POLARIZATION ON ECONOMIC ISSUES OVER TIME – A SURVEY OF DELEGATES TO THE NATIONAL CONVENTIONS

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ABSTRACT

We ask whether partisan polarization on economic issues has increased over time among political elites. Based on survey results of party delegates to the national conventions of the Democratic and Republican parties in 1992, 2000 and 2008, we construct various measures of consensus. The surveys ask delegates whether they agree, agree with proviso or disagree with a number of economic propositions. For propositions common in all three time periods, we compare the level of consensus within and between the two political parties. Our results suggest a divergence of opinion between Republican and Democratic delegations from 2000 to 2009. This divergence of opinion is due to an increase in the level of consensus among Republicans from 2000 to 2009 but mitigated by a decrease in the level of consensus among Democrats from 1992 to 2000. While we confirm diverging opinions between 2000 and 2009, we also find that the 2009 survey results mirror some of the results from 1992, suggesting that the current polarization is not historically unique with respect to economic issues.

INTRODUCTION

Media accounts of the current political climate in the United States often focus on the high degree of polarization between Republicans and Democrats. Such accounts describe a trend of "relentless" and "vitriolic" polarization (Martin, 2010; Economist, Feb. 2010) along with the "death of moderates" in American government (Beinart, 2010). In trying to explain the apparent polarization, wedge issues or views founded in religious and moral values have been found to be important (Glaeser, Ponzetto and Shapiro, 2005, Layman, 1999). However, Glaeser, Ponzetto and Shapiro (2005) note that party platforms on economic issues, as opposed to religious or cultural issues, are less polarized citing language that is "quite moderate and similar across platforms".

This paper explores polarization on economic issues based on a set of economic propositions distributed to Democratic and Republican delegates to the national conventions preceding presidential elections in the years 1992, 2000, and 2008. The benefit of being able to compare survey results from three different time periods puts the current discussions of polarization in a larger context.

Delegate surveys have been used regularly to gather information on the political perspectives of party elites but infrequently focus on economic issues (Miller and Jennings, 1992). This paper amends the existing discussions of polarization by focusing on economic issues. Defining polarization as a divergence of opinion between the two parties, we construct two measures that provide the substance for our study. The first measure, the relative entropy index, is used to indicate the degree of consensus or the convergence of opinion in each party. The second measure, a conditional measure of broad agreement, is used to measure the direction of as well as an indicator of the level of consensus in each party. Results indicate that the average level of consensus among 2009 Republicans is significantly higher than in 2000. Conversely, the average consensus of opinion among 2000 and 2009 Democrats is significantly lower than in 1992. We also find that while opinions of Democrats and Republicans are somewhat fluid in the area of macroeconomics, 2009 Republicans appear more similar to their 1992 counterparts in their embrace of monetarist and supply side views. By contrast, 2009 Democrats appear increasingly skeptical of supply side propositions and more supportive of activist fiscal policy. The most enduring divisive issues between Republicans and Democrats involve the distribution of income and regulation. Immigration also appears to be an issue which finds Republicans and Democrats on the opposite side of the fence.

METHODOLOGY, SAMPLE, AND MEASURES OF CONSENSUS

The methodology employed in this paper relies on work originally done by Kearl et al. (1979), continued by Alston, Kearl and Vaughan (1992), and Fuller and Geide-Stevenson (2003), who study consensus among economists on a number of economics propositions. This methodology has also been used to survey economists in different countries, economists in different fields, as well as non-economists (e.g. Frey et. al, 1984, Ricketts and Shoesmith, 1992, Whaples, 2005). These studies ask participants to indicate whether they agree, agree with proviso or disagree (or a similar scale) with a given set of economic propositions in the areas of microeconomics, macroeconomics, income distribution, and international economics. Our three surveys of delegates are based on the original set of propositions developed by Kearl et. al. (1979), primarily positive statements that reflect basic concepts covered in standard introductory economics textbooks. We also include several normative statements that reflect fundamental values which often shape debates concerning economic policy. The current survey contains 42 propositions, of which 37 are identical to propositions in the 2000 survey while 23 are identical to propositions in the 1992 survey.

Fuller, Alston, and Vaughan (1995) conducted the first survey of party delegates followed by a second survey by Fuller and Geide-Stevenson (2007). In each study, surveys were mailed to a random sample of 1,000 – 1,300 delegates from each party. In the current sample, 1,200 Democratic delegates and 1,300 Republican delegates were mailed surveys in the Spring of 2009. Difficulties in obtaining the Republican delegate list caused a slight delay in the date at which surveys were mailed to Republican delegates. Response rates are 10.6% for Democrats and 14.4% for Republicans, lower than the respective response rates of 17.5% and 15.8% for the 2000 survey. These response rates are substantially lower than the response rates of around 40% from other convention delegate studies (Herrera, 1992). We can only speculate that this may be

due to the more technical nature of our survey instrument, survey fatigue, or some other combination of factors.

Our empirical analysis utilizes two measures of consensus. Following the basic methodology of Kearl, et. al., our first measure of consensus is the relative entropy index, ε, which is calculated based on the probabilities, p_i of each possible outcome, $i = 1,\ldots,n$. For each economic proposition there are four possible outcomes, agree, agree with proviso, disagree or no response. Given the observed relative frequencies, p_i , the entropy index is constructed as $E(p_i) = \sum_{i=1}^{4} -p_i \log_2 p_i$. The relative entropy index, ε, 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 (i.e. p = 0.25). In short, the relative entropy index is defined as $\varepsilon = E(p_i)/(\text{maximum possible entropy})$. Given this definition, relative entropy ε can take on values between 0 and 1 where $\varepsilon = 0$ when all respondents choose the same response, that is, complete consensus. A relative entropy index of $\varepsilon = 1$ indicates all responses are equally likely, that is, no consensus. Thus, the lower the entropy index, the higher the degree of consensus on a specific proposition. As Fuller *et al*. (1995) indicate, the relative entropy index is nonlinear, as small changes in the distribution of responses result in large changes in entropy. For example, a response pattern of 70-15-10-5 (in percent) generates a relative entropy index of 0.66 while a response pattern of 60-20-15-5 results in an entropy index of 0.77. Following Fuller and Geide-Stevenson (2007), we define $\varepsilon \leq 0.8$ to indicate consensus and construct a conditional measure of broad agreement. This measure is useful because it indicates the direction of opinion. We first add the frequency of those who "generally agree" to those who "agree with provisos". We then divide by the total number of responses less the frequency of those who returned "no response" to the proposition. In this way, we split respondents' opinions into "broadly agree" or "disagree". This second measure is taken to indicate consensus when at least 67% of respondents either broadly agree or disagree. When both the relative entropy index and the conditional percentage indicate consensus, we conclude "strong consensus". When only one of our measures indicates consensus, we conclude "consensus", and when neither measure indicates consensus, we conclude "no consensus".

EMPIRICAL RESULTS

Relative frequencies of responses for all three surveys are reported in Table 1 along with relative entropy indices, conditional percentages of agreement/ disagreement and conclusions of consensus. In addition, Table 1 also includes the p-values for the standard chi-square test of independence for 2000 and 2008 Republican and Democratic delegations, the 2000 and 2008 Republican delegations, and the 2000 and 2008 Democratic delegations. We use this to test the null hypothesis that the distribution of responses within a party is independent of when the survey was conducted. This test helps determine if response patterns on specific propositions have changed significantly over time. Since the chi-square test of independence is only useful when each response category is observed in sufficient numbers and the proportion of 'no response' is generally low or zero in our survey, we exclude the 'no response' category when

performing chi-square tests. We use the 5% level of significance ($p \leq 0.05$) in order to reject the null hypothesis. Hence, rejection of the null hypothesis implies a high likelihood that the distribution of responses has changed over time.

For example, 46.8% of Republicans agreed with proposition #2 in 2000, while 70.4% agreed with this proposition in 2009. The p-value comparing the response distribution is 0 indicating that the response pattern has changed with certainty. By contrast, 31.4% and 34.4% of Democrats agree with proposition #2 in 2000 and 2009. The p-value of 0.354 indicates that the null hypothesis cannot be rejected, the response distribution is likely identical over time. Due to the complexity of the table, we do not report tests of independence involving the 1992 national delegations, referring to them only as warranted.

Table 1
Distribution of Responses, Measures of Consensus

		Republican			*Democrat*			Chi-Square P-values
		1992	2000	2008	*1992*	*2000*	*2008*	
Microeconomic Propositions								
1. An economy that operates below potential GDP has a self- correcting mechanism that will eventually return it to potential real GDP.	A[1]	70.2	32.9	48.6	*13.2*	*15.4*	*6.4*	**R00-D00**
	A/P	16.2	34.2	29.1	*13.2*	*36.0*	*31.2*	*p= 0.00*
	D	12.4	9.5	18.4	*72.1*	*32.6*	*53.6*	**R08-D08**
	NR	1.2	23.4	3.9	*1.5*	*16.0*	*8.8*	*p= 0.00*
	ε	.60	.94	.83	*.60*	*.95*	*.78*	**R00-R08**
	AG/DG	.97/.13	.88/.12	.81/.19	*.27/.73*	*.61/.39*	*.41/.59*	*p= 0.09*
	Concl.	Str.	Cons.	Cons.	*Str.*	*Cons.*	*Cons.*	**D00-D08** *p= 0.00*
2. There is a natural rate of unemployment to which the economy tend in the long run	A	80.7	46.8	70.4	*43.2*	*31.4*	*34.4*	**R00-D00**
	A/P	13.5	36.2	19.6	*29.3*	*26.3*	*29.6*	*p*= 0.00
	D	4.2	13.9	6.7	*26.4*	*36.6*	*28.0*	**R08-D08**
	NR		3.2	3.3		*5.7*	*8.0*	*p*= 0.00
	ε	.47	.80	.62	*.81*	*.90*	*.93*	**R00-R08**
	AG/DG	.96/.04	.86/.14	.93/.07	*.73/.27*	*.61/.39*	*.70/.30*	*p*= 0.00
	Concl.	Str.	Str.	Str.	*Cons.*	*None*	*Cons.*	**D00-D08** *p*= 0.35
3. In the short run, a reduction in unemployment causes the rate of inflation to increase*	A	58.3	17.7	16.2	*23.2*	*14.3*	*12.8*	**R00-D00**
	A/P	27.6	28.5	25.1	*35.7*	*30.3*	*21.6*	*p*= 0.67
	D	12.1	47.5	53.6	*40.0*	*49.7*	*58.4*	**R08-D08**
	NR		6.3	5.0		*5.7*	*7.2*	*p*= 0.54
	ε	.73	.86	.81	*.81*	*.83*	*.79*	**R00-R08**
	AG/DG	.88/.12	.49/.51	.44/.56	*.73/.27*	*.47/.53*	*.37/.62*	*p*= 0.58
	Concl.	Str.	None	None	*Cons.*	*None*	*Cons.*	**D00-D08** *p*= 0.20
4. Changes in aggregate demand affect real GDP in the short run but not in the long run*	A	-	18.4	22.9	-	*18.3*	*12.0*	**R00-D00**
	A/P	-	37.3	29.6	-	*35.4*	*24.0*	*p*= 0.83
	D	-	26.0	37.4	-	*29.1*	*40.8*	**R08-D08**
	NR	-	18.4	10.1	-	*17.1*	*23.2*	*p*= 0.11
	ε	-	.97	.94	-	*.97*	*.94*	**R00-R08**

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		Republican			*Democrat*			Chi-Square P-values
		1992	2000	2008	*1992*	*2000*	*2008*	
	AG/DG	-	.68/.32	.58/.42	-	*.65/.35*	*.47/.53*	p= 0.08
	Concl.	-	Cons.	None	-	*None*	*None*	**D00-D08** p= 0.02
5. Inflation is caused primarily by too much growth in the money supply.	A	47.9	34.8	60.3	*25.0*	*24.0*	*22.4*	**R00-D00** p= .11
	A/P	23.5	27.9	22.9	*42.9*	*33.1*	*28.0*	
	D	26.6	32.9	15.6	*30.0*	*36.6*	*40.8*	**R08-D08** p= .00
	NR		4.4	1.1		*6.3*	*8.8*	
	ε	.81	.89	.71	*.83*	*.90*	*.92*	**R00-R08** p= .00
	AG/DG	.73/.27	.66/.34	.84/.16	*.69/.31*	*.61/.39*	*.55/.45*	
	Concl.	Cons.	Str.	Str.	*Cons.*	*None*	*None*	**D00-D08** p= .61
6. The Federal Reserve should focus on a low rate of inflation rather than other possible goals such as employment, or economic growth.	A	-	43.0	41.3	-	*16.0*	*9.6*	**R00-D00** *p= 0.00*
	A/P	-	31.7	34.1	-	*26.9*	*22.4*	
	D	-	22.2	21.8	-	*54.9*	*64.8*	**R08-D08** *p= 0.00*
	NR	-	3.2	2.8	-	*2.3*	*3.2*	
	ε	-	.84	.84	-	*.77*	*.69*	**R00-R08** *p= 0.90*
	AG/DG	-	.77/.23	.78/.22	-	*.44/.56*	*.33/.67*	
	Concl.	-	Cons.	Cons.	-	*Cons.*	*Str.*	**D00-D08** *p= 0.13*
7. Management of the business cycle should be left to the Federal Reserve; activist fiscal policy should be avoided	A	34.5	50.0	39.1	*10.7*	*25.1*	*9.6*	**R00-D00** *p= 0.00*
	A/P	31.0	31.7	28.5	*26.8*	*29.7*	*32.8*	
	D	32.4	15.8	25.7	*60.0*	*36.6*	*52.0*	**R08-D08** *p= 0.00*
	NR		2.5	6.7		*8.6*	*5.6*	
	ε	.85	.79	.91	*.71*	*.93*	*.79*	**R00-R08** *p= 0.04*
	AG/DG	.67/.33	.84/.16	.72/.28	*.38/.62*	*.60/.40*	*.45/.55*	
	Concl.	Cons.	Str.	Cons.	*Cons.*	*None*	*Cons.*	**D00-D08** *p= 0.00*
8. Increasing the regulatory power of the Federal Reserve will improve the functioning of financial markets.	A	-	-	6.7	-	-	*53.6*	**R08-D08** *p= 0.00*
	A/P	-	-	30.2	-	-	*26.4*	
	D	-	-	62.0	-	-	*18.4*	
	NR	-	-	1.1	-	-	*1.6*	
	ε	-		.64	-		*.77*	
	AG/DG	-		.37/.63	-		*.81/.19*	
	Concl.	-		Cons.	-		*Str.*	
9. Fiscal policy has a significant stimulative impact on a less than fully employed economy.	A	70.3	50.6	34.1	*64.3*	*37.7*	*56.8*	**R00-D00** *p= 0.00*
	A/P	16.9	38.6	31.3	*16.8*	*33.7*	*29.6*	
	D	10.7	8.9	31.8	*18.2*	*22.3*	*8.8*	**R08-D08** *p= 0.00*
	NR		1.9	2.7		*6.3*	*4.8*	
	ε	.63	.72	.90	*.67*	*.90*	*.75*	**R00-R08** *p= 0.00*
	AG/DG	.89/.11	.91/.09	.76/.24	*.82/.18*	*.76/.24*	*.91/.09*	

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		Republican			*Democrat*			Chi-Square P-values
		1992	2000	2008	*1992*	*2000*	*2008*	
	Concl.	Str.	Str.	Cons.	*Str.*	*Cons.*	*Str.*	**D00-D08** *p= 0.00*
10. A large federal budget deficit has an adverse effect on the economy.	A	89.3	65.8	91.1	*86.1*	*72.6*	*38.4*	**R00-D00**
	A/P	5.9	22.2	7.8	*5.4*	*17.1*	*44.0*	*p= 0.32*
	D	3.1	12.0	1.1	*7.1*	*9.1*	*15.2*	**R08-D08**
	NR		0.0	0.0		*1.1*	*2.4*	*p= 0.00*
	ε	.32	.62	.24	*.39*	*.58*	*.80*	**R00-R08**
	AG/DG	.97/.03	.88/.12	.99/.01	*.93/.07*	*.91/.09*	*.84/.16*	*p= 0.00*
	Concl.	Str.	Str.	Str.	*Str.*	*Str.*	*Str.*	**D00-D08** *p= 0.00*
11. If the federal budget is to be balanced, it should be done over the course of the business cycle rather than yearly.	A	33.8	19.0	18.4	*34.3*	*18.3*	*22.4*	**R00-D00**
	A/P	27.6	31.0	23.5	*40.7*	*26.3*	*24.8*	*p= 0.86*
	D	36.9	46.8	54.7	*23.2*	*45.7*	*41.6*	**R08-D08**
	NR		3.2	3.4		*9.7*	*11.2*	*p= 0.25*
	ε	.84	.83	.779	*.83*	*.90*	*.93*	**R00-R08**
	AG/DG	.62/.38	.52/.48	.43/.57	*.76/.24*	*.40/.51*	*.53/.47*	*p= 0.25*
	Concl.	None	None	Cons.	*Cons.*	*None*	*None*	**D00-D08** *p= 0.62*
12. The level of government spending relative to GDP should be reduced (disregarding expenditures for stabilization).	A	80.3	62.0	86.6	*45.0*	*17.1*	*16.8*	**R00-D00**
	A/P	13.1	27.9	7.8	*29.3*	*30.9*	*34.4*	*p= 0.00*
	D	3.8	6.3	4.5	*22.5*	*44.0*	*41.6*	**R08-D08**
	NR		3.8	1.1		*8.0*	*7.2*	*p= 0.00*
	ε	.48	.69	.37	*.84*	*.87*	*.88*	**R00-R08**
	AG/DG	.96/.04	.93/.07	.95/.05	*.76/.24*	*.52/.48*	*.55/.45*	*p= 0.00*
	Concl.	Str.	Str.	Str.	*Cons.*	*None*	*None*	**D00-D08** *p= 0.83*
13. Appropriately designed fiscal policy can increase the long run rate of capital formation.	A	-	55.1	55.3	-	*49.1*	*54.4*	**R00-D00**
	A/P	-	32.9	29.1	-	*37.7*	*32.0*	*p= 0.22*
	D	-	4.4	11.8	-	*1.7*	*4.8*	**R08-D08**
	NR	-	7.6	4.5	-	*11.4*	*8.8*	*p= 0.17*
	ε	-	.74	.77	-	*.75*	*.76*	**R00-R08**
	AG/DG	-	.95/.05	.88/.12	-	*.98/.02*	*.95/.05*	*p= 0.08*
	Concl.	-	Str.	Str.	-	*Str.*	*Str.*	**D00-D08** *p= 0.19*
14. Lower marginal income tax rates reduce leisure and increase work effort.	A	33.5	18.4	37.4	*9.6*	*11.4*	*3.2*	**R00-D00**
	A/P	29.3	17.7	18.4	*25.0*	*14.9*	*12.0*	*p= 0.18*
	D	35.2	59.5	39.1	*63.9*	*65.1*	*73.6*	**R08-D08**
	NR		4.4	5.0		*8.6*	*11.2*	*p= 0.00*
	ε	.85	.77	.86	*.60*	*.74*	*.60*	**R00-R08**
	AG/DG	.64/.36	.38/.62	.59/.41	*.35/.65*	*.29/.71*	*.17/.83*	*p= 0.00*
	Concl.	None	Cons.	Cons.	*Cons.*	*Str.*	*Str.*	**D00-D08** *p= 0.03*

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		1992	2000	2008	*1992*	*2000*	*2008*	
15. Reducing the tax rate on income from capital gains would encourage investment and promote economic growth.	A	95.2	81.7	91.6	*24.6*	*24.6*	*18.4*	**R00-D00** *p= 0.00*
	A/P	3.1	15.2	5.0	*20.7*	*21.1*	*18.4*	
	D	0.7	1.3	2.2	*53.9*	*49.7*	*60.0*	**R08-D08** *p= 0.00*
	NR		1.9	1.1		*4.6*	*3.2*	
	ε	.17	.42	.26	*.75*	*.84*	*.75*	**R00-R08** *p= 0.01*
	AG/DG	.99/.01	.99/.01	.98/.02	*.46/.54*	*.48/.52*	*.38/.62*	
	Concl.	Str.	Str.	Str.	*Cons.*	*None*	*Cons.*	**D00-D08** *p= 0.23*
16. Managerial, information and other technological advances have significantly lessened the severity of or fundamentally eliminated the business cycle.	A	-	17.1	11.2	-	*15.4*	*10.4*	**R00-D00** *p= 0.83*
	A/P	-	32.9	24.0	-	*29.7*	*19.2*	
	D	-	41.8	58.7	-	*43.4*	*58.4*	**R08-D08** *p= 0.76*
	NR	-	8.2	6.1	-	*11.4*	*12.0*	
	ε	-	.89	.77	-	*.91*	*.81*	**R00-R08** *p= 0.01*
	AG/DG	-	.54/.46	.38/.63	-	*.51/.49*	*.34/.66*	
	Concl.	-	None	Cons.	-	*None*	*None*	**D00-D08** *p= 0.02*
17. The U.S. has entered a new industrial revolution in which higher rates of economic growth can be maintained without inflationary pressures.	A	-	41.1	16.2	-	*27.4*	*14.4*	**R00-D00** *p= 0.06*
	A/P	-	34.1	24.0	-	*38.9*	*23.2*	
	D	-	20.3	53.6	-	*25.1*	*54.4*	**R08-D08** *p= 0.92*
	NR	-	4.4	6.2	-	*8.6*	*8.0*	
	ε	-	.86	.82	-	*.92*	*.83*	**R00-R08** *p= 0.00*
	AG/DG	-	.79/.21	.43/.57	-	*.73/.27*	*.41/.59*	
	Concl.	-	Cons.	None	-	*Cons.*	*None*	**D00-D08** *p= 0.00*
International Economics Propositions								
18. Tariffs and import quotas usually reduce the general welfare of society.	A	62.4	41.1	53.1	*25.7*	*24.6*	*16.0*	**R00-D00** *p= 0.00*
	A/P	20.7	26.6	22.9	*28.6*	*25.1*	*20.0*	
	D	13.8	31.0	21.2	*40.4*	*45.1*	*58.4*	**R08-D08** *p= 0.00*
	NR		1.3	2.8		*5.2*	*5.6*	
	ε	.72	.82	.80	*.89*	*.87*	*.79*	**R00-R08** *p= 0.05*
	AG/DG	.86/.14	.69/.31	.78/.22	*.57/.43*	*.52/.48*	*.38/.62*	
	Concl.	Str.	Cons.	Str.	*None*	*None*	*Cons.*	**D00-D08** *p= 0.05*
19. Flexible and floating exchange rates offer an effective international monetary arrangement.	A	52.4	50.0	64.2	*35.4*	*38.9*	*24.8*	**R00-D00** *p= 0.10*
	A/P	37.2	34.8	26.8	*47.5*	*42.9*	*42.4*	
	D	4.8	7.6	4.5	*13.6*	*10.9*	*16.8*	**R08-D08** *p= 0.00*
	NR		7.6	4.5		*7.3*	*16.0*	
	ε	.73	.80	.66	*.80*	*.84.*	*.94*	**R00-R08** *p= 0.44*
	AG/DG	.95/.05	.92/.08	.95/.05	*.86/.14*	*.88/.12*	*.80/.20*	

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		1992	2000	2008	*1992*	*2000*	*2008*	
	Concl.	Str.	Str.	Str.	*Str.*	*Cons.*	*Cons.*	**D00-D08** *p= 0.06*
20. Increasing globalization of the economy, helped by the WTO, threatens nat'l sovereignty in the areas of environmental and labor standards.	A	-	30.4	48.0	-	*30.9*	*28.8*	**R00-D00**
	A/P	-	27.2	21.8	-	*21.1*	*19.2*	*p= 0.43*
	D	-	40.5	29.1	-	*45.1*	*48.0*	**R08-D08**
	NR	-	1.9	1.1	-	*2.9*	*4.0*	*p= 0.00*
	ε	-	.84	.79	-	*.83*	*.83*	**R00-R08**
	AG/DG	-	.59/.41	.71/.29	-	*.54/.46*	*.50/.50*	*p= 0.01*
	Concl.	-	None	Cons.	-	*None*	*None*	**D00-D08** *p= 0.84*
21. Easing restrictions on immigration will ensure long run economic growth.	A	-	-	8.4	-	-	*24.0*	
	A/P	-	-	14.0	-	-	*33.6*	**R08-D08**
	D	-	-	76.5	-	-	*39.2*	*p= 0.00*
	NR	-	-	1.1	-	-	*3.2*	
	ε	-		.53	-		*.86*	
	AG/DG	-		.23/.77	-		*.60/.41*	
	Concl.	-		Str.	-		*None*	
22. Easing restrictions on immigration will depress the average wage rate in the United States.	A	-	-	43.0	-	-	*20.8*	
	A/P	-	-	19.6	-	-	*13.6*	**R08-D08**
	D	-	-	34.6	-	-	*63.2*	*p= 0.00*
	NR	-	-	2.8	-	-	*2.4*	
	ε	-		.83	-		*.71*	
	AG/DG	-		.64/.36	-		*.35/.65*	
	Concl.	-		None	-		*Cons.*	
23. Large balance of trade deficits have adverse effects on the economy.	A	80.7	50.6	67.6	*82.5*	*54.3*	*69.6*	**R00-D00**
	A/P	12.1	26.6	17.9	*9.6*	*23.4*	*18.4*	*p=0.72*
	D	6.2	17.1	12.3	*5.7*	*15.4*	*7.2*	**R08-D08**
	NR		5.7	2.2		*6.9*	*4.8*	*p= 0.39*
	ε	.47	.84	.66	*.45*	*.83*	*.65*	**R00-R08**
	AG/DG	.94/.06	.82/.18	.87/.13	*.94/.06*	*.83/.17*	*.92/.08*	*p= 0.02*
	Concl.	Str.	Cons.	Str.	*Str.*	*Cons.*	*Str.*	**D00-D08** *p= 0.02*
24. The U.S. trade deficit is primarily due to non-tariff trade barriers erected by other nations.	A	-	20.9	11.7	-	*21.7*	*15.2*	**R00-D00**
	A/P	-	28.5	19.5	-	*22.9*	*16.0*	*p= 0.41*
	D	-	41.1	65.4	-	*47.4*	*63.2*	**R08-D08**
	NR	-	9.5	3.4	-	*8.0*	*5.6*	*p= 0.55*
	ε	-	.92	.69	-	*.88*	*.74*	**R00-R08**
	AG/DG	-	.55/.45	.32/.68	-	*.48/.52*	*.33/.67*	*p= 0.00*
	Concl.	-	None	Str.	-	*None*	*Str.*	**D00-D08** *p= 0.00*
25. The economic benefits of an	A	-	27.2	24.6	-	*10.9*	*6.4*	**R00-D00**
	A/P	-	17.1	24.6	-	*24.0*	*15.2*	*p= 0.00*

Table 1
Distribution of Responses, Measures of Consensus

		Republican			*Democrat*			Chi-Square P-values
		1992	2000	2008	*1992*	*2000*	*2008*	
expanding world population outweigh the economic costs.	D	-	50.0	49.1	-	*61.1*	*73.6*	**R08-D08**
	NR	-	5.7	1.7	-	*4.0*	*4.8*	*p= 0.00*
	ε	-	.84	.80	-	*.73*	*.60*	**R00-R08**
	AG/DG	-	.47/.53	.50/.50	-	*.36/.64*	*.23/.77*	*p= 0.31*
	Concl.	-	None	Cons.	-	*Cons.*	*Str.*	**D00-D08**
								p= 0.05
26. Some restrictions on the free flow of financial capital are essential to ensure the stability and soundness of the international financial system.	A	-	20.9	19.6	-	*42.3*	*52.0*	**R00-D00**
	A/P	-	33.5	41.9	-	*40.6*	*30.4*	*p= 0.00*
	D	-	37.3	35.7	-	*11.4*	*8.8*	**R08-D08**
	NR	-	8.3	2.8	-	*5.7*	*8.8*	*p= 0.00*
	ε	-	.91	.83	-	*.82*	*.81*	**R00-R08**
	AG/DG	-	.59/.41	.63/.37	-	*.88/.12*	*.90/.10*	*p= 0.50*
	Concl.	-	None	None	-	*Cons.*	*Cons.*	**D00-D08**
								p= 0.14
Distribution of Income and Wealth Propositions								
27. The distribution of income in the U.S. should be more equal	A	10.0	6.3	2.2	*76.4*	*62.9*	*59.2*	**R00-D00**
	A/P	19.7	10.8	11.2	*13.6*	*30.9*	*29.6*	*p= 0.00*
	D	69.7	82.3	84.9	*8.9*	*6.3*	*9.6*	**R08-D08**
	NR		0.6	1.7		*0.0*	*1.6*	*p= 0.00*
	ε	.60	.44	.39	*.53*	*.60*	*.69*	**R00-R08**
	AG/DG	.30/.70	.17/.83	.14/.86	*.91/.09*	*.94/.06*	*.90/.10*	*p= 0.18*
	Concl.	Str.	Str.	Str.	*Str.*	*Str.*	*Str.*	**D00-D08**
								p= 0.54
28. The increasing inequality in the distribution of income in the U.S. is due primarily to the benefits and pressures of a global economy.	A	-	10.1	11.7	-	*12.6*	*6.4*	**R00-D00**
	A/P	-	19.6	14.5	-	*16.0*	*12.8*	*p= 0.58*
	D	-	65.3	71.5	-	*68.0*	*76.0*	**R08-D08**
	NR	-	5.0	2.2	-	*3.4*	*4.8*	*p= 0.28*
	ε	-	.70	.62	-	*.67*	*.57*	**R00-R08**
	AG/DG	-	.31/.69	.27/.73	-	*.30/.70*	*.20/.80*	*p= 0.40*
	Concl.	-	Str.	Str.	-	*Str.*	*Str.*	**D00-D08**
								p= 0.14
29. The redistribution of income within the U.S. is a legitimate role for government.	A	3.8	1.9	1.7	*55.4*	*40.0*	*49.6*	**R00-D00**
	A/P	7.9	5.7	3.4	*17.4*	*36.0*	*24.8*	*p= 0.00*
	D	86.6	91.1	93.8	*25.4*	*22.3*	*22.4*	**R08-D08**
	NR		1.3	1.1		*1.7*	*3.2*	*p= 0.00*
	ε	.38	.27	.21	*.76*	*.82*	*.82*	**R00-R08**
	AG/DG	.12/.88	.08/.92	.05/.95	*.74/.26*	*.77/.23*	*.77/.23*	*p= 0.57*
	Concl.	Str	Str.	Str.	*Str.*	*Cons.*	*Cons.*	**D00-D08**
								p= 0.11

Table 1
Distribution of Responses, Measures of Consensus

		Republican			*Democrat*			Chi-Square P-values
		1992	2000	2008	*1992*	*2000*	*2008*	
30. The distribution of income and wealth in the U.S. has little if any impact on the overall rate of economic growth and stability.	A	-	31.7	34.6	-	*6.3*	*4.8*	**R00-D00**
	A/P	-	26.0	16.2	-	*15.4*	*12.8*	*p= 0.00*
	D	-	39.2	46.4	-	*75.4*	*80.0*	**R08-D08**
	NR	-	3.2	2.8	-	*2.9*	*2.4*	*p= 0.00*
	ε	-	.86	.81	-	*.56*	*.49*	**R00-R08**
	AG/DG	-	.59/.41	.52/.48	-	*.22/.78*	*.18/.82*	*p= 0.08*
	Concl.	-	None	None	-	*Str.*	*Str.*	**D00-D08** *p= 0.66*
31. Minimum wages increase unemployment among young and unskilled workers.	A	64.5	45.6	65.4	*14.6*	*8.0*	*8.8*	**R00-D00**
	A/P	13.1	26.0	19.5	*10.7*	*8.0*	*2.4*	*p= 0.00*
	D	20.7	27.2	14.5	*73.2*	*82.3*	*88.8*	**R08-D08**
	NR		1.3	0.56		*1.7*	*0.0*	*p= 0.00*
	ε	.68	.81	.65	*.58*	*.46*	*.29*	**R00-R08**
	AG/DG	.79/.21	.72/.28	.85/.15	*.26/.74*	*.16/.84*	*.11/.89*	*p= 0.00*
	Concl.	Str.	Cons.	Str.	*Str.*	*Str.*	*Str.*	**D00-D08** *p= 0.11*
32. There are few compensation and promotion gaps between men and women that cannot be explained by productivity and/or career choices.	A	33.5	37.3	47.5	*5.7*	*10.9*	*12.0*	**R00-D00**
	A/P	25.5	24.7	25.7	*7.5*	*9.7*	*5.6*	*p= 0.00*
	D	40.0	36.1	26.8	*84.3*	*78.3*	*80.8*	**R08-D08**
	NR		1.9	0.0		*1.1*	*1.6*	*p= 0.00*
	ε	.81	.83	.76	*.43*	*.51*	*.47*	**R00-R08**
	AG/DG	.60/.40	.63/.37	.73/.27	*.13/.87*	*.21/.79*	*.18/.82*	*p= 0.11*
	Concl.	None	None	Str.	*Str.*	*Str.*	*Str.*	**D00-D08** *p= 0.43*
33. Welfare reforms which place time limits on public assistance have increased the general well-being of society.	A	-	77.9	79.3	-	*21.7*	*23.2*	**R00-D00**
	A/P	-	17.1	12.8	-	*40.6*	*35.2*	*p= 0.00*
	D	-	5.1	7.3	-	*37.1*	*40.8*	**R08-D08**
	NR	-	0.0	0.56	-	*0.6*	*0.8*	*p= 0.00*
	ε	-	.47	.48	-	*.79*	*.80*	**R00-R08**
	AG/DG	-	.95/.05	.93/.07	-	*.63/.37*	*.59/.41*	*p= 0.43*
	Concl.	-	Str.	Str.	-	*Cons.*	*Cons.*	**D00-D08** *p= 0.65*
34. The persistence of poverty is due more to a breakdown of the family unit than to a general lack of economic opportunity.	A	67.9	62.0	69.8	*8.6*	*17.7*	*5.6*	**R00-D00**
	A/P	15.9	24.1	18.4	*9.6*	*16.0*	*16.8*	*p= 0.00*
	D	15.5	13.3	11.2	*80.7*	*64.6*	*73.6*	**R08-D08**
	NR		0.6	1.1		*1.7*	*4.0*	*p= 0.00*
	ε	.64	.68	.62	*.47*	*.69*	*.59*	**R00-R08**
	AG/DG	.84/.16	.87/.13	.89/.11	*.18/.82*	*.34/.66*	*.23/.77*	*p= 0.33*
	Concl.	Str.	Str.	Str.	*Str.*	*Cons.*	*Str.*	**D00-D08** *p= 0.01*
35. The Earned	A	-	30.4	24.0	-	*59.4*	*47.2*	**R00-D00**

Table 1
Distribution of Responses, Measures of Consensus

		Republican			*Democrat*			Chi-Square P-values
		1992	2000	2008	*1992*	*2000*	*2008*	
Income Tax Credit program should be expanded.	A/P	-	22.8	16.8	-	*25.1*	*24.8*	*p= 0.00*
	D	-	42.4	55.3	-	*10.3*	*18.4*	**R08-D08**
	NR	-	4.4	3.9	-	*5.1*	*9.6*	*p= 0.00*
	ε	-	.87	.79	-	*.75*	*.89*	**R00-R08**
	AG/DG	-	.56/.44	.42/.58	-	*.89/.11*	*.80/.20*	*p= 0.06*
	Concl.	-	None	Cons.	-	*Str.*	*Cons.*	**D00-D08**
								p= 0.07
Microeconomics Propositions								
36. Antitrust laws should be enforced vigorously to reduce monopoly power from its current level.	A	34.5	21.5	27.4	*75.7*	*58.3*	*72.8*	**R00-D00**
	A/P	40.0	36.1	38.0	*17.1*	*30.3*	*22.4*	*p= 0.00*
	D	23.5	41.1	33.5	*6.1*	*10.3*	*3.2*	**R08-D08**
	NR		1.3	1.1		*1.1*	*1.6*	*p= 0.00*
	ε	.83	.81	.82	*.53*	*.69*	*.54*	**R00-R08**
	AG/DG	.76/.24	.58/.42	.66/.34	*.94/.06*	*.90/.10*	*.97/.03*	*p= 0.28*
	Concl.	Cons.	None	None	*Str.*	*Str.*	*Str.*	**D00-D08**
								p= 0.01
37. Pollution taxes or marketable pollution permits are a more economically efficient approach to pollution control than emission standards.	A	32.4	27.2	11.2	*24.6*	*14.9*	*20.8*	**R00-D00**
	A/P	37.2	24.1	14.5	*23.9*	*19.4*	*24.8*	*p= 0.00*
	D	27.9	44.9	72.6	*47.9*	*62.9*	*50.4*	**R08-D08**
	NR		3.8	1.7		*2.9*	*4.0*	*p= 0.00*
	ε	.85	.85	.69	*.84*	*.72*	*.83*	**R00-R08**
	AG/DG	.71/.29	.53/.47	.26/.74	*.53/.47*	*.35/.65*	*.48/.52*	*p= 0.00*
	Concl.	Cons.	None	Str.	*None*	*Cons.*	*None*	**D00-D08**
								p= 0.11
38. Higher taxes on fossil fuels will encourage firms to develop alternative energies that reduce carbon emissions	A	-	-	12.9	-	-	*58.4*	
	A/P	-	-	22.9	-	-	*26.4*	**R08-D08**
	D	-	-	60.9	-	-	*12.8*	*p= 0.00*
	NR	-	-	3.3	-	-	*2.4*	
	ε	-		.73	-		*.73*	
	AG/DG	-		.37/.63	-		*.87/.13*	
	Concl.	-		Cons.	-		*Str.*	
39. Reducing the regulatory power of the Environmental Protection Agency (EPA) would improve the economic efficiency of the U.S. economy.	A	56.2	51.3	65.4	*6.1*	*4.6*	*5.6*	**R00-D00**
	A/P	23.5	27.9	21.2	*8.9*	*12.0*	*8.0*	*p= 0.00*
	D	19.7	20.3	12.3	*83.6*	*80.0*	*84.0*	**R08-D08**
	NR		0.6	1.1		*3.4*	*2.4*	*p= 0.00*
	ε	.73	.76	.66	*.43*	*.50*	*.43*	**R00-R08**
	AG/DG	.80/.20	.80/.20	.88/.12	*.15/.85*	*.17/.83*	*.14/.86*	*p= 0.02*
	Concl.	Str.	Str.	Str.	*Str.*	*Str.*	*Str.*	**D00-D08**
								p= 0.49
40. Economic evidence suggests	A	19.3	13.9	11.7	*15.0*	*17.7*	*15.2*	**R00-D00**
	A/P	39.3	16.5	12.3	*39.6*	*16.6*	*15.2*	*p= 0.52*

Table 1
Distribution of Responses, Measures of Consensus

		Republican			*Democrat*			Chi-Square P-values
		1992	2000	2008	*1992*	*2000*	*2008*	
there are too many resources in American agriculture.	D	38.3	63.3	69.3	*41.4*	*56.6*	*55.2*	**R08-D08**
	NR		6.3	6.7		*9.1*	*14.4*	*p= 0.22*
	ε	.84	.75	.68	*.82*	*.83*	*.85*	**R00-R08**
	AG/DG	.60/.40	.32/.86	.26/.74	*.57/.43*	*.38/.62*	*.36/.64*	*p= 0.41*
	Concl.	None	Str.	Str.	*None*	*None*	*None*	**D00-D08**
								p= 0.92
41. Employer-provided health insurance reduces the efficiency of the labor market by reducing labor mobility.	A	-	-	18.4	-	-	*25.6*	
	A/P	-	-	19.0	-	-	*18.4*	**R08-D08**
	D	-	-	59.8	-	-	*55.2*	*p= 0.37*
	NR	-	-	2.8	-	-	*0.8*	
	ε	-		.75	-		*.74*	
	AG/DG	-		.39/.61	-		*.44/.56*	
	Concl.	-		Cons.	-		*Cons.*	
42. The competitive model is generally more useful for understanding the U.S. economy than are models of imperfect competition and other game theoretic models.	A	-	54.4	55.9	-	*29.7*	*20.8*	**R00-D00**
	A/P	-	26.0	26.3	-	*30.3*	*28.0*	*p= 0.00*
	D	-	5.1	6.1	-	*20.0*	*30.4*	**R08-D08**
	NR	-	14.6	11.7	-	*20.0*	*20.8*	*p= 0.00*
	ε	-	.80	.79	-	*.99*	*.99*	**R00-R08**
	AG/DG	-	.94/.06	.93/.07	-	*.75/.25*	*.62/.38*	*p= 0.94*
	Concl.	-	Str.	Str.	-	*Cons.*	*Cons.*	**D00-D08**
								p= 0.06

1: The possible responses are: A = Mainly agree, A/P = Agree with provisos, D = Disagree, NR = No response.
2: Records the frequencies of responses from the 2000 and 2009 sample.
3. Conditional percentages of broad agreement: AG = (A+A/P)/ (A+A/P+D) and disagreement DG = D/(A+A/P+D).
4: Columns 6, 7, 8 and 9 report the entropy index ε; the conditional percentage of broad agreement (AG) or disagreement (DG), and the level of consensus (strong, consensus or no consensus.
5: p-value for the chi-square test of identical distributions of responses between two groups, e.g., Republicans (R) and democrats (D).
6: Strong consensus: $\varepsilon \leq 0.8$ and AG or DG $\geq 67\%$.
7: Consensus: $\varepsilon \leq 0.8$ or AG or DG $\geq 67\%$.
8: No consensus: $\varepsilon < 0.8$ and AG or DG $< 67\%$.
9. "-": proposition was not included in that year's survey

CONSENSUS WITHIN THE DEMOCRATIC AND REPUBLICAN PARTIES OVER TIME

We define polarization to occur when opinions diverge towards poles of distribution. Thus, one indication of polarization is lower values of the relative entropy index as opinions migrate to either agreement or disagreement with a proposition. Said differently, a higher value

of the entropy index indicates more diversity of opinion. Table 2 displays the average relative entropy index for all propositions included in the surveys, the 23 propositions common to all surveys and the 37 propositions common to the 2000 and 2009survey only.

Table 2
Comparison of average entropy

	Average Relative Entropy		
	1992	**2000**	**2009**
Republicans	0.676	0.775	0.689
Democrats	0.679	0.775	0.746
Republicans (23)	0.653	0.739	0.641
Democrats (23)	0.668*	0.770*	0.730
Republicans (37)	…	0.770*	0.688*
Democrats (37)	…	0.785	0.745

At first glance, average entropy increased for both Democrats and Republicans between 1992 and 2000. Thus, there is the suggestion that both parties may have been more inclusive or diverse in opinion in 2000 than 1992. Comparing 2009 to 2000, we see a much steeper decline in the entropy index for Republicans than Democrats. When we limit our analysis to propositions that are common between surveys, the only statistically significant changes in mean entropy at the 5% significance level, indicated with an asterisk, are observed for Republican delegates between 2000 and 2009 (37 common propositions) and for Democratic delegates between 1992 and 2000 (23 common propositions).

We shed additional light on the convergence of opinion in each party by examining the incidence of strong consensus, consensus, and no consensus constructed from the entropy index and conditional percentages of agreement reported in Table 1. Table 3 summarizes the results for the 23 propositions common to all surveys, the 37 propositions common to the 2000 and 2009 surveys, and the 42 propositions of the 2009 survey.

In all three surveys, Republican Delegations report a higher incidence of strong consensus than the Democratic delegation. This result is invariant to the set of propositions. The overall sample proportions of strong consensus fell for Republicans from 1992 to 2000 at a 10% level of significance. However, the proportion of strong consensus among Republicans is higher in 2009 than in 2000 for the 37 common propositions at a 10% level of significance. For the 23 common propositions, the difference in the proportion of strong consensus is not statistically different among Republicans between 1992 and 2009. Among Democrats, the proportion of strong consensus for the entire set of propositions as well as the 23 common propositions falls

from 1992 to 2000 at a 10% level of significance. All other differences in the proportions of strong consensus among the Democratic delegations are insignificant.

Table 3
Comparison of Degree of Consensus

Sample	Strong Consensus	Consensus	No consensus
Republicans (2008)	16/23 22/37 23/42 (70%) (59%) (55%)	5/23 8/37 11/42 (22%) (22%) (26%)	2/23 7/37 8/42 (9%) (19%) (19%)
Democrats (2008)	10/23 16/37 18/42 (43%) (43%) (43%)	8/23 11/37 13/42 (35%) (30%) (31%)	5/23 10/37 11/42 (22%) (27%) (26%)
Republicans (2000)	12/23 16/37 (52%) (43%)	5/23 8/37 (22%) (22%)	6/23 13/37 (23%) (35%)
Democrats (2000)	7/23 11/37 (30%) (30%)	6/23 12/37 (26%) (32%)	10/23 14/37 (43%) (38%)
Republicans (1992)	15/23 (65%)	4/23 (17%)	4/23 (17%)
Democrats (1992)	12/23 (52%)	7/23 (30%)	4/23 (17%)

Taken together, the two measures of consensus suggest that Democrats became significantly more inclusive or diverse in economic opinion between 1992 and 2000. A slightly weaker conclusion follows for Republicans between 1992 and 2000. However, between 2000 and 2009, the data suggests that while Republicans became significantly less inclusive or diverse in economic opinion and returned to 1992 levels in some cases, the diversity of opinion among Democrats remained largely unchanged. These insights support the findings based on the average entropy measures.

The process of polarization suggests that opinions are fluid over time and the direction of change is towards a greater degree of certainty. Comparing the 2000 and 2009 samples, our data does suggest some migration of opinion in the last decade. For the 37 common distributions in 2000 and 2009, Democrats show statistically different response patterns at the 5% confidence level for 13 propositions, while Republicans show changed response patterns for 17 propositions. Thus, Republican delegates showed a slightly higher frequency of significant shifts in response patterns between 2000 and 2009.

The economic views of Democrats are most fluid in the area of macroeconomics where the distribution of responses has significantly changed for almost half of the propositions between 2000 and 2009. In several cases, however, the changes indicate greater uncertainty than certainty. For example, in 2000 the conditional rate of agreement with the concept of a self-correcting mechanism of the economy (#1) was 61% while in the 2009 sample agreement fell to 41%, a view more representative of the 1992 sample.[1] Reflecting, perhaps, the start of the Great Recession in 2008, Democrats now indicate no-consensus with the "new economy" proposition #17. In addition, the incidence of broad agreement with the proposition that short run fluctuations in aggregate demand have no long run impacts on real GDP (#4) has fallen from 65% in 2000 to 47% in 2009.

We do find macroeconomic propositions for which Democrats have a higher level of consensus in 2009. In terms of managing the business cycle, 2009 Democrats are significantly more likely to agree with the efficacy of fiscal policy (#9) and to disagree with relegating responsibility solely to the Federal Reserve Bank (#7) although only 55% disagree with this latter proposition. 2009 Democrats are also significantly more likely to disagree with the supply side proposition linking lower marginal income tax rates to increased work effort (#14).

Democrats in 2009 are significantly more likely to agree with the proposition that large balance of trade deficits have adverse effects on the economy (#23), and to disagree with the proposition that tariffs and import quotas reduce the general welfare of society (#18). There is some suggestion that the views of current Democrats more closely resembles opinions in 1992, when over 80% of the respondents agreed that trade deficits have an adverse effect on the economy. The common denominator between 1992 and 2009 is that in both years, the U.S. economy was in a slow recovery from a recent recession. Given this, current Democrats are significantly less likely to blame non-tariff trade barriers for the U.S. trade deficit (#24). Finally, Democrats are significantly more likely to disagree that the economic benefits of an expanding world population outweigh the economic costs (#25).

In the area of distributional and microeconomic propositions (#29 - #42), there are only two propositions for which the distribution of responses in 2009 shows a significant change. Democrats are more significantly likely to disagree that the persistence of poverty is due more to the breakdown of the family than to lack of economic opportunity (#34) and more likely to agree that antitrust laws should be vigorously enforced (#36).

Republican delegates' views on macroeconomic propositions appear to have changed to a greater degree than Democrats, showing a significant change from 2000 to 2009 in the response pattern for 60% of comparable propositions. 2009 delegates appear to express some stronger monetarist and supply side sentiments compared to their 2000 counterparts, more similar to the 1992 survey in some cases. Compared to 2000, current Republicans are significantly more likely to agree with the notion that the economy tends to a natural rate of unemployment in the long-run (#2), to agree with the proposition that large federal deficits have adverse effects on the economy (#10), to agree with the proposition that the level of government spending should be reduced relative to GDP (#12), and to agree that inflation is linked to the money supply (#5). They are also significantly more likely to disagree with the proposition that fiscal policy has a significant stimulative impact on a less than fully employed economy (#9). Propositions #14 and #15 that emphasize the incentive effects of taxes also generate significantly higher likelihoods of agreement.

Not all evidence points to increasing consensus in the area of macroeconomics. In 2009, the rate of broad agreement with the proposition that management of the business should be left to the Federal Reserve Bank (#7) was 72%, down from 84% in 2000. As with Democrats, 2009 Republicans now indicate no-consensus with the "new economy" proposition #17.

While free trade is embraced more strongly (#18), agreement that the WTO threatens sovereignty in the areas of labor and environmental standards (#20) is significantly higher. Compared to the 2000 delegation, 2009 Republicans are significantly more likely to agree that trade deficits have an adverse effect on the economy (#23). However, there are significantly

higher levels of disagreement that U.S. trade deficits are linked to non-tariff barriers of trade (#24).

For the distributional propositions, 2009 Republicans are significantly more likely to agree with the proposition that minimum wages increase unemployment among young and unskilled workers (#31). Significant shifts in opinion on microeconomics propositions are observed exclusively in the area of environmental policies. Current Republicans show significantly increased disagreement with the proposition that pollution taxes or permits are more efficient than emission standards (#37) and increased agreement with the proposition that reducing the regulatory power of the EPA will increase economic efficiency (#39). For propositions #31 and #39, the distribution of opinion in 2009 is not significantly different at a 5% level from 1992**.** Proposition #37 is striking in that 2009 Republicans now disagree more strongly than their 1992 counterparts.

CONSENSUS BETWEEN THE DEMOCRATIC AND REPUBLICAN PARTIES OVER TIME

To test whether the distribution of responses differs between the political parties, we again use a chi-square test of independence, rejecting the null-hypothesis at p-values of 5% or less. In 2000, we could not reject the null-hypothesis for 42% of all propositions at a 5% level of significance. In 2009, we could not reject the null-hypothesis for 26% of all propositions. This result suggests less similarity in the economic views of Republicans and Democrats between 2000 and 2009. Based on the 23 propositions common to all survey periods, Republican and Democratic response patterns are statistically similar at the 5% level for 13% in 1992, 35% in 2000, and 17% in 2009. This comparison suggests that partisan polarization on economic issues in 1992 was at least as strong as in the most recent survey period.

It may be the case, however, that the chi-square tests of independence overstate the degree of dissimilarity between the views of Republicans and Democrats. An additional criterion involves a comparison of the direction of conditional agreement/disagreement on each proposition. That is, if both parties indicate a majority either conditionally agree or disagree with a proposition, then there is an indication of common ground even if the distribution of responses is statistically different.[2] It is those propositions for which the parties differ in the direction of conditional agreement/disagreement and that have statistically significantly different distributions that polarization is the greatest. Looking at the 2009 survey only, we identify 16 of 42 propositions that satisfy both criteria. This leaves somewhat less that two thirds of the propositions for which there appears to be common ground.

These 16 propositions are relatively clustered in propositions concerning the regulation and the distribution of income and wealth. There seems to be little common ground concerning the normative propositions that the distribution of income should be more equal (#27), that the redistribution of income is a legitimate role for government (#29), or that the Earned Income Tax Credit program should be expanded (#35). Similarly, Democrats and Republicans show little commonality for the positive propositions that the minimum wage increases unemployment among young and unskilled workers (#31), that few compensation and promotion gaps among

men and women are unexplained by productivity and/or career choices (#32), or that the persistence of poverty is due more to a breakdown of the family unit than lack of economic opportunity (#34). There is also little commonality concerning the propositions regarding regulation. Democrats and Republicans are of opposite opinion about the likelihoods that increasing the regulatory power of the Federal Reserve improving the functioning of financial markets (#9) and reductions in the regulatory power of the EPA improving the economic efficiency of the U.S. economy (#39). We also find evidence that the views of Republicans and Democrats concerning the benefits of easing restrictions on immigration (#21, #22) are on the opposite side of the fence.

One of the few propositions that generated an identical response pattern by both parties in each survey period is proposition #23 stating that large trade deficits have adverse effects on the economy. In 1992, delegates from both parties showed strong agreement with this proposition. While both 2009 delegations agree that flexible and floating exchange rates are an effective international monetary arrangement (#19), Democrats now disagree with the proposition that tariffs and import quotas usually reduce the general welfare of society (#18), a significant change from 2000. A consensus of agreement among 2009 Republicans with proposition #20 may be linked to the highlighted role of the World Trade Organization, betraying increased scepticism toward supra-national governing bodies.

In the area of macroeconomics, there is agreement in both 2009 delegations with the normative proposition that government spending should be reduced relative to GDP (#12) although Republicans more strongly agree than Democrats. In addition, both parties show a strong consensus of agreement that large federal deficits have adverse effects on the economy (#10). There does appear to be some divergence in 2009 concerning macroeconomic policy, however. While the level of agreement among Democrats on the link between money supply and inflation (#5) seems to have declined over time, Republicans more strongly embrace this monetarist view. Furthermore, there appears to be a divergence of opinion between 2009 Republicans and Democrats over the normative proposition that the Federal Reserve Bank should focus only on a low rate of inflation (#6). In the area of fiscal policy, 2009 Republicans retain their agreement with supply propositions (#13, #14, #15) while the level of disagreement among Democrats appears to be increasing over time.

CONCLUSION

The data suggest an increase in the degree of polarization between Republicans and Democrats from 2000 and 2009. At the aggregate level, there seem to be two trends that impact the apparent divergence of opinion between 2009 Democrats and Republicans. The first is a greater degree of consensus or convergence of opinion from 2000 to 2009 in the Republican party. In some respects, the 2009 Republican delegation resembles the 1992 delegation with a stronger embrace of monetarist and supply side views than in 2000. The second trend is the lower degree of consensus among 2000 compared to 1992 Democrats that was not reversed in 2009. Reflecting, perhaps the onset on the Great Recession, Democratic opinions in 2009 shifted

towards a stronger embrace of the efficacy of fiscal policy and increased doubt about the ability of the economy to self-correct.

While it is tempting to emphasize the extent of current polarization, we note many areas of agreement between Republicans and Democrats. Of the 42 propositions in the 2009 survey, both parties appear to be on the same side of the fence for 26 propositions in the sense that a majority broadly agree or disagree. There are several propositions for which there is evidence of continued agreement over time. For example, both parties agree that the level of government spending relative to GDP should be reduced and that well designed fiscal policy can increase the rate of capital formation. There is also shared concern about the impacts of large balance of trade deficits and federal budget deficits. We suggest that agreement among the parties is due to the generality and broadness of these propositions and disagreement arises over the tools used to address these issues.

It is notable the extent to which the opinions of Republicans and Democrats continue to differ when it comes to issues concerning the distribution of income. Republicans and Democrats continue to be strongly on the opposite side of the fence over the normative propositions concerning equality in the distribution of income and the legitimacy of the role of government in redistribution income. It is possible that these durable normative values spill over into opinions about the positive propositions such as the impact of minimum wages on unemployment among young and unskilled workers and the persistence of poverty. As economists note, almost every change in public policy, macroeconomic or microeconomic, has distributional implications. Economists are also adept at identifying the winners and losers of changes in public policy. Unfortunately, only under strict assumptions can economists render conclusions about distributional changes on the social welfare function. Given the strong polarization in views about the distribution of income, it may serve as an economic wedge issue and a driver of political gridlock. Unfortunately, it is in regards to the costs and benefits of income redistribution that economists have the least to offer.

Finally we note the polarization that is apparent in the propositions involving regulation and/or the environment. This is evident in the strong diversity of opinion concerning the stronger regulations evolving for the financial industry as well the substitution impacts of higher taxes on fossil fuels. There is also persistent polarization over the efficiency effects of reducing the power of the Environmental Protection Agency. And while the comparative faith in the ability of regulation to improve market outcomes has long distinguished the liberal from the conservative view, we note the inclusion in the 2008 Republican Platform of the call for "reasonable regulation, basing it on sound science to achieve goals that are technically feasible…". One possibility is that this shows an increasing skepticism of academic research by the Republican Party. If so, this may be a call for academicians as a whole to reflect on whether our normative values drive our research outcomes or whether our research informs our normative values.

Endnotes

1. Interestingly, there is still broad agreement on the existence of a natural unemployment rate to which the economy tends in the long-run (#2). As developed by Milton Friedman (1968) and Edmund Phelps (1968), the basic argument is that fiscal policy can help reduce unemployment to, but not sustainably below, the unemployment rate consistent with long run aggregate supply.

1. Fuller and Geide-Stevenson (2003) report that 91.6% of economists in their survey broadly agree with proposition #37. Given that it is now more or less standard in introductory economics texts to discuss the comparative efficiency of marketable pollution permits and/or effluent taxes versus emissions standards, the apparent growing disconnect between politician (both Republican and Democrat) and economist is glaring in light of the Fuller and Geide-Stevenson (2007) finding that Democrats and Republicans are more likely to agree among themselves than to agree with economists.
2. A good example of this is proposition #2 concerning the natural rate of unemployment. The 2009 sample conditional rate of agreement among Republicans is 93% while for Democrats it is 70%. However, the chi-square test of independence is rejected at a 5% level of significance.

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