### 2016 ReThink Energy NJ

# Annual Survey: "Attitudes on Energy in New Jersey"



October 2016

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#### I. Executive Summary

#### **About this study**

Fairleigh Dickinson University's PublicMind conducted a telephone survey of randomly selected registered voters in New Jersey on behalf of and commissioned by ReThink Energy NJ. The study's main objective was to measure the awareness of, and attitudes toward, various energy sources in New Jersey. In addition, the study measured awareness and perceptions of proposed natural gas pipelines in the state.

The poll was conducted by landline and cellular telephone among a random sample of 704 registered New Jersey voters . Results have a margin of sampling error of +/- 3.6 percentage points, including the design effect. The total combined sample was mathematically weighted to match known demographics of age, sex, race, and education. 415 (51%) interviews were conducted on landlines and 289 (41%) were conducted on cellular telephones.

All surveys were completed between September 27 and October 7, 2016 and averaged just under 10 minutes in length. The results are summarized below. Where feasible, results from this year's study will be contrasted with those from last year's study.

Once again, registered voters in this study are very supportive of renewable energy initiatives, and support the state moving forward more rapidly than it is currently. As was observed last year, support for renewable energy is strong among all demographic groups, especially women, younger respondents, and Democrats. These demographic differences are consistent with the general trend in public opinion on environmental issues. Overall, more believe that solar (44%) is the most important energy source to New Jersey's future. This was true across all demographics and is consistent with the results from last year's study.

Overall 87 percent believe investing in renewable energy is very or somewhat important to the overall health of New Jersey.

Given a choice of two opposing statements, two-thirds (61%) believe pipelines threaten New Jersey, while only one third (32%) believe they help, virtually unchanged from the last study.

Residents understand that solar and wind (94% and 93%) are "clean" sources of energy. However, there continues to be confusion regarding whether natural gas is "clean", as 56 percent believe it is. This year fewer (31%) view nuclear energy as clean than in the past.



When asked which term they viewed most favorably, an equal percent chose "clean". (38%) as chose "renewable" (37%). "Green" was the once again the least popular choice (17%).

Seventy-one percent (71%) say it is more important for the state to invest in clean energy sources than in fossil fuels through construction of additional pipelines (20%).

Overall, 3 in 4 (75%) favor New Jersey's next Governor setting higher goals of sourcing 30 percent of the state's energy from renewable sources by 2020 and 50 percent by 2030. A majority (68%) favor reaching 80 percent renewable energy in the state by 2050.

The majority (69%) are 'very' or 'somewhat' concerned with climate change, and about two-thirds (63%) believe that the rate at which the state is developing and adopting renewable energy is too slow.

Half indicate they would be more likely to support a political candidate if they supported moving to clean energy sources, and women and Democrats hold an even stronger stance on this position.

The majority (74%) favor the development of off-shore wind energy off the coast of New Jersey.

More than half (58%) believe changes in climate is due to human intervention, while only a third (35%) say it is due to natural patterns.

Although most have heard just a little or nothing about the development of pipelines (60%), more than half (63%) express concern with proposed pipelines. Both measures are consistent with the 2015 study.

When asked about a variety of potential risks linked to pipeline development in the state, the vast majority of respondents say they would be "very" or "somewhat concerned" with each of the below risks. Across all instances, the level of concern was consistent with the 2015 study.

Risks from Pipelines	2016	2015
Eminent domain	88%	87%
The impact to natural areas	82%	85%
The risks to air and water quality	81%	84%
The use of open space for pipelines	81%	83%
The safety risks	79%	83%
The delivery of gas extracted by fracking	69%	na



#### II. Detailed Results -

### 1. First, how closely do you follow news about the various ways that people in NJ power their homes and businesses?

Overall, about 3 in 5 (62%) report following news about energy sources, slightly higher than last year (59%). Women (42%) are more likely than men (34%) to not follow it closely. Those aged 18-34 (58%) are the least likely of their cohorts to follow closely.

Chart 1

■Total ■Male ■Female 50% 47% 47% 47% 45% 42% 38% 40% 34% 35% 30% 25% 20% 20% 15% 10% 10% 5%

Region 1 Age Northwest Northeast **Urban Core** PennEast South Coast 18-34 35-59 60+ Very closely 13% 14% 13% 12% 14% 18% 5% 15% 18% Somewhat closely 54% 44% 46% 47% 44% 44% 35% 50% 50% Not at all closely 33% 42% 40% 40% 40% 37% 58% 34% 31%

Somewhat closely

	,	Party ID	Union Member		
	Dem Ind Rep			Yes	No
Very closely	13%	15%	16%	15%	14%
Somewhat closely	47%	49%	47%	44%	48%
Not at all closely	39% 36% 36%			40%	37%

<sup>&</sup>lt;sup>1</sup> Northwest: Morris, Somerset, Sussex, and Warren Counties

Northeast: Bergen and Passaic Counties

0%

**Urban Core**: Essex, Hudson, Middlesex, and Union Counties

PennEast: Hunterdon, and Mercer Counties

South: Burlington, Camden, Cumberland, Gloucester, and Salem Counties

Very closely

Coast: Atlantic, Cape May, Monmouth, and Ocean Counties



Not at all closely

0%

Solar

Natural gas

#### 2. Which source do you think is most important to New Jersey's energy future?

A plurality (44%) say solar is the most important to New Jersey's energy future, which holds true across all demographics.

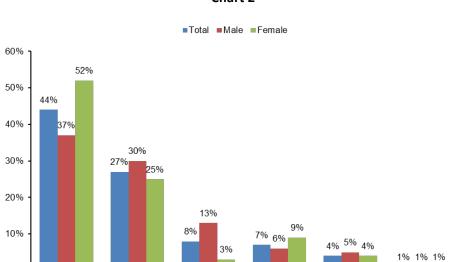


Chart 2

		Region						Age		
	Northwest	Northeast	<b>Urban Core</b>	PennEast	South	Coast	18-34	35-59	60+	
Solar	48%	49%	55%	47%	43%	38%	50%	49%	37%	
Natural gas	27%	22%	24%	26%	22%	32%	24%	28%	29%	
Nuclear	7%	8%	2%	2%	4%	5%	9%	5%	10%	
Wind	8%	9%	7%	4%	9%	8%	7%	8%	8%	
Oil	6%	6%	6%	14%	12%	6%	5%	3%	6%	
Coal	3%	2%	0%	2%	0%	2%	1%	1%	2%	

Nuclear

Wind

Oil

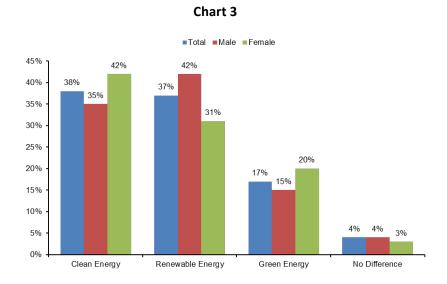
Coal

		Party II	Union Member		
	Dem	Ind	Rep	Yes	Yes
Solar	61%	35%	32%	51%	41%
Natural gas	18%	30%	39%	28%	27%
Nuclear	4%	12%	7%	7%	8%
Wind	10%	6%	5%	6%	8%
Oil	2%	5%	7%	3%	5%
Coal	0%	2%	2%	1%	1%



#### 3. Among the following terms, which do you view most favorably?

Overall, "clean energy" (38%) and "renewable energy" (37%) are equally cited as the most favorable terms, whereas only 17 percent favor "green energy". More women (42%) than men (35%) prefer "clean energy", while men (42%) are more likely than women (31%) to prefer "renewable energy". Those aged 18-34 (41%) and those from the Northwest (46%) favor the term "renewable".



	Region <sup>1</sup>							Age	
	Northwest	Northeast	<b>Urban Core</b>	PennEast	South	Coast	18-34	35-59	60+
Clean Energy	32%	41%	44%	38%	33%	37%	33%	36%	45%
Renewable Energy	46%	35%	30%	39%	35%	37%	41%	39%	33%
Green Energy	18%	15%	21%	17%	19%	21%	22%	17%	15%
No Difference	3%	4%	3%	2%	7%	1%	2%	5%	3%

		Party II	Union Member		
	Dem	Dem Ind Rep			Yes
Clean Energy	35%	39%	42%	35%	40%
Renewable Energy	33%	37%	44%	37%	37%
<b>Green Energy</b>	24%	14%	10%	21%	16%
No Difference	5%	6%	5%	3%	

**1 Northwest:** Morris, Somerset, Sussex, and Warren counties

Northeast: Bergen and Passaic counties

**Urban Core:** Essex, Hudson, Middlesex, and Union counties

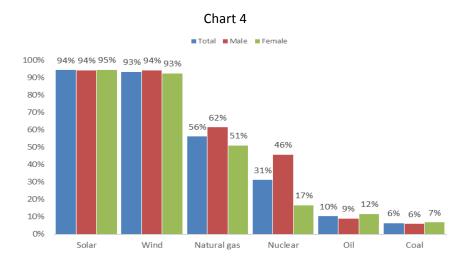
PennEast: Hunterdon, and Mercer counties

**South:** Burlington, Camden, Cumberland, Gloucester, and Salem counties



#### 4. Which of the following do you believe are considered clean energy sources?

A majority believe solar (94%) and wind (93%) are clean energy sources. More than half (56%) think that natural gas is a clean energy source, with a third who identify nuclear (31%). Fewer this year than last say that oil (10% vs. 17%) or coal (6% vs. 13%) are clean. More men than women believe natural gas (62% vs. 51%) and nuclear (46% vs. 17%) are clean.



		Region <sup>1</sup>						Age		
	Northwest	Northeast	<b>Urban Core</b>	PennEast	South	Coast	18-34	35-59	60+	
Solar	97%	99%	95%	98%	88%	95%	97%	94%	94%	
Wind	93%	97%	91%	97%	94%	94%	97%	96%	90%	
Natural gas	52%	60%	52%	60%	53%	60%	43%	59%	59%	
Nuclear	35%	35%	24%	26%	25%	34%	24%	29%	37%	
Oil	15%	12%	11%	4%	9%	8%	9%	11%	10%	
Coal	4%	11%	5%	4%	5%	9%	4%	6%	8%	

		Party I	D	Union Member		
	Dem	Ind	Rep	Yes	Yes	
Solar	97%	92%	94%	95%	94%	
Wind	95%	91%	94%	95%	93%	
Natural gas	42%	71%	62%	52%	58%	
Nuclear	22%	40%	35%	25%	34%	
Oil	4%	18%	11%	8%	11%	
Coal	1%	14%	7%	4%	7%	

Northwest: Morris, Somerset, Sussex, and Warren counties Northeast: Bergen and Passaic counties

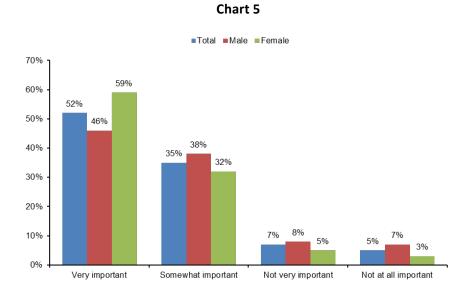
Urban Core: Essex, Hudson, Middlesex, and Union counties

PennEast: Hunterdon, and Mercer counties

**South**: Burlington, Camden, Cumberland, Gloucester, and Salem counties

### 5. How important do you believe investing in renewable energy sources, like wind and solar, is to the overall health of the state of New Jersey?

Overall, 87 percent believe investing in renewable energy is very or somewhat important. Slightly more women than men (91% vs. 84%), more in the 18-34 (91%) age cohort than in the 60+ (84%), and more Democrats (96%) than Republicans (83%) or Independents (82%) believe it to be important.



Region<sup>1</sup> Age **Northeast Urban Core** 35-59 Northwest **PennEast** South Coast 18-34 60+ Very important 54% 57% 62% 63% 48% 46% 60% 53% 47% 35% 33% 28% 28% 41% 41% 31% 35% 37% Somewhat important Not very important 3% 5% 7% 7% 7% 6% 6% 3% 9% Not at all important 4% 5% 4% 3% 6% 3% 3% 5% 6%

		Party I	Union Member			
	Dem	Ind	Rep	Yes Yes		
Very important	77%	40%	34%	60%	49%	
Somewhat important	19%	42%	49%	32%	37%	
Not very important	1%	9%	11%	2%	9%	
Not at all important	1%	8%	6%	5%	5%	

Northwest: Morris, Somerset, Sussex, and Warren counties
 Northeast: Bergen and Passaic counties
 Urban Core: Essex, Hudson, Middlesex, and Union counties

PennEast: Hunterdon, and Mercer counties

South: Burlington, Camden, Cumberland, Gloucester, and Salem

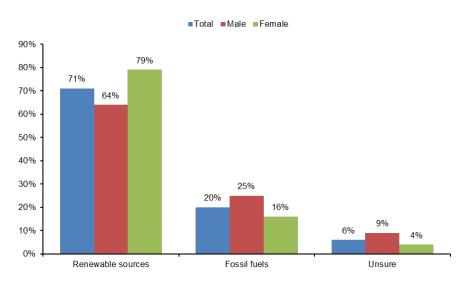
counties



# 6. In order to meet New Jersey's energy needs, do you believe the state should invest more in renewable energy sources, like wind and solar, or more in fossil fuels, like oil and natural gas, through the construction of additional pipelines?

Overall, 4 in 5 (71%) believe the state should invest more in clean energy sources than in fossil fuels. While differences are seen across all measured demographics, renewable energy is overwhelmingly the favored choice.





	Region <sup>1</sup>							Age	
	Northwest	Northeast	Urban Core	PennEast	South	Coast	18-34	35-59	60+
Renewable sources	71%	78%	78%	76%	73%	63%	83%	72%	65%
Fossil fuels	26%	19%	15%	12%	17%	21%	12%	18%	28%
Unsure	1%	2%	5%	7%	9%	13%	5%	7%	6%

		Party I	Union Member		
	Dem Ind Rep			Yes	Yes
Renewable sources	93%	63%	53%	80%	68%
Fossil fuels	5%	25%	34%	15%	23%
Unsure	2%	9%	9%	5%	7%

<sup>&</sup>lt;sup>1</sup> Northwest: Morris, Somerset, Sussex, and Warren counties

Northeast: Bergen and Passaic counties

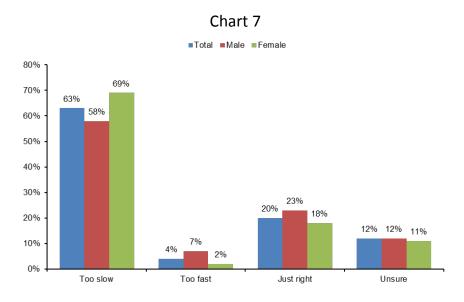
Urban Core: Essex, Hudson, Middlesex, and Union counties

PennEast: Hunterdon, and Mercer counties

South: Burlington, Camden, Cumberland, Gloucester, and Salem counties

### 7. How do you rate the pace at which our state is developing and adopting renewable alternatives?

About 3 in 5 (63%) continue to say New Jersey is moving too slowly in developing clean energy alternatives, consistent with last year. Women (69%) are more likely than men (58%) to express this sentiment.



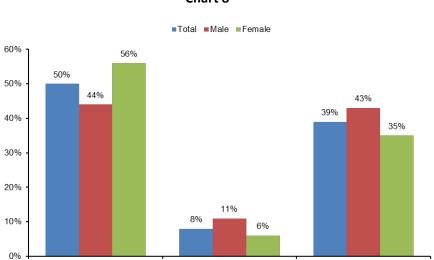
	Region							Age		
	Northwest	Northeast	Urban Core	PennEast	South	Coast	18-34	35-59	60+	
Too slow	63%	63%	69%	78%	53%	65%	63%	61%	67%	
Too fast	6%	4%	2%	5%	5%	4%	5%	6%	2%	
Just right	26%	19%	21%	13%	24%	19%	26%	21%	16%	
Unsure	5%	13%	8%	5%	17%	12%	63%	61%	67%	

		Party I	Union Member		
	Dem	Ind	Rep	Yes	Yes
Too slow	78%	57%	52%	69%	61%
Too fast	2%	7%	5%	2%	5%
Just right	12%	25%	28%	20%	20%
Unsure	9%	11%	14%	8%	13%



# 8. When thinking about elected officials, does their support for moving from fossil fuels to renewable energy like solar or wind make you more likely or less likely to support them, or does their support for renewable energy make no difference?

Overall, half (50%) are more likely to support an elected official who supports renewable energy development, with more women (56%) than men (44%) feeling this way.



#### Chart 8

	Region						Age		
	Northwest	Northeast	<b>Urban Core</b>	PennEast	South	Coast	18-34	35-59	60+
More Likely	45%	65%	53%	67%	49%	43%	59%	47%	49%
Less Likely	8%	4%	7%	6%	9%	9%	5%	8%	10%
No Difference	44%	29%	39%	27%	41%	44%	33%	43%	37%
Unsure	3%	2%	1%	0%	1%	3%	4%	1%	2%

Less likely

More likely

		Party I	Union Member			
	Dem	Ind	Rep	Yes Yes		
More Likely	75%	40%	30%	50%	50%	
Less Likely	2%	12%	11%	9%	8%	
No Difference	20%	43%	40%	39%		
Unsure	2% 3% 1% 1%					

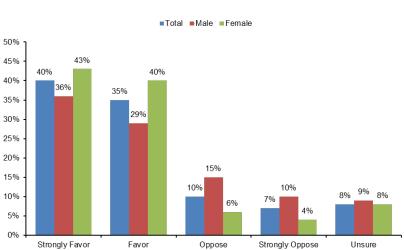


Makes no difference

9a. As you may or may not know, New York's Governor Cuomo has set a goal of 30% renewable energy by 2020 and 50% by 2030; both targets are above New Jersey's current goals. Would you favor or oppose New Jersey's next governor setting similar goals?

Overall, 75 percent favor setting a goal of having 30 percent of New Jersey's energy coming from clean sources by 2020 and half by 2030. Far more women (83%) than men (65%) and more Democrats (92%) than Republicans (66%) or Independents (63%) support the measure. Southern residents are the least likely to support a higher goal (70%), and residents in Mercer/Hunterdon county are the most likely to support it (86%).

Chart 9



		Party I	Union Member			
	Dem	Ind	Rep	Yes Yes		
Strongly Favor	30%	31%	45%	32%	35%	
Favor	62%	32%	21%	49%	37%	
Oppose	3%	16%	13%	5%	12%	
<b>Strongly Oppose</b>	2 1% 11% 9% 5%				8%	
Unsure	4%	1% 10% 10% 8%				

Region

PennEast

50%

36%

7%

2%

5%

**Urban Core** 

41%

37%

10%

6%

6%

Northeast

49%

32%

3%

5%

9%

Northwest

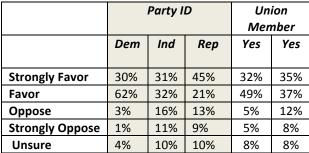
36%

40%

11%

8%

5%





**Strongly Favor** 

**Strongly Oppose** 

**Favor** 

Oppose

Unsure

Age

35-59

32%

39%

11%

9%

8%

60+

32%

41%

12%

6%

8%

18-34

45%

40%

5%

4%

6%

Coast

41%

33%

15%

2%

9%

South

34%

36%

9%

11%

9%

### 9b. Would you favor or oppose New Jersey setting a higher goal of 80% of energy from these sources by 2050?

Similarly, most (68%) favor a bill requiring 80 percent of New Jersey's energy to come from renewable energy sources by 2050. The demographic differences virtually mirror those in the 2020 goal question.

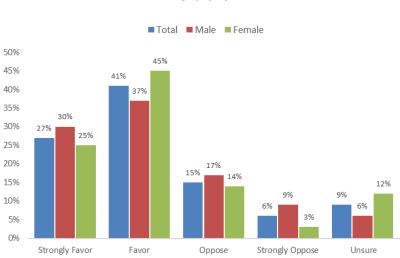


Chart 10

	Region							Age		
	Northwest	Northeast	<b>Urban Core</b>	PennEast	South	Coast	18-34	35-59	60+	
Strongly Favor	22%	24%	31%	29%	24%	29%	34%	27%	24%	
Favor	47%	46%	42%	31%	40%	34%	41%	46%	35%	
Oppose	17%	18%	17%	21%	16%	15%	12%	12%	22%	
Strongly Oppose	7%	4%	5%	6%	8%	9%	8%	5%	6%	
Unsure	8%	8%	5%	13%	13%	13%	4%	9%	13%	

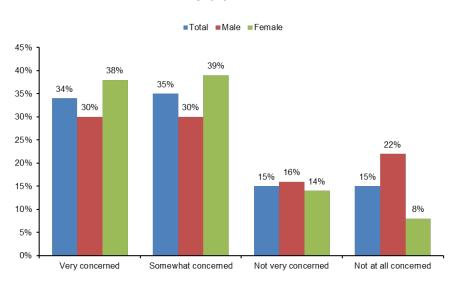
		Party II	Union Member		
	Dem	Ind	Rep	Yes	Yes
Strongly Favor	40%	24%	16%	27%	28%
Favor	41%	47%	40%	40%	42%
Oppose	10%	14%	22%	17%	15%
Strongly Oppose	2% 5% 10%			10%	5%
Unsure	7% 10% 10% 6%				10%



### 10. How would you describe your feelings toward the effects of climate change in New Jersey? Are you.

Overall, 7 in 10 (69%) at least somewhat concerned with the effects of climate change in New Jersey. Women (77%) express more concern than men (60%), and more Democrats (90%) than Republicans (43%) or Independents (64%) express concern.

Chart 11



				Age					
	Northwest	Northeast	Urban Core	PennEast	South	Coast	18-34	35-59	60+
Very Concerned	32%	38%	45%	50%	30%	29%	29%	34%	38%
Somewhat Concerned	31%	39%	35%	30%	33%	31%	40%	34%	31%
Not Very Concerned	18%	12%	10%	12%	16%	19%	16%	16%	14%
Not Concerned At All	19%	9%	9%	8%	19%	20%	12%	16%	16%

		Party I	Union Member			
	Dem	Ind	Rep	Yes Yes		
Very Concerned	62%	25%	9%	43%	31%	
Somewhat Concerned	28%	39%	34%	32%	35%	
Not Very Concerned	5%	18%	26%	11%	17%	
Not Concerned At All	4% 17% 29% 15%				15%	

<sup>&</sup>lt;sup>1</sup> Northwest: Morris, Somerset, Sussex, and Warren counties

Northeast: Bergen and Passaic counties

Urban Core: Essex, Hudson, Middlesex, and Union counties

PennEast: Hunterdon, and Mercer counties

South: Burlington, Camden, Cumberland, Gloucester, and Salem counties



### 11. Do you favor or oppose the development of off-shore wind energy off the coast of New Jersey?

Overall, three quarters (74%) favor the development of off-shore wind energy. This support is widespread, with no significant differences across any measured demographic at the combined strongly favor/favor level.

Chart 12 ■Total ■Male ■Female 50% 45% 45% 42% 39% 40% 35% 30% 26% 25% 19% 20% 14% 15% 10% 7% 7% 5% 4% 4% 5% Strongly Favor Favor Oppose Strongly Oppose Unsure

	Region <sup>1</sup>							Age		
	Northwest	Northeast	<b>Urban Core</b>	PennEast	South	Coast	18-34	35-59	60+	
Strongly Favor	33%	41%	21%	35%	33%	41%	23%	35%	35%	
Favor	40%	39%	52%	38%	39%	34%	53%	42%	35%	
Oppose	10%	5%	7%	3%	8%	6%	8%	5%	8%	
Strongly Oppose	3%	3%	4%	2%	6%	4%	3%	3%	7%	
Unsure	15%	13%	15%	22%	14%	15%	12%	15%	15%	

		Party I	Union Member		
	Dem Ind Rep Yes				Yes
Strongly Favor	41%	28%	28%	38%	30%
Favor	38%	43%	45%	36%	44%
Oppose	5%	8%	7%	4%	8%
Strongly Oppose	4% 3% 6%			4%	4%
Unsure	12%	16%	14%	17%	13%

1 Northwest: Morris, Somerset, Sussex, and Warren counties Northeast: Bergen and Passaic counties

**Urban Core**: Essex, Hudson, Middlesex, and Union counties

PennEast: Hunterdon, and Mercer counties

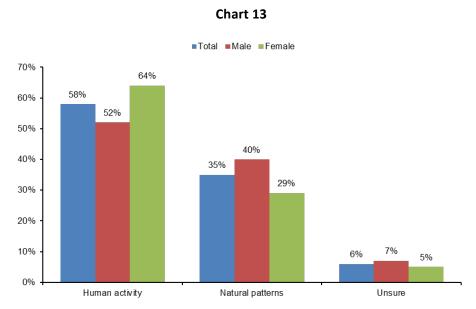
**South**: Burlington, Camden, Cumberland, Gloucester, and Salem

counties



## 12. Some people say the Earth is getting warmer because of human activity, while others say it's mostly due to natural patterns in the earth's environment. Which is closer to your view?

Overall, three in five (58%) believe human activity is impacting the earth's climate. Women (64%) are more likely to attribute this change to humans than are men (52%). Democrats (82%) are more likely to cite human activity than are Independents (49%) or Republicans (37%).



Region<sup>1</sup> Age Northwest Northeast **Urban Core PennEast** South 18-34 35-59 60+ Coast **Human Activity** 58% 64% 62% 52% 63% 57% 57% 65% 54% **Natural Patterns** 37% 26% 31% 35% 40% 37% 29% 36% 37% 4% Unsure 8% 3% 2% 7% 8% 8% 6%

		Party I	Union Member		
	Dem	Ind	Rep	Yes	Yes
Human Activity	82%	49%	37%	60%	57%
Natural Patterns	s 14% 40% 55% 3				35%
Unsure	3%	8%	7%	4%	7%

<sup>Northwest: Morris, Somerset, Sussex, and Warren counties
Northeast: Bergen and Passaic counties
Urban Core: Essex, Hudson, Middlesex, and Union counties
PennEast: Hunterdon, and Mercer counties</sup> 

**South**: Burlington, Camden, Cumberland, Gloucester, and Salem counties



#### 13. How much have you read or heard about the construction of new gas pipelines in the state?

Most have heard just a little or nothing about the pipelines (60%). Women (67%) are more likely than men (54%) to have heard just a little or nothing. Those from the proposed PennEast pipeline counties of Hunterdon and Mercer (74%) and those 60+ (50%) are more likely than their cohorts to have heard 'a lot' or 'some' about the new pipelines

■Total ■Male ■Female 40% 37% 35% 32% 30% 30% 28% 28% 26% 26% 24% 25% 22% 20% 20% 15% 10% 5% 0% A lot Just a little Some Nothing at all

Chart 14

			Region <sup>1</sup>				Age			
	Northwest	Northeast	<b>Urban Core</b>	PennEast	South	Coast	18-34	35-59	60+	
A lot	14%	15%	6%	30%	19%	15%	9%	13%	22%	
Some	26%	15%	22%	44%	18%	31%	16%	25%	28%	
Just a little	33%	34%	28%	10%	30%	29%	30%	29%	26%	
Nothing at all	27%	36%	44%	16%	33%	25%	44%	33%	23%	

		Party I	D		ion nber
	Dem	Ind	Rep	Yes	Yes
A lot	14%	20%	11%	15%	15%
Some	23%	23%	28%	24%	25%
Just a little	31%	24%	32%	26%	29%
Nothing at all	32%	33%	28%	34%	31%

<sup>&</sup>lt;sup>1</sup> Northwest: Morris, Somerset, Sussex, and Warren counties Northeast: Bergen and Passaic counties

Urban Core: Essex, Hudson, Middlesex, and Union counties

PennEast: Hunterdon, and Mercer counties

South: Burlington, Camden, Cumberland, Gloucester, and Salem Coast: Atlantic, Cape May, Monmouth, and Ocean counties



### 14. How concerned are you, if at all, about the potential impacts of these pipelines to New Jersey?

When asked a general question regarding concern about pipeline impact in New Jersey, 3 in 5 (63%) said they were "somewhat" or "very" concerned. Once again, more women (73%) than men (52%), and more Democrats (83%) than Republicans (47%) or Independents (53%) expressed concern.

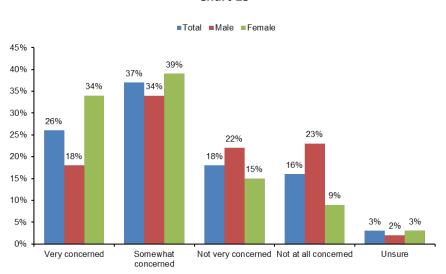


Chart 15

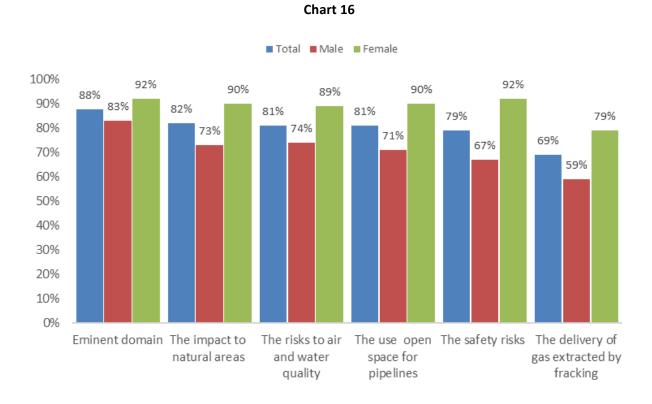
			Region				Age		
	Northwest	Northeast	<b>Urban Core</b>	PennEast	South	Coast	18-34	35-59	60+
Very concerned	26%	31%	29%	44%	24%	18%	22%	24%	29%
Somewhat concerned	36%	41%	41%	21%	40%	36%	46%	34%	36%
Not very concerned	20%	12%	16%	20%	17%	24%	19%	23%	13%
Not at all concerned	16%	14%	11%	15%	17%	18%	11%	17%	18%
DK	2%	2%	3%	1%	2%	4%	2%	2%	4%

		Party I	D	Union Member		
	Dem	Ind	Rep	Yes	Yes	
Very Concerned	42%	20%	11%	33%	23%	
Somewhat Concerned	41%	33%	36%	37%	37%	
Not Very Concerned	9%	21%	28%	16%	19%	
Not at all Concerned	5%	23%	24%	13%	17%	
DK	3%	3%	2%	1%	3%	



#### 15. Concern about the pipeline development to: SUMMARY

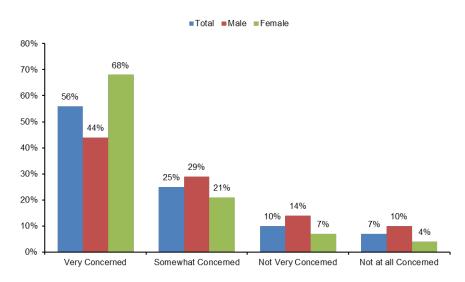
When asked how concerned they are regarding six specific potential issues with the proposed pipelines, data are strikingly similar across all measures. Only the concern for the delivery of gas from fracking outside the state rated significantly lower than the others, although there is still significant concern (69%). In virtually all instances, more women express concern than men, those 18-34 are the most concerned age demographic, and Democrats express more concern than Republicans or Independents. Charts 17 through 22 detail these responses.





#### 15a. Concern about the pipeline development to: The risks to air and water quality

Chart 17



		Region <sup>1</sup>							
	Northwest	Northeast	<b>Urban Core</b>	PennEast	South	Coast	18-34	35-59	60+
Very Concerned	52%	62%	69%	65%	57%	48%	64%	54%	56%
Somewhat Concerned	24%	21%	22%	13%	27%	28%	25%	25%	24%
Not Very Concerned	12%	8%	5%	15%	10%	11%	6%	13%	9%
Not at all Concerned	12%	7%	3%	5%	4%	10%	2%	7%	10%

		Party I	D	Union Member		
	Dem	Ind	Rep	Yes	Yes	
Very Concerned	79%	48%	34%	64%	53%	
Somewhat Concerned	16%	30%	31%	21%	27%	
Not Very Concerned	3%	12%	18%	9%	11%	
Not at all Concerned	2%	8%	14%	6%	8%	

**<sup>1</sup>** Northwest: Morris, Somerset, Sussex, and Warren counties

 $\textbf{Northeast} \hbox{: Bergen and Passaic counties}$ 

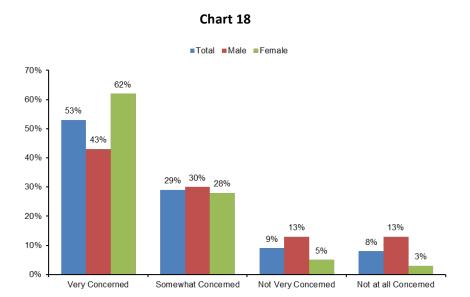
**Urban Core**: Essex, Hudson, Middlesex, and Union counties

PennEast: Hunterdon, and Mercer counties

South: Burlington, Camden, Cumberland, Gloucester, and Salem counties



### 15b. Concern about the pipeline development to: The impact to natural areas and wildlife habitats?



			Age						
	Northwest	Northeast	Urban Core	PennEast	South	Coast	18-34	35-59	60+
Very Concerned	53%	61%	60%	49%	51%	46%	62%	51%	51%
Somewhat Concerned	27%	23%	27%	33%	30%	35%	29%	27%	30%
Not Very Concerned	6%	9%	5%	11%	9%	10%	3%	12%	9%
Not at all Concerned	13%	6%	5%	6%	7%	8%	5%	8%	9%

		Party I	D	Union Member		
	Dem	Ind	Rep	Yes	Yes	
Very Concerned	72%	45%	34%	61%	49%	
Somewhat Concerned	24%	31%	34%	22%	32%	
Not Very Concerned	2%	12%	14%	8%	9%	
Not at all Concerned	2%	10%	16%	8%	8%	

<sup>&</sup>lt;sup>1</sup> Northwest: Morris, Somerset, Sussex, and Warren counties

Northeast: Bergen and Passaic counties

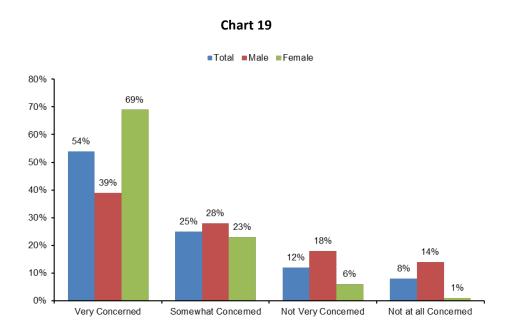
**Urban Core**: Essex, Hudson, Middlesex, and Union counties

PennEast: Hunterdon, and Mercer counties

South: Burlington, Camden, Cumberland, Gloucester, and Salem counties



### 15c. Concern about the pipeline development to: The safety risks associated with ruptures, leaks, or explosions?



			Age						
	Northwest	Northeast	Urban Core	PennEast	South	Coast	18-34	35-59	60+
Very Concerned	52%	60%	67%	52%	54%	45%	64%	48%	57%
Somewhat Concerned	26%	18%	20%	30%	28%	28%	22%	30%	21%
Not Very Concerned	14%	10%	7%	11%	9%	17%	7%	12%	14%
Not at all Concerned	9%	9%	5%	7%	7%	9%	5%	9%	8%

		Party I	D	Union Member		
	Dem	Ind	Rep	Yes	Yes	
Very Concerned	76%	44%	37%	62%	51%	
Somewhat Concerned	19%	27%	31%	18%	29%	
Not Very Concerned	3%	16%	20%	11%	12%	
Not at all Concerned	2%	12%	11%	8%	8%	

<sup>&</sup>lt;sup>1</sup> Northwest: Morris, Somerset, Sussex, and Warren counties

 $\textbf{Northeast} \hbox{: Bergen and Passaic counties}$ 

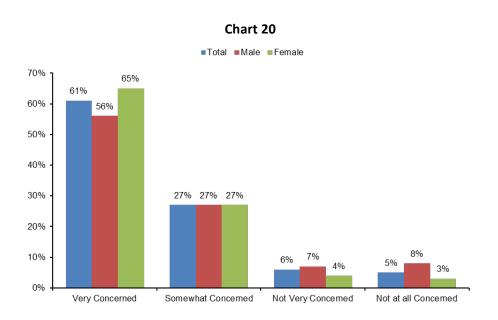
**Urban Core**: Essex, Hudson, Middlesex, and Union counties

PennEast: Hunterdon, and Mercer counties

**South**: Burlington, Camden, Cumberland, Gloucester, and Salem counties



### 15d. Concern about the pipeline development to: The seizure of private property, also known as eminent domain, for big energy companies?



			Region				Age		
	Northwest	Northeast	<b>Urban Core</b>	PennEast	South	Coast	18-34	35-59	60+
Very Concerned	55%	62%	61%	61%	65%	63%	57%	61%	64%
Somewhat Concerned	35%	21%	25%	30%	24%	26%	33%	28%	23%
Not Very Concerned	4%	9%	6%	4%	4%	5%	5%	6%	5%
Not at all Concerned	5%	7%	5%	5%	5%	5%	5%	4%	7%

		Party I	D	Union Member		
	Dem	Ind	Rep	Yes	Yes	
Very Concerned	68%	58%	55%	71%	57%	
Somewhat Concerned	24%	27%	29%	23%	28%	
Not Very Concerned	4%	7%	7%	2%	7%	
Not at all Concerned	3%	6%	7%	3%	6%	

<sup>&</sup>lt;sup>1</sup> Northwest: Morris, Somerset, Sussex, and Warren counties

Northeast: Bergen and Passaic counties

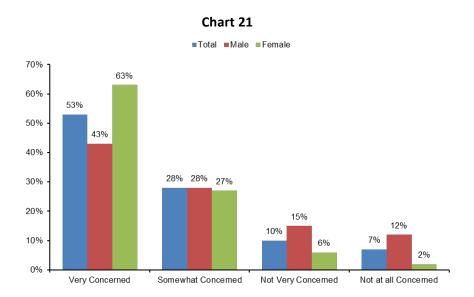
**Urban Core**: Essex, Hudson, Middlesex, and Union counties

PennEast: Hunterdon, and Mercer counties

South: Burlington, Camden, Cumberland, Gloucester, and Salem counties



### 15e. Concern about the pipeline development to: The use of taxpayer funded and protected open space for construction of pipelines?



	Region						Age		
	Northwest Northeast Urban Core PennEast South Coast						18-34	35-59	60+
Very Concerned	53%	57%	55%	67%	49%	45%	55%	53%	53%
Somewhat Concerned	28%	26%	27%	19%	33%	33%	32%	26%	28%
Not Very Concerned	10%	9%	9%	7%	9%	12%	8%	12%	9%
Not at all Concerned	8%	5%	7%	5%	6%	7%	4%	8%	8%

		Party I	Union Member		
	Dem Ind Rep		Yes	Yes	
Very Concerned	64%	50%	40%	59%	51%
<b>Somewhat Concerned</b>	26%	26%	32%	24%	29%
Not Very Concerned	4%	14%	16%	8%	11%
Not at all Concerned	4%	8%	11%	7%	7%

<sup>&</sup>lt;sup>1</sup> Northwest: Morris, Somerset, Sussex, and Warren counties

Northeast: Bergen and Passaic counties

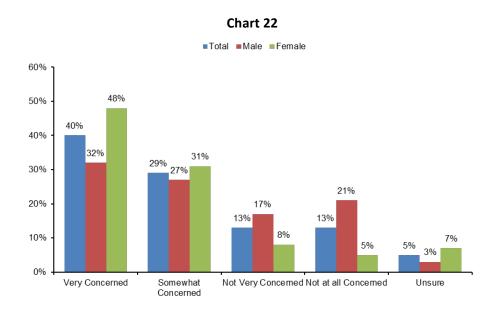
 $\textbf{Urban Core} : \mathsf{Essex}, \mathsf{Hudson}, \mathsf{Middlesex}, \mathsf{and} \ \mathsf{Union} \ \mathsf{counties}$ 

PennEast: Hunterdon, and Mercer counties

South: Burlington, Camden, Cumberland, Gloucester, and Salem counties



### 15f. Concern about the pipeline development to: The delivery of gas extracted by fracking in other states?



	Region						Age		
	Northwest	Northeast	Urban Core	PennEast	South	Coast	18-34	35-59	60+
Very Concerned	33%	43%	38%	54%	42%	43%	36%	39%	42%
Somewhat Concerned	35%	29%	35%	19%	32%	20%	37%	26%	29%
Not Very Concerned	15%	14%	13%	14%	9%	9%	9%	17%	10%
Not at all Concerned	14%	9%	9%	13%	11%	18%	10%	13%	13%
Unsure	3%	5%	5%	0%	5%	8%	5%	4%	6%

		Party I	Union Member		
	Dem	Ind	Rep	Yes	Yes
Very Concerned	59%	33%	24%	48%	37%
Somewhat Concerned	28%	25%	36%	21%	33%
Not Very Concerned	5%	16%	17%	13%	12%
Not at all Concerned	4%	20%	18%	13%	13%
Unsure	3%	5%	5%	3%	5%

<sup>&</sup>lt;sup>1</sup> Northwest: Morris, Somerset, Sussex, and Warren counties

Northeast: Bergen and Passaic counties

Urban Core: Essex, Hudson, Middlesex, and Union counties

PennEast: Hunterdon, and Mercer counties

South: Burlington, Camden, Cumberland, Gloucester, and Salem counties

 $\textbf{Coast} \hbox{: Atlantic, Cape May, Monmouth, and Ocean counties} \\$ 



### 16. Which of the following statements best describes how you feel, even if neither is perfect?

When presented with two opposing statements regarding the proposed pipelines, the majority (61%) chose "pipelines threaten preserved lands, our water supplies, and public health and safety. New Jersey should instead adopt clean sources of energy like wind and solar that will benefit our environment and economy." Only a third (32%) selected the option "pipelines are safe, create jobs and bring cheap and reliable natural gas that will benefit New Jersey businesses and consumers." Significant differences are seen across virtually all measured demographics.

Chart 23 ■Total ■Male ■Female 80% 73% 70% 61% 60% 49% 50% 43% 40% 32% 30% 21% 20% 7% 10% 6% 5% 0%

Pipelines threaten Pipelines help Region Age **Northwest** Northeast **Urban Core** PennEast South Coast 18-34 35-59 60+ Pipelines help 38% 24% 23% 26% 34% 40% 25% 34% 34% **Pipelines threaten** 58% 66% 68% 71% 64% 53% 70% 57% 62%

8%

9%

2%

		Party I	_	Union Member		
	Dem Ind Rep		Yes	Yes		
Pipelines help	11%	39%	53%	27%	34%	
Pipelines threaten	84%	53%	39%	66%	59%	
Unsure	4%	6%	7%	6%	6%	



**Unsure** 

2%

1%

7%

25%

34%

34%

#### **III. Sample Characteristics**

#### Gender

Male	50%
Female	50%

#### Age

18-34	18%
35-59	44%
60+	36%
Refused	2%

#### Party ID

Democrat	34%
Republican	25%
Independent	36%
Other/Refused	4%

#### Member of Union

Yes	29%
No	70%
Don't Know	1%

#### Region

Northwest	16%
Northeast	15%
Urban Core	30%
PennEast	6%
South	16%
Coast	17%

<sup>&</sup>lt;sup>1</sup> Northwest: Morris, Somerset, Sussex, and Warren counties

Northeast: Bergen and Passaic counties

Urban Core: Essex, Hudson, Middlesex, and Union counties

PennEast: Hunterdon, and Mercer counties

South: Burlington, Camden, Cumberland, Gloucester, and Salem counties



#### **Education**

Some HS	1%
High school	11%
Some college or community college	24%
Graduated from a 4 year college	36%
Graduate school	28%

#### **Employment**

Full-time	55%
Part-time	11%
Retired	25%
Not employed outside the home	8%

#### Ethnicity

White	77%
African American	7%
Hispanic/Latino	7%
Asian	2%
Other	1%
Ref	6%



## **APPENDIX A**

## Questionnaire



#### ReThink Energy NJ

- Q1. How closely do you follow news about the various ways that people in New Jersey power their homes and businesses?
- 1 Very closely
- 2 Somewhat closely
- 3 Not at all closely
- 8 DK (vol)
- 9 Refused (vol)
- Q2. Which source do you think is most important to New Jersey's energy future? (Rotate, Read List, stop when respondent indicates a choice)
- 1 Solar
- 2 Wind
- 3 Natural gas
- 4 Oil
- 5 Nuclear
- 6 Coal
- 7 Other (vol) [specify]
- 8 DK (vol)
- 9 Refused (vol)
- Q3. Among the following terms, which do you view most favorably? (Read and rotate first 3)
- 1 Clean Energy
- 2 Green Energy
- 3 Renewable Energy
- 4 There is no difference (Vol)
- 8 DK (Vol)
- 9 Refused (Vol)
- Q4. Which of the following do you believe are clean energy sources? (Read List and rotate order) [Check all that apply]
- 1 Solar
- 2 Wind
- 3 Natural gas
- 4 Oil
- 5 Nuclear
- 6 Coal



- Q5. How important, if at all, do you believe investing in renewable energy sources, like wind and solar, is to the overall health of New Jersey?
- 1 Very important
- 2 Somewhat important
- 3 Not very important
- 4 Not at all important
- 8 DK (vol)
- 9 Refused (vol)
- Q6. In order to meet New Jersey's energy needs, do you believe the state should invest more in renewable energy sources, like wind and solar, or more in fossil fuels, like oil and natural gas, through the construction of additional pipelines? Rotate choices
- 1 Renewable sources
- 2 Fossil fuels
- 8 DK (vol)
- 9 Refused (vol)
- Q7. How do you rate the pace at which our state is developing and adopting renewable energy alternatives? Would you say it is...
- 1 Too slow
- 2 Too fast
- 3 Just right
- 8 DK (vol)
- 9 Refused (vol)
- Q8. When thinking about elected officials, does their support for moving from fossil fuels to renewable energy like solar or wind make you [Rotate more or less likely] more likely or less likely to support them, or does their support for renewable energy make no difference?
- 1 More likely
- 2 Less likely
- 3 Makes no difference
- 8 DK (vol)
- 9 Refused (vol)
- Q9a. As you may or may not know, New York's Governor Cuomo has set a goal of 30% renewable energy by 2020 and 50% by 2030; both targets are above NJ's current goals. Would you favor or oppose New Jersey's next governor setting similar goals?
- 1. Favor
- 2. Strongly Favor
- 3. Oppose
- 4. Strongly Oppose
- 8. DK (vol)
- 9. Refused (vol)



Q9b. Would you favor or oppose New Jersey setting a higher goal of 80% of energy from these sources by 2050?

- 1. Favor
- 2. Strongly Favor
- 3. Oppose
- 4. Strongly Oppose
- 8. DK (vol)
- 9. Refused (vol)

Q10. How would you describe your feelings toward the effects of climate change in New Jersey? Are you.

- 1 Very concerned
- 2 Somewhat concerned
- 3 Not very concerned
- 4 Not at all concerned
- 8 DK (vol)
- 9 Refused (vol)

Q11. Do you favor or oppose [rotate] the development of off-shore wind energy off the coast of New Jersey?

- 1. Favor
- 2. Strongly Favor
- 3. Oppose
- 4. Strongly Oppose
- 8. DK (vol)
- 9. Refused (vol)

Q12. Some people say the Earth is getting warmer because of human activity, while others say it's mostly due to natural patterns in the earth's environment. Which is closer to your view? [rotate]

- 1 Human activity
- 2 Natural patterns
- 8 DK/Ref (vol)

Q13. How much have you read or heard about the construction of new gas pipelines in the state?

- 1 A lot
- 2 Some
- 3 Just a little
- 4 Nothing at all
- 8 DK (vol)
- 9 Refused (vol)



- Q14. How concerned are you, if at all, about the potential effect of these pipelines to New Jersey? Are you...
- 1 Very concerned
- 2 Somewhat concerned
- 3 Not very concerned
- 4 Not at all concerned
- 8 DK (vol)
- 9 Refused (vol)
- Q15. And, in general, how would you describe your feelings toward each of the following potential consequences of pipeline development in New Jersey? [Rotate Q14A through Q14F]
- Q15A The risks to air and water quality
- Q15B The impact to natural areas and wildlife habitats
- Q15C The safety risks associated with ruptures, leaks, or explosions
- Q15D The seizure of private property, also known as eminent domain, for big energy companies
- Q15E The use of taxpayer funded and protected open space for construction of pipelines
- Q15F The delivery of gas extracted by fracking in other states
- 1 Very concerned
- 2 Somewhat concerned
- 3 Not very concerned
- 4 Not at all concerned
- 8 DK (vol)
- 9 Refused (vol)
- Q16. Which of the following statements best describes how you feel, even if neither is perfect Pipelines are safe, create jobs and bring cheap and reliable natural gas that will benefit New Jersey businesses and consumers

OR

Pipelines threaten preserved lands, our water supplies, and public health and safety. New Jersey should instead develop clean sources of energy like wind and solar that will benefit our environment and economy.

- 1 Pipelines help
- 2 Pipelines threaten
- 8 DK (vol)
- 9 Refused (vol)

[rotate]:



Finally, just some questions about yourself...

- D1 Regardless of who you might vote for, do you consider yourself a....ROTATE... Democrat, a Republican, or an Independent?
- 1 Democrat
- 2 Republican
- 3 Independent [If Independent, ask D1b]
- 4 Other [DON'T READ]
- 8 Don't Know [DON'T READ]
- 9 Ref [DON'T READ]
- D1b Which way do you lean?
- 1 Democrat
- 2 Republican
- 3 Neither
- 8 DK (Vol)
- D2. And what's the highest level of education you've completed so far...PROMPT UNTIL ANSWERED?
- 1 Some high school
- 2 High school
- 3 Some college or graduated from a community college
- 4 Graduated from a four year college
- 5 Graduate school
- 8 DK (vol)
- 9 Ref (vol)
- D3. Are you currently employed full time, part time, or are you retired or not employed? outside the home?
- 1 FT Ask D4A
- 2 PT Ask D4A
- 3 Retired
- 4 Not employed outside the home
- 8 DK (vol)
- 9 Ref (vol)
- D4. Gender (from observation)
- 1 Male
- 2 Female



- D5. Is anyone in your household a member of a union? [If "yes," ASK: "Is that person yourself or someone else?"]
- 1 Yes, respondent
- 2 Yes, household
- 3 No
- 8 DK (vol)
- 9 Ref (vol)
- D6. County code [break by region]
- D7. What year were you born?

IF REF, ASK "which age group do you fall into... 18-34, 35-59, 60+?

- D8. In addition to being American, would you say you're...? [Prompt as necessary]
- 1 White [INTERVIEWER INCLUDE: Irish, German, Polish, Italian, and all Europeans]
- 2 African-American/black
- 3 Asian-American [INCLUDES: Indian, Pakistani, Indian, Arab, Chinese, Japanese, etc.]
- 4 Hispanic/Latin American
- 5 Other [vol]
- 9 Ref.

PROMPT: THANKS SO MUCH FOR YOUR TIME...

