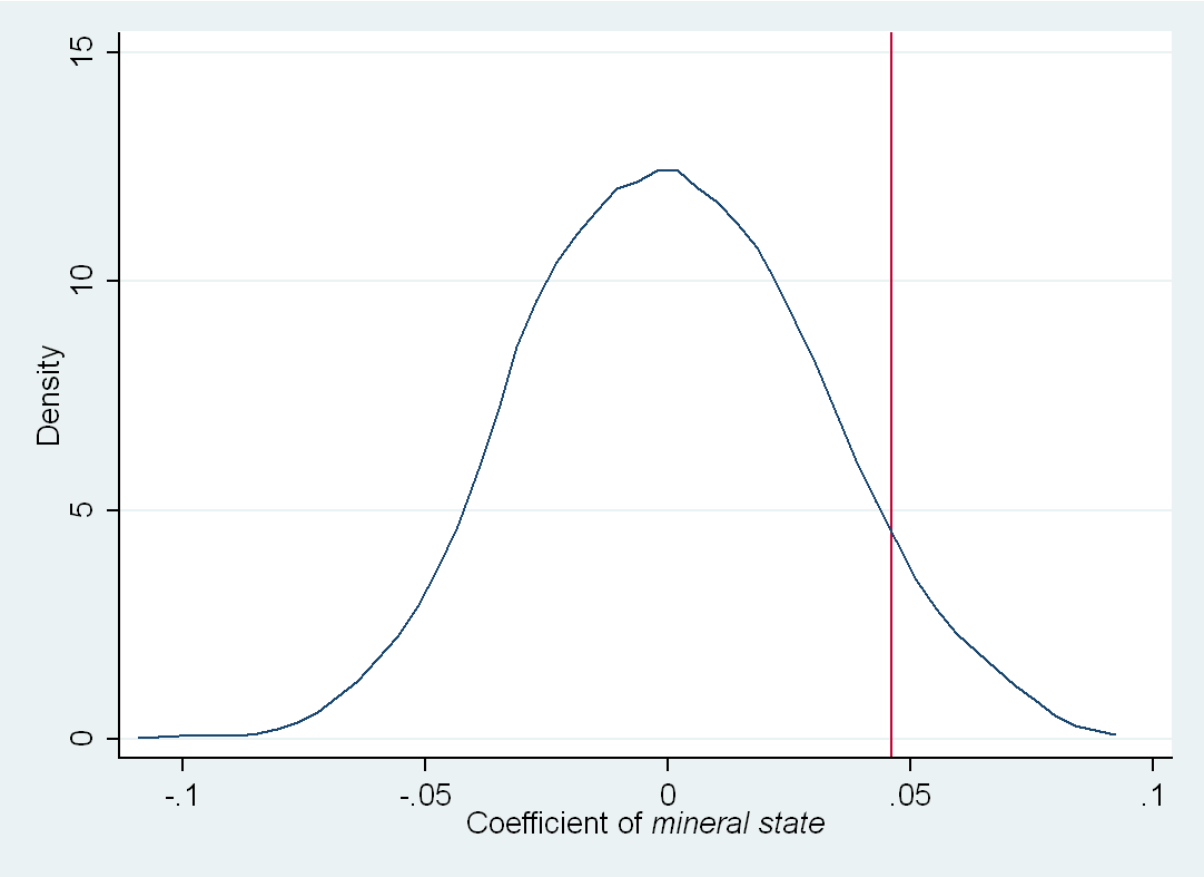
Distribution of coefficients of *mineral state* from 1,000 estimations of equation (1) with individual co-variates. Each simulation randomly assigns each individual to a new state, keeping the mineral status of the state unchanged. The vertical line indicates the estimated coefficient of *mineral state* as in table 2 when *inequalities* is the dependent variable.

Figure 11: Falsification test with randomization at the individual level: *Assistance* as dependent variable.



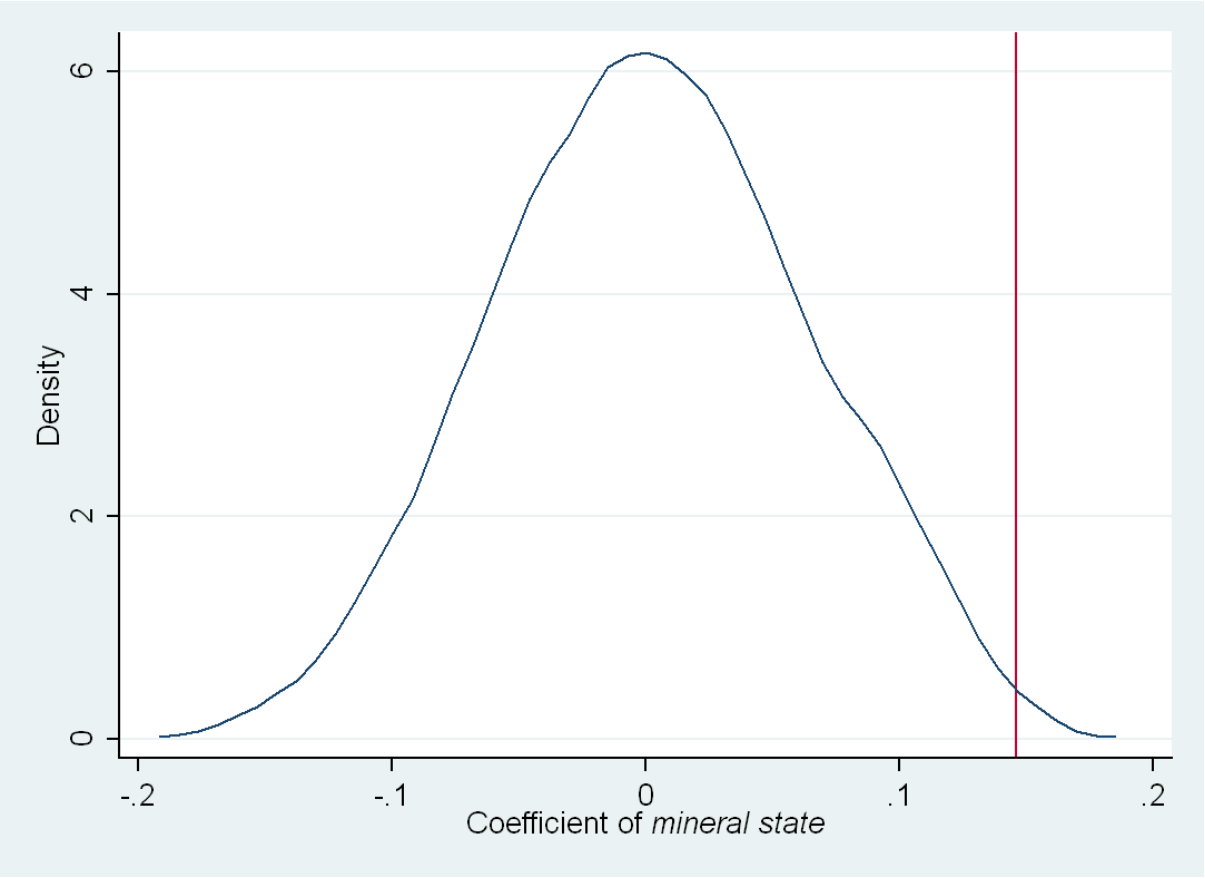
Distribution of coefficients of *mineral state* from 1,000 estimations of equation (1) with individual co-variates. Each simulation randomly assigns each individual to a new state, keeping the mineral status of the state unchanged. The vertical line indicates the estimated coefficient of *mineral state* as in table 2 when *assistance* is the dependent variable.

Figure 12: Falsification test with randomization at the state level: *Responsibility* as dependent variable.



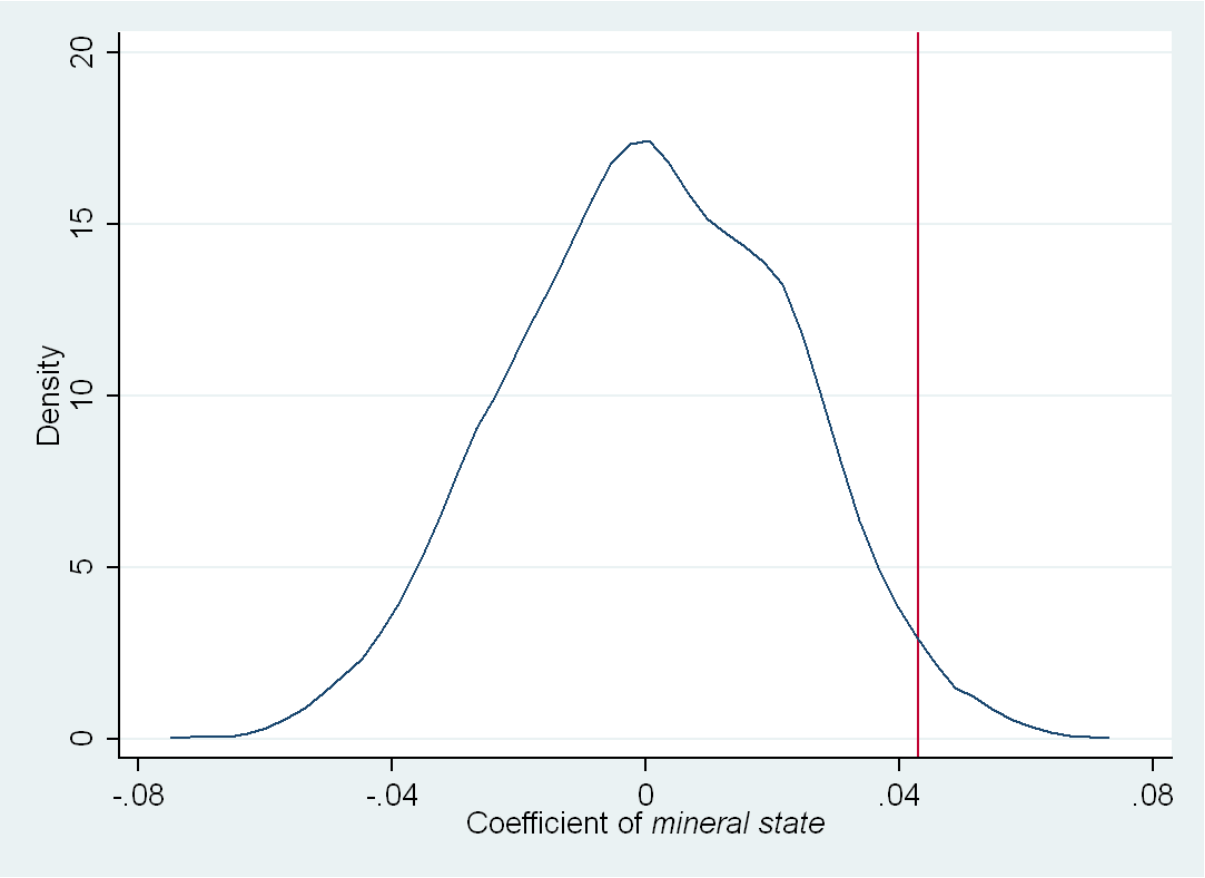
Distribution of coefficients of *mineral state* from 1,000 estimations of equation (1) with individual co-variates. Each simulation randomly assigns each individual to a new state, keeping the mineral status of the state unchanged. The vertical line indicates the estimated coefficient of *mineral state* as in table 2 when *responsibility* is the dependent variable.

Figure 13: Falsification test with randomization at the state level: *Inequalities* as dependent variable.



Distribution of coefficients of *mineral state* from 1,000 estimations of equation (1) with individual co-variates. Each simulation randomly assigns each individual to a new state, keeping the mineral status of the state unchanged. The vertical line indicates the estimated coefficient of *mineral state* as in table 2when *inequalities* is the dependent variable.

Figure 14: Falsification test with randomization at the state level: *Assistance* as dependent variable.



Distribution of coefficients of *mineral state* from 1,000 estimations of equation (1) with individual co-variates. Each simulation randomly assign the mineral status of each state, leaving unchanged the individual composition of each state. The vertical line indicates the estimated coefficient of *mineral state* as in table 2 when *assistance* is the dependent variable.

Table 9: Distribution of mineral resources.

	Points	Mines		Points	Mines
Non-mineral states			South Carolina	1	1
Delaware	0	0	Vermont	1	1
District of Columbia	0	0	Virginia	1	1
Hawaii	1	0			
Illinois	9	0	*Mineral states*		
Indiana	0	0	New Hampshire	10	3
Iowa	0	0	New York	12	4
Kansas	0	0	Florida	28	5
Kentucky	0	0	Georgia	82	5
Maryland	4	0	Arkansas	14	6
Massachusetts	1	0	Oklahoma	144	47
Michigan	0	0	Wyoming	370	54
Minnesota	2	0	Idaho	237	67
Mississippi	0	0	North Carolina	134	77
Nebraska	0	0	New Jersey	238	224
North Dakota	0	0	South Dakota	395	272
Ohio	0	0	Washington	1598	298
Pennsylvania	8	0	Texas	629	427
Tennessee	5	0	Colorado	1411	546
West Virginia	3	0	New Mexico	947	588
Wisconsin	1	0	Montana	1382	663
Alabama	1	1	Alaska	2432	727
Connecticut	3	1	Arizona	2475	1358
Louisiana	1	1	Utah	2327	1377
Maine	15	1	Nevada	2648	1385
Missouri	1	1	California	4138	1493
Rhode Island	3	1	Oregon	4850	3840

Source: Mineral Resources Data System. *Points* is the number of entries in the data set. *Mines* is the number of places where mining has been operated. *Mineral states* are all sates with a number of mines larger than the median.

Table 10: Major commodities, by type of observation.

	Occurrence %	Prospect %	Production %	Total %
Copper	14,6	30,9	9,5	12,6
Gold	31,3	48,2	30,8	31,6
Iron	2,5	1,3	1,8	2,1
Lead	8,1	18,5	10,0	9,4
Silver	13,8	28,8	18,2	16,6
Tungsten	3,7	3,1	3,0	3,3
Uranium	8,6	3,4	5,2	6,7
Zinc	4,2	12,7	3,4	4,1
Other	38,7	19,4	44,7	41,0

Source: Mineral Resources Data System. The sum of percentages is not equal to 100 because the same resource may contain several commodities. *Occurrence*: No production has taken place and there has been no or little activity since discovery. *Prospect*: Work such as surface trenching, adits, or shafts, drill holes, extensive geophysics, geochemistry, and/or geologic mapping has been carried out. *Production*: Mining has been operated. "Other" means none of the above commodities.

Table 11: Summary statistics.

	Obs	Mean	Std. Dev.	Min	Max
Responsibility	17,848	2,9	1,16	1	5
Inequalities	20,056	3,73	1,95	1	7
Assistance	13,261	1,46	0,67	1	3
Hard work	14,194	0,88	0,33	0	1
Mineral state	25,242	0,49	0,5	0	1
Mineral discoveries observed	7,395	0,37	0,48	0	1
Male	25,242	0,44	0,5	0	1
Age	25,242	4,47	1,71	1,8	8,9
Married	25,242	0,53	0,5	0	1
Protestant	25,242	0,6	0,49	0	1
Catholic	25,242	0,24	0,43	0	1
Education	25,242	12,95	3,06	0	20
Employed	25,242	0,68	0,47	0	1
White	25,242	0,82	0,38	0	1
Income	25,242	2,78	1,95	0,1	10
Mover	25,107	0,33	0,47	0	1

Summary statistics are computed using all individuals that appear in at least one regression. Definitions of variables are given in the text and in appendix. Note that estimated coefficients for *age* presented in tables correspond to *age*/10.

Table 12: Sample composition.

	Mineral state	Non mineral state	Total
Non-movers	29%	37%	16,716
Movers	20%	14%	8,391
Total	12,250	12,857	25,107

Table 13: Residence in a mineral state and perceived determinant of success.

	Hard work		
Mineral state	0.013**	Education	0.002**
	(0.006)		(0.001)
Male	-0.037***	Employed	0.001
	(0.006)		(0.007)
Age	-0.033***	White	0.025***
	(0.009)		(0.008)
Age^2	0.003***	Income	0.002
	(0.001)		(0.002)
Married	0.029***	Year fixed effects	Yes
	(0.006)		
Protestant	0.029***		
	(0.008)		
Catholic	0.011	Observations	14,194
	(0.008)	Adjusted R-squared	0.012

*** p<0.01, ** p<0.05, * p<0.1. Robust standard errors in parentheses, clustered by year of interview × state. OLS regressions. The regression also includes a constant term. *Mineral state* is equal to 1 if the respondent lives in a state with lots of mineral resources, 0 if not. See the appendix for a presentation of other co-variates. *Hard work* is equal to 1 if the respondent answers "*hard work is most important*" or "*hard work and luck are equally important*", rather than "*luck is most important*" to the following question: "*Some people say that people get ahead by their own hard work; others say that lucky breaks or help from other people are more important. Which do you think is most important?*".

Table 14: Residence in a mineral state and individualism: movers incidence (alternative approach).

	(1) *Responsibility*	(2) *Inequalities*	(3) *Assistance*
Non-Mineral State (A)	-0.054**	-0.196***	-0.044***
	(0.023)	(0.039)	(0.015)
Mover (B)	-0.018	-0.048	-0.002
	(0.023)	(0.041)	(0.017)
$A \times B$	0.030	0.160**	-0.000
	(0.037)	(0.064)	(0.025)
Observations	17,742	19,940	13,201
Adjusted R-squared	0.086	0.084	0.057

*** p<0.01, ** p<0.05, * p<0.1. Robust standard errors in parentheses, clustered by year of interview × state. OLS regressions. All regressions include a constant term, fixed effects for the year of interview, and following individual co-variates: gender, age, age^2, marital status, religion, education, employment status, race, and income. *Non-mineral state* is equal to 1 if the respondent does not live in a *mineral state*, 0 otherwise. See the text for the definition of *mineral state*. See the appendix for a presentation of other co-variates. *Mover* is equal to 1 if the respondent does not live in the same state as when it was 16 years old. *Responsibility* is the answer, on a scale from 1 to 5, to the following question: "*Some people think that the government in Washington should do everything possible to improve the standard of living of all poor Americans. Other people think it is not the government's responsibility, and that each person should take care of himself. Where would you place yourself on this scale?*". *Inequalities* is the answer, on scale from 1 to 7, to the following question: "*Some people think that the government in Washington ought to reduce the income differences between the rich and the poor, perhaps by raising the taxes of wealthy families or by giving income assistance to the poor. Others think that the government should not concern itself with reducing this income difference between the rich and the poor. What score [...] comes closest to the way you feel?*". *Assistance* is the answer, on a scale from 1 to 3, to the following question: "*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 money, or about the right amount. Are we spending too much, too little, or about the right amount on assistance to the poor?*".

Table 15: *Experience* channel: Controlling for ancestors' country and industry fixed effects.

	(1)	(2)	(3)
		Responsibility	
Mineral discoveries observed	0.079**	0.075*	0.072
	(0.036)	(0.044)	(0.045)
Origin country fixed effects	Yes		Yes
Industry fixed effects		Yes	Yes
Observations	4,962	4,037	3,852
Adjusted R-squared	0.091	0.090	0.087
	(4)	(5)	(6)
		Inequalities	
Mineral discoveries observed	0.162***	0.166**	0.147**
	(0.060)	(0.064)	(0.067)
Origin country fixed effects	Yes		Yes
Industry fixed effects		Yes	Yes
Observations	5,504	4,494	4,279
Adjusted R-squared	0.082	0.078	0.080
	(7)	(8)	(9)
		Assistance	
Mineral discoveries observed	0.053**	0.051*	0.060**
	(0.024)	(0.027)	(0.027)
Origin country fixed effects	Yes		Yes
Industry fixed effects		Yes	Yes
Observations	3,758	3,057	2,916
Adjusted R-squared	0.064	0.071	0.072

*** p<0.01, ** p<0.05, * p<0.1. Robust standard errors in parentheses, clustered by year of interview × state. OLS regressions. All regressions include a constant term, fixed effects for the year of interview, and following individual co-variates: gender, age, age^2, marital status, religion, education, employment status, race, and income. The sample is restricted to individuals living in mineral states at the time of interview and when they were young. *Mineral discoveries observed* equals 1 if there has been mineral discoveries in the state during the respondent's impressionable years. See the appendix for a presentation of other co-variates. *Origin country fixed effects* are created using the answer to the following question: "*From what countries or part of the world did your ancestors come?*". *Industry fixed effects* are created using a 10 items classification. *Responsibility* is the answer, on a scale from 1 to 5, to the following question: "*Some people think that the government in Washington should do everything possible to improve the standard of living of all poor Americans. Other people think it is not the government's responsibility, and that each person should take care of himself. Where would you place yourself on this scale?*". *Inequalities* is the answer, on scale from 1 to 7, to the following question: "*Some people think that the government in Washington ought to reduce the income differences between the rich and the poor, perhaps by raising the taxes of wealthy families or by giving income assistance to the poor. Others think that the government should not concern itself with reducing this income difference between the rich and the poor. What score [...] comes closest to the way you feel?*". *Assistance* is the answer, on a scale from 1 to 3, to the following question: "*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 money, or about the right amount. Are we spending too much, too little, or about the right amount on assistance to the poor?*".

Table 16: *Experience* channel: Controlling for state-level variables.

	(1)	(2)	(3)	(4)	(5)
			Responsibility		
Mineral discoveries observed	0.043	0.079**	0.059	0.079**	0.084**
	(0.038)	(0.036)	(0.037)	(0.040)	(0.036)
Population density	-0.226***				
	(0.060)				
Ranney index		-0.179*			
		(0.092)			
Per capita income			-0.017***		
			(0.006)		
Gini coefficient				-0.216	
				(0.803)	
Mineral dependency					-0.000
					(0.012)
Observations	5,218	5,201	5,218	4,209	5,218
Adjusted R-squared	0.093	0.092	0.092	0.099	0.091
	(6)	(7)	(8)	(9)	(10)
			Inequalities		
Mineral discoveries observed	0.131**	0.153***	0.152***	0.164***	0.178***
	(0.062)	(0.057)	(0.057)	(0.059)	(0.058)
Population density	-0.243*				
	(0.130)				
Ranney index		-0.443***			
		(0.143)			
Per capita income			-0.021**		
			(0.011)		
Gini coefficient				2.353	
				(1.448)	
Mineral dependency					-0.006
					(0.021)
Observations	5,803	5,786	5,803	4,787	5,803
Adjusted R-squared	0.079	0.080	0.079	0.083	0.079
	(11)	(12)	(13)	(14)	(15)
			Assistance		
Mineral discoveries observed	0.046*	0.049**	0.046*	0.056**	0.051**
	(0.025)	(0.024)	(0.024)	(0.028)	(0.024)
Population density	-0.027				
	(0.056)				
Ranney index		-0.077			
		(0.065)			
Per capita income			-0.003		
			(0.004)		
Gini coefficient				1.034	
				(0.664)	
Mineral dependency					-0.001
					(0.012)
Observations	3,952	3,939	3,952	2,785	3,952
Adjusted R-squared	0.064	0.064	0.064	0.065	0.064

*** p<0.01, ** p<0.05, * p<0.1. Robust standard errors in parentheses, clustered by year of interview × state. OLS regressions. All regressions include a constant term, fixed effects for the year of interview, and following individual co-variates: gender, age, age^2, marital status, religion, education, employment status, race, and income. The sample is restricted to individuals living in mineral states at the time of interview and when they were young. *Mineral discoveries observed* equals 1 if there has been mineral discoveries in the state during the respondent's impressionable years. See the appendix for a presentation of individual co-variates. See footnotes of other tables for the definitions of *responsibility*, *inequalities*, and *assistance*. See the appendix for a presentation of state-level co-variates.

Table 17: *Experience* channel: Controlling for the situation during impressionable years.

	(1)	(2)	(3)	(4)
	Responsibility			
Mineral discoveries observed	0.083**	0.117***	0.088**	0.096**
	(0.037)	(0.043)	(0.037)	(0.041)
Past family income		0.040		
		(0.026)		
Past per capita income			0.004	
			(0.006)	
Birth cohort fixed effects	Yes			
Parents education fixed effects				Yes
Observations	5,218	3,538	5,156	3,581
Adjusted R-squared	0.094	0.098	0.092	0.091
	(5)	(6)	(7)	(8)
	Inequalities			
Mineral discoveries observed	0.204***	0.146**	0.200***	0.137*
	(0.060)	(0.065)	(0.059)	(0.071)
Past family income		0.064		
		(0.042)		
Past per capita income			0.021**	
			(0.008)	
Birth cohort fixed effects	Yes			
Parents education fixed effects				Yes
Observations	5,803	4,106	5,707	3,979
Adjusted R-squared	0.080	0.079	0.079	0.073
	(9)	(10)	(11)	(12)
	Assistance			
Mineral discoveries observed	0.054**	0.030	0.061**	0.038
	(0.024)	(0.031)	(0.024)	(0.030)
Past family income		-0.002		
		(0.017)		
Past per capita income			0.002	
			(0.004)	
Birth cohort fixed effects	Yes			
Parents education fixed effects				Yes
Observations	3,952	2,513	3,917	2,708
Adjusted R-squared	0.061	0.053	0.064	0.068

*** p<0.01, ** p<0.05, * p<0.1. Robust standard errors in parentheses, clustered by year of interview × state. OLS regressions. All regressions include a constant term, fixed effects for the year of interview, and following individual co-variates: gender, age, age^2, marital status, religion, education, employment status, race, and income. The sample is restricted to individuals living in mineral states at the time of interview and when they were young. *Mineral discoveries observed* equals 1 if there has been mineral discoveries in the state during the respondent's impressionable years. See the appendix for a presentation of other co-variates. *Birth cohort fixed effects* is a set of dummy variables. *Past family income* is the answer, on a 5 items scale, to the following question: "*Thinking about the time when you were 16 years old, compared with American families in general then, would you say your family income was far below average, below average, average, above average, or far above average?*". The variable *past per capita income* is defined at the state level and represents per capita income when respondent was 20 years old. *Parents education fixed effects* are two sets of dummy variable for education levels of respondent's parents. *Responsibility* is the answer, on a scale from 1 to 5, to the following question: "*Some people think that the government in Washington should do everything possible to improve the standard of living of all poor Americans. Other people think it is not the government's responsibility, and that each person should take care of himself. Where would you place yourself on this scale?*". *Inequalities* is the answer, on scale from 1 to 7, to the following question: "*Some people think that the government in Washington ought to reduce the income differences between the rich and the poor, perhaps by raising the taxes of wealthy families or by giving income assistance to the poor. Others think that the government should not concern itself with reducing this income difference between the rich and the poor. What score [...] comes closest to the way you feel?*". *Assistance* is the answer, on a scale from 1 to 3, to the following question: "*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 money, or about the right amount. Are we spending too much, too little, or about the right amount on assistance to the poor?*".

Table 18: *Transmission* channel: Controlling for ancestors' country and industry fixed effects.

	(1)	(2)	(3)
		Responsibility	
Mineral state	0.032	0.053**	0.052**
	(0.020)	(0.022)	(0.022)
Origin country fixed effects	Yes		Yes
Industry fixed effects		Yes	Yes
Observations	15,098	12,620	12,012
Adjusted R-squared	0.085	0.089	0.088
	(4)	(5)	(6)
		Inequalities	
Mineral state	0.106***	0.076**	0.072**
	(0.034)	(0.035)	(0.036)
Origin country fixed effects	Yes		Yes
Industry fixed effects		Yes	Yes
Observations	16,852	14,095	13,392
Adjusted R-squared	0.087	0.083	0.085
	(7)	(8)	(9)
		Assistance	
Mineral state	0.036**	0.022	0.027*
	(0.014)	(0.015)	(0.015)
Origin country fixed effects	Yes		Yes
Industry fixed effects		Yes	Yes
Observations	11,226	9,386	8,910
Adjusted R-squared	0.054	0.062	0.060

*** p<0.01, ** p<0.05, * p<0.1. Robust standard errors in parentheses, clustered by year of interview × state. OLS regressions. All regressions include a constant term, fixed effects for the year of interview, and following individual co-variates: gender, age, age^2, marital status, religion, education, employment status, race, and income. *Mineral state* is equal to 1 if the respondent lives in a state with lots of mineral resources, 0 if not. The sample is restricted to individuals living outside mineral states and individuals living in mineral states but who did not experienced any discoveries during their impressionable years. See the appendix for a presentation of other co-variates. *Origin country fixed effects* are created using the answer to the following question: "*From what countries or part of the world did your ancestors come?*". *Industry fixed effects* are created using a 10 items classification. *Responsibility* is the answer, on a scale from 1 to 5, to the following question: "*Some people think that the government in Washington should do everything possible to improve the standard of living of all poor Americans. Other people think it is not the government's responsibility, and that each person should take care of himself. Where would you place yourself on this scale?*". *Inequalities* is the answer, on scale from 1 to 7, to the following question: "*Some people think that the government in Washington ought to reduce the income differences between the rich and the poor, perhaps by raising the taxes of wealthy families or by giving income assistance to the poor. Others think that the government should not concern itself with reducing this income difference between the rich and the poor. What score [...] comes closest to the way you feel?*". *Assistance* is the answer, on a scale from 1 to 3, to the following question: "*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 money, or about the right amount. Are we spending too much, too little, or about the right amount on assistance to the poor?*".

Table 19: *Transmission* channel: Controlling for state-level variables.

	(1)	(2)	(3)	(4)	(5)	(6)
	Responsibility					
Mineral state	0.026	0.026	0.033	0.051***	0.039	0.033
	(0.026)	(0.021)	(0.020)	(0.019)	(0.025)	(0.020)
Longitude	0.078					
	(0.164)					
Population density		-0.016*				
		(0.008)				
Ranney index			-0.176***			
			(0.057)			
Per capita income				-0.019***		
				(0.004)		
Gini coefficient					-0.047	
					(0.569)	
Mineral dependency						-0.002
						(0.010)
Region fixed effects	Yes					
Observations	15,927	15,927	15,850	15,927	13,102	15,927
Adjusted R-squared	0.087	0.085	0.086	0.086	0.092	0.085
	(8)	(9)	(10)	(11)	(12)	(13)
	Inequalities					
Mineral state	0.069*	0.104***	0.107***	0.130***	0.111***	0.108***
	(0.042)	(0.034)	(0.032)	(0.033)	(0.041)	(0.033)
Longitude	0.259					
	(0.295)					
Population density		-0.011				
		(0.012)				
Ranney index			-0.406***			
			(0.078)			
Per capita income				-0.022***		
				(0.006)		
Gini coefficient					0.644	
					(0.977)	
Mineral dependency						-0.002
						(0.012)
Region fixed effects	Yes					
Observations	17,816	17,816	17,735	17,816	14,951	17,816
Adjusted R-squared	0.086	0.084	0.086	0.085	0.087	0.084
	(15)	(16)	(17)	(18)	(19)	(20)
	Assistance					
Mineral state	0.059***	0.023*	0.032**	0.043***	0.043**	0.034**
	(0.018)	(0.014)	(0.014)	(0.013)	(0.019)	(0.014)
Longitude	0.111					
	(0.109)					
Population density		-0.025***				
		(0.005)				
Ranney index			0.041			
			(0.038)			
Per capita income				-0.010***		
				(0.002)		
Gini coefficient					-0.193	
					(0.449)	
Mineral dependency						0.008
						(0.008)
Region fixed effects	Yes					
Observations	11,863	11,863	11,792	11,863	8,573	11,863
Adjusted R-squared	0.057	0.056	0.054	0.056	0.059	0.054

*** p<0.01, ** p<0.05, * p<0.1. Robust standard errors in parentheses, clustered by year of interview × state. OLS regressions. All regressions include a constant term, fixed effects for the year of interview, and following individual co-variates: gender, age, age^2, marital status, religion, education, employment status, race, and income. *Mineral state* is equal to 1 if the respondent lives in a state with lots of mineral resources, 0 if not. The sample is restricted to individuals living outside mineral states and individuals living in mineral states but who did not experienced any discoveries during their impressionable years. See the appendix for a presentation of individual co-variates. See footnotes of other tables for the definitions of *responsibility*, *inequalities*, and *assistance*. See the appendix for a presentation of state-level co-variates.

Table 20: Distance to discoveries and individualism.

	(1) *Responsibility*	(2) *Inequalities*	(3) *Assistance*
Distance to discoveries	-0.063**	0.045	0.036
	(0.029)	(0.053)	(0.023)
Observations	5,918	6,579	4,447
Adjusted R-squared	0.082	0.081	0.048

*** p<0.01, ** p<0.05, * p<0.1. Robust standard errors in parentheses, clustered by year of interview × state. OLS regressions. All regressions include a constant term, fixed effects for the year of interview, and following individual co-variates: gender, age, age^2, marital status, religion, education, employment status, race, and income. *Distance to discoveries* is the difference between the year of interview and the peak of discoveries in the state. See the appendix for a presentation of other co-variates. The sample is restricted to individuals living in mineral states and to states for which the number of discoveries at the peak is substantial. *Responsibility* is the answer, on a scale from 1 to 5, to the following question: "*Some people think that the government in Washington should do everything possible to improve the standard of living of all poor Americans. Other people think it is not the government's responsibility, and that each person should take care of himself. Where would you place yourself on this scale?*". *Inequalities* is the answer, on scale from 1 to 7, to the following question: "*Some people think that the government in Washington ought to reduce the income differences between the rich and the poor, perhaps by raising the taxes of wealthy families or by giving income assistance to the poor. Others think that the government should not concern itself with reducing this income difference between the rich and the poor. What score [...] comes closest to the way you feel?*". *Assistance* is the answer, on a scale from 1 to 3, to the following question: "*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 money, or about the right amount. Are we spending too much, too little, or about the right amount on assistance to the poor?*".

Table 21: Number of mines and individualism.

	(1) *Responsibility*	(2) *Inequalities*	(3) *Assistance*
Number of mines	0.021	0.088***	0.020**
	(0.015)	(0.024)	(0.010)
Observations	17,848	20,056	13,261
Adjusted R-squared	0.086	0.083	0.056

*** p<0.01, ** p<0.05, * p<0.1. Robust standard errors in parentheses, clustered by year of interview × state. OLS regressions. All regressions include a constant term, fixed effects for the year of interview, and following individual co-variates: gender, age, age^2, marital status, religion, education, employment status, race, and income. *Number of mines* is the number of mines in each state, divided by 1000. See the appendix for a presentation of other co-variates. *Responsibility* is the answer, on a scale from 1 to 5, to the following question: "*Some people think that the government in Washington should do everything possible to improve the standard of living of all poor Americans. Other people think it is not the government's responsibility, and that each person should take care of himself. Where would you place yourself on this scale?*". *Inequalities* is the answer, on scale from 1 to 7, to the following question: "*Some people think that the government in Washington ought to reduce the income differences between the rich and the poor, perhaps by raising the taxes of wealthy families or by giving income assistance to the poor. Others think that the government should not concern itself with reducing this income difference between the rich and the poor. What score [...] comes closest to the way you feel?*". *Assistance* is the answer, on a scale from 1 to 3, to the following question: "*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 money, or about the right amount. Are we spending too much, too little, or about the right amount on assistance to the poor?*".

Table 22: Residence in a mineral state and confidence in various institutions.

	(1) Confidence in the executive branch of Federal Government	(2) Confidence in the Congress	(3) Confidence in television
Mineral state	-0.015	-0.009	0.006
	(0.012)	(0.010)	(0.010)
Observations	19,350	19,373	19,614
Adjusted R-squared	0.030	0.045	0.044

*** p<0.01, ** p<0.05, * p<0.1. Robust standard errors in parentheses, clustered by year of interview × state. OLS regressions. All regressions include a constant term, fixed effects for the year of interview, and following individual co-variates: gender, age, age^2, marital status, religion, education, employment status, race, and income. *Mineral state* is equal to 1 if the respondent lives in a state with lots of mineral resources, 0 if not. See the appendix for a presentation of other co-variates. *Confidence in the executive branch of Federal Government*, *confidence in the Congress*, and *confidence in television* are answers, on a 3 items scale, to the following question: "*I am going to name some institutions in this country. As far as the people running these institutions are concerned, would you say you have a great deal of confidence, only some confidence, or hardly any confidence at all in them?*".

Table 23: Importance of the omitted variables bias.

	(1)	(2)	(3)
		Responsibility	
Mineral state	0.042	0.049**	0.039
	(0.028)	(0.021)	(0.031)
Individual characteristics		Yes	Yes
State characteristics			Yes
Observations	14,693	14,693	14,693
Adjusted R-squared	0.000	0.092	0.095
	(4)	(5)	(6)
		Inequalities	
Mineral state	0.173***	0.159***	0.122**
	(0.042)	(0.034)	(0.048)
Individual characteristics		Yes	Yes
State characteristics			Yes
Observations	16,856	16,856	16,856
Adjusted R-squared	0.002	0.087	0.089
	(7)	(8)	(9)
		Assistance	
Mineral state	0.042**	0.047***	0.071***
	(0.020)	(0.016)	(0.023)
Individual characteristics		Yes	Yes
State characteristics			Yes
Observations	9,633	9,633	9,633
Adjusted R-squared	0.001	0.061	0.065

*** p<0.01, ** p<0.05, * p<0.1. Robust standard errors in parentheses, clustered by year of interview × state. OLS regressions. All regressions include a constant term. *Individual characteristics* include gender, age, age^2, marital status, religion, education, employment status, race, income and fixed effects for the year of interview. *State characteristics* include the longitude of the state's capital, region fixed effects, population density, Ranney index, per capita income, Gini coefficient and mineral dependency at the time of interview. *Mineral state* is equal to 1 if the respondent lives in a state with lots of mineral resources, 0 if not. The sample is restricted to individuals for which all variables are available. *Responsibility* is the answer, on a scale from 1 to 5, to the following question: "*Some people think that the government in Washington should do everything possible to improve the standard of living of all poor Americans. Other people think it is not the government's responsibility, and that each person should take care of himself. Where would you place yourself on this scale?*". *Inequalities* is the answer, on scale from 1 to 7, to the following question: "*Some people think that the government in Washington ought to reduce the income differences between the rich and the poor, perhaps by raising the taxes of wealthy families or by giving income assistance to the poor. Others think that the government should not concern itself with reducing this income difference between the rich and the poor. What score [...] comes closest to the way you feel?*". *Assistance* is the answer, on a scale from 1 to 3, to the following question: "*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 money, or about the right amount. Are we spending too much, too little, or about the right amount on assistance to the poor?*".