Consensus among economists 2020 – A sharpening of the picture

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Abstract

Based on an extensive survey of the members of the American Economic Association this paper compares consensus among economists on a number of economic propositions over four decades. The main result is an increased consensus on many economic propositions, specifically the appropriate role of fiscal policy in macroeconomics and issues surrounding income distribution. Economists now embrace the role of fiscal policy in a way not obvious in previous surveys and are largely supportive of government policies that mitigate income inequality. Another area of consensus is concern with climate change and the use of appropriate policy tools to address climate change.

JEL Classification: A1

I. Introduction

The present study builds on survey research of consensus among economists first conducted in 1976 when Kearl et al. (1979) asked whether there was a 'confusion of economists'. This research was then updated every decade with a 1990 survey by Alston, Kearl, and Vaughan (1992) and a 2000 and 2011 survey conducted by Fuller and Geide-Stevenson (2003, 2014). This paper adds results from a similar survey conducted at the end of 2020 through 2021.

Common to all studies, a sample of economists, members of the American Economic Association (AEA), was sent a questionnaire containing a number of economic propositions that asked about agreement or disagreement with those propositions. The substantial overlap in the economic propositions on each survey instrument allow conclusions regarding shifts in consensus among economists over time. The focus in the 1976 and 1990 surveys was on assessing differences in agreement on micro- versus macroeconomics propositions and normative versus positive propositions. During that time, consensus was largely found within the group of microeconomic, positive propositions while most of the disagreement among economists centered on macroeconomic and normative propositions, highlighting a disconnect between the economics profession and the issues that are often of greatest interest to the public. Consistently, throughout all previous surveys, strong consensus has been found on international economic issues, with continuing disagreement as well as great fluidity of opinions on macroeconomic policy. Previous studies note a slight increase in consensus among economists over time.

The study discussed in this paper presents survey results from 2021 and compares the current level of professional consensus to earlier surveys. For the economic propositions common to all surveys we show an increase in the level of consensus that is markedly different

from earlier comparisons. Specifically in the areas of fiscal policy, budget deficits, and policies and attitudes surrounding income inequality we observe shifts towards strong consensus among the economics profession.

II. Survey, Sample, and Measure of Consensus

This paper adds results from a survey that contained 46 economic propositions and six demographic questions. A large subset of propositions is identical to those used in the 1990, 2000, and 2011 questionnaires and results from all four decades are displayed in Table 1. [1] There are 37 propositions that are identical for the 2020 and 2011 survey, 33 propositions that are identical in the 2020, 2011, and 2000 survey, and 22 propositions that cover all four decades. New propositions, those that only appear in the current survey, were added based on economic issues that are of particular current interest. Those topics are the Covid-19 pandemic (#23), climate change (#27), the effect of biases on economic outcomes (#41,42), immigration (#25), health care (#45), market concentration (#43), social mobility (#46), as well as newer research methods in economics (#44). Those topics can also be found in the weekly polls of economic expert panels conducted by the Initiative on Global Markets (IGM) at the Booth School of Business at the University of Chicago (IGM Forum, 2021). While the propositions in the current paper are worded to be concise and relatively broad, in contrast to the more detailed questions found in the IGM polls, the broad overlap in topics corroborates our intent to focus new propositions on important current issues. The IGM Forum seeks to be a repository of "reliable information regarding topics of the day". The wording for the new economic proposition focused on biases (#41) is based on a document that outlines 'Best Practices for Economists'

[1] Results of the initial 1976 survey are not included because of the stratified random sampling that is not directly comparable to the sampling used in subsequent surveys. The authors do not have access to the raw data that would allow recalculations similar to those performed for the 1990 survey in Fuller and Geide-Stevenson (2003).

widely disseminated by the American Economic Association (AEA, 2021) in recent years. Proposition #42 supplements this topic by asking about the cause of differential outcomes for whites and black in the United States.

While all previous surveys were conducted via mail, the 2020 survey was administered online via the Qualtrics platform. All survey responses are fully anonymous as we cannot link responses to names or e-mail addresses of the respondents. For the online survey the AEA functioned as an intermediary in contacting all AEA members who have indicated a willingness to participate in survey research, a total of about 8,100 members. For the current survey we have no access to the names or contact information of the AEA members in the sample. This process maintains complete privacy of member information. Counting all responses with usable information the response rate is close to 22% (1,770), however, for direct comparison with previous studies, it was necessary to adjust the sample in two ways. First, as previous samples were mailed within the United States, prior respondents were likely not located outside of the United States. We therefore excluded all respondents who could be identified as being located outside of the United States. We were able to make this determination based on demographic characteristics if the respondent provided information on their current place of employment. Second, because of the online platform, we were able to send a reminder e-mail. The first e-mail request was sent December 14, 2020 and a reminder e-mail was sent January 14, 2021. With the AEA functioning as an intermediary in the dissemination of the survey, reminder e-mails went to all potential respondents and generated some duplicate responses that needed to be excluded. Duplicate responses are deemed likely when respondents show substantial overlap in a number of demographic identifiers. The results for table 1 have been generated by excluding likely duplicate answers based on respondent's information on year of terminal degree, type of

employment, gender, and institution. If all four of these identifiers are identical for a response, we only kept the first response. In addition, the small number of responses who answered less than 10% of the proposition questions were deleted from the sample.[2] Because not all respondents provided complete demographic information, it is possible that our current sample still contains respondents from outside the United States (if no institution data was provided) as well as duplicate responses (for other missing demographic data). Conversely, it is possible that responses were excluded that are not true duplicates. Our current approach still leaves us with 1,436 responses, more than double the observations compared to earlier studies. To ensure robustness of results we calculated the information provided in Table 1 for multiple samples, including the full sample.

Table 2 provides an overview of the demographics of the sample. In terms of employment, the fraction of respondents who work in academia is close to 64%, which compares to 67% for the 2011 survey. The current sample has a slightly lower percentage of respondents working in business, only 13% compared to 19.5% in the previous survey. The percentage of respondents in government employment is also lower with 13% compared to 15.5% in the previous survey. In the 2011 survey, respondents did not have the option to mark the category 'other' for employment which likely explains some of the lower response rates for business and government employment. The response rate by gender shows a slightly higher percentage of females in the survey, 20.5% versus 17% in 2011. Comparing to earlier surveys, 58% of respondents in 2000 were employed in academia, 21% in business and 16% in government. This distribution does not statistically differ from the employment pattern of respondents in 2011. The 1990 survey was based on a stratified random sample for which the responses needed to be

[2] Only six respondents answered one question but failed to answer at least 10% of the questionnaire.

reweighted, specifically by omitting the strata of evolutionary economists, in order to make responses more comparable to a random sample of all AEA members (Geide-Stevenson, Fuller, 2003). With another strata in 1990 consisting of 'other members of the AEA' as opposed to government economists or business economists, direct comparison in terms of employment patterns is not possible for that survey. Earlier surveys also neglected to ask about gender and ethnic background of economists and did not report on political leanings. In the current survey, respondents are predominantly male, white, with employment in academia and political leanings that are moderate/liberal. Overall the demographics of our respondents is remarkably similar to the survey respondents' characteristics from the AEA Professional Climate Survey conducted in 2018 with over 10,000 respondents (AEA, 2019).

In order to facilitate comparison with earlier studies, respondents were asked whether they agree (A), agree with proviso (AP), or disagree (D) with each of the 46 economic propositions listed in Table 1. This somewhat unusual, asymmetric Likert scale was adopted based on the format used in previous surveys. The online survey was set up to allow skipping answers, so that the number of responses for each proposition differs. Due to the issues of duplicate responses and survey fatigue, in the online context the calculation of a non-response rate is more ambiguous than a non-response rate based on a fixed number of completed hard copy questionnaires. Contrary to previous studies, we drop reporting a non-response rate and instead provide the number and frequency distribution of responses to the three exhaustive options, A, AP, or D for each proposition. We then use that data to construct three different measures of consensus, following the methodology adopted in Fuller/Geide-Stevenson (2003).

The first measure of consensus is a relative entropy index ε that uses the observed relative frequencies of responses p_i for the A, AP, and D categories to construct an entropy index $E(p_i) =$

$\sum -p_i \log_2 p_i$ and then dividing this index $E(p_i)$ by the maximum possible entropy index where all observed frequencies are $p = 0.33$. The relative entropy index $\varepsilon = E(p_i)/E(max)$ takes on values between 0 and 1 with a larger index indicating more dispersed responses and is non-linear. Following the classification in previous work, a relative entropy index of $\varepsilon \leq 0.80$ (rounded to two digits) is interpreted as consensus. As illustrated in Fuller/Geide-Stevenson (2003), a response pattern of frequency percentages at 65-20-15 results in an entropy index of $\varepsilon = 0.81$ and would not meet the standard for consensus, while a response pattern of 70-15-15 results in an entropy index of $\varepsilon = 0.75$ and would be counted as consensus.

The second consensus measure is based on the number of responses for each of the three categories A, AP, and D and employs a chi-square goodness of fit test. We test the counts for each response category against the null hypothesis of a uniform distribution. The p-values of this chi-square test are used as the second measure of consensus. Given the large sample size of the current survey, this test is a very weak measure of consensus as all but one economic proposition (#10) meet this criterion at the 1% level of significance, rejecting the null hypothesis of a uniform distribution. With smaller sample sizes in the previous surveys, this measure of consensus has been meaningful and the cut-off for a determination of consensus was set at a p-value of 10%. Still, this is the consensus measure most likely to generate a determination of moderate consensus in all surveys.

A third measure of consensus is focused on the direction of consensus, agreement versus disagreement with a specific proposition. This measure adds the percentages of those who agree and agree with proviso creating a new category of general agreement (AG) and contrasts this with the percentage of respondents who disagree (D = DG). If at least 67 percent (rounded to two digits) of respondents either show general agreement (AG) or disagreement (DG), we conclude

consensus. An overall consensus index uses all three measures to show *strong* consensus when all three measures of consensus are met, *substantial* consensus when two measures of consensus are met, *moderate* consensus when only one measure of consensus is met, and *no* measure of consensus when neither measure indicates consensus. Having the entropy index meet the consensus threshold tends to be the most stringent measure of consensus, except in cases where the consensus skews towards disagreement and the asymmetric Likert scale disadvantages the consensus threshold of 67%. This pattern can be observed for propositions #6, #18, #32, and #40, all of which have an entropy index below the threshold for consensus, but do not meet the criteria of 67% of disagreement. To take a specific example, for proposition #18 stating that management of the business cycle should be left to the Federal Reserve; activist fiscal policy should be avoided, the response pattern is 12.2 – 21.2 – 66.6 which results in an entropy index of $\varepsilon = 0.79$. Since the 66.6% of respondents who disagree with the proposition falls short of the 67% threshold for broad disagreement, the proposition is classified as exhibiting substantial consensus.

In contrast to the results presented in Fuller/Geide-Stevenson (2014), we only report three response categories in Table 1, A, AP, and D and do not report the frequency of no response for an economic proposition. The frequency of no response to an economic proposition can be meaningful if interpreted as uncertainty about the answer, however, the number of responses in the current survey showed a clear downward trend when the propositions appeared later in the survey. This suggests that, besides uncertainty about the answer, survey fatigue is another plausible factor behind the no answers. The frequency of responses reported for the 2011 data is therefore slightly different compared to the published results, but helps to streamline the reporting in table 1. The same recalculations, excluding the no response category, was performed

for the 1990 and 2000 survey. Those recalculations did not change the consensus index assigned in earlier surveys.

III. Discussion of Results

First we will provide an overview of the current survey results, focusing on the responses to the newly introduced propositions and then move to a description of response patterns and consensus over time for those propositions that appeared in several surveys.

1. Current Survey

Table 3 summarizes the prevalence of consensus indices for all 46 propositions from the 2020 survey and shows a roughly uniform distribution of moderate, substantial, and strong consensus, with only one proposition classified as showing no consensus (#10).

Table 3: Consensus Index 2020 – 46 Propositions

Consensus Index	**2021**
Strong	15
Substantial	14
Moderate	16
None	1

The new propositions that received strong consensus of agreement are #25, that immigration generally has a net positive impact for the US economy, #27 that climate change poses a major risk to the US economy, #41 that addressing biases in individuals and institutions can improve equity and efficiency, as well as #45 that universal health insurance coverage will increase economic welfare. The fact that 90% of respondents are broadly agreeing with proposition #41 should be reassuring as the wording of that proposition was directly taken from the American

Economic Associations' document on how to build a more diverse, inclusive, and productive profession (AEA, 2021). Related, economists show substantial agreement with the proposition #42 that differences in economic outcomes between whites and blacks are in large part due to discriminatory norms and are split on whether the United States provides sufficient opportunities for social mobility (#46). Substantial agreement is shown for propositions #43, and #44, addressing corporate economic power and the efficacy of lab experiments and randomized control trials as research tools. On the question of whether there is a trade-off between economic well-being and public health measures during the pandemic (#23), respondents showed only moderate consensus tilted slightly towards agreement.

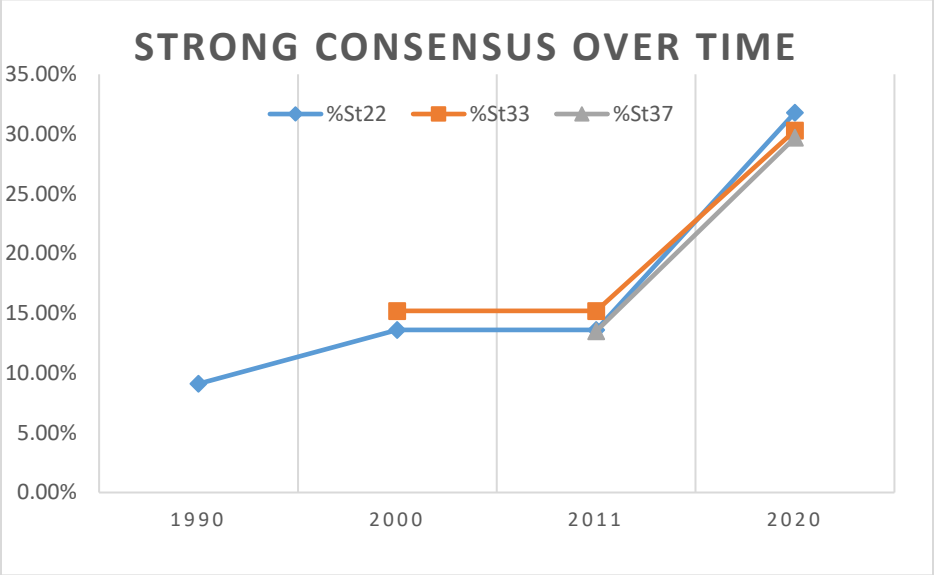
2. Consensus over Time

For the subset of identical propositions from all surveys, figure 1 shows the percentage of propositions that showed strong consensus among economists. The blue line tracks 22 propositions common to all surveys. The orange line tracks 33 propositions common to the last three surveys. The gray line shows the percentage of 37 common propositions from the 2000 and 2020 survey resulting in strong consensus. For all subsets of identical propositions, it is obvious that the incidence of strong consensus increased substantially in 2020.

For the 22 propositions identical to all four surveys, only 9.1% generated strong consensus in 1990, while in 2020 the same propositions generated strong consensus for 31.8%. In 1990, economists showed strong consensus only for propositions #1, and #2, on international economic issues. In 2020, the strong consensus of agreement extended to propositions #16 (fiscal policy has a significant stimulative impact), #20 (distribution of income should be more equal), and #34 (antitrust laws should be enforced vigorously). Strong consensus of disagreement was

generated for #37 (reducing the regulatory power of the EPA would improve the efficiency of the U.S. economy).

Figure 1: Percentage of Common Propositions with Strong Consensus over Time



Direct comparison of the 37 propositions common to the 2011 and 2020 survey shows an equal shift towards stronger consensus among economists. In 2011, only 5 propositions showed strong consensus which amounts to 13.5% of propositions, while in 2020 29.7% of the common 37 propositions show strong consensus. Three of those propositions showing strong consensus in 2011 address international economics (#1, #2, #5) with economists supporting floating exchange rate regimes, showing strong agreement that tariffs and quotas reduce general economic welfare, and disagreeing that the U.S. trade deficit is due to non-tariff-barriers or nominal exchange rate manipulation. The other two propositions (#14, #24) with strong consensus have economists disagree with the proposition that the distribution of income and wealth has little, if any, impact on economic stability and growth and agreeing with the statement that if the federal budget is to be balanced, it should be done over the course of the business

cycle rather than yearly. For all of those propositions economists in 2020 show almost identical levels of consensus and agreement or disagreement as in the 2011 survey. The propositions that show increased consensus are #16, #17, #18, #20, #34, and #37. Propositions #16, #17, and #18 address issues surrounding the role of fiscal policy. Economists now show strong agreement that fiscal policy has a significant stimulative impact on a less than fully employed economy and that appropriately designed fiscal policy can increase the long-run rate of capital formation and economic growth. There is now strong disagreement that management of the business cycle should be left to the Federal Reserve and activist fiscal policy should be avoided. In essence, the profession sees a central role for fiscal policy, both on the demand- and the supply-side, more so than a decade ago. Economists now also strongly agree with the normative proposition that the distribution of income in the U.S. should be more equal (#20) and that antitrust laws should be enforced vigorously (#34). Economist also show strong disagreement with the proposition that reducing the regulatory power of the Environmental Protection Agency would improve the efficiency of the U.S. economy (#37). This result may be explained by the response pattern to a newly introduced economic proposition. In response to proposition #27, a majority of respondents indicate strong agreement with the statement that climate change poses a major risk to the U.S. economy, likely leading to more consensus on proposition #37 as a way to endorse policies that might mitigate climate change.

Some other interesting changes involve propositions that show less consensus. For example, proposition #6 that a large balance of trade deficit has an adverse effect on the economy has moved from moderate to substantial consensus, but between 2011 and 2020 the direction of consensus has shifted from agreement to disagreement. In the current sample 65% of economists disagree with the proposition, holding a much more benign view of large trade

deficits than a decade ago. Similarly, there is now only moderate consensus on the proposition that a large federal budget deficit has an adverse impact on the economy (#15). Broad agreement with this proposition has dropped from 75% to 61%. The concern with running twin deficits has mitigated over time. This is also evidenced by the response pattern to proposition #11, that the level of government spending relative to GDP in the U.S. should be reduced (disregarding expenditures on stabilization). While the level of consensus is moderate in 2011 and 2020, the direction of consensus has shifted from agreement to disagreement. A similar pattern of stable consensus, but a shift in the direction of consensus, can also be observed for proposition #35 that reducing the tax rate on income from capital gains would encourage investment and promote economic growth. At a moderate level of consensus economists now have shifted towards disagreement with this proposition.

There is now only moderate agreement with the proposition (#28) that a minimum wage increases unemployment among young and unskilled workers. Over time, a consensus of agreement on this proposition has been steadily eroded.

VI. Conclusion

The strength of the current survey of economists lies in the repeated use of common economic propositions over a period of more than 30 years. For the most recent survey, we find a significant increase in the incidence of strong consensus compared to surveys conducted in previous decades. Notable shifts in consensus center on the appropriate role of fiscal policy in macroeconomics and issues surrounding income distribution. Economists now embrace the role of fiscal policy in a way not obvious in previous surveys and are largely supportive of government policies that mitigate income inequality. While this paper makes no attempt at explaining why economists' opinions have shifted over the past decades, we hypothesize that

notable shifts in consensus can be linked to new research insights and significant additions to the economic literature for those propositions that have seen the largest shifts in opinion. Linking shifts in consensus to the economic literature will be part of our future work in refining the insights into changes in economists' consensus over time.

Table 1: Results 1990 – 2020

Proposition		**2021 N=1422**	**2011 N = 568**	**2000 N =298**	**1990 N = 464**
1. Flexible and floating exchange rates offer an effective international monetary arrangement.	D* A/P A ε AG/DG Index	2.4 28.3 69.2 .64 98/02 Strong	2.7 26.3 71.0 .63 97/03 Strong	5.1 32.4 62.7 .74 95/05 Strong	5.1 33.3 61.6 .74 95/05 Strong
2. Tariffs and import quotas usually reduce general economic welfare.	D A/P A ε AG/DG Index	5.3 25.4 69.3 .69 95/05 Strong	5.0 25.3 69.7 .68 95/05 Strong	6.1 20.4 73.5 .66 94/06 Strong	4.9 17.5 77.6 .59 95/05 Strong
3. Some restrictions on the flow of financial capital are essential to the stability and soundness of the international financial system.	D A/P A ε AG/DG Index	24.6 39.8 35.6 .98 75/25 Subst.	26.1 42.5 31.5 .98 74/26 Subst.	43.6 35.2 21.3 .97 56/44 Moderate	
4. The economic benefits of an expanding world population outweigh the economic costs.	D A/P A ε AG/DG Index	42.4 32.5 25.0 .98 58/42 Moderate	49.6 30.5 19.9 .94 50/50 Moderate	63.5 24.7 11.8 .80 36/64 Subst.	
5. The persistent U.S. trade deficit is due primarily to non-tariff trade barriers and/or nominal exchange rate manipulations.	D A/P A ε AG/DG Index	77.3 14.5 8.2 .62 23/77 Strong	75.1 17.1 7.8 .65 25/75 Strong	91 7.7 1.3 .31 09/91 Strong	
6. A large balance of trade deficit has an adverse effect on the economy.	D A/P A ε AG/DG Index	65.2 25.9 8.9 .77 35/65 Subst.	37.4 41.0 21.6 .97 63/37 Moderate	49.5 34.6 15.9 .92 51/49 Moderate	33.3 36.9 29.8 1 67/33 Moderate
7. An economy that operates below potential GDP has a self correcting mechanism that will eventually return it to potential GDP.	D A/P A ε AG/DG Index	48.1 38.9 12.9 .9 52/48 Moderate	43.0 40.4 16.6 .94 57/43 Moderate	36.9 35.9 27.1 .99 63/37 None	41.5 33 25.4 .98 58/42 Moderate
8. There is a natural rate of unemployment to which the economy tends in the long run.	D A/P A ε AG/DG Index	26.0 38.8 35.2 .99 74/26 Subst.	24.6 37.7 37.7 .98 75/25 Subst.	32.1 41.2 26.7 .99 68/32 Subst.	22.7 35.7 41.7 .97 77/23 Subst.

9. The Federal Reserve has the capacity to achieve a constant rate of growth in the money supply if it so desired.	D A/P A ε AG/DG Index	25.3 39.9 34.8 .98 75/25 Subst.	33.8 41.8 24.4 .98 66/34 Moderate	33.3 43.2 23.5 .97 67/33 Moderate	32.4 39.6 28 .99 68/32 Moderate
10. Changes in aggregate demand affect real GDP in the short run but not in the long run.	D A/P A ε AG/DG Index	34.9 31.7 33.4 1 65/35 None	36.3 34.8 29.0 1 64/36 None	37.6 32.3 30.2 1 63/37 None	43.6 34.1 22.4 1 56/44 Moderate
11. The level of government spending relative to GDP in the U.S. should be reduced (disregarding expenditures for stabilization).	D A/P A ε AG/DG Index	57.3 19.7 23.0 .89 43/57 Moderate	45.3 21.1 33.6 .96 55/45 Moderate	51.3 18.9 29.8 .92 49/51 Moderate	38.6 19.2 42.2 .95 61/39 Moderate
12. Macro models based on the assumption of a "representative, rational agent" yield generally useful and reasonably accurate predictions.	D A/P A ε AG/DG Index	43.2 42.5 14.3 .91 57/43 Moderate	41.6 45.0 13.4 .90 58/42 Moderate		
13. In the short run, a reduction in unemployment causes the rate of inflation to increase.	D A/P A ε AG/DG Index	50.0 37.6 12.4 .89 50/50 Moderate	48.7 37.7 13.6 .90 51/49 Moderate	50.2 38.5 11.4 .88 50/50 Moderate	41.7 40.2 18.2 .95 58/42 Moderate
14. If the federal budget is to be balanced, it should be done over the course of the business cycle rather than yearly.	D A/P A ε AG/DG Index	7.0 24.7 68.3 .72 93/7 Strong	10.3 22.7 67.0 .76 90/10 Strong	9.6 28.9 61.6 .81 90/10 Subst.	17.7 24.3 58 .88 82/18 Subst.
15. A large federal budget deficit has an adverse impact on the economy.	D A/P A ε AG/DG Index	38.6 41.7 19.7 .96 61/39 Moderate	24.7 45.4 29.9 .97 75/25 Subst.	20.2 39.8 40.1 .96 80/20 Subst.	14.1 46.5 39.5 .88 86/14 Subst.
16. Fiscal policy (e.g. tax cut and/or expenditure increase) has a significant stimulative impact on a less than fully employed economy.	D A/P A ε AG/DG Index	5.9 31.5 62.6 .75 94/6 Strong	19.3 34.2 46.5 .95 81/19 Subst.	13.8 45.5 40.7 .91 86/14 Subst.	9.1 32.4 58.4 .81 91/09 Subst.
17. Appropriately designed fiscal policy can increase the long-run rate of capital formation and economic growth.	D A/P A ε AG/DG Index	9.6 27.0 63.4 .79 90/10 Strong	12.9 34.9 52.2 .88 87/13 Subst.	14.7 40.7 44.5 .92 85/15 Subst..	

18. Management of the business cycle should be left to the Federal Reserve; activist fiscal policies should be avoided.	D A/P A ε AG/DG Index	66.6 21.2 12.2 .78 33/67 Subst.	56.2 28.7 15.1 .88 44/56 Moderate	28.5 35.6 36 1 72/28 Moderate	
19. Inflation is caused primarily by too much growth in the money supply.	D A/P A ε AG/DG Index	29.2 36.9 33.9 1 71/29 Subst.	21.3 37.1 41.6 .97 79/21 Subst.	17.1 32.9 50 .93 83/17 Subst.	25.5 31.5 42.9 .98 74/26 Subst.
20. The distribution of income in the U.S. should be more equal.	D A/P A ε AG/DG Index	14.2 20.6 65.2 .80 86/14 Strong	22.5 26.1 51.4 .94 77/23 Subst.	32 28.4 39.6 .99 68/32 Moderate	31.7 27.2 41.1 .99 68/32 Subst.
21. The Federal Reserve should focus on a low rate of inflation rather than other goals such as employment, economic growth, or asset bubbles.	D A/P A ε AG/DG Index	61.6 20.5 18.0 .85 38/62 Moderate	56.0 23.8 20.3 .90 44/56 Moderate	28.4 29.7 42 .99 72/28 Subst.	
22. The Earned Income Tax Credit program should be expanded.	D A/P A ε AG/DG Index	9.9 30.0 60.1 .82 90/10 Subst.	32.6 33.2 34.2 1 67/33 Moderate	19.7 35 45.6 .95 80/20 Subst.	
23. During the pandemic, there is a trade-off between economic well-being and public health measures.	D A/P A ε AG/DG Index	43.7 22.4 33.9 .97 56/44 Moderate			
24. The distribution of income and wealth has little, if any, impact on economic stability and growth.	D A/P A ε AG/DG Index	77.7 16.2 6.1 0.60 22/78 Strong	73.3 17.9 8.8 .68 27/73 Strong	52.7 31.8 15.5 .89 47/53 Moderate	
25. Immigration generally has a net positive economic effect for the US economy.	D A/P A ε AG/DG Index	3.0 19.4 77.6 .56 97/3 Strong			
26. Redistribution of income is a legitimate role for the US Government.	D A/P A ε AG/DG Index	13.7 22.3 64.0 .81 86/14 Subst.	23.8 28.3 47.9 .96 76/24 Subst.	17.1 32.9 50 .93 83/17 Subst.	25.5 31.5 42.9 .98 74/26 Subst.

27. Climate change poses a major risk to the US economy.	D A/P A ε AG/DG Index	14.0 14.3 71.7 .72 86/14 Strong			
28. A minimum wage increases unemployment among young and unskilled workers.	D A/P A ε AG/DG Index	35.0 35.1 29.8 1 65/35 Moderate	25.5 34.5 40.0 .99 74/26 Subst.	26.5 27.9 45.6 .97 73/27 Subst.	17.6 19.6 62.8 .83 82/18 Subst.
29. Welfare reforms which place time limits on public assistance have increased the general well-being of society.	D A/P A ε AG/DG Index	45.9 32.7 21.4 .96 54/46 Moderate	24.9 47.9 27.2 .96 75/25 Subst.	23.5 42.7 33.8 .98 76/24 Subst.	
30. The competitive model is generally more useful for understanding the U.S. economy than are game theoretic models of imperfect competition or collusion.	D A/P A ε AG/DG Index	53.5 30.1 16.4 .90 47/53 Moderate	43.5 35.3 21.2 .96 56/44 Moderate	43.1 33.8 23.1 .97 57/43 Moderate	33.9 26.1 30.1 1 66/34 None
31. Pollution taxes or marketable pollution permits are a more efficient approach to pollution control than emission standards.	D A/P A ε AG/DG Index	12.2 27.8 60.0 .84 88/12 Subst.	11.1 29.5 59.4 .83 89/11 Subst.	6.1 30.2 63.7 .75 94/06 Strong	17.2 24.4 58.3 .87 83/17 Subst.
32. Easing restrictions on immigration will depress the average wage rate in the United States.	D A/P A ε AG/DG Index	63.8 24.3 11.9 0.80 36/64 Subst.	48.7 35.0 16.4 .92 51/49 Moderate		
33. The long run benefits of higher taxes on fossil fuels outweigh the short run economic costs.	D A/P A ε AG/DG Index	11.9 15.0 73.1 .70 88/12 Strong	19.8 20.1 60.1 .86 80/20 Subst.		
34. Antitrust laws should be enforced vigorously.	D A/P A ε AG/DG Index	7.0 25.2 67.8 0.73 93/7 Strong	12.6 31.2 56.2 .86 87/13 Subst.	27.5 43.9 28.9 .98 73/27 Subst.	30.1 36.2 33.7 1 70/30 Moderate
35. Reducing the tax rate on income from capital gains would encourage investment and promote economic growth.	D A/P A ε AG/DG Index	53.5 25.9 20.6 0.92 46/54 Moderate	45.4 30.2 24.5 .97 55/45 Moderate	37.5 33.5 29 .99 62/38 None	44.2 30.9 24.9 .97 56/44 Moderate

36. There are few gender compensation and promotion differentials unexplained by differences in career and/or life choices.	D A/P A ε AG/DG Index	58.6 20.6 20.8 0.88 41/59 Moderate	44.5 27.4 28.1 .98 55/45 Moderate	39.8 28.6 31.6 .99 60/40 None	
37. Reducing the regulatory power of the Environmental Protection Agency (EPA) would improve the efficiency of the U.S. economy.	D A/P A ε AG/DG Index	74.0 15.3 10.6 0.68 26/74 Strong	65.4 16.0 18.5 .80 35/65 Subst.	61.4 21.4 17.2 .85 39/61 Moderate	59.9 27.5 12.6 .84 40/60 Moderate
38. Lower marginal income tax rates increase the time spent at work and reduce time at leisure.	D A/P A ε AG/DG Index	48.7 33.8 17.5 .93 51/49 Moderate	43.3 33.5 23.2 .97 57/43 Moderate	31.7 43.3 25.1 .98 68/23 Substantial	40.3 33.8 25.8 .99 60/40 Moderate
39. The structural U.S. federal deficit should be eliminated through a combination of lower expenditures and higher tax revenues.	D A/P A ε AG/DG Index	36.5 39.4 24.2 .98 64/36 Moderate	17.0 32.0 51.0 .92 83/17 Subst.		
40. The increasing inequality in the distribution of income in the U.S. is due primarily to the benefits and pressures of a global economy.	D A/P A ε AG/DG Index	64.1 25.4 10.5 0.79 36/64 Subst.	59.0 27.3 13.7 .85 41/59 Moderate	74.7 16.5 8.9 .66 25/75 Strong	
41. Addressing biases in individuals and institutions can improve both equity and efficiency.	D A/P A ε AG/DG Index	10.0 25.3 64.8 0.78 90/10 Strong			
42. Differences in economic outcomes between whites and blacks in the US are in large part due to the persistence of discriminatory norms and institutions.	D A/P A ε AG/DG Index	22.1 23.8 54.1 0.92 78/22 Subst.			
43. Corporate economic power has become too concentrated.	D A/P A ε AG/DG Index	14.8 22.6 62.6 0.83 85/15 Subst.			
44. Lab experiments and randomized controlled trials are one of the most effective tools to identify causal effects and evaluate policies.	D A/P A ε AG/DG Index	22.4 45.3 32.2 0.96 78/22 Subst.			

45. Universal health insurance coverage will increase economic welfare in the United States.	D A/P A ε AG/DG Index	12.2 19.2 68.6 0.76 88/12 Strong			
46. The US economy provides sufficient opportunities for social mobility.	D A/P A ε AG/DG Index	52.3 30.0 17.7 0.92 48/52 Moderate			

*D=Disagree, A/P = Agree with Proviso, A = Agree, ε = entropy index, AG = % of respondents who agree and agree with proviso, DG = % of respondents who disagree, Index = Consensus index.

Table 2: Sample demographics

	Observations	Percentage
Gender (*N* = 1,221)		
Female	250	20.48%
Male	967	79.20%
Other	4	0.33%
Race (*N* = 1,180)		
A race/ethnicity not listed here	54	4.58%
Asian or Pacific Islander	78	6.61%
Black or African American	27	2.29%
Hispanic or Latino	84	7.12%
Multiracial or Biracial	23	1.95%
Native American or Alaskan Native	3	0.25%
White or Caucasian	911	77.20%
Year of Terminal Degree (*N* = 1,151)		
1950s	3	0.26%
1960s	35	3.04%
1970s	154	13.38%
1980s	178	15.46%
1990s	212	18.42%
2000s	205	17.81%
2010s	264	22.94%
2020s	100	8.69%
Employment (*N* = 1,234)		
Academic	828	67.10%
Business	162	13.13%
Government	141	11.43%
Other	103	8.35%
Ideology (*N* = 1,204)		
Very Liberal	109	9.05%
Liberal	456	37.87%
Moderate	506	42.03%
Conservative	115	9.55%
Very Conservative	18	1.50%

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