



## Consensus Among Economists—An Update

Dan Fuller & Doris Geide-Stevenson

To cite this article: Dan Fuller & Doris Geide-Stevenson (2014) Consensus Among Economists—An Update, The Journal of Economic Education, 45:2, 131-146, DOI: [10.1080/00220485.2014.889963](https://doi.org/10.1080/00220485.2014.889963)

To link to this article: <http://dx.doi.org/10.1080/00220485.2014.889963>



Published online: 14 Apr 2014.



Submit your article to this journal [↗](#)



Article views: 155



View related articles [↗](#)



View Crossmark data [↗](#)



Citing articles: 1 View citing articles [↗](#)

---

## FEATURES AND INFORMATION

---

### Consensus Among Economists—An Update

Dan Fuller and Doris Geide-Stevenson

In this article, the authors explore consensus among economists on specific propositions based on a fall 2011 survey of American Economic Association members. Results are based on 568 responses and provide evidence of changes in opinion over time by including propositions from earlier studies in 2000 (Fuller and Geide-Stevenson 2003) and 1992 (Alston, Kearl, and Vaughan 1992). Propositions focus on microeconomics, macroeconomics, distributional and international topics, as well as pedagogy. Results indicate a movement toward an overall higher level of consensus, mainly because of a drop in the incidence of no consensus. Especially in the area of distributional propositions, economists display an increased concern with income inequality and potential effects on growth. In the area of macroeconomics, current opinions are more similar to those of the 1992 survey than the 2000 survey.

**Keywords** *consensus, income distribution, pedagogy*

**JEL codes** *A11, A20*

Given the widely observed polarization in the political sphere that includes debate over appropriate policy responses to the Great Recession, research on consensus among economists has received renewed attention. A recent study by Gordon and Dahl (2013) focused on the responses of a panel of about 50 distinguished economists from seven universities, who, over a period of time, were asked their opinion on various economic statements. This study concluded that there is a “remarkably high degree of consensus,” especially on economic questions where the existing literature is large.

The study discussed in this article continues a strand of research started in 1976 by Kearl and colleagues (1979) and updated about once every decade by Alston and colleagues (1992) and Fuller and Geide-Stevenson (2003). Based on surveys of American Economic Association (AEA) members, a much larger population of economists, this research has found comparatively strong consensus on microeconomic and international propositions. By comparison, the area

---

Dan Fuller (e-mail: [dfuller@weber.edu](mailto:dfuller@weber.edu)) is an economics professor, and Doris Geide-Stevenson (e-mail: [dgsteven@weber.edu](mailto:dgsteven@weber.edu)) is a professor and chair in the Department of Economics. Both authors are at Weber State University. Geide-Stevenson is the corresponding author.

of macroeconomics exhibits lower levels of consensus. Because a subset of propositions for the present study is drawn from earlier work, conclusions regarding a change in the degree of consensus among economists over time can be drawn. Results indicate a slight movement toward an overall higher level of consensus. This slight movement toward overall consensus masks, however, many significant changes in the distribution of opinion over time where comparisons can be made. In particular, our results suggest economists are increasingly concerned with the macroeconomic implications of increasing inequality in the distribution of income and wealth. In addition, there are indications of marginal shifts in opinion away from free market viewpoints in macroeconomics and international economics, although standard policy propositions do not always see increases in agreement. As always, there is a good deal of opportunity to read between the lines with propositions of the length used in this survey. Our interpretations are only suggestive, and we invite the reader to draw his/her own conclusions.

### SURVEY, SAMPLE, AND MEASURES OF CONSENSUS

Our survey consisted of a two-page questionnaire of 44 propositions, of which 22 are common with the 1990 and 2000 surveys. An additional 11 propositions are common with only the 2000 survey, and the final 11 propositions are unique to our 2011 survey. As in previous studies, respondents were asked whether they mainly agree, agree with provisos, or generally disagree with each proposition. The survey was mailed in October 2011 to a random sample of 3,000 economists who belong to the AEA. Of that number sent, 2,854 surveys were actually received, and 568 surveys were returned between November 2011 and February 2012. The response rate is 20 percent. Among respondents, 64 percent report employment in academia, 15 percent in government, and 20 percent in business, while about 1 percent did not respond. The differences in response patterns by employment in the 2000 and 2011 samples are not statistically significant.

We calculated three measures of consensus which we used to construct an overall consensus index. The first measure is the relative entropy index,  $\varepsilon$ , used by Kearl and colleagues (1979), Alston and colleagues (1992), Fuller and Geide-Stevenson (2003), and a number of more recent studies (e.g., Ferto 2011). Derived from information theory and applied to studies of industry concentration (e.g., Nawrocki and Carter 2010), this index has a theoretical range of 0 (complete consensus) to 1 (no consensus or a uniform distribution). Given the observed relative frequencies,  $p_i$ , for the three response categories (Agree, Agree with Provisos, and Disagree), the entropy index is constructed as  $E(p_i) = \sum -p_i \log_2 p_i$ . The relative entropy index,  $\varepsilon$ , for each proposition is calculated by dividing the entropy measure  $E(p_i)$  by the maximum possible entropy, which occurs when responses are equally distributed across all possible response options ( $p = 0.33$ ). In short, the relative entropy index is defined as  $\varepsilon = E(p_i)/(\text{maximum possible entropy})$ . While the index indicates a comparative degree of consensus, it has two shortcomings. First, it does not indicate the direction of consensus, agreement or disagreement. Second, because it is nonlinear, large changes in the distribution of responses result in small changes in the index. Thus, as pointed out in Fuller, Alston, and Vaughan (1995), interpreting the index requires a matter of judgment. Following the lead of Fuller and Geide-Stevenson (2003), we constructed the entropy index omitting the no-response category and designated values of the index of 0.8 or less to indicate consensus with a majority choosing the same response. For example, a response pattern of 65-20-15 generates a relative entropy index of 0.81.

The second measure is based on a chi-square test of goodness of fit to a uniform distribution of responses (i.e.,  $\varepsilon = 1$ ). If we reject the null hypothesis of a uniform distribution of responses at a 10-percent level of significance, we conclude some level of consensus.

Our third measure consisted of adding the conditional percentages of those who generally agree to those who agree with provisos and contrasting this with the conditional percentage of those who generally disagree. We calculated these conditional percentages omitting the no-response category. This third measure, which shows the direction of consensus, assumes that reasonably similar views are likely among those who generally agree and those who agree with provisos. To keep our results comparable with previous studies, if 67 percent or more agree or disagree with a proposition, we conclude consensus. Our overall consensus index reports *strong* consensus if all three measures indicate consensus, *substantial* consensus if two measures indicate consensus, *moderate* consensus if one measure indicates consensus, and *no* consensus if no measure indicates consensus.

All propositions from the current survey are listed in table 1. An asterisk (\*) indicates that the proposition had been slightly reworded compared to earlier surveys. The purpose in all cases was to reduce ambiguity in reading the propositions. The relative frequencies of responses from our survey are reported along with the 2000 and 1990 surveys. Because of the amount of information presented, the response “generally disagree” is abbreviated “D,” agree with provisos “A/P,” generally agree “A,” and no response “NR.” All numerical entries for these categories are percentages which may not add to 100 because of rounding. Following these data, the next row reports the entropy index  $\varepsilon$ . Because we were not able to reject the chi-square test of a uniform distribution for only two propositions (#9 and #39), we indicate this by reporting an entropy index of 1. The following row reports the conditional measure of broadly agree to disagree, AG/DG. Again, entries here are percentages. The last row entry labeled “index” lists the consensus index constructed from the three measures of consensus as Strong, Substantial, Modest, and None in abbreviated form. The last column of table 1 reports the  $p$ -values of chi-square tests of identical distributions of responses between the survey periods. For example, a  $p$ -value of .20 underneath “2011–2000” for a given proposition indicates we cannot reject the null hypothesis that the distribution of responses to a given proposition is the same in the 2000 and 2011 surveys at a 20-percent level of significance.

## RESULTS

Does the evidence suggest that economists exhibit higher or lower levels of consensus over time? By one measure, the level of consensus over the roughly 30-year period our data covers has remained remarkably consistent over time. For the 22 propositions common to all three surveys, the average entropy index was 0.92 in 1992, 0.91 in 2000, and 0.91 in 2011. For the 33 propositions common to the 2000 and 2011 surveys, the average entropy index was 0.90 in 2000 and 0.90 in 2011. Any differences are statistically insignificant. While this suggests no change in consensus over time, the consensus index indicates movement toward a higher level of consensus. As shown in table 2, for the 33 propositions common between the 2000 and 2011 surveys, the frequency of no consensus dropped from five in 2000 to one in 2011. For the 22 propositions common to all three surveys, we see some evidence of a similar drop in the incidence of no consensus. However, most of the decline in no consensus appears to be absorbed in the middle ground of moderate to substantial consensus.

TABLE 1  
Survey Results and Consensus Measures

Proposition	Data	2011	2000	1990	Statistics
<i>International</i>					
1. Tariffs and import quotas usually reduce general economic welfare.	D	4.9	6.0	4.8	2011–2000
	A/P	25.0	20.1	17.3	$p = .25$
	A	68.4	72.5	76.7	2011–1990
	NR	1.2	1.3	1.1	$p = .02$
	$\varepsilon$	.68	.66	.59	2000–1990
	AG/DG	95/05	94/06	95/05	$p = .43$
2. A large balance of trade deficit has an adverse effect on the economy.	Index	Str.	Str.	Str.	
	D	35.9	48.0	32.4	2011–2000
	A/P	39.4	33.6	35.9	$p = .00$
	A	20.8	15.4	29.0	2011–1990
	NR	3.9	3.0	2.6	$p = .02$
	$\varepsilon$	.97	.92	1	2000–1990
3. Flexible and floating exchange rates offer an effective international monetary arrangement.	AG/DG	63/37	51/49	67/33	$p = .00$
	Index	Mod.	Mod.	None	
	D	2.6	5.0	5.0	2011–2000
	A/P	25.9	31.5	32.8	$p = .02$
	A	69.9	61.4	60.7	2011–1990
	NR	1.6	2.0	1.5	$p = .01$
4. The persistent U.S. trade deficit is due primarily to non-tariff trade barriers and/or nominal exchange rate manipulations.*	$\varepsilon$	.63	.74	.74	2000–1990
	AG/DG	97/03	95/05	95/05	$p = .96$
	Index	Str.	Str.	Str.	
	D	72.3	87.6		2011–2000
	A/P	16.6	7.4		$p = .00$
	A	7.6	1.3		
5. Some restrictions on the flow of financial capital are essential to the stability and soundness of the international financial system.	NR	3.0	3.7		
	$\varepsilon$	.65	.31		
	AG/DG	25/75	09/91		
	Index	Str.	Str.		
	D	25.5	42.0		2011–2000
	A/P	41.6	33.9		$p = .00$
6. The economic benefits of an expanding world population outweigh the economic costs.	A	30.8	20.5		
	NR	2.1	3.7		
	$\varepsilon$	.98	.97		
	AG/DG	74/26	56/44		
	Index	Subst	Mod.		
	D	47.9	59.7		2011–2000
6. The economic benefits of an expanding world population outweigh the economic costs.	A/P	29.4	23.2		$p = .00$
	A	19.2	11.1		
	NR	3.5	6.0		
	$\varepsilon$	.94	.80		
	AG/DG	50/50	36/64		
	Index	Mod.	Subst.		

(Continued on next page)

TABLE 1  
Survey Results and Consensus Measures (Continued)

Proposition	Data	2011	2000	1990	Statistics
7. Easing restrictions on immigration will depress the average wage rate in the United States.	D	47.5			
	A/P	34.2			
	A	16.0			
	NR	2.3			
	$\varepsilon$	.92			
	AG/DG Index	53/47 Mod.			
<i>Macroeconomics</i>					
8. An economy that operates below potential GDP has a self-correcting mechanism that will eventually return it to potential GDP.	D	42.4	35.2	40.7	2011–2000
	A/P	39.8	34.2	32.4	$p = .00$
	A	16.4	25.8	24.9	2011–1990
	NR	1.4	4.7	1.9	$p = .002$
	E	.94	.99	.98	2000–1990
	AG/DG Index	57/43 Mod.	63/37 None	58/42 Mod.	$p = .49$
9. Changes in aggregate demand affect real GDP in the short run but not in the long run.	D	35.0	35.9	41.7	2011–2000
	A/P	33.6	30.9	32.6	$p = .77$
	A	28.0	28.9	21.4	2011–1990
	NR	3.4	4.4	4.3	$p = .03$
	$\varepsilon$	1*	1*	.97	2000–1990
	AG/DG Index	64/36 None	62/38 None	56/44 Mod.	$p = .06$
10. There is a natural rate of unemployment to which the economy tends in the long run.	D	23.9	31.9	22.0	2011–2000
	A/P	36.8	40.9	34.5	$p = .00$
	A	36.8	26.5	40.3	2011–1990
	NR	2.5	0.7	3.3	$p = .50$
	$\varepsilon$	.98	.99	.97	2000–1990
	AG/DG Index	75/25 Subst.	68/32 Subst.	77/23 Subst.	$p = .00$
11. In the short run, a reduction in unemployment causes the rate of inflation to increase.	D	46.8	48.7	41.1	2011–2000
	A/P	36.3	37.3	39.6	$p = .68$
	A	13.0	11.1	17.9	2011–1990
	NR	3.9	3.0	1.4	$p = .052$
	$\varepsilon$	.90	.88	.95	2000–1990
	AG/DG Index	51/49 Mod.	50/50 Mod.	58/42 Mod.	$p = .02$
12. Inflation is caused primarily by too much growth in the money supply.	D	21.0	16.8	25.2	2011–2000
	A/P	35.4	32.2	31.1	$p = .06$
	A	40.9	49.0	42.3	2011–1990
	NR	1.8	2.0	1.3	$p = .13$
	$\varepsilon$	.97	.93	.98	2000–1990
	AG/DG Index	79/21 Subst.	83/17 Subst.	74/26 Subst.	$p = .02$

(Continued on next page)

TABLE 1  
Survey Results and Consensus Measures (Continued)

Proposition	Data	2011	2000	1990	Statistics
13. The prices of assets correctly reflect all publicly available information and adjust quickly in response to new public information.	D	38.9			
	A/P	40.9			
	A	19.5			
	NR	0.7			
	$\varepsilon$	.96			
	AG/DG Index	61/39 Mod.			
14. Fiscal policy (e.g., tax cut and/or expenditure increase) has a significant stimulative impact on a less-than-fully-employed economy.*	D	19.0	13.4	9.0	2011–2000
	A/P	33.8	44.3	32.0	$p = .00$
	A	46.0	39.6	57.9	2011–1990
	NR	1.2	2.7	1.1	$p = .00$
	$\varepsilon$	.95	.91	.81	2000–1990
	AG/DG Index	81/19 Subst.	86/14 Subst.	91/09 Subst.	$p = .00$
15. A large federal budget deficit has an adverse impact on the economy.	D	24.1	20.1	13.9	2011–2000
	A/P	44.4	39.6	45.9	$p = .01$
	A	29.2	39.9	39.0	2011–1990
	NR	2.3	0.4	1.2	$p = .00$
	$\varepsilon$	.97	.96	.91	2000–1990
	AG/DG Index	75/25 Subst.	80/20 Subst.	86/14 Subst.	$p = .06$
16. If the federal budget is to be balanced, it should be done over the course of the business cycle rather than yearly.	D	10.2	9.4	17.4	2011–2000
	A/P	22.5	28.2	23.9	$p = .145$
	A	66.4	60.1	57.1	2011–1990
	NR	0.9	2.4	1.5	$p = .002$
	$\varepsilon$	.76	.81	.88	2000–1990
	AG/DG Index	90/10 Str.	90/10 Subst.	82/18 Subst.	$p = .01$
17. The structural U.S. federal deficit should be eliminated through a combination of lower expenditures and higher tax revenues.	D	16.9			
	A/P	31.9			
	A	50.7			
	NR	0.5			
	$\varepsilon$	.92			
	AG/DG Index	83/17 Subst.			
18. The level of government spending relative to GDP in the United States should be reduced (disregarding expenditures for stabilization).	D	44.9	50.3	38.2	2011–2000
	A/P	21.0	18.5	19.0	$p = .24$
	A	33.3	29.2	41.7	2011–1990
	NR	0.9	2.0	1.1	$p = .024$
	$\varepsilon$	.96	.92	.95	2000–1990
	AG/DG Index	55/45 Mod.	49/51 Mod.	61/39 Mod.	$p = .00$

(Continued on next page)

TABLE 1  
Survey Results and Consensus Measures (Continued)

Proposition	Data	2011	2000	1990	Statistics
19. Management of the business cycle should be left to the Federal Reserve; activist fiscal policies should be avoided.	D	55.1	28.2		2011–2000 $p = .00$
	A/P	28.2	35.2		
	A	14.8	35.6		
	NR	1.9	1.0		
	$\varepsilon$	.88	1		
	AG/DG Index	44/56 Mod.	72/28 None		
20. The Federal Reserve has the capacity to achieve a constant rate of growth in the money supply if it so desired.	D	32.9	31.5	31.7	2011–2000 $p = .909$
	A/P	40.7	40.9	38.7	$p = .909$
	A	23.8	22.2	27.4	2011–1990 $p = .48$
	NR	2.6	5.4	2.2	$p = .48$
	$\varepsilon$	.98	.97	.99	2000–1990 $p = .39$
	AG/DG Index	66/34 Mod.	67/33 Subst.	68/32 Mod.	
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	55.5	27.9		2011–2000 $p = .00$
	A/P	23.6	29.2		
	A	20.1	41.3		
	NR	0.9	1.7		
	$\varepsilon$	.90	.99		
	AG/DG Index	44/56 Mod.	72/28 Subst.		
22. Appropriately designed fiscal policy can increase the long-run rate of capital formation and economic growth.	D	12.9	14.4		2011–2000 $p = .102$
	A/P	34.7	39.9		
	A	51.9	43.6		
	NR	0.5	2.0		
	$\varepsilon$	.88	.92		
	AG/DG Index	87/13 Subst.	85/15 Subst.		
23. Lower marginal income tax rates increase the time spent at work and reduce time at leisure.*	D	42.8	30.9	39.9	2011–2000 $p = .00$
	A/P	33.1	42.3	33.5	
	A	22.9	24.5	25.6	2011–1990 $p = .56$
	NR	1.2	2.4	0.9	$p = .56$
	$\varepsilon$	.97	.98	.99	2000–1990 $p = .02$
	AG/DG Index	43/57 Mod.	68/23 Subst.	60/40 Mod.	
24. Reducing the tax rate on income from capital gains would encourage investment and promote economic growth.	D	44.7	36.9	43.7	2011–2000 $p = .09$
	A/P	29.8	32.9	30.6	
	A	24.1	28.5	24.6	2011–1990 $p = .94$
	NR	1.4	1.7	1.1	$p = .94$
	$\varepsilon$	.97	.99	.97	2000–1990 $p = .20$
	AG/DG Index	55/45 Mod.	62/38 None	56/44 Mod.	

(Continued on next page)



TABLE 1  
Survey Results and Consensus Measures (Continued)

Proposition	Data	2011	2000	1990	Statistics
25. Dividend and capital gains should be taxed at the same rate as labor income.	D	38.7			
	A/P	24.1			
	A	34.5			
	NR	2.6			
	$\varepsilon$	.98			
	AG/DG Index	60/40 Mod.			
<i>Microeconomics</i>					
26. A minimum wage increases unemployment among young and unskilled workers.	D	25.2	26.5	17.5	2011–2000
	A/P	34.0	27.9	19.5	$p = .12$
	A	39.4	45.6	62.4	2011–1990
	NR	1.4	0.0	0.6	$p = .00$
	$\varepsilon$	.99	.97	.83	2000–1990
	AG/DG Index	74/26 Subst.	73/27 Subst.	82/18 Subst.	$p = .00$
27. Reducing the regulatory power of the Environmental Protection Agency (EPA) would improve the efficiency of the U.S. economy.	D	64.6	58.7	59.0	2011–2000
	A/P	15.9	20.5	27.1	$p = .014$
	A	18.3	26.4	12.4	2011–1990
	NR	1.2	4.4	1.5	$p = .00$
	$\varepsilon$	.80	.85	.84	2000–1990
	AG/DG Index	35/65 Subst.	39/61 Mod.	40/60 Mod.	$p = .09$
28. Pollution taxes or marketable pollution permits are a more efficient approach to pollution control than emission standards.	D	10.9	6.0	17.0	2011–2000
	A/P	29.1	29.9	24.1	$p = .06$
	A	58.5	63.1	57.7	2011–1990
	NR	1.6	1.0	1.1	$p = .012$
	$\varepsilon$	.83	.75	.87	2000–1990
	AG/DG Index	89/11 Subst.	94/06 Str.	83/17 Subst.	$p = .00$
29. The long-run benefits of higher taxes on fossil fuels outweigh the short-run economic costs.	D	19.4			
	A/P	19.7			
	A	59.0			
	NR	1.9			
	$\varepsilon$	.86			
	AG/DG Index	80/20 Subst.			
30. Antitrust laws should be enforced vigorously.*	D	12.5	26.9	29.8	2011–2000
	A/P	31.0	42.6	35.9	$p = .00$
	A	55.8	28.2	33.4	2011–1990
	NR	0.7	2.3	0.9	$p = .00$
	$\varepsilon$	.86	.98	1	2000–1990
	AG/DG Index	87/13 Subst.	73/27 Subst.	70/30 Mod.	$p = .14$

(Continued on next page)

TABLE 1  
Survey Results and Consensus Measures (Continued)

Proposition	Data	2011	2000	1990	Statistics
31. Expanding public job training programs is an effective way to address sizable structural unemployment.	D	36.1			
	A/P	39.8			
	A	22.5			
	NR	1.6			
	$\epsilon$	.98			
	AG/DG Index	58/42 Mod.			
32. There are few gender compensation and promotion differentials unexplained by differences in career and/or life choices.*	D	43.1	39.3		2011–2000 $p = .39$
	A/P	26.6	28.2		
	A	27.3	31.2		
	NR	3.0	1.3		
	$\epsilon$	.98	.99		
	AG/DG Index	56/44 Mod.	60/40 None		
<i>Distribution of income and wealth</i>					
33. The distribution of income and wealth has little, if any, impact on economic stability and growth.	D	72.0	51.3		2011–2000 $p = .00$
	A/P	17.6	30.9		
	A	8.6	15.1		
	NR	1.8	2.7		
	$\epsilon$	.68	.89		
	AG/DG Index	27/73 Str.	47/53 Mod.		
34. A low and/or declining rate of socioeconomic mobility reduces optimism, entrepreneurial drive, and economic growth.	D	4.8			
	A/P	27.3			
	A	65.3			
	NR	2.6			
	$\epsilon$	.70			
	AG/DG Index	95/05 Str.			
35. The increasing inequality in the distribution of income in the United States is due primarily to the benefits and pressures of a global economy.	D	57.4	72.8		2011–2000 $p = .00$
	A/P	26.6	16.1		
	A	13.4	8.7		
	NR	2.6	2.6		
	E	.85	.66		
	AG/DG Index	41/59 Mod.	25/75 Str.		
36. The distribution of income in the United States should be more equal.	D	22.2	31.5	31.6	2011–2000 $p = .00$ 2011–1990 $p = .002$ 2000–1990 $p = .91$
	A/P	25.7	27.9	27.1	
	A	50.7	38.9	40.9	
	NR	1.4	1.7	0.4	
	E	.94	.99	.99	
	AG/DG Index	77/23 Subst.	68/32 Mod.	68/32 Subst.	

(Continued on next page)

TABLE 1  
Survey Results and Consensus Measures (Continued)

Proposition	Data	2011	2000	1990	Statistics
37. Redistribution of income is a legitimate role for the U.S. Government.	D	23.6	16.8	25.2	2011–2000
	A/P	28.0	32.2	31.1	$p = .06$
	A	47.4	49.0	42.3	2011–1990
	NR	1.1	2.0	1.3	$p = .30$
	$\varepsilon$	.96	.93	.98	2000–1990
	AG/DG Index	76/24 Subst.	83/17 Subst.	74/26 Subst.	$p = .022$
38. Welfare reforms which place time limits on public assistance have increased the general well-being of society.	D	24.1	23.1		2011–2000
	A/P	46.5	42.0		$p = .14$
	A	26.4	33.2		
	NR	3.0	1.7		
	$\varepsilon$	.96	.98		
	AG/DG Index	75/25 Subst.	76/24 Subst.		
39. The Earned Income Tax Credit program should be expanded.	D	30.3	18.5		2011–2000
	A/P	30.8	32.9		$p = .00$
	A	31.7	42.6		
	NR	7.2	6.0		
	$\varepsilon$	1*	.95		
	AG/DG Index	67/33 Mod.	80/20 Subst.		
<i>Pedagogy</i>					
40. The competitive model is generally more useful for understanding the U.S. economy than are game theoretic models of imperfect competition or collusion.	D	42.3	40.6	32.7	2011–2000
	A/P	34.3	31.9	34.8	$p = .80$
	A	20.6	21.8	29.0	2011–1990
	NR	2.8	5.7	3.5	$p = .002$
	$\varepsilon$	.96	.97	1	2000–1990
	AG/DG Index	57/43 Mod.	57/43 Mod.	66/34 None	$p = .04$
41. Undergraduate economics should devote more time to the design of economic institutions such as bankruptcy, patent, and contract law.	D	46.7			
	A/P	28.5			
	A	21.7			
	NR	3.2			
	$\varepsilon$	.95			
	AG/DG Index	52/48 Mod.			
42. Basic micro- and macroeconomic texts should give as much attention to government failures as to market failures.	D	24.7			
	A/P	34.3			
	A	40.3			
	NR	0.7			
	$\varepsilon$	.98			
	AG/DG Index	75/25 Subst.			

(Continued on next page)

TABLE 1  
Survey Results and Consensus Measures (Continued)

Proposition	Data	2011	2000	1990	Statistics
43. Macro models based on the assumption of a “representative, rational agent” yield generally useful and reasonably accurate predictions.	D	40.3			
	A/P	43.7			
	A	13.0			
	NR	3.0			
	$\epsilon$	.90			
	AG/DG	58/42			
	Index	Mod.			
44. It is possible for economists to separate their policy prescriptions from their normative values.	D	41.2			
	A/P	38.9			
	A	18.7			
	NR	1.2			
	$\epsilon$	.95			
	AG/DG	58/42			
	Index	Mod.			

Looking at individual propositions, the data suggest that opinions may be more fluid over time than indicated above. Twenty of the 33 propositions common to the 2000 and 2011 surveys have changes in the distribution of opinion at a 10-percent level of significance, and 16 of the 33 common propositions have changes in the distribution of opinion at the 5-percent level. Changes in the distribution of opinion between 2000 and 2011 appear most likely in those propositions that address distributional issues and international issues with five of six propositions in each area exhibiting change at the 10-percent level of significance.

### International Propositions

Our results indicate a continued strong consensus of agreement for the benefits of free trade (#1) and the efficacy of market-determined exchange rates (#3). However, there has been a significant increase in the level of agreement that some restrictions on international capital flows may be justified for international financial stability (#5). We speculate that one driver of this shift

TABLE 2  
Changes in the Consensus Index over Time

Number of propositions	N = 33		N = 22		N = 44	
	2011	2000	2011	2000	1992	2011
Strong	5	5	3	3	2	6
Substantial	13	15	10	10	8	16
Moderate	14	8	8	6	10	21
None	1	5	1	3	2	1

in opinion has been heightened concerns of financial contagion as witnessed during the Great Recession as well as weaknesses in some European banking systems.

The data also show a significant increase in agreement from 2000 with the proposition that a large balance-of-trade deficit has adverse impacts on the economy (#2). The current distribution of opinion appears more similar to those expressed in the 1992 survey. There remains a strong consensus of disagreement that the persistent U.S. imbalance in trade is due to nontariff barriers to trade or exchange rate manipulation (#4), possibly implying that persistent trade deficits are interpreted as domestic savings-investment imbalances and not protectionist measures by other countries. Finally, we note the fractious political debate involving the costs and benefits of the sizeable illegal immigrant population in the United States. Economists appear fairly split concerning the proposition that easing restrictions on immigration will reduce the average wage rate in the United States (#7). To summarize, continued strong consensus for free trade is mitigated by an increased willingness to consider policies that address the international financial stability.

### Macroeconomics

Arguably, macroeconomics is the most contentious element of economic policy in the eyes of the general public because it directly evokes the debate over the role of government. However, in the years before the Great Recession, a number of articles indicated a convergence in macroeconomics (Woodford 2009; Goodfriend 2007), suggesting that this contention was not necessarily shared by professional economists. This changed with the onset of the Great Recession, when a number of economists (Krugman 2009; Colander 2010; Rajan 2010) were quick to explore the specific failures of macroeconomics and academia more generally.

Based on our survey results, the Great Recession, caused by the financial crisis of 2008, seems to have led to a marginal increase in skepticism among economists concerning the stability and rational behavior of the market system. Although there is still a modest consensus of agreement, data show a significant increase in the level of disagreement with the proposition that an economy below potential GDP has a self-correcting mechanism that will return it to potential GDP (#8). There still remains substantial agreement with the concept of a natural rate of employment (#10), but no consensus emerges for the proposition that changes in aggregate demand affect real GDP in the short run but not in the long run (#9). Also, while there is a modest consensus of agreement with the proposition derived from the efficient market hypothesis that prices of assets correctly reflect all publicly available information and adjust quickly in response to new public information (#13), 39 percent of economists disagree.

Concerning propositions centering on the topics of budget deficits, debt, and fiscal policy, economists appear supportive of countercyclical policies. There is continued substantial agreement that expansionary fiscal policy has a significant stimulative impact on a less-than-fully-employed economy (#14). There is movement from substantial to strong agreement that the federal budget should be balanced over the course of the business cycle rather than yearly (#16). While we note that the responses to the proposition that large fiscal deficits harm the economy (#15) are likely muddled by a lack of distinction between cyclical and structural deficits, respondents show substantial agreement with the proposition that the structural deficit should be eliminated with a combination of higher taxes and lower expenditures (#17). Concerning those propositions that have supply-side implications, #22 – #25, substantial consensus of

agreement emerges only for the proposition that appropriately designed fiscal policy can increase the long-run rate of capital formation and economic growth (#22).

Economists now also show moderate consensus on the appropriate role of monetary versus fiscal policy in managing the business cycle. Compared to the 2000 survey where no consensus emerged, a majority of respondents now disagree that the Federal Reserve should manage the business cycle and that activist fiscal policy should be avoided (#19). The well-known “zero-bound problem” of monetary policy seems to have shifted the scales in favor of fiscal policy. There is also a drop from substantial to moderate agreement that the Federal Reserve should focus on a low rate of inflation rather than other goals (#21). Survey responses precede the actual shift in Fed strategy of tying interest rate changes to a specific unemployment rate (Hilsenrath and Peterson 2013).

### Microeconomics

Three of the propositions focus on environmental policy. In contrast to the moderate consensus of disagreement found in the two earlier surveys, the 2011 sample now exhibits a substantial consensus of disagreement with the proposition that reducing the power of the Environmental Protection Agency (EPA) would improve the efficiency of the U.S. economy (#27). There is also substantial agreement with a new proposition in the 2011 survey that the long-run benefits of higher taxes on fossil fuels outweigh the short-run costs (#29). One possible interpretation is that economists generally accept evidence of mankind’s contribution to climate change and would support the decision by the EPA to declare carbon dioxide a pollutant. A somewhat notable result is the increase, at a 10-percent level of significance, in the proportion of the 2011 sample who disagree with the proposition that pollution taxes or marketable pollution permits are a more efficient approach to pollution control than emission standards (#28). Although only a small proportion of economists disagree, it is a bit surprising, given the standard treatment in microeconomic texts of the production cost efficiencies of taxes and marketable permits relative to emission standards.

In the area of labor markets, economists continue to exhibit a substantial consensus of agreement with the proposition that a minimum wage increases unemployment among young and unskilled workers (#26). In addition, the 2011 sample shows little change in the distribution of opinion from the 2000 sample concerning the proposition that few gender compensation and promotion differentials are unexplained by differences in career and/or life choices (#32). Some economists (Estevão and Tsounta 2011) suggest that the slow rate of recovery in the employment rate following the Great Recession is due to structural unemployment, for which government-sponsored retraining programs are often proposed as a solution. The 2011 sample shows only a modest consensus of agreement with the proposition that expanding public job-training programs is an effective way to address sizeable structural unemployment (#31).

### Distribution of Income and Wealth

We find evidence in the 2011 sample of heightened concern among economists regarding the increased concentration of income and wealth in the United States. Compared to the 2000

sample, a significantly higher proportion of economists now disagree with the proposition that the distribution of income and wealth has little, if any, impact on economic stability and growth (#33). Further, there is a strong consensus of agreement in the 2011 sample with the new proposition that a low and/or declining rate of socioeconomic mobility reduces optimism, entrepreneurial drive, and economic growth (#34). Compared to earlier surveys, the 2011 sample shows a significant increase in the level of agreement with the normative proposition that the distribution of income should be more equal (#36), possibly a response to widely discussed work in the area of income distribution by Piketty and Saez (2007). The 2011 sample is also significantly more likely to agree with the proposition that the pressures of a global economy are a primary driver of increased inequality in the distribution of income (#35), although there is still a modest consensus of disagreement with this proposition.

While concern over the distribution of income and wealth has increased, perhaps the more vexing issue concerns public policy. Despite the continued substantial consensus of agreement with the proposition that the redistribution of income is a legitimate role for the U.S. government (#37), the 2011 sample again shows substantial consensus of agreement with the proposition that welfare reforms which place time limits of public assistance have increased the general well-being of society (#38). In addition, the 2011 sample shows a significantly lower proportion of agreement with the normative proposition that the earned income tax credit program should be expanded (#39), nor do we find much support for tariffs or import quotas (#1).

## Pedagogy

We included several new propositions in the 2011 survey in order to expand the pedagogical component. Arguably, the economics profession characterizes itself as objective, adhering to Western scientific methodology. Hypotheses are formulated, often derived from the calculus of rational, optimizing choice, and tested by collecting evidence. Given this objectivity, as the argument goes, the policy implications that follow are without normative bias. However, the more cynical would argue that this is not possible and that normative values color the process of formulating hypotheses. We included two additional propositions to explore these issues. The 2011 sample shows a modest consensus of agreement with the proposition that it is possible for economists to separate their policy prescriptions from their normative values (#44). The sample also indicates a modest consensus of agreement with the proposition that macro models based on the assumption of a “representative, rational agent” yield generally useful and reasonably accurate predictions (#43).

In undergraduate microeconomics, the model of perfect competition is typically the initial market model. Subject to a stringent set of assumptions seldom encountered in reality, it nevertheless has exhibited great durability and longevity. While there has been a significant increase in the proportion of economists between 1992 and 2011 who disagree with the proposition that the competitive model is generally more useful for understanding the U.S. economy than game theoretic models of imperfect competition or collusion (#40), there is still moderate consensus of agreement. Also, despite the prevalence of undergraduate microeconomic texts that acknowledge the critical role of property rights as a foundation of market economies, there is modest agreement among economists that undergraduate economics should devote more time to the design of economic institutions such as bankruptcy, patent, and contract law (#41). We do find substantial

agreement with the normative proposition that basic micro and macro texts should give as much attention to government failures as to market failures (#42).

## CONCLUSION

Contrary to popular opinion but in line with other research, our data indicate that U.S. economists exhibit consensus for a wide variety of propositions. While the extent of consensus varies from proposition to proposition, there is evidence of continued consensus over time, based on our subset of 22 propositions common to all three surveys. These data indicate that U.S. economists exhibit varied levels of wide support concerning the fundamentals of market capitalism. This is not surprising, given both the extended history and success of the United States with market capitalism and the pedagogical preciseness of market models. We qualify our results by noting the overall high level of consensus may reflect the high degree of abstraction and generalization inherent in the brevity of the propositions of the survey instrument. We leave unexplored the question of whether or not the observed levels of consensus would persist given longer, more detailed propositions.

The question of trends or changes in opinion over time is more difficult and subtle. We suggest that observed marginal changes in the distribution of opinion are driven, in part, by “external” events. Our results indicate that respondents to the 2000 survey had a marginally higher acceptance of the inherent self-correcting forces and efficiency of the market as well as a marginally higher skepticism that market outcomes could be improved with government assistance than did respondents to the 1992 survey. We note that this apparent re-examination in academia of the intellectual concepts linked to the enlightened, self-interested, rational individual roughly corresponds in time to the victory of capitalism over communism, the spread of economic trade and growth to Third World countries, and the U.S. economic boom of the 1990s. The 2011 survey suggests that this rising trend of confidence in the efficacy of market forces may have stalled or reversed itself. For whatever reasons (the Great Recession, global climate concerns, increased inequality in the distribution of income and wealth), U.S. economists in 2011 appear to be either more marginally skeptical of the free market or more concerned about the extent of unintended consequences of global capitalism. The results also suggest economists in 2011 are more willing than their counterparts in 2000 to use all possible policy tools. Yet, at the same time, our results suggest economists in 2011 show moderate consensus that we should spend more time on government failures as well as the design of economic institutions in our academic settings. Whether this indicates that economists are becoming more pragmatic or that they realize that the interactions between government and the market are more complex than previously modeled (or less ideological), we leave it to the reader to decide.

## REFERENCES

- Alston, R. M., J. R. Kearl, and M. B. Vaughan. 1992. Is there consensus among economists in the 1990s? *American Economic Review, Papers and Proceedings* 82(May): 203–9.
- Colander, D. 2010. The economic profession, the financial crisis and method. *Journal of Economic Methodology* 17(4): 419–27.
- Estevão, M., and E. Tsounta. 2011. Has the Great Recession raised U.S. structural unemployment? IMF Working Paper WP/11/105. Washington, DC: International Monetary Fund.



- Ferto, I. 2011. Is there a consensus among Hungarian agricultural economists? *Post-Communist Economies* 23(3): 399–413.
- Fuller, D. A., R. M. Alston, and M. B. Vaughan. 1995. The split between political parties on economic issues: A survey of Republicans, Democrats, and economists. *Eastern Economic Journal* 21(2): 227–37.
- Fuller, D. A., and D. Geide-Stevenson. 2003. Consensus among economists: Revisited. *Journal of Economic Education* 34: 369–87.
- Goodfriend, M. 2007. How the world achieved consensus on monetary policy. *Journal of Economic Perspectives* 21(4): 47–68.
- Gordon, R., and G. R. Dahl. 2013. Views among economists: Professional consensus or point-counterpoint? *American Economic Review, Papers and Proceedings* 103(3): 629–35.
- Hilsenrath, J., and K. Peterson. 2013. Fed ties rates to joblessness—Central bank sets threshold for first time, extends bond buying to spur hiring. *Wall Street Journal*, December 13: A1.
- Kearl, J. R., C. L. Pope, G. C. Whiting, and T. Wimmer. 1979. A confusion of economists. *American Economic Review, Papers and Proceedings* 69(May): 28–37.
- Krugman, P. 2009. How did economists get it so wrong? *New York Times*, September 6: MM36.
- Nawrocki, D., and W. Carter. 2010. Industry competitiveness using Herfindahl and entropy concentration indices with firm market capitalization data. *Applied Economics* 42: 2855–63.
- Piketty, T., and E. Saez. 2007. How progressive is the U.S. federal tax system? A historical and international perspective. *Journal of Economic Perspectives* 21(1): 3–24.
- Rajan, R. 2010. *Fault lines—How hidden fractures still threaten the world economy*. Princeton, NJ: Princeton University Press.
- Woodford, M. 2009. Convergence in macroeconomics: Elements of the new synthesis. *American Economic Journal, Macroeconomics* 1(1): 267–79.