Online Supporting Information for: Are Local Policy Attitudes Distinct?

Contents

1 Demographic and Political Composition of Samples

Table A1: Demographic and political composition of samples

Trait	Lucid sample	Weighted CES sample
Percent women	52%	52%
Percent college educated	40%	37%
Percent Democrat or Lean Democrat	47%	41%
Percent Republican or Lean Republican	32%	37%
Percent liberal or very liberal	23%	28%
Percent conservative or very conservative	29%	34%
Mean age	47.6	49.3

2 Wording of Issue Items Used in Study 1

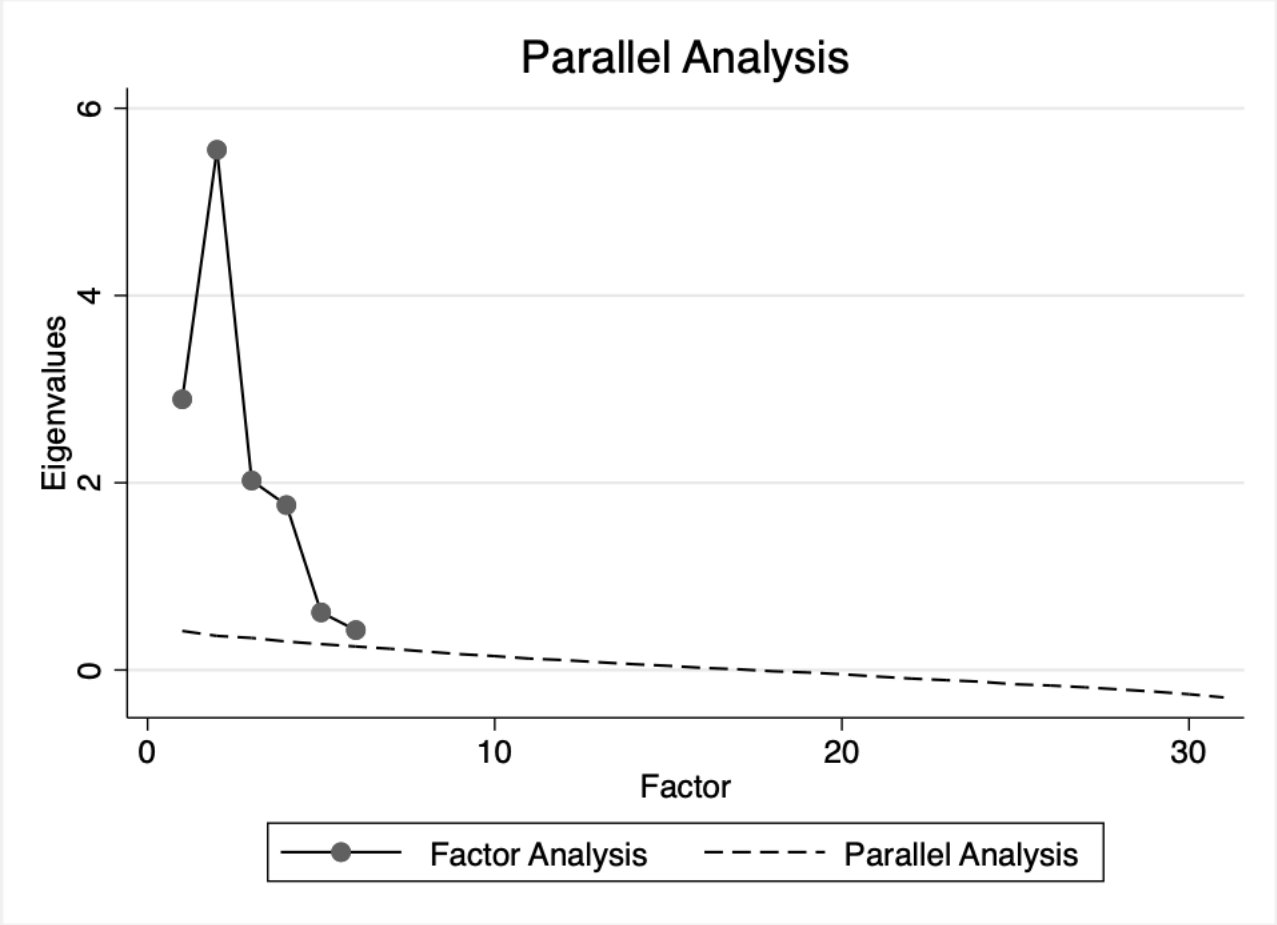
Local Items	
Affordable housing	Do you support or oppose your local government providing financial support for affordable housing within the community?
Rent control	Do you support or oppose your local government imposing limits on how much landlords can raise their tenants' rent each year?
Pre-education	Do you support or oppose your local government providing funding for preschool education?
Public transit	Do you support or oppose your local government providing funding for public transportation programs to assist the elderly, disabled people, students, and other people with low incomes?
Benefits for same-sex partners	Do you support or oppose your local government providing health benefits to the same-sex partners of city employees?
Land use limits	Do you support or oppose your local government restricting the types of businesses within the town or city boundaries to preserve the environment, maintain the character of the community, and/or uphold community standards?
Condemn blighted property	Do you support or oppose your local government condemning privately owned property that is not maintained or represents a blight on the community?
Tax breaks for retail property	Do you support or oppose your local government providing tax breaks and subsidies to encourage retail businesses such as supermarkets, clothing stores, and department stores?
Tax breaks for light industry	Do you support or oppose your local government providing tax breaks and subsidies to encourage light industries such as auto manufacturing, consumer electronics, and furniture manufacturing
Tax breaks for heavy industry	Do you support or oppose your local government providing tax breaks and subsidies to encourage heavy industries such as steel manufacturing, chemical engineering, and industrial machine Manufacturing.
Increase parking	Do you support or oppose your local government taking steps to increase parking in your community's downtown or central business district?
Require recycling	Do you support or oppose your local government requiring residents to recycle aluminum cans and glass bottles?
Increase number of local police	Do you support or oppose your local government increasing the number of police on the street by 10 percent?

Cut pensions	Many town and city governments contribute to the retirement pensions of municipal employees. These commitments can become quite expensive for communities, and possibly reduce revenues available for other purposes, such as transportation, public works, and health and safety. At the same time, many public employees depend on their pensions for retirement. Would you support or oppose reducing contributions to the retirement pensions of people employed by your local government?
Expand internet access	Do you support or oppose increasing local government spending to expand internet access to more people in your community?
Allow apartment buildings in neighborhood	Would you support or oppose your local government allowing the construction of new apartment buildings in your neighborhood?
Cut local services	Suppose your local government was running a budget deficit. One way to balance the budget would be to cut spending on local services such as libraries, parks and recreation, law enforcement, road maintenance, and trash collection. Would you support or oppose cutting spending on local services in order to balance the budget?
Raise local taxes	Suppose your local government was running a budget deficit. One way to balance the budget would be to raise local property taxes. Would you support or oppose raising local property taxes in order to balance the budget?
National Items	
Affirmative action	Affirmative action programs give preference to racial minorities in employment and college admissions in order to correct for past discrimination. Do you support or oppose affirmative action?
Allow EPA to regulate emissions	Do you support or oppose giving the Environmental Protection Agency the power to regulate carbon dioxide emissions as a way to address climate change?
Gun control	Do you support or oppose federal legislation that would require background checks for all gun sales, including at gun shows and over the internet?
Border security	Do you support or oppose increasing spending on border security by $25 billion, including building a wall between the U.S. and Mexico?
Abortion	Do you support or oppose prohibiting the expenditure of federal funds for any abortion except to save the life of a woman, or if the pregnancy arises from incest or rape?
Healthcare	Do you support or oppose expanding Medicare to a single comprehensive public health care coverage program that would cover all Americans?

Cut domestic spending	The federal budget deficit is approximately $2.2 trillion this year. One way to balance the budget would be to cut spending on domestic programs such as Medicare, Social Security, and federal aid to education. Would you support or oppose cutting spending on domestic programs in order to balance the budget?
Raise taxes	The federal budget deficit is approximately $2.2 trillion this year. One way to balance the budget would be to raise federal income taxes. Would you support or oppose raising federal income taxes in order to balance the budget?
Tariffs on China	On the issue of trade, do you support or oppose new tariffs on $200 billion worth of goods imported from China?
Legalize marijuana	Do you support or oppose changing federal law to allow recreational use of marijuana throughout the United States?
Deploy troops to destroy terrorist camp	Would you support or oppose the use of U.S. military troops to destroy a terrorist camp located in another country?
Ban drilling in ANWR	Do you support or oppose a ban on drilling for oil and other fossil fuels in the Arctic National Wildlife Refuge (ANWR)?
Voter ID	Do you support or oppose requiring all voters to show government issued photo identification in order to vote?

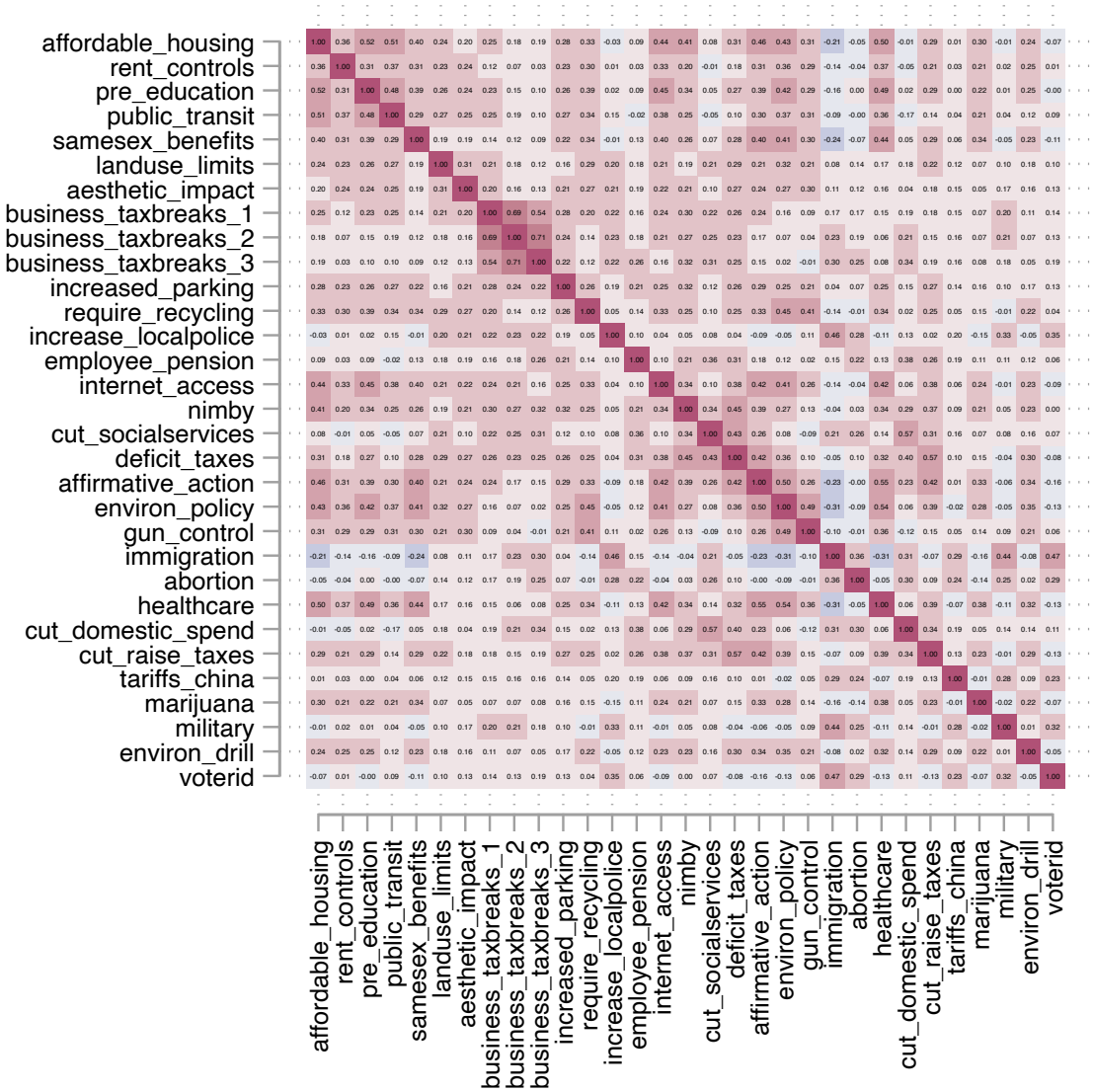
3 Parallel Analysis

Figure A1: Parallel analysis of eigenvalues, study 1



4 Heatmap of correlation coefficients

Figure A2: Heatmap of correlation coefficients, study 1



5 Predictors of policy items factor loadings

While most of the policy items we included on our survey loaded on the first factor in our factor analysis, several did not which raises the question of why some policy items load more heavily than others. To explore this question in a systematic way, we coded the traits of the various policy items we asked about and used those codes to predict the absolute value of each item's first factor loading. Specifically, we coded whether a policy item dealt with land use, the provision of social services, and tax policy. We also coded whether the policy was bipartisan – that is, a plurality of both Democrats and Republicans were on the same side on the issue. The table below presents two models, the first where we only include the indicators for the issue domain (along with a control for whether the policy was local rather than national) and a second where we add the indicator for whether support/opposition to the policy was bipartisan.

The coefficients from the models provide some guidance for the types of issues that loaded more or less strongly on the first factor. Specifically, items dealing with the provision of social services loaded more heavily on average than other issues by a fairly sizable amount (about 0.2). Items dealing with tax policy generally loaded less strongly. Furthermore, in model 2, we see that items where partisans were generally on the same side of the issue tended to load less strongly than those where they took opposing sides.

Table A3: Regression models predicting factor loadings of issue items

	Model 1		Model 1	
Variables	Coefficient	Std. Error	Coefficient	Std. Error
Land use	0.10	0.12	0.05	0.11
Social services	0.21	0.10	0.22	0.09
Tax policy	-0.11	0.12	-0.18	0.11
Local policy	-0.02	0.09	0.09	0.10
Bipartisan			-0.23	0.09
Intercept	0.30	0.06	0.42	0.08
Observations	31		31	
R^2	0.264		0.401	

6 Discrimination parameters for IRT models, study1

Table A4: Discrimination parameters from Local and National IRT models, study 1

Item	Discrimination parameter	Std. err.	z	p-value
Local issues				
affordable housing	2.078	0.147	14.16	<0.001
rent control	1.126	0.095	11.85	<0.001
pre-education	1.920	0.140	13.76	<0.001
public transit	1.734	0.133	13.06	<0.001
benefits for same-sex partners	1.259	0.099	12.69	<0.001
land use limits	1.165	0.092	12.65	<0.001
condemn blighted property	0.989	0.085	11.57	<0.001
tax breaks for retail businesses	1.420	0.105	13.58	<0.001
tax breaks for light industry	1.155	0.092	12.61	<0.001
tax breaks for heavy industry	0.992	0.084	11.81	<0.001
increase parking	1.214	0.092	13.13	<0.001
require recycling	1.393	0.110	12.69	<0.001
increase number of police	0.504	0.073	6.92	<0.001
cut pensions	0.694	0.076	9.17	<0.001
expand internet access	1.675	0.119	14.11	<0.001
allow apartment buildings in neighborhood	1.550	0.108	14.39	<0.001
cut local services	0.655	0.077	8.48	<0.001
raise local taxes	1.310	0.096	13.71	<0.001
National issues				
affirmative action	2.025	0.138	14.640	<0.001
epa regulate emissions	2.425	0.172	14.120	<0.001
gun control	1.113	0.099	11.250	<0.001
border security	-0.817	0.089	-9.150	<0.001
abortion	-0.169	0.077	-2.210	0.027
healthcare	2.494	0.181	13.820	<0.001
cut domestic spending	0.195	0.080	2.430	0.015
raise taxes	1.268	0.098	12.900	<0.001
tariffs on china	-0.046	0.072	-0.630	0.529
legalize marijuana	1.020	0.088	11.630	<0.001
deploy troops to destroy terrorist camp	-0.178	0.074	-2.420	0.016
ban oil drilling in ANWR	1.186	0.093	12.810	<0.001
voter id	-0.443	0.082	-5.410	<0.001

Table A5: Discrimination parameters for a single IRT model with all items, study 1

Item	Discrimination parameter	Std. err.	z	p-value
affordable housing	2.254	0.148	15.25	<0.001
rent control	1.282	0.101	12.7	<0.001
pre-education	2.031	0.138	14.68	<0.001
public transit	1.627	0.123	13.27	<0.001
benefits for same-sex partners	1.544	0.112	13.83	<0.001
land use limits	1.130	0.091	12.37	<0.001
condemn blighted property	0.972	0.085	11.44	<0.001
tax breaks for retail businesses	1.101	0.089	12.32	<0.001
tax breaks for light industry	0.837	0.078	10.78	<0.001
tax breaks for heavy industry	0.748	0.074	10.14	<0.001
increase parking	1.166	0.090	12.98	<0.001
require recycling	1.538	0.114	13.45	<0.001
increase number of police	0.344	0.070	4.95	<0.001
cut pensions	0.726	0.075	9.65	<0.001
expand internet access	1.835	0.123	14.87	<0.001
allow apartment buildings in neighborhood	1.495	0.104	14.42	<0.001
cut local services	0.676	0.075	8.97	<0.001
raise local taxes	1.455	0.100	14.55	<0.001
affirmative action	2.082	0.133	15.66	<0.001
epa regulate emissions	2.153	0.142	15.2	<0.001
gun control	1.279	0.112	11.44	<0.001
border security	-0.121	0.072	-1.67	0.094
abortion	0.251	0.068	3.69	<0.001
healthcare	2.190	0.145	15.06	<0.001
cut domestic spending	0.550	0.077	7.18	<0.001
raise taxes	1.400	0.098	14.3	<0.001
tariffs on china	0.379	0.070	5.39	<0.001
legalize marijuana	0.940	0.087	10.86	<0.001
deploy troops to destroy terrorist camp	0.261	0.068	3.84	<0.001
ban oil drilling in ANWR	1.072	0.088	12.16	<0.001
voter id	0.082	0.070	1.18	0.240

7 Model predicting local and national issue scales

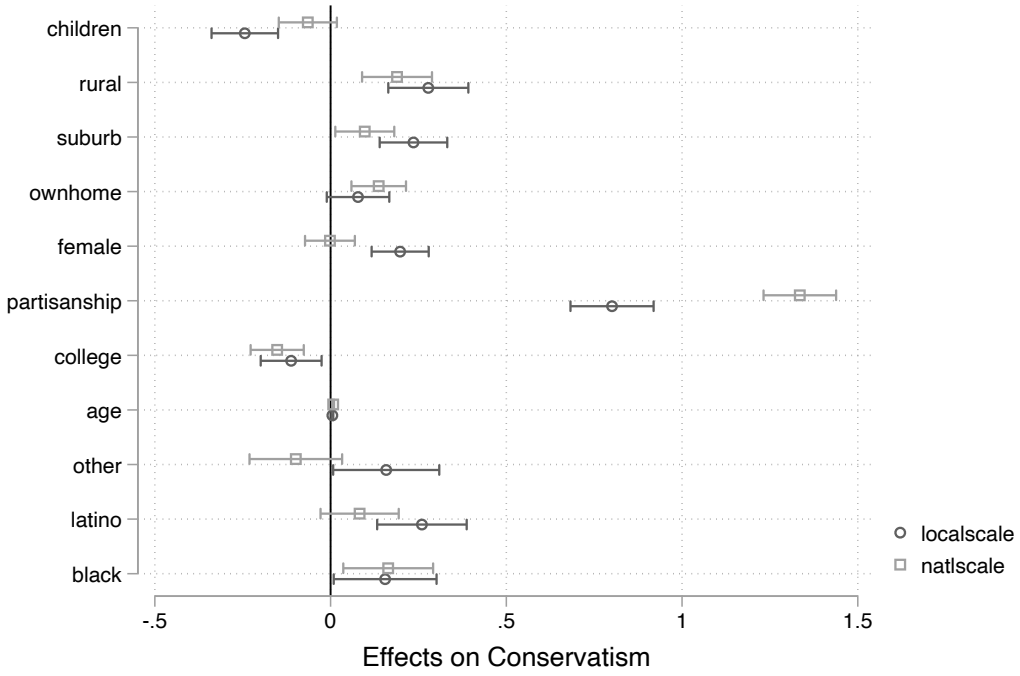
In this section, we present results from a seemingly unrelated regression model in which we predict two dependent variables for each respondent simultaneously – their value on the local issue preferences scale created from the IRT scaling and their value on the national issue preferences scale. Recall that these variables are standard normal latent scales with means of approximately zero and standard deviations of approximately 1. Higher positive values indicate more conservatism and lower (negative) values relate to more liberal views. We include the following independent variables in this model:

- Race/ethnicity - dummy variables for people identifying as black, Hispanic, and other with the reference group being those identifying as white
- age - the respondent's age years
- college - zero if the individual does not have a college degree and 1 if they have at least a 4-year college degree
- partisanship - 7-point partisanship re-scaled to range from 0 (strong Democrat) to 1 (strong Republican)
- female - 0 if male, 1 if female
- ownhome - 1 if the respondent owns their own home and zero if they do not
- geography - dummy variables indicating whether the respondent lives in a rural or suburban area, with urban area as the reference category
- children - 1 if the respondent has children under the age of 18 and 0 if not

The results from this model are presented in Figure A3. Most of the variables have a similar relationship to both the local and national issue scales. However, there are a few exceptions. Most significantly, partisanship is a considerably stronger predictor of the national

issues scale than the local issues scale. Moving from being a strong Democrat to strong Republican is associated with a .8 standard deviation increase in conservatism on the local scale while the same movement results in a 1.3 standard deviation increase in conservatism on the national scale. The model also indicates that women are more conservative on local issues than men (controlling for other factors) but there is no significant difference between men and women on the national scale. Finally, people with children are significantly more liberal on local policy issues but not on national issues.

Figure A3: Marginal effects of predictors on local and national ideology, study 1



8 Analysis of whether correlation between national and local policy scales is conditional on community type

One question raised by our findings are whether the strength of the correlation between local and national policy attitudes is uniformly strong across different types of communities. One might, for example, expect that the correlation would be stronger in larger cities, where the scope of government is much broader. However, as the table below shows, there is no consistent between the correlations of the local and national policy scales based on whether the respondent lived in a rural community, a suburban community, or a city. In Study 1, the correlations are highest for people living in cities, but in Study 2 they are highest for people living in urban areas.

Table A6: Correlation between the local and national policy scales based on respondent's community type

Community type	Correlation in Lucid data	Correlation in YouGov data
City	0.740	0.542
Suburb	0.573	0.535
Rural area	0.607	0.619

Note: Entries are Pearson's correlation coefficients.

9 Local policy items for CES analysis

Please indicate whether you support or oppose the following proposals:

- Your local government providing tax breaks and subsidies to encourage businesses to move to your community.
- Your local government taking steps to increase parking in your community's downtown or central business district even if it means not building more bike lanes.
- Your local government providing financial support for affordable housing within the community.
- Your local government condemning privately owned property that is not maintained or represents a blight on the community.
- Your local government allowing the construction of new apartment buildings in your neighborhood.
- Your local government imposing limits on how much landlords can raise their tenants' rent each year.

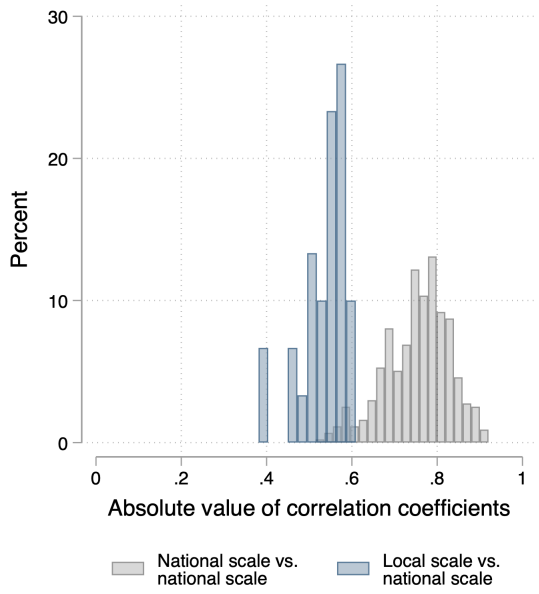
Response options:

1. Support
2. Oppose
3. Not sure

10 Comparison of CES scales using only 6 items

In Figure 4 of the paper, we show that a scale created using the 6 local policy items correlates at 0.578 with a scale created from 40 national policy items. However, the much larger number of national policy items may affect this comparison since a scale with 44 policy items would be more precise than one with 6 items. Therefore, to create a more fair comparison, we conducted an analysis where we created 30 different national policy scales by randomly selecting 6 national policy items at a time. We then correlated each of those 30 scales with our 6-item local policy scale and with each other. Figure A4 shows the results from this analysis and indicates that the number of items used does not meaningfully change the results presented in the paper when we use the full 40-item scale. On average, the local policy scale correlates with the 30 6-item policy scales at 0.535 while the national policy scales correlate with each other at an average of 0.754.

Figure A4: Distribution of correlation coefficients for test of 6-item national and local policy scales, 2021 CES



11 Factor analysis results using polychoric correlations

In Table 2 of the article, we show factor loadings from a maximum-likelihood factor analysis. However, another approach to conducting factor analysis on ordinal items such as these is to use polychoric correlations. In Table A7 we reproduce the factor loadings from Table 2 using polychoric correlations. We note that these results do not differ in any meaningful way from our original approach.

Table A7: Factor loadings when using polychoric correlations, Study 1

Item	Factor 1	Factor 2	Factor 3	Factor 4
Local Items				
Affordable housing	0.715	-0.217	0.107	-0.165
Rent control	0.530	-0.205	0.225	0.062
Pre-education	0.675	-0.176	0.173	-0.048
Public transit	0.616	-0.157	0.470	-0.152
Benefits for same-sex partners	0.609	-0.244	0.018	0.007
Land use limits	0.481	0.171	0.110	0.204
Condemn blighted property	0.452	0.163	0.234	0.219
Tax breaks for retail property	0.509	0.425	0.091	-0.421
Tax breaks for light industry	0.430	0.524	0.046	-0.542
Tax breaks for heavy industry	0.389	0.575	-0.081	-0.445
Increase parking	0.511	0.152	0.098	-0.003
Require recycling	0.604	-0.111	0.183	0.096
Increase number of local police	0.141	0.530	0.387	0.114
Cut pensions	0.333	0.332	-0.250	0.171
Expand internet access	0.662	-0.140	0.021	-0.076
Allow apartment buildings in neighborhood	0.619	0.126	-0.198	-0.097
Cut local services	0.330	0.447	-0.485	0.114
Raise local taxes	0.636	0.135	-0.427	0.097
National Items				
Affirmative action	0.722	-0.165	-0.222	0.009
Allow EPA to regulate emissions	0.714	-0.319	0.024	0.173
Gun control	0.521	-0.227	0.431	0.235
Border security	-0.135	0.812	0.226	0.153
Abortion	0.096	0.547	0.034	0.175
Healthcare	0.709	-0.337	-0.057	0.026
Cut domestic spending	0.271	0.561	-0.555	0.183
Raise taxes	0.615	0.038	-0.364	0.148
Tariffs on China	0.164	0.413	0.097	0.188
Legalize marijuana	0.434	-0.219	-0.068	-0.054
Deploy troops to destroy terrorist camp	0.096	0.500	0.310	0.128
Ban drilling in ANWR	0.466	-0.094	-0.116	0.181
Voter ID	0.000	0.533	0.455	0.151

12 Anonymized Pre-analysis Registration

The Relationship between Local Policy Ideology and National Policy Ideology

Study Information

Hypotheses

We hypothesize that (1) attitudes toward many, if not all, local policies exhibit a left-right ideological structure and that (2) the structure of attitudes toward many, if not all, local policies is largely the same as that governing attitudes toward national issues.

Design Plan

Study type

Observational Study - Data is collected from study subjects that are not randomly assigned to a treatment. This includes surveys, “natural experiments,” and regression discontinuity designs.

Blinding

No blinding is involved in this study.

Is there any additional blinding in this study?

No response

Study design

Study Design Overview
To test our hypotheses, we will be conducting an online survey of a nationally representative sample of 1,000 American adults. The full survey instrument, as well as the code we use to analyze the data, are attached to this pre-analysis plan.
The survey instrument contains a large number of questions gauging respondents’ attitudes toward various national issues such as health care, welfare, the environment, and national security, as well as numerous questions measuring respondents’ attitudes toward local issues such as land use, recycling, rent controls, and parks and recreation.
We are contracting with the survey research firm Lucid to recruit our sample and field our survey.

We are contracting with the survey research firm Lucid to recruit our sample and field our survey.
Our unit of analysis is the individual survey respondent.
We will undertake several distinct but interrelated analyses:

1. We will construct and examine a correlation matrix presenting the correlation between each question in our survey to investigate patterns of correlations among national issues, among local issues, and between national and local issues.
2. We will undertake a factor analysis of all of the questions to determine the number of underlying factors and examine how national and local issues load on each factor.
3. We will construct separate scaled measures of national ideology and local ideology based on questions relating to issues at each level of government, and assess how highly these two scaled measures are correlated.

Our research design involves making descriptive inferences only, so involves no experimental intervention or explanatory variable.
Sample Size Calculation
As our research design does not involve estimation of a causal effect of one variable on another, we do not conduct a power analysis to determine sample size adequacy. We use a sample size of 1,000 respondents because it is sufficient to obtain a nationally representative sample of American adults, which is needed to generalize to the population of interest in this study.

No files selected

Randomization

No response

Sampling Plan

Existing Data

Registration prior to creation of data

Explanation of existing data

Not applicable.

Data collection procedures

We will be conducting an online survey of a nationally representative sample of 1,000 American adults. Those who are not adults (18 and over) and those who are not residing in the United State are not included in the study. We are contracting with the survey research firm Lucid to recruit our sample and field our survey. We are not paying research subjects directly, but Lucid provides incentives to its panelists to participate in surveys. The study will be in the field from October 7, 2021 until 1,200 responses are obtained (typically 1-2 days, but occasionally longer).

No files selected

Sample size

1,000

Sample size rationale

As our research design does not involve estimation of a causal effect of one variable on another, we do

As our research design does not involve estimation of a causal effect of one variable on another, we do not conduct a power analysis to determine sample size adequacy. We use a sample size of 1,000 respondents because it is sufficient to obtain a nationally representative sample of American adults, which is needed to generalize to the population of interest in this study.

Stopping rule

We have contracted with Lucid to obtain a sample of 1,000 quality responses.

Variables

Manipulated variables

This is an observational study. We are not manipulating an experimental variable in the study.

No files selected

Measured variables

Correlation Matrix

As a first step, we will examine a correlation matrix of all of the issue-related questions in our survey in order to understand the correlations among national issues, among local issues, and between national issues and local issues. We examine the average correlation among pairs of local policy questions, the average correlation among pairs of national policy questions, and then the average correlation among pairs of one local and one national policy question.
This exercise will provide preliminary insight on whether stronger correlations tend to exist among national issues and among local issues only, respectively; or whether and to what extent there are strong correlations between national issues and local issues. In assessing the strength of the average correlations between items, we will use the following scale: .80-.99 = Very strong; .60-.79 = Strong; .40-.59 = Moderate; .20-.39= Weak; 01-.19 = Negligible.

Exploratory Factor Analysis

We will also undertake an exploratory common factor analysis, using maximum likelihood estimation, of responses to the survey questions. The purpose of this factor analysis is to investigate whether and to what extent responses to national issues and responses to local issues, respectively, tend to load on the same underlying factor, or on different factors. In this analysis, the tendency of responses to questions about national issues and responses to questions about local issues to load on the same factor would provide evidence of a single underlying ideology linking attitudes at these different levels of government; while a tendency of responses to questions about national issues and responses to questions about local issues to load on different factors would provide evidence that attitudes toward national issues and attitudes toward local issues are distinctive. Other patterns - for example, various factors, each comprising a mix of local and national issues - would suggest a more complex structure requiring further investigation.

In our exploratory common factor analysis with maximum likelihood estimation, we will limit the initial extraction to 6 factors to keep the output readable. We then conduct a parallel analysis to determine the ultimate number of factors to retain. Parallel analysis involves comparing the Eigenvalues from the factor analysis estimated on the actual observed data to Eigenvalues from a factor analysis performed on randomly generated data of the same sample size. We will retain all factors up until the first factor

on randomly generated data of the same sample size. We will retain all factors up until the first factor that drops to within 0.1 Eigenvalues of the parallel analysis Eigenvalue.

Based on the number of meaningful factors our parallel analysis reveals, we will then apply oblique

factor rotation, just for the factors deemed significant based on the parallel analysis. The oblique rotation generates distinctive factors, which may or may not be correlated (in contrast with orthogonal rotation, which yields uncorrelated factors). We apply an oblique rotation because we want to hold out the possibility that distinctive factors may be correlated rather than imposing the assumption of orthogonality on the factors.

Following rotation, we will then assess the meaningful factors by examining which manifest items show significant loadings with those factors. We will deem a loading "significant" if it reaches an absolute value of 0.3 or higher. By examining the significant loadings associated with each of the retained factors, we will be able to assess whether and to what extent national and local issues tend to load on the same factor (evidence of a common underlying ideology), separate factors (evidence of distinctive national ideology and local ideology), or some other more complex pattern.

Assessment of Correlation of Scaled Measures of National Ideology and Local Ideology

As a third step, we will generate separate scaled measures of national ideology and local ideology, respectively, and then assess the correlation between these two scaled measures. Unlike with the factor analysis, this approach assumes that national ideology and local ideology are distinctive quantities, but potentially correlated to some degree.

To generate each of our scaled ideology measures, we will use a standard graded item-response theory (IRT) model, which derives scaled scores of the latent concept (here, ideology) based on patterns of question responses. We also produce item information plots for each scale to examine which items contribute most to the latent traits.

We will measure the correlation between these two ideology measures. In this analysis, a strong correlation between the scaled national ideology measure and the scaled local ideology measure would provide evidence of a close relationship between the two quantities. We will also measure the correlation between each scaled measure of ideology and an ideological self-identification item which we also measure in the survey. Here, a stronger correlation between the scaled measure of local ideology and the ideological self-identification item would provide evidence that the local ideology measure is related to national ideology. In assessing the strength of the correlations between the ideology measures, we will use the following scale: .80-.99 = Very strong; .60-.79 = Strong; .40-.59 = Moderate; .20-.39= Weak; 01-.19 = Negligible.

No files selected

Indices

See above.

No files selected

Analysis Plan

Statistical models

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order to understand the correlations among national issues, among local issues, and between national issues and local issues. We examine the average correlation among pairs of local policy questions, the average correlation among pairs of national policy questions, and then the average correlation among pairs of one local and one national policy question.
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Exploratory Factor Analysis

We will also undertake an exploratory common factor analysis, using maximum likelihood estimation, of responses to the survey questions. The purpose of this factor analysis is to investigate whether and to what extent responses to national issues and responses to local issues, respectively, tend to load on the same underlying factor, or on different factors. In this analysis, the tendency of responses to questions about national issues and responses to questions about local issues to load on the same factor would provide evidence of a single underlying ideology linking attitudes at these different levels of government; while a tendency of responses to questions about national issues and responses to questions about local issues to load on different factors would provide evidence that attitudes toward national issues and attitudes toward local issues are distinctive. Other patterns - for example, various factors, each comprising a mix of local and national issues - would suggest a more complex structure requiring further investigation.

In our exploratory common factor analysis with maximum likelihood estimation, we will limit the initial extraction to 6 factors to keep the output readable. We then conduct a parallel analysis to determine the ultimate number of factors to retain. Parallel analysis involves comparing the Eigenvalues from the factor analysis estimated on the actual observed data to Eigenvalues from a factor analysis performed on randomly generated data of the same sample size. We will retain all factors up until the first factor that drops to within 0.1 Eigenvalues of the parallel analysis Eigenvalue.

Based on the number of meaningful factors our parallel analysis reveals, we will then apply oblique factor rotation, just for the factors deemed significant based on the parallel analysis. The oblique rotation generates distinctive factors, which may or may not be correlated (in contrast with orthogonal rotation, which yields uncorrelated factors). We apply an oblique rotation because we want to hold out the possibility that distinctive factors may be correlated rather than imposing the assumption of orthogonality on the factors.

Following rotation, we will then assess the meaningful factors by examining which manifest items show significant loadings with those factors. We will deem a loading “significant” if it reaches an absolute value of 0.3 or higher. By examining the significant loadings associated with each of the retained factors, we will be able to assess whether and to what extent national and local issues tend to load on the same factor (evidence of a common underlying ideology), separate factors (evidence of distinctive national ideology and local ideology), or some other more complex pattern.

Assessment of Correlation of Scaled Measures of National Ideology and Local Ideology

As a third step, we will generate separate scaled measures of national ideology and local ideology, respectively, and then assess the correlation between these two scaled measures. Unlike with the factor analysis, this approach assumes that national ideology and local ideology are distinctive quantities, but potentially correlated to some degree.

To generate each of our scaled ideology measures, we will use a standard graded item-response theory (IRT) model, which derives scaled scores of the latent concept (here, ideology) based on patterns of question responses. We also produce item information plots for each scale to examine which items contribute most to the latent traits.

We will measure the correlation between these two ideology measures. In this analysis, a strong correlation between the scaled national ideology measure and the scaled local ideology measure would provide evidence of a close relationship between the two quantities. We will also measure the correlation between each scaled measure of ideology and an ideological self-identification item which we also measure in the survey. Here, a stronger correlation between the scaled measure of local ideology and the ideological self-identification item would provide evidence that the local ideology measure is related to national ideology. In assessing the strength of the correlations between the ideology measures, we will use the following scale: .80-.99 = Very strong; .60-.79 = Strong; .40-.59 = Moderate; .20-.39= Weak; 01-.19 = Negligible.

For further details, please see the attached "papcode.docx" and "papcode.md" files, which provide replication code for our data analysis.

No files selected

Transformations

Please see above and the "papcode.dox" and "papcode.md" files for details on coding and transformation decisions.

Inference criteria

Our inference criteria are described above, in the section "statistical models".

Data exclusion

In our actual data analysis, we will only include respondents who came from Lucid (e.g. who have a non-missing value for the variable rid). We also include an attention check question early in the survey. The question asks respondents, “Please select the choice strongly oppose to continue taking this survey.” In the actual launch, respondents who do not choose strongly oppose are routed out of the survey flow. The details of the attention check question can be found in the text of our survey, "Local_National_policy_final_qx.docx", and the code for excluding respondents who fail the attention check can be found in document "papcode.docx" and "papcode.md".

Missing data

We "soft require" responses to questions, but respondents are permitted to decline to answer questions.

In our assessment of the correlations between national policy questions and local policy questions, respondents with missing data on any items will be dropped from the analysis. In our factor analysis of the national policy questions and local policy questions, respondents with missing data on any of the items will be dropped.

The IRT models of national policy ideology and local policy ideology can run with missing data, so we will retain all observations in these models.

Exploratory analysis

No response

Other

Other

No response

13 Pre-registered Stata code for analysis

Pre-Analysis Code

Additional packages needed to install: *fpara*

For our pre-analysis plan, we have exported simulated data from Qualtrics. This data includes randomly generated responses for each of the questions in our survey for an N of 1,000. We begin by opening this data.

~~~~
<<dd_do>>
import delimited "~/Dropbox/Local and National Ideology Survey/PAP/test_data.csv", varnames(1) clear
<</dd_do>>
~~~~

We begin by filtering down to our usable sample. For the pre-analysis plan, we use only responses from our "test" run. For the actualy analysis, we will only include respondents who came from Lucid (e.g. who have a non-missing value for the variable rid). We also include an attention check question early in the survey. The question asks respondents, "Please select the choice strongly oppose to continue taking this survey." In the actual launch, respondents who do not choose strongly oppose are routed out of the survey flow. For the simulated data, however, this was not programmed. Respondents failing this attention check will be dropped from the dataset. We will also drop respondents who take less than 4 minutes to complete the questionnaire.

~~~~
<<dd_do>>
drop if attncheck_1!=5
* drop if durationinseconds<240
<</dd_do>>
~~~~

Analysis of correlations

We begin by creating a correlation matrix of the correlation between each of the local and national issue questions we asked in the survey. We store these in the dataset with new variable *x* identifying the first variable in our correlation and *y* identifying the second variable. The variable *r* provides the correlation coefficient for the pair of variables.

~~~~
<<dd_do>>
local varlist  affordable_housing rent_controls pre_education public_transit samesex_benefits landuse_limits aesthetic_impact business_taxbreaks_1 business_taxbreaks_2 business_taxbreaks_3 increased_parking require_recycling increase_localpolice employee_pension internet_access nimby cut_socialservices deficit_taxes affirmative_action environ_policy gun_control immigration abortion healthcare cut_domestic_spend cut_raise_taxes tariffs_china marijuana military environ_drill voterid

local nvars : word count `varlist'

local N = `nvars' * (`nvars' - 1) / 2
~~~~

```
if `N' > _N set obs `N'

gen x = ""
gen y = ""
gen r = .
local k = 1
tokenize "`varlist'"

forval i = 1/`nvars' {
   local J = `i' + 1
   forval j = `J'/`nvars' {
      quietly {
         corr ``i'' ``j''
         replace x = "``i''" in `k'
         replace y = "``j''" in `k'
         replace r = r(rho) in `k'
      }
      local ++k
   }
}

<</dd_do>>
~~~~
```

We use this data to provide some descriptive statistics about the correlations. First, we examine the average correlation among pairs of local policy questions, the average correlation among pairs of national policy questions, and then the average correlation among pairs of one local and one national policy question.

```
~~~~
<<dd_do>>
gen xtype="local" if x=="affordable_housing" | x=="rent_controls" | x=="pre_education" |
x=="public_transit" | x=="samesex_benefits" | x=="landuse_limits" | x=="aesthetic_impact" |
x=="business_taxbreaks_1" | x=="business_taxbreaks_2" | x=="business_taxbreaks_3" |
x=="increased_parking" | x=="require_recycling" | x=="increase_localpolice" | x=="employee_pension" |
x=="internet_access" | x=="nimby" | x=="cut_socialservices" | x=="deficit_taxes"

replace xtype="national" if xtype=="" & x!=""

gen ytype="local" if y=="affordable_housing" | y=="rent_controls" | y=="pre_education" |
y=="public_transit" | y=="samesex_benefits" | y=="landuse_limits" | y=="aesthetic_impact" |
y=="business_taxbreaks_1" | y=="business_taxbreaks_2" | y=="business_taxbreaks_3" |
y=="increased_parking" | y=="require_recycling" | y=="increase_localpolice" | y=="employee_pension" |
y=="internet_access" | y=="nimby" | y=="cut_socialservices" | y=="deficit_taxes"

replace ytype="national" if ytype=="" & y!=""
```

```
gen typematch="local-local" if xtype=="local" & ytype=="local"
replace typematch="national-national" if xtype=="national" & ytype=="national"
replace typematch="local-national" if xtype=="local" & ytype=="national"
replace typematch="local-national" if xtype=="national" & ytype=="local"

encode typematch, gen(typematch2)

mean r, over(typematch2)

<</dd_do>>
~~~~
```

Exploratory factor analysis

We next turn to an exploratory factor analysis. Because of the categorical nature of the items, we use maximum likelihood estimation for the factor analysis and to keep the ouput readable, we limit the extraction to 6 factors.

We then conduct a parallel analysis using the *fpara* command. (This must be installed on your version of Stata.) Parallel analysis involves comparing the Eigenvalues from the factor analysis estimated on the actual observed data to Eigenvalues from a factor analysis performed on randomly generated data of the same sample size. We will retain all factors up until the first factor that drops to within 0.1 Eigenvalues of the parallel analysis Eigenvalue. Note that in this case no Eigenvalues are much larger than those produced by the parallel analysis; this makes sense since our test data is also randomly generated.

```
~~~~
<<dd_do>>
factor affordable_housing-voterid, fac(6) ml
fapara, seed(111) reps(10)
<</dd_do>>
~~~~
```

Based on the number of meaningful factors our parallel analysis reveals, we will then apply oblique factor rotation, just for the factors deemed significant based on the parallel analysis. For this pre-analysis plan, we use a value of 3 important factors to rotate

```
~~~~
<<dd_do>>
rotate, oblique p fac(3)
<</dd_do>>
~~~~
```

Following rotation, we will then assess the meaningful factors by examining which manifest items show significant loadings with those factors. We will deem a loading "significant" if it reaches an absolute value of 0.3 or higher.

Comparing separately scaled national and local policy indexes

Our final pre-registered analysis scales the set of national and local policy questions separately using IRT graded response models and then explores the relationship between these two scales. We also produce item information plots for each scale to examine which items contribute most to the latent traits.

~~~~
<<dd_do>>
irt grm affordable_housing-deficit_taxes
predict localscale, latent
irtgraph iif
<</dd_do>>
~~~~

<<dd_graph: >>

~~~~
<<dd_do>>
irt grm affirmative_action-voterid
predict natlscale, latent
irtgraph iif
<</dd_do>>
~~~~
<<dd_graph: >>

We now test for the correlation between the national and local policy scales as well as between each of those scales and the ideological self-identification item.

~~~~
<<dd_do>>
recode ideo5 6=3

pwcorr localscale natlscale ideo5, sig
<</dd_do>>
~~~~

14 Lucid Survey Instrument

Local National policy

Start of Block: demos

birthyr In what year were you born?

Page Break

urbancity How would you describe the place where you live?

- ○ City (1)
- ○ Suburb (2)
- ○ Rural area (3)

Page Break

child18 Are you the parent or guardian of any children under the age of 18?

- ○ Yes (1)
- ○ No (2)

Page Break

Display This Question:

If Are you the parent or guardian of any children under the age of 18? = Yes

school Are you the parent or guardian of a child currently enrolled in a public school?

- ○ Yes (1)
- ○ No (2)

Page Break

ownhome Do you own your home or pay rent?

- ○ Own (1)
- ○ Rent (2)
- ○ Other (3) _____

Page Break

length How long have you lived in the community where you now reside?

- ○ Less than 6 months (1)
- ○ 7 to 11 months (2)
- ○ 1 to 2 years (3)
- ○ 3 to 4 years (4)
- ○ 5 to 10 years (5)
- ○ More than 10 years (6)

Page Break

marstat What is your marital status?

- ○ Married (1)
- ○ Separated (2)
- ○ Divorced (3)
- ○ Widowed (4)
- ○ Never married (5)
- ○ Domestic / civil partnership (6)

Page Break

attncheck_1 To show that you are paying attention, please just select the choice "Strongly oppose."

- ○ Strongly support (1)
- ○ Somewhat support (2)
- ○ Neither support nor oppose (3)
- ○ Somewhat oppose (4)
- ○ Strongly oppose (5)

Page Break

employ Which of the following best describes your current employment status?

- ○ Full-time (1)
- ○ Part-time (2)
- ○ Temporarily laid off (3)
- ○ Unemployed (4)
- ○ Retired (5)
- ○ Permanently disabled (6)
- ○ Homemaker (7)
- ○ Student (8)
- ○ Other (9)

Page Break

pew_churatd Aside from weddings and funerals, how often do you attend religious services?

- More than once a week (1)
- Once a week (2)
- Once or twice a month (3)
- A few times a year (4)
- Seldom (5)
- Never (6)
- Don't know (7)

End of Block: demos

Start of Block: local

affordable_housing Do you support or oppose your local government providing financial support for affordable housing within the community?

- Strongly support (1)
- Somewhat support (2)
- Neither support nor oppose (3)
- Somewhat oppose (4)
- Strongly oppose (5)

Page Break

rent_controls Do you support or oppose your local government imposing limits on how much landlords can raise their tenants' rent each year?

- ○ Strongly support (1)
- ○ Somewhat support (2)
- ○ Neither support nor oppose (3)
- ○ Somewhat oppose (4)
- ○ Strongly oppose (5)

Page Break

pre_education Do you support or oppose your local government providing funding for preschool education?

- ○ Strongly support (1)
- ○ Somewhat support (2)
- ○ Neither support nor oppose (3)
- ○ Somewhat oppose (4)
- ○ Strongly oppose (5)

Page Break

public_transit Do you support or oppose your local government providing funding for public transportation programs to assist the elderly, disabled people, students, and other people with low incomes?

- ○ Strongly support (1)
- ○ Somewhat support (2)
- ○ Neither support nor oppose (3)
- ○ Somewhat oppose (4)
- ○ Strongly oppose (5)

Page Break

samesex_benefits Do you support or oppose your local government providing health benefits to the same-sex partners of city employees?

- ○ Strongly support (1)
- ○ Somewhat support (2)
- ○ Neither support nor oppose (3)
- ○ Somewhat oppose (4)
- ○ Strongly oppose (5)

Page Break

landuse_limits Do you support or oppose your local government restricting the types of businesses within the town or city boundaries to preserve the environment, maintain the character of the community, and/or uphold community standards?

- ○ Strongly support (1)
- ○ Somewhat support (2)
- ○ Neither support nor oppose (3)
- ○ Somewhat oppose (4)
- ○ Strongly oppose (5)

Page Break

aesthetic_impact Do you support or oppose your local government condemning privately owned property that is not maintained or represents a blight on the community?

- ○ Strongly support (1)
- ○ Somewhat support (2)
- ○ Neither support nor oppose (3)
- ○ Somewhat oppose (4)
- ○ Strongly oppose (5)

Page Break

business_taxBreaks Do you support or oppose your local government providing tax breaks and subsidies to encourage the following to move to your community?

	Strongly support (1)	Somewhat support (2)	Neither support nor oppose (3)	Somewhat oppose (4)	Strongly oppose (5)
Retail businesses such as supermarkets, clothing stores, and department stores (1)	○	○	○	○	○
Light industries such as auto manufacturing, consumer electronics, and furniture manufacturing (2)	○	○	○	○	○
Heavy industries such as steel manufacturing, chemical engineering, and industrial machine manufacturing (3)	○	○	○	○	○

Page Break

increased_parking Do you support or oppose your local government taking steps to increase parking in your community's downtown or central business district?

- ○ Strongly support (1)
- ○ Somewhat support (2)
- ○ Neither support nor oppose (3)
- ○ Somewhat oppose (4)
- ○ Strongly oppose (5)
- ○ My community does not have a downtown or business district (6)

Page Break

require_recycling Do you support or oppose your local government requiring residents to recycle aluminum cans and glass bottles?

- ○ Strongly support (1)
- ○ Somewhat support (2)
- ○ Neither support nor oppose (3)
- ○ Somewhat oppose (4)
- ○ Strongly oppose (5)

Page Break

increase_localPolice Do you support or oppose your local government increasing the number of police on the street by 10 percent?

- ○ Strongly support (1)
- ○ Somewhat support (2)
- ○ Neither support nor oppose (3)
- ○ Somewhat oppose (4)
- ○ Strongly oppose (5)

Page Break

employee_pension Many town and city governments contribute to the retirement pensions of municipal employees. These commitments can become quite expensive for communities, and possibly reduce revenues available for other purposes, such as transportation, public works, and health and safety. At the same time, many public employees depend on their pensions for retirement. Would you support or oppose reducing contributions to the retirement pensions of people employed by your local government?

- ○ Strongly support (1)
- ○ Somewhat support (2)
- ○ Neither support nor oppose (3)
- ○ Somewhat oppose (4)
- ○ Strongly oppose (5)

Page Break

internet_access Do you support or oppose increasing local government spending to expand internet access to more people in your community?

- ○ Strongly support (1)
- ○ Somewhat support (2)
- ○ Neither support nor oppose (3)
- ○ Somewhat oppose (4)
- ○ Strongly oppose (5)

Page Break

nimby Would you support or oppose your local government allowing the construction of new apartment buildings in your neighborhood?

- ○ Strongly support (1)
- ○ Somewhat support (2)
- ○ Neither support nor oppose (3)
- ○ Somewhat oppose (4)
- ○ Strongly oppose (5)

Page Break

cut_socialServices Suppose your local government was running a budget deficit. One way to balance the budget would be to cut spending on local services such as libraries, parks and recreation, law enforcement, road maintenance, and trash collection. Would you support or oppose cutting spending on local services in order to balance the budget?

- ○ Strongly support (1)
- ○ Somewhat support (2)
- ○ Neither support nor oppose (3)
- ○ Somewhat oppose (4)
- ○ Strongly oppose (5)

Page Break

deficit_taxes Suppose your local government was running a budget deficit. One way to balance the budget would be to raise local property taxes. Would you support or oppose raising local property taxes in order to balance the budget?

- Strongly support (1)
- Somewhat support (2)
- Neither support nor oppose (3)
- Somewhat oppose (4)
- Strongly oppose (5)

End of Block: local

Start of Block: national

affirmative_action Affirmative action programs give preference to racial minorities in employment and college admissions in order to correct for past discrimination. Do you support or oppose affirmative action?

- Strongly support (1)
- Somewhat support (2)
- Neither support nor oppose (3)
- Somewhat oppose (4)
- Strongly oppose (5)

Page Break

environ_policy Do you support or oppose giving the Environmental Protection Agency the power to regulate carbon dioxide emissions as a way to address climate change?

- ○ Strongly support (1)
- ○ Somewhat support (2)
- ○ Neither support nor oppose (3)
- ○ Somewhat oppose (4)
- ○ Strongly oppose (5)

Page Break

gun_control Do you support or oppose federal legislation that would require background checks for all gun sales, including at gun shows and over the internet?

- ○ Strongly support (1)
- ○ Somewhat support (2)
- ○ Neither support nor oppose (3)
- ○ Somewhat oppose (4)
- ○ Strongly oppose (5)

Page Break

immigration Do you support or oppose increasing spending on border security by $25 billion, including building a wall between the U.S. and Mexico?

- ○ Strongly support (1)
- ○ Somewhat support (2)
- ○ Neither support nor oppose (3)
- ○ Somewhat oppose (4)
- ○ Strongly oppose (5)

Page Break

abortion Do you support or oppose prohibiting the expenditure of federal funds for any abortion except to save the life of a woman, or if the pregnancy arises from incest or rape?

- ○ Strongly support (1)
- ○ Somewhat support (2)
- ○ Neither support nor oppose (3)
- ○ Somewhat oppose (4)
- ○ Strongly oppose (5)

Page Break

healthcare Do you support or oppose expanding Medicare to a single comprehensive public health care coverage program that would cover all Americans?

- ○ Strongly support (1)
- ○ Somewhat support (2)
- ○ Neither support nor oppose (3)
- ○ Somewhat oppose (4)
- ○ Strongly oppose (5)

Page Break

cut_domestic_spend The federal budget deficit is approximately $2.2 trillion this year. One way to balance the budget would be to cut spending on domestic programs such as Medicare, Social Security, and federal aid to education. Would you support or oppose cutting spending on domestic programs in order to balance the budget?

- ○ Strongly support (1)
- ○ Somewhat support (2)
- ○ Neither support nor oppose (3)
- ○ Somewhat oppose (4)
- ○ Strongly oppose (5)

Page Break

cut_raise_taxes The federal budget deficit is approximately $2.2 trillion this year. One way to balance the budget would be to raise federal income taxes. Would you support or oppose raising federal income taxes in order to balance the budget?

- ○ Strongly support (1)
- ○ Somewhat support (2)
- ○ Neither support nor oppose (3)
- ○ Somewhat oppose (4)
- ○ Strongly oppose (5)

Page Break

tariffs_china On the issue of trade, do you support or oppose new tariffs on $200 billion worth of goods imported from China?

- ○ Strongly support (1)
- ○ Somewhat support (2)
- ○ Neither support nor oppose (3)
- ○ Somewhat oppose (4)
- ○ Strongly oppose (5)

Page Break

marijuana Do you support or oppose changing federal law to allow recreational use of marijuana throughout the United States?

- ○ Strongly support (1)
- ○ Somewhat support (2)
- ○ Neither support nor oppose (3)
- ○ Somewhat oppose (4)
- ○ Strongly oppose (5)

Page Break

military Would you support or oppose the use of U.S. military troops to destroy a terrorist camp located in another country?

- ○ Strongly support (1)
- ○ Somewhat support (2)
- ○ Neither support nor oppose (3)
- ○ Somewhat oppose (4)
- ○ Strongly oppose (5)

Page Break

environ_drill Do you support or oppose a ban on drilling for oil and other fossil fuels in the Arctic National Wildlife Refuge (ANWR)?

- ○ Strongly support (1)
- ○ Somewhat support (2)
- ○ Neither support nor oppose (3)
- ○ Somewhat oppose (4)
- ○ Strongly oppose (5)

voterid Do you support or oppose requiring all voters to show government issued photo identification in order to vote?

- ○ Strongly support (1)
- ○ Somewhat support (2)
- ○ Neither support nor oppose (3)
- ○ Somewhat oppose (4)
- ○ Strongly oppose (5)

Page Break

End of Block: national

Start of Block: final

newsint Some people follow what's going on in government and public affairs most of the time, whether there's an election going on or not. Others aren't as interested. Would you say you follow what's going on in government and public affairs…

- ○ Most of the time (1)
- ○ Some of the time (2)
- ○ Only now and then (3)
- ○ Hardly at all (4)

Page Break

ideo5 In general, how would you describe your own political viewpoint?

- Very liberal (1)
- Liberal (2)
- Moderate (3)
- Conservative (4)
- Very conservative (5)
- Not sure (6)

Page Break

votereg Are you registered to vote?

- ○ Yes (1)
- ○ No (2)
- ○ Not sure (3)

Page Break

prez2012 In the 2020 election for President, who did you vote for?

- ○ Joe Biden (Democrat) (1)
- ○ Donald Trump (Republican) (2)
- ○ A different candidate (3)
- ○ I did not vote in 2020 (4)

End of Block: final

Start of Block: attncheck_open

attncheck_2 What would you like to see elected leaders in Washington get done during the next few years? Please give as much detail as you can.

_____

_____

_____

_____

_____

End of Block: attncheck_open

Start of Block: edu_conjoint