



“FRACKING” AND CLEAN WATER: A SURVEY OF PENNSYLVANIA RESIDENTS

**A Survey Conducted for
the Civil Society Institute**

December 21, 2010

The survey was conducted November 26-30, 2010 among a sample of 403 adults comprising 193 men and 210 women, 18 years of age and older living in the state of Pennsylvania.

- Completed interviews are weighted by three variables: age, gender and race to ensure reliable and accurate representation of the total population, 18 years of age and older.
- The margin of error for results based on the total sample is plus or minus 5 percentage points.

Executive Summary

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A survey conducted November 26-30, 2010 of 403 Pennsylvania residents shows that the issue of hydraulic fracturing (known as "fracking") is already a major concern as it relates to drinking water safety. With levels of general awareness and concern higher than the national average, the survey also finds that Keystone State residents of all political persuasions prefer to see clean energy development that protects water supplies over traditional fossil fuel production. Key survey highlights include the following:

- Nearly seven out of 10 Pennsylvanians (70 percent) had at least some awareness of fracking as an issue, including “very aware” (24 percent), “somewhat aware” (36 percent), and “not very aware” (10 percent). (Thus, the smaller subset of residents who are very/somewhat aware account for three out of five adults in the state.) Fewer than one in three state residents (30 percent) say they are “not aware at all” about fracking concerns. Interestingly, when compared to the 60 percent of Pennsylvania residents who are very/somewhat aware of fracking, Republicans (70 percent) and Independents (61 percent) are more likely than Democrats (51 percent) to know about the issue.**

- **More than four out of five Pennsylvania residents (81 percent) are “very concerned” (44 percent) or “somewhat concerned” (37 percent) “about the potential for Pennsylvania drinking water sources to be compromised by the natural gas drilling process known as ‘fracking’.” Concerns are strong across party lines, including 67 percent of Republicans, 94 percent of Independents and 91 percent of Democrats.**
- **More than two out of three Pennsylvania residents (67 percent), either “strongly support” (37 percent) or “somewhat support” (30 percent) “Pennsylvania imposing a severance tax on natural gas drilling companies.” (The survey noted: “According to the Pennsylvania Budget and Policy Center, Pennsylvania is one of the only natural gas producing states in the United States that does not currently impose a severance tax on energy companies that extract this natural resource.”) Fewer than one in three state residents (29 percent) oppose such a tax. Majority support for the tax is seen across party lines, including Republicans (51 percent), Independents (68 percent), and Democrats (81 percent).**
- **More than three out of five Pennsylvania residents (62 percent) who are very/somewhat aware of fracking think state and federal officials are either “not doing as much as they should” (47 percent) or “not doing anything at all” (15 percent) to “require proper disclosure of the chemicals used in natural gas drilling.” Democrats (73 percent) and Independents (80 percent) are more likely than Republicans (45 percent) to fault government efforts to date.**

- **More than four out of five Pennsylvania residents (82 percent, well over the national level of 73 percent) who are very/somewhat aware of fracking would be “very concerned:”(67 percent compared to 58 percent nationwide) or “somewhat concerned” (15 percent) to “have such an energy project close enough to your home that there was even a small chance that it could have an impact on your drinking water.” A majority of Republicans (73 percent, compared to 56 percent nationwide), Independents (89 percent) and Democrats (92 percent) would be concerned to have such a project near their home.**
- **Nearly four out five Pennsylvania residents (79 percent, compared to 69 percent nationwide) who are very/somewhat aware of fracking would be “very likely” (45 percent) or “somewhat likely” (34 percent) to “get involved at the community level to raise concerns about ... a ‘fracking’ project” if one was “proposed close enough to your home that there might be an impact on the quality of your drinking water.” Those likely to get involved would include 72 percent of Republicans, 90 percent of Independents, and 85 percent of Democrats.**
- **More than four out of five Pennsylvania residents (82 percent) would “strongly support” (57 percent, compared to 49 percent nationwide) or “somewhat support” (25 percent) “tighter public disclosure requirements as well as studies of the health and environmental consequences of the chemicals used in natural gas drilling.” Fewer than one in five (16 percent) would oppose requiring such additional disclosure. More disclosure is supported across party lines by Republicans (76 percent), Independents (94 percent), and Democrats (86 percent).**

- **More than three out of four Pennsylvania residents (76 percent) would tell their Member of Congress, governor or state lawmaker: “When it comes to energy production that requires large amounts of water or where water quality is in jeopardy as a result of the energy production, my vote would be for coming down on the side of the public's health and the environment. We should favor cleaner energy sources that use the least water and involve the lowest possible risk to the public and environment.” Only about one fifth (21 percent) would say the following: “When it comes to energy production that requires large amounts of water or where water quality is in jeopardy as a result of the energy production, my view is that energy production priorities have to come first. There is always going to be some risk involved when it comes to energy production. We have to accept that there are going to be tradeoffs when it comes to the public's health and the environment.” Clean water is favored over energy production by Republicans (62 percent), Independents (87 percent), and Democrats (85 percent).**
- **Where should America focus its energy production in the future? Four out of five Pennsylvania residents (80 percent) agree that: “Water shortages and clean drinking water are real concerns. America should put the emphasis on first developing new energy sources that require the least water and have minimal water pollution. Fewer than one in five (16 percent) agree that: “Energy supply needs should override concerns about water shortages and water pollution. America should proceed first with developing energy sources even if they may pollute water or create water shortages.” Water was favored over energy production here by Republicans (68 percent), Independents (91 percent), and Democrats (88 percent).**

- **More than three out of four Pennsylvania residents (78 percent) agree with the following statement: “Smarter energy choices are the key to creating new jobs and a future that is healthy and safe because fossil fuels create toxic wastes that are a threat to our health and safety.” Only about one in five state residents (21 percent) disagrees with that statement. Supporters include 61 percent of Republicans, 82 percent of Independents and 94 percent of Democrats.**
- **About three out of five Pennsylvania residents (59 percent) would pay up to 10 percent or more extra for “the development of renewable energy sources that protect the air and water better than other alternatives.” That includes: up to 10 percent more (29 percent); 10-25 percent more (22 percent); and 25-50 percent more (8 percent). Fewer than two of five state residents (37 percent) would pay no additional amount for cleaner energy. Those who would pay more include Republicans (49 percent), Independents (52 percent), and Democrats (75 percent).**
- **The number of Pennsylvania residents who would find it “very acceptable” (15 percent) if the use of “fracking” to extract natural gas “could mean somewhat lower heating bills” are outnumbered two to one by those at the other end of the spectrum who find it “not acceptable at all” (31 percent).**

- **While the number of Pennsylvania residents who think that it is more urgent to protect “our drinking water from chemicals used in drilling for natural gas and from the wastes generated from burning coal” (25 percent) is about eight times that who say the No. 1 concern is “addressing climate change and its impacts” (3 percent), many more (65 percent) say that “these are both major concerns of roughly equal concern.” Interestingly, protecting drinking water from natural gas drilling chemicals and coal waste was the No. 1 concern of 35 percent of Republicans (compared to 26 percent nationwide), 21 percent of Independents, and only 20 percent of Democrats.**

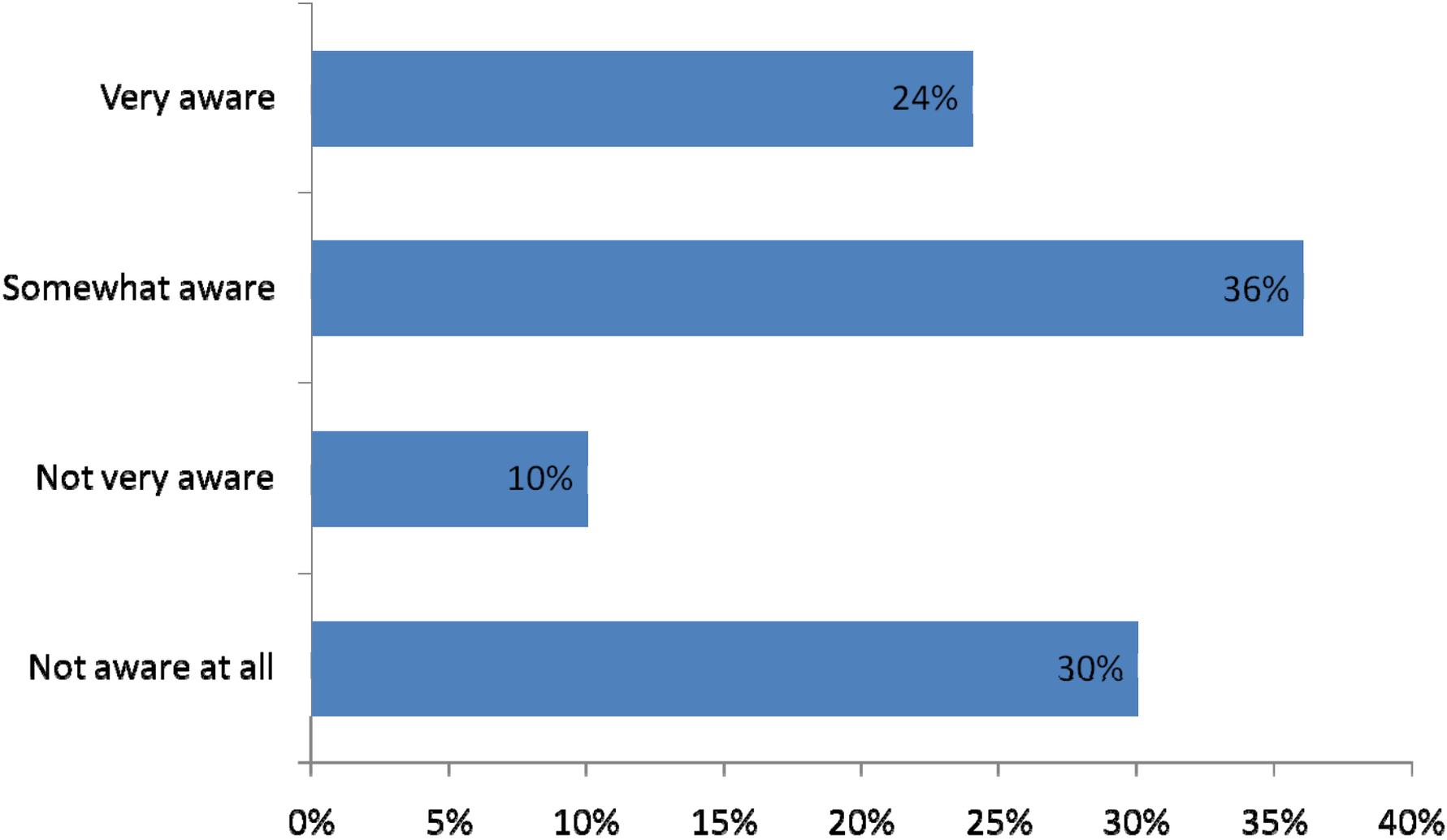
Detailed Findings

Awareness of the Issue of “Fracking”

More than half of adults in Pennsylvania (60%) are aware of the issue of fracking. Forty percent are not aware.

- Awareness among those living in Western part of the state is far higher (87%) than those in the Philadelphia area (46%) or the Northeast and Central part of the state (54%).
- Respondents with household incomes of less than \$35,000 are a lot less likely to be aware (41%) than are those with household incomes of \$35,000 or more (70%).
- Pennsylvania respondents with less than a high school education are the least aware (36%), especially when compared to those with a college degree (70%).
- Across party lines, awareness is higher among Republicans (70%) than Independents (61%) or Democrats (51%).

Awareness of the Issue of Fracking

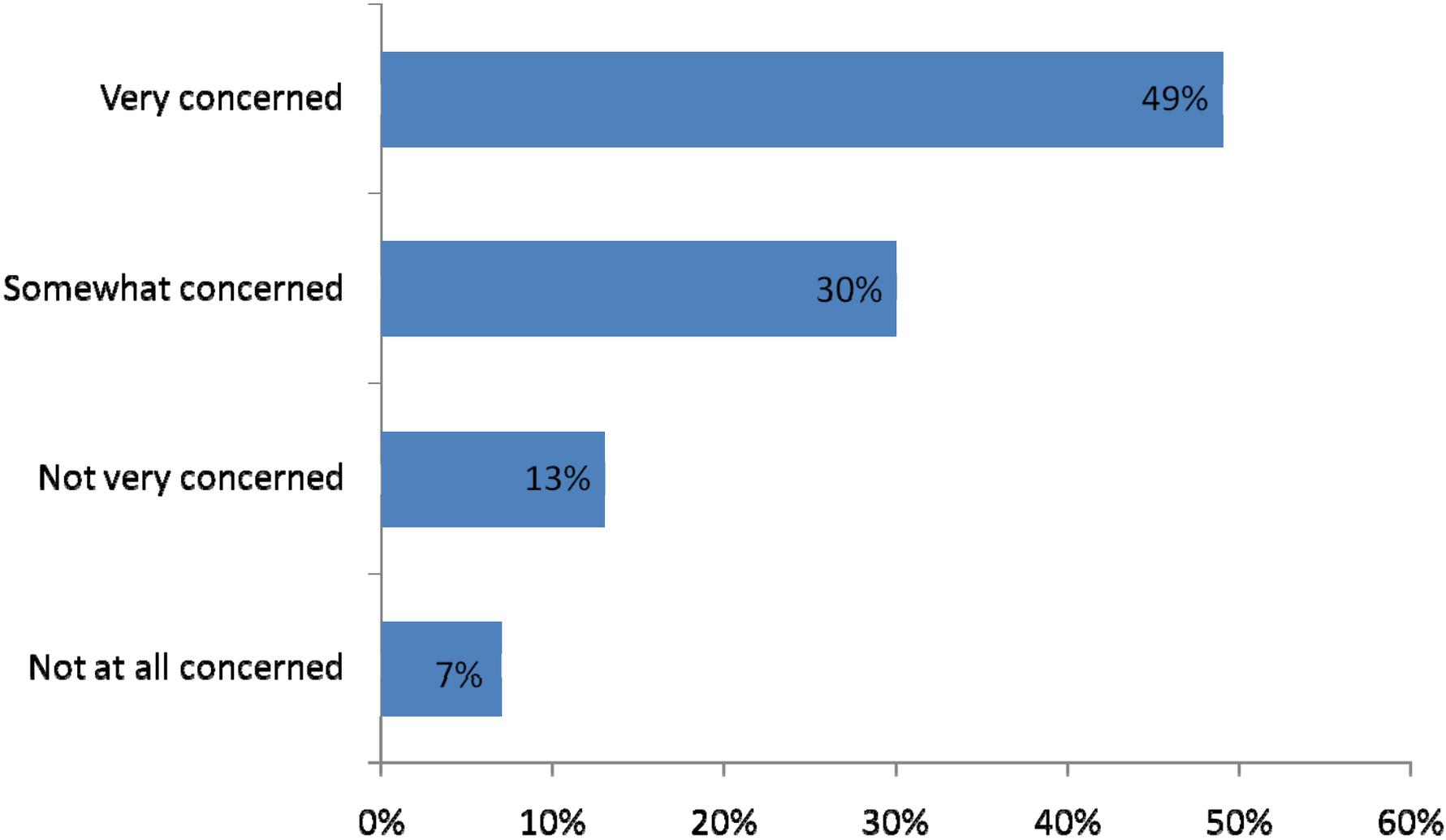


Concern About Fracking and Water Quality

Among those in Pennsylvania who are aware of fracking, nearly eight out of 10 (79%) are concerned about the issue and how it relates to water quality. Only 20% are not concerned.

- Those living in the Philadelphia area are the most likely to be very concerned compared to those in the West (71% vs. 42%).
- Conversely, those in the West are a lot more likely to be somewhat concerned than those in Philadelphia (34% vs. 18%).
- Across party lines, concern is greatest among Democrats (94%) and Independents (84%) and somewhat lower among Republicans (67%).

Concern About Fracking and Water Quality



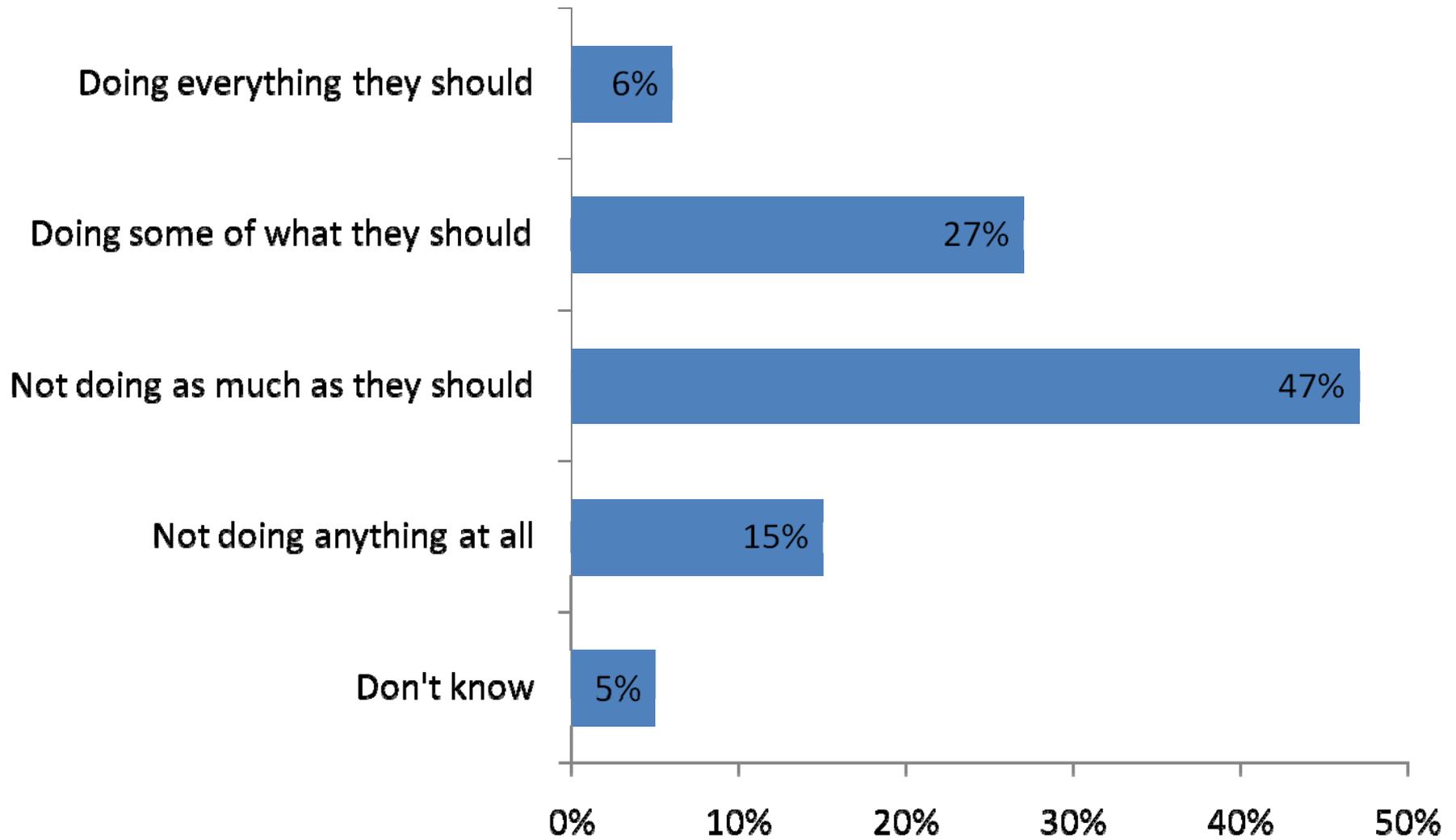
Q2: Still thinking about the natural gas drilling process sometimes referred to as fracking, how concerned are you about this issue as it relates to water quality? Base = 268 aware of fracking.

Disclosing the Chemicals Used in Natural Gas Drilling

Six in 10 (61%) of those aware of fracking say the government is not doing enough to require disclosure of the chemicals used in natural gas drilling. One third (33%) think they are doing enough.

- Independents are the most likely to think government isn't doing enough in this area (80%) compared to 73% of Democrats and 45% of Republicans.

Disclosing the Chemicals Used in Natural Gas Drilling

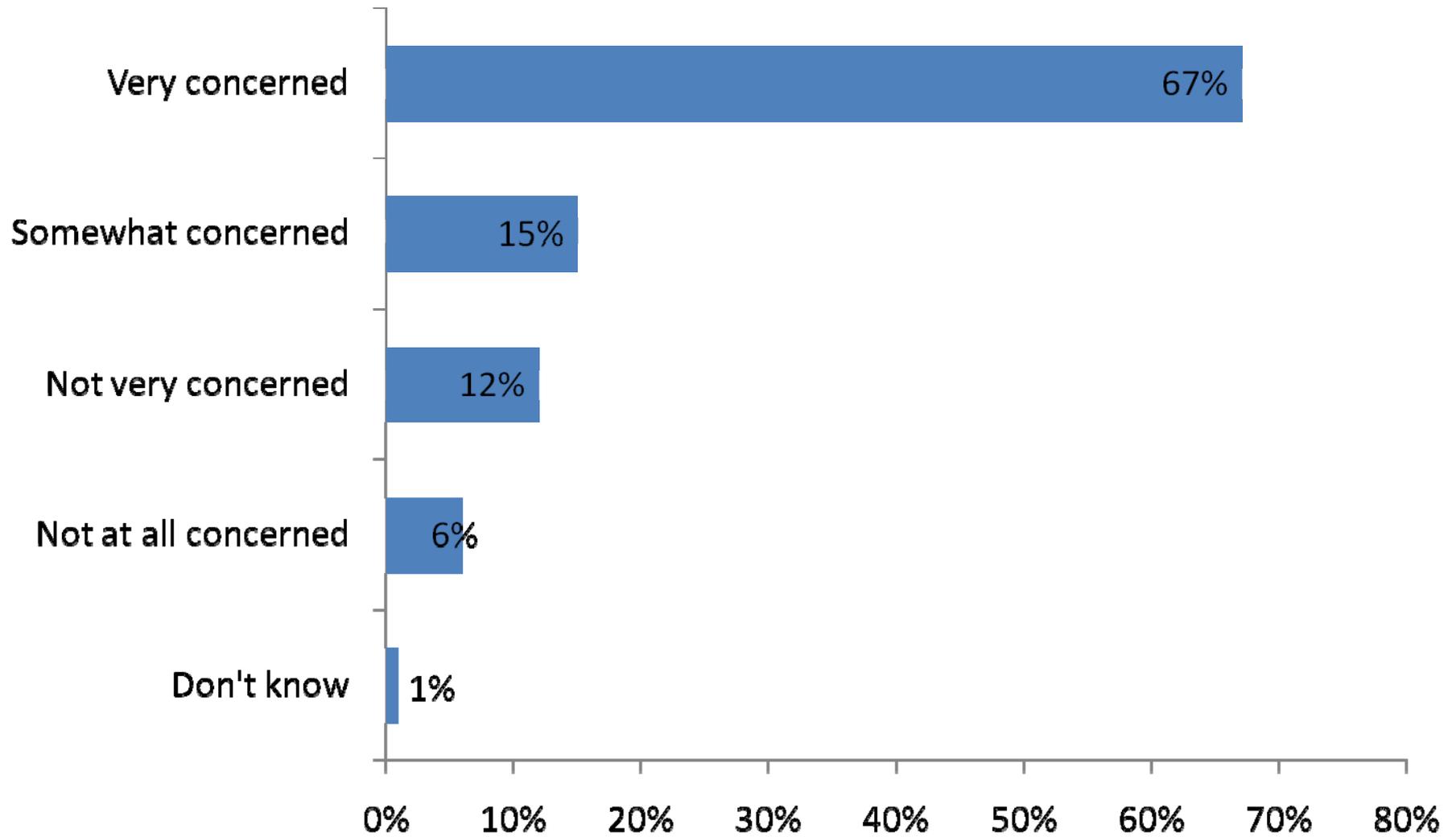


Concern About Fracking Close Enough to Impact Drinking Water

Eight out of 10 (82%) of those aware of fracking in Pennsylvania would be concerned about the process if there was an energy project close enough to their home that there was even a small chance it would affect their drinking water. Only 18% would not be concerned.

- Concern is highest in the Philadelphia region (91%) and lowest in the West (77%).
- Democrats are the most likely to be concerned (92%), compared to 89% of Independents and 73% of Republicans.

Concern About Fracking Close Enough to Impact Drinking Water



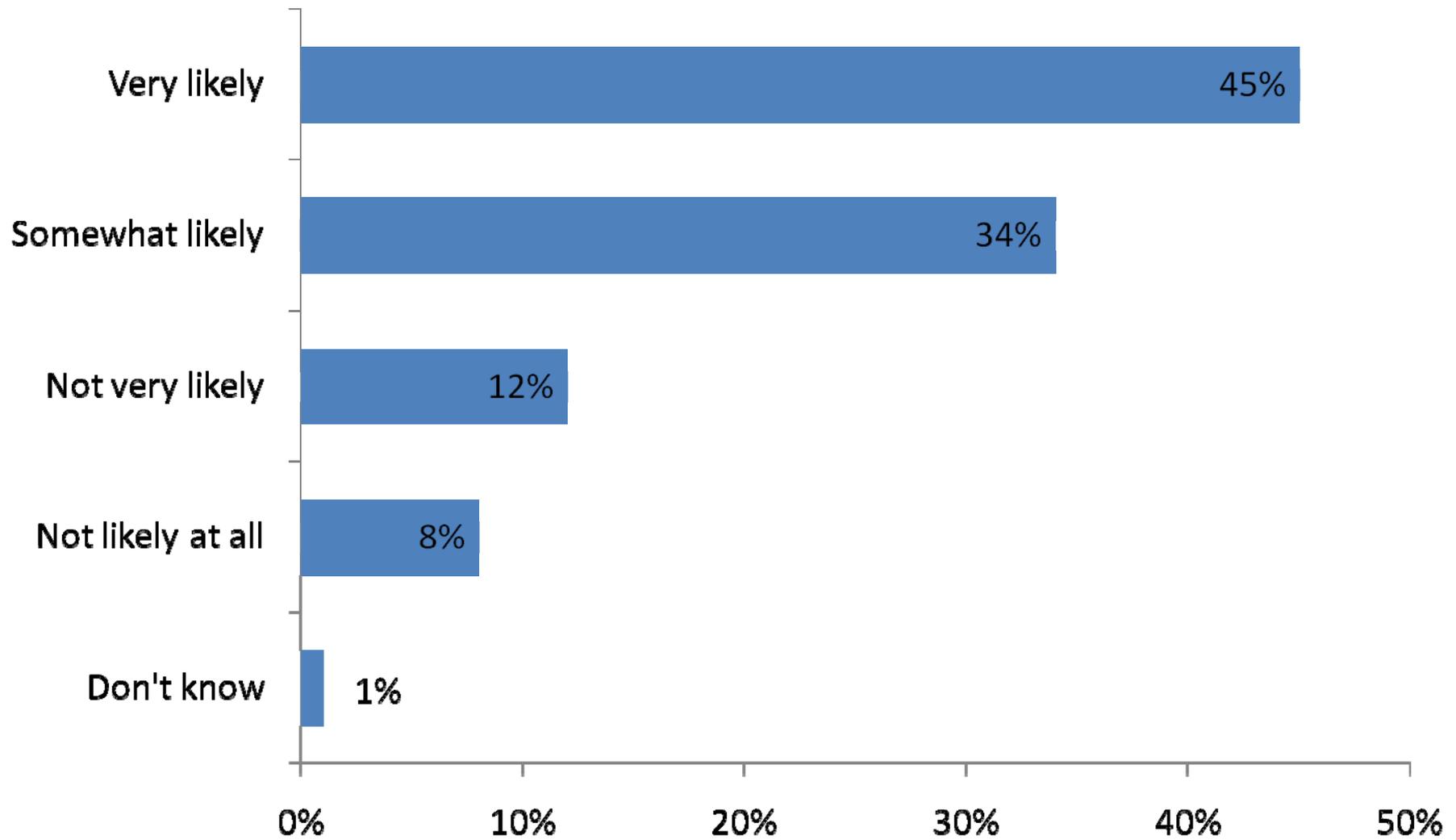
Q4: Based on what you know or have heard about the chemicals used in fracking, how concerned would you be to have such an energy project close enough to your home that there was even a small chance it could have an impact on your drinking water. Base = 268 aware of fracking.

Getting Involved Locally to Raise Concerns About Fracking

Nearly eight out of ten Pennsylvania residents (79%) aware of fracking would be likely to get involved locally if an energy project was close enough to their home that it might impact the quality of their drinking water. One fifth would not get involved (21%).

- Independents are the most likely to say they would get involved (90%) compared to 85% of Independents and 72% of Republicans.

Getting Involved Locally to Raise Concerns About Fracking



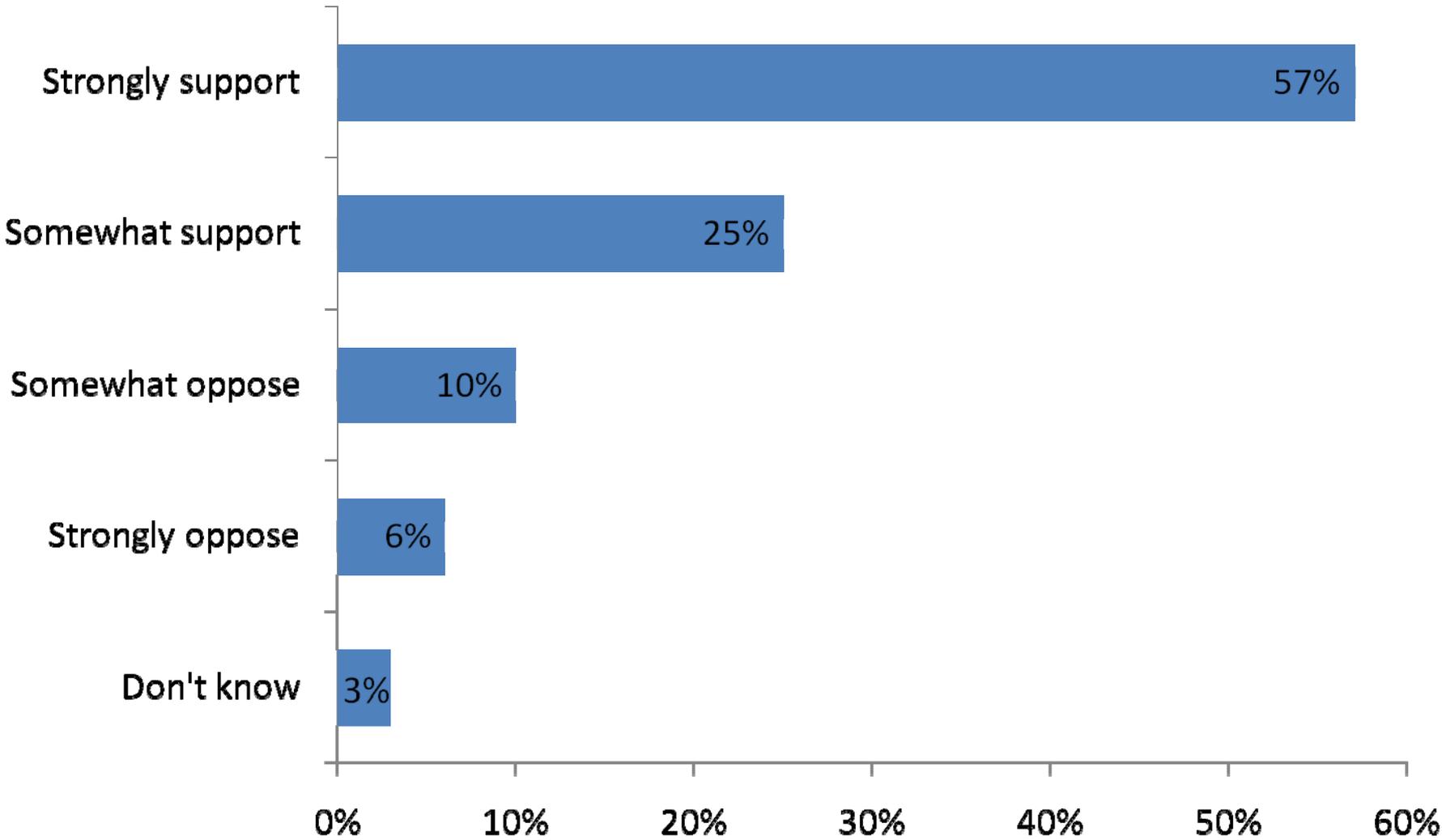
Q5: Imagine a situation where a natural gas drilling project was proposed close enough to your home that there might be an impact on the quality of your drinking water. How likely would you be to get involved at the community level to raise concerns about such a fracking project? Base = 268 aware of fracking.

Favoring Tighter Public Disclosure of the Chemicals in Fracking

More than eight out of 10 Pennsylvania residents (82%) would favor tighter disclosure requirements as well as studies of the health and environmental consequences of the chemicals used in natural gas drilling. Fifteen percent would oppose this.

- Politically speaking, tighter disclosure is desired by Independents the most (94%), Democrats next (86%) and Republicans (76%) the least.

Favoring Tighter Public Disclosure of the Chemicals in Fracking



21 Q6: How much would you support or oppose tighter public disclosure requirements as well as studies of the health and environmental consequences of the chemicals used in natural gas drilling? Would you... Base = 403.

Speaking Directly to Government About Energy and Water

If given the chance to speak with a member of Congress, government or state legislator, 76% of Pennsylvanians would tell them that they come down on the side of energy generation that takes the environment and the public's health into consideration. Only 21% would tell their government official that energy generation comes first even at the cost of public health or depletion of resources.

- Regionally 85% of those in the Philadelphia area favor the side of energy generation that takes the public's health into consideration, compared to 72% of those in the central and northeastern parts of the state and 69% of those in the western part.
- Politically speaking, Democrats (85%) and Independents (87%) are far more likely than Republicans (62%) to come down on the side of public's health and the environment.

Speaking Directly to Government About Energy and Water

When it comes to energy production I come down on the side of the public's health and the environment. I favor cleaner energy sources that use the least water.

76%

Energy production comes first. There are always risks and tradeoffs when it comes to public health and the environment.

21%

Don't know

3%

0% 10% 20% 30% 40% 50% 60% 70% 80%

Q7: If you could speak directly to your member of Congress, your governor or state leader, which of the following statements would you be most likely to make to them? Base = 403.

Where America Should Focus Future Energy Production

Pennsylvanians make a clear choice in favor of developing new energy sources that require the least water and have minimal water pollution (80%) over developing energy sources that pollute water or create shortages (16%).

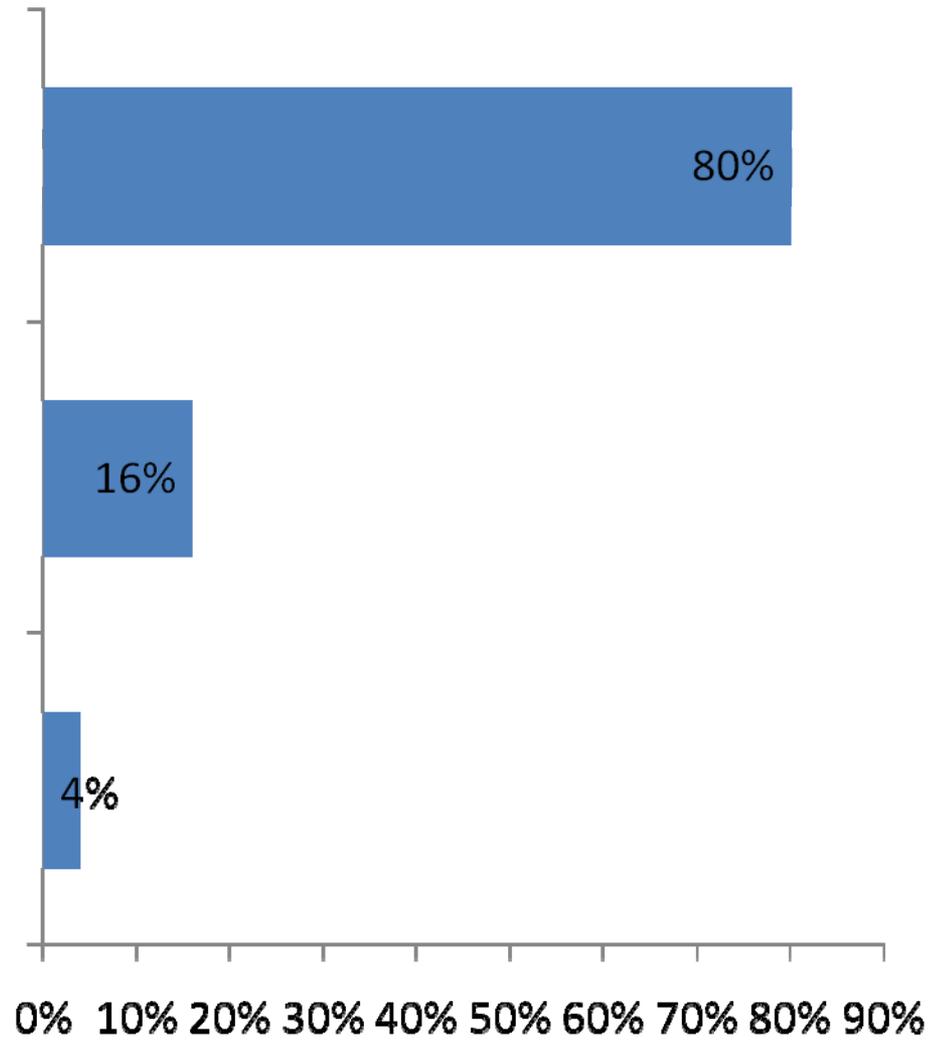
- Politically speaking, Democrats (88%) and Independents (91%) are more in favor of energy that conserves or doesn't pollute water than are Republicans (68%).

Where America Should Focus Future Energy Production

Water shortages and clean drinking water are real concerns. America should put the emphasis on first developing new energy sources that require the least water and have minimal water pollution.

Energy supply needs should override concerns about water shortages and water pollution. America should proceed first with developing energy sources even if they may pollute water or create shortages.

Don't know



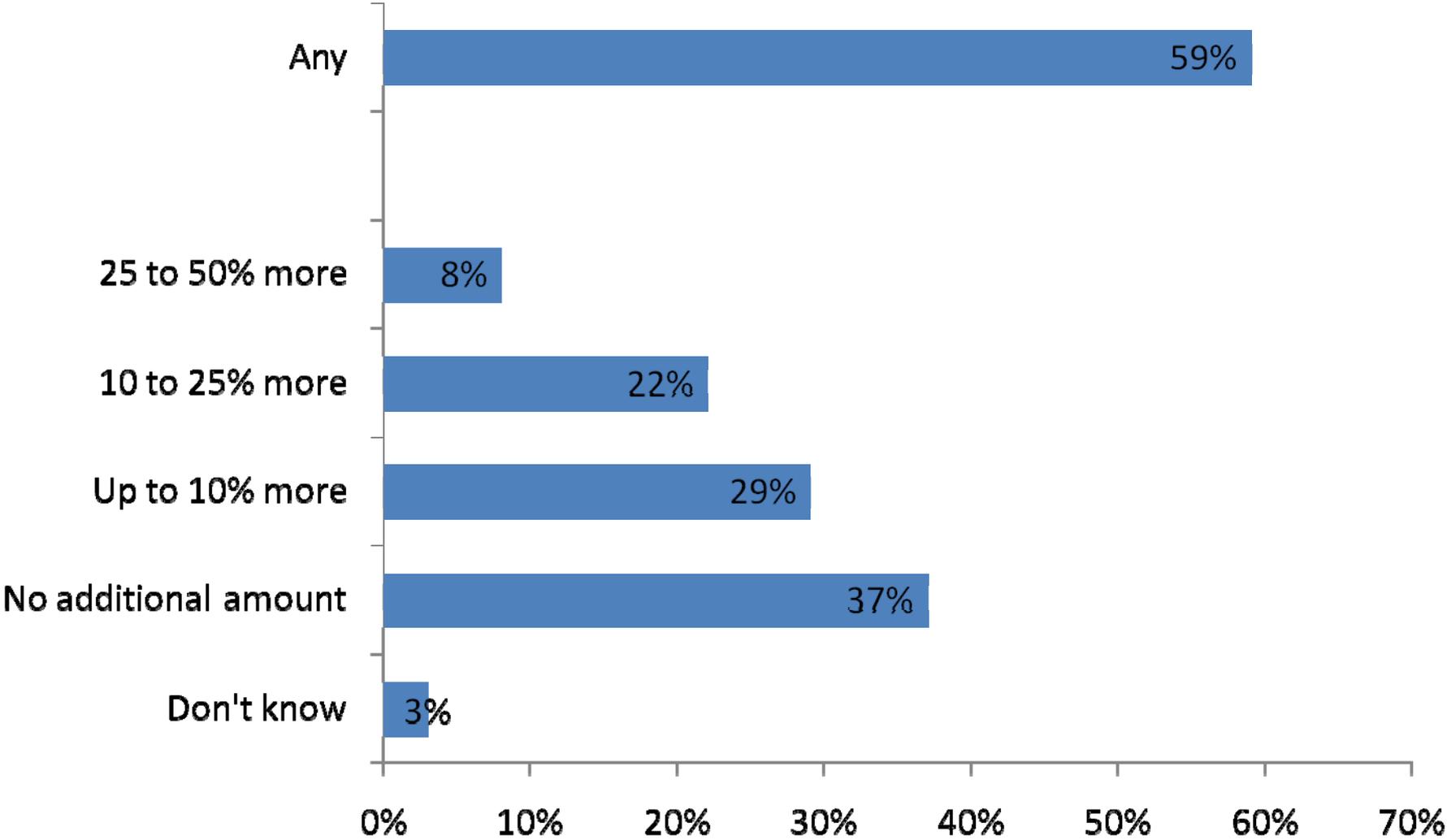
Q8: Which of the following statements best expresses your view about where America should focus its energy production in the future? Base = 403.

Paying More for Renewable Energy Sources

Half of Pennsylvanians (59%) are willing to pay more for their energy if the additional cost pays for the development of renewable energy sources that protect the air and water better than other choices. A third (37%) would not pay anything additional.

- Those age 18-44 are the most likely to be willing to pay some amount more (69%).
- Politically speaking, Democrats (75%) are more in favor of paying more for energy that protects the air and water than are Independents (52%) or Republicans (49%).

Paying More for Renewable Energy Sources



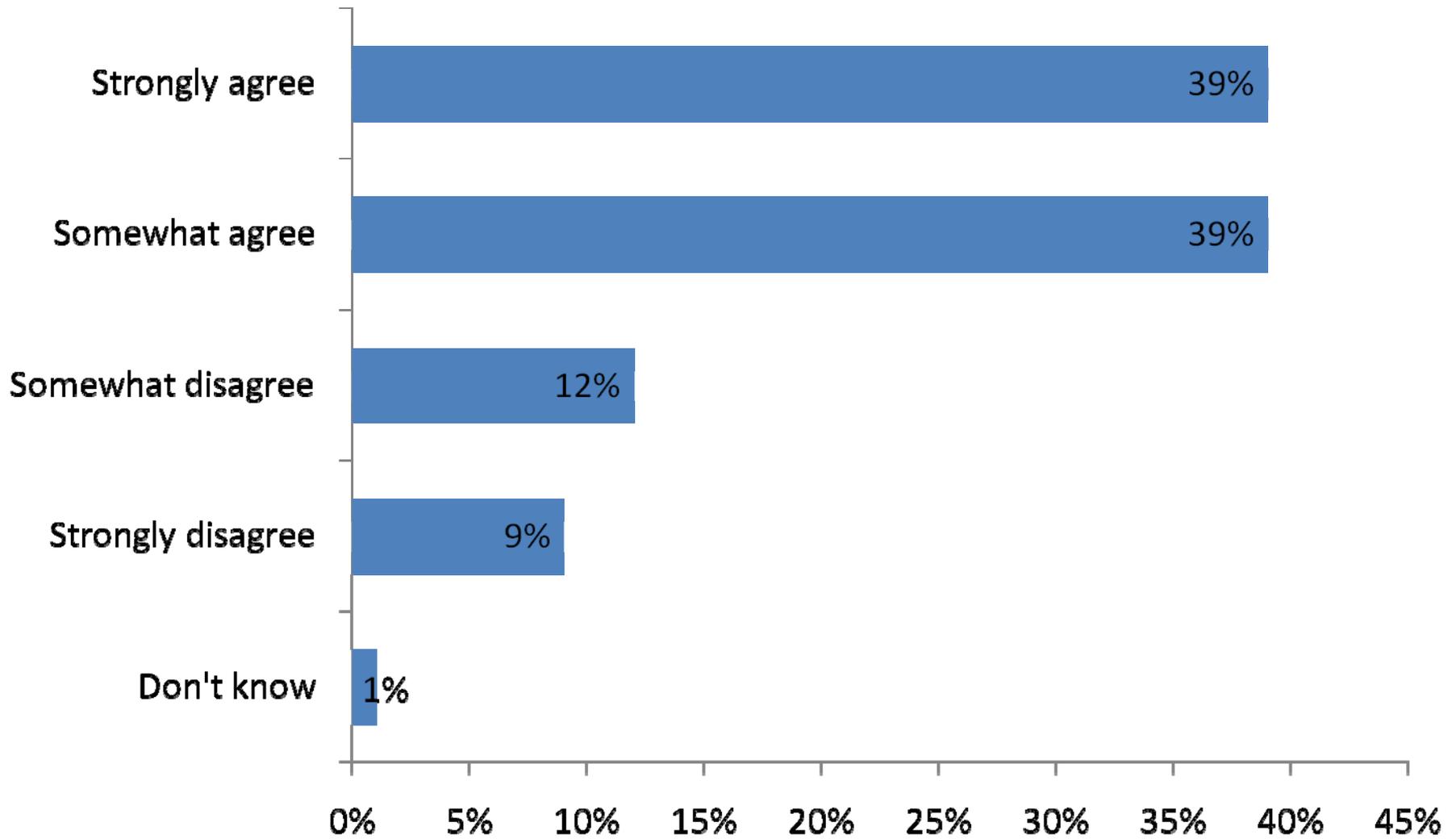
Q9: How much more would you be willing to pay in terms of energy costs for the development of renewable energy sources that protect the air and water better than other alternatives? Would you say...? Base = 403.

Smart Energy Choices are the Key to Creating New Jobs

Nearly eight out of 10 Pennsylvanians (78%) agree that the key to creating new jobs and a healthy and safe future, is making smarter energy choices. Twenty-one percent disagree.

- Those age 18-44 are the most likely to agree of any age group (84%).
- Agreement is also a lot higher in the Philadelphia region (87%) than it is in the center (75%) or the western part of the state (69%).
- Politically speaking, Democrats (94%) and Independents (82%) are more likely to agree than Republicans (61%).

Smart Energy Choices are the Key to Creating New Jobs



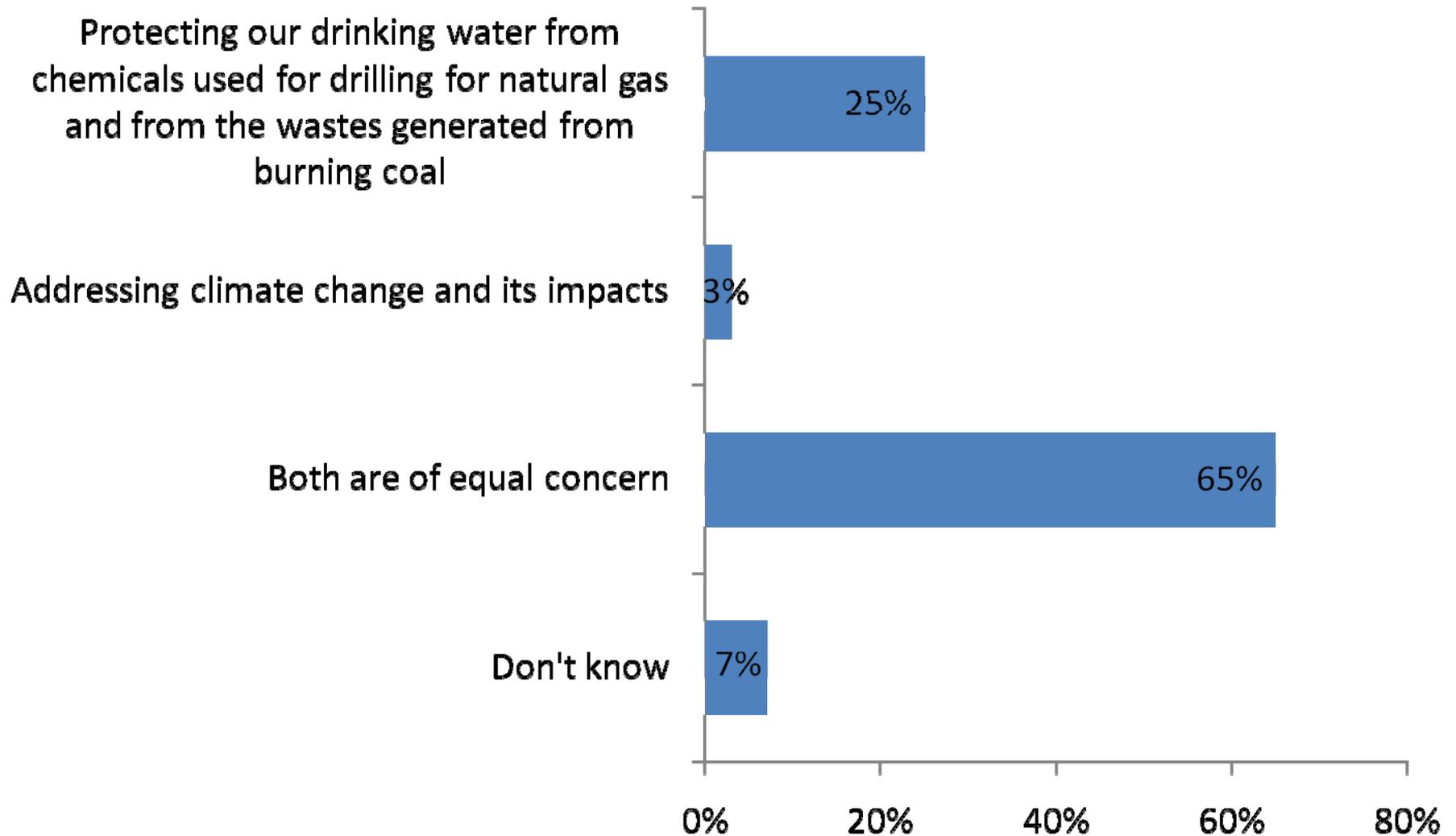
Q10: To what degree do you agree or disagree with the following statement? Smarter energy choices are the key to creating new jobs and a future that is healthy and safe because fossil fuels create toxic wastes that are a threat to our health and safety. Do you... Base = 403.

Most Urgent Concern Today

Pennsylvanians pick climate change (3%) and protecting our drinking water (25%) as the most urgent concern today. Most (65%) believe both matters are of equal concern.

- Politically speaking, Democrats (78%) and Independents (77%) are more likely to say they are of equal concern than Republicans (48%).

Most Urgent Concern Today



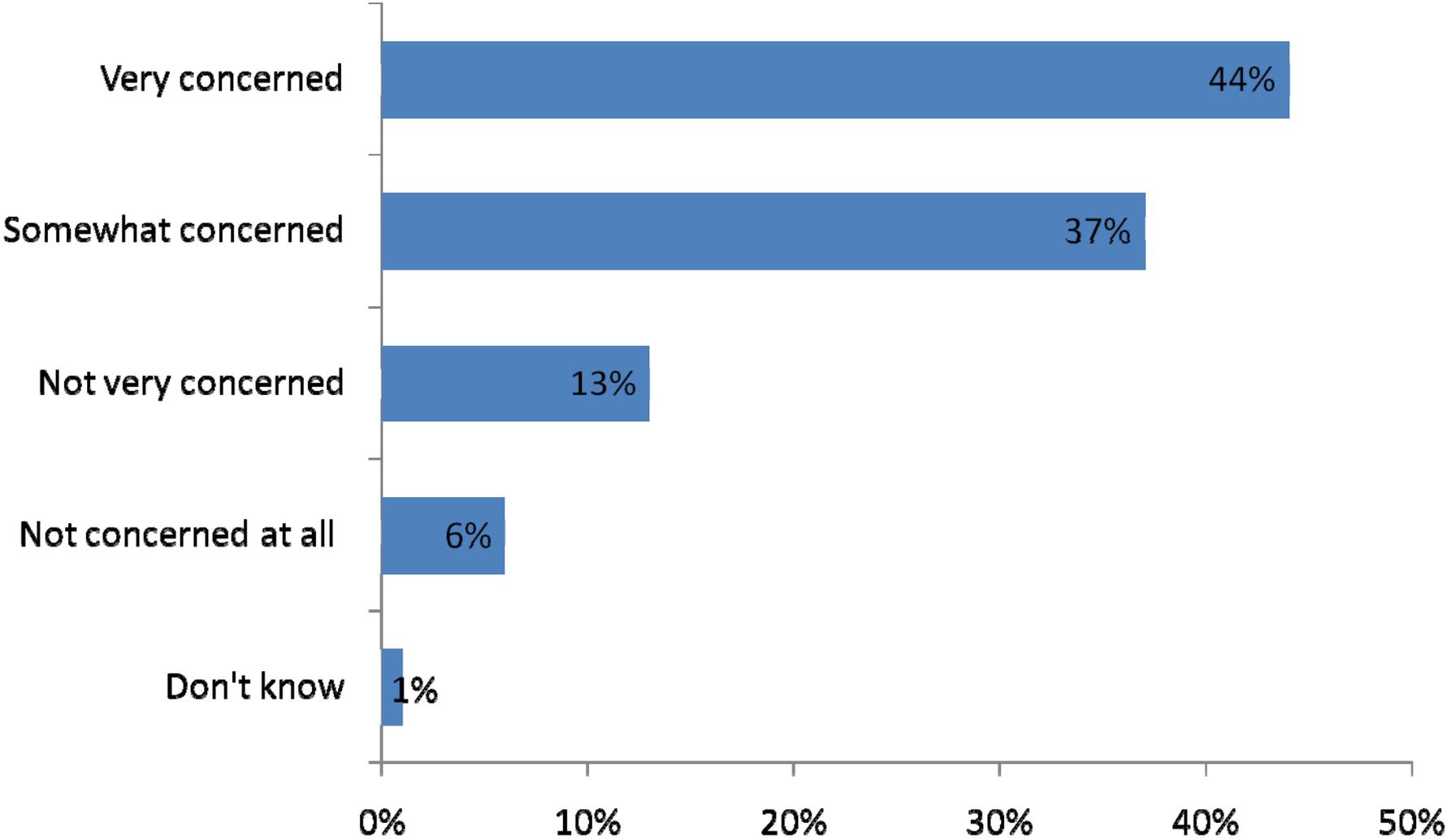
Q11: Which of the following do you believe is the most urgent concern today? Base = 403.

Concern About Fracking Compromising PA's Water Supply

Eight Pennsylvanians in 10 (81%) are very or somewhat concerned about the potential for their drinking water sources to be compromised by fracking. Nineteen percent are not concerned.

- Concern is the highest in the Philadelphia region (90%) which is as far from the natural gas drilling being done in the state as you can get. Concern in the center of the state is at 77% and in the West where the drilling is taking place, concern is 75%.
- Politically speaking, Democrats (91%) and Independents (94%) are far more concerned than Republicans (67%).

Concern About Fracking Compromising PA's Water Supply



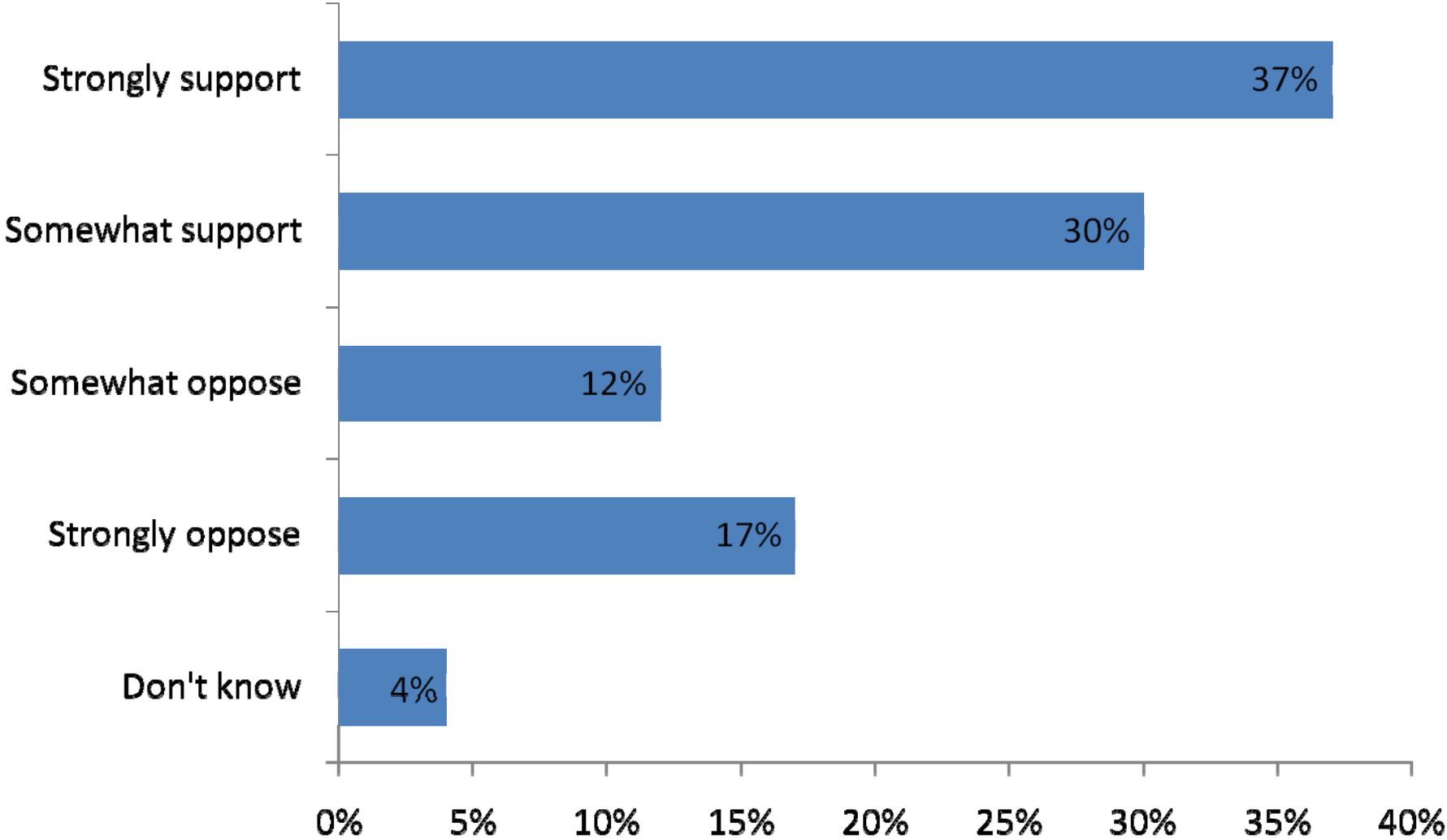
Q12: In general, how concerned are you about the potential for Pennsylvania drinking water sources to be compromised by the natural gas drilling process known as fracking? Are you...? Base = 403

Imposing a Severance Tax

Two thirds (67%) of Pennsylvanians favor imposing a severance tax on companies drilling for natural gas in the state. Three in 10 (29%) do not.

- Politically speaking, Democrats (81%) are more in favor of the tax than are Independents (68%) or Republicans (51%).

Imposing a Severance Tax

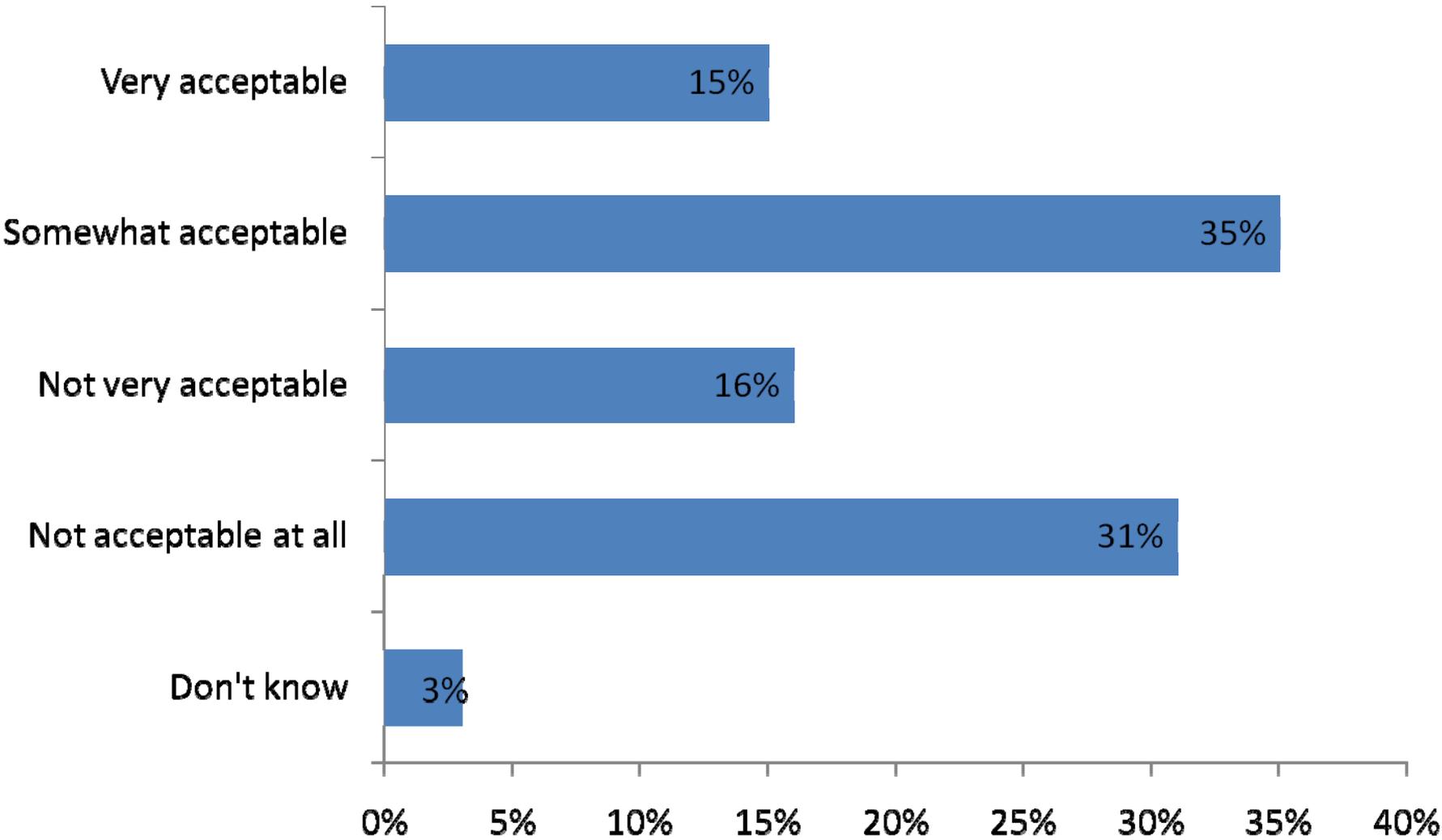


35 Q13: According to the Pennsylvania Budget and Policy Center Pennsylvania is one of the only natural gas producing states in the United States that does not currently impose a severance tax on energy companies that extract this natural resource. How much do you support or oppose Pennsylvania imposing a severance tax on natural gas drilling companies? Would you say you... Base = 403.

Nearly half of Pennsylvania residents (47 percent) say it is unacceptable for fracking to potentially contaminate their water if their heating bills are also lower.

- Politically speaking, this is unacceptable for more than seven in 10 Independents (72%), compared to half of Democrats and over one third of Republicans (37 percent).

Is Fracking Contamination of Water Acceptable if Heating Bills are Lower?



Q14: I want to ask one more question about the potential for New York City's main drinking water source to be compromised by fracking. How acceptable would this potential threat to water quality be if it could mean somewhat lower heating bills? Would you say...? Base = 403

HASTINGS GROUP
FRACKING TOPLINE – PENNSYLVANIA

3687317

*Topline results of telephone interviews conducted with 403 residents of the State of Pennsylvania,
November 26-30, 2010.*

First of all, (sir/ma'am) . . .

The following questions are about a natural gas drilling process sometimes referred to as 'fracking', which requires large amounts of water. 'Fracking' involves blasting millions of gallons of water mixed with chemicals and sand into the ground to release natural gas from rock formations thousands of feet underground. Concerned homeowners and others say the process can poison drinking water supplies but oil and gas industry representatives say there's no proof that 'fracking' chemicals have contaminated drinking water.

D1 Prior to this survey, how aware would you say you were about this issue? Were you . . .
(READ ENTIRE LIST BEFORE RECORDING ONE ANSWER)

24% Very aware
36% Somewhat aware
10% Not very aware
30% Not aware at all
- DON'T KNOW/NOT SURE

IF VERY/SOMEWHAT AWARE OF ISSUE, D1 [01-02], CONTINUE.
ALL OTHERS SKIP TO D6

D2 Still thinking of the natural gas drilling process sometimes referred to as 'fracking', how concerned are you about this issue as it relates to water quality? Would you say . . .
(READ ENTIRE LIST BEFORE RECORDING ONE ANSWER)
BASE N= 268 ADULTS AWARE OF FRACKING

49% Very concerned
30% Somewhat concerned
13% Not very concerned
7% Not concerned at all
- DON'T KNOW/NOT SURE

D3 I have another question about the natural gas drilling process sometimes referred to as 'fracking'. Do you think that state and national officials are doing enough to require proper disclosure of the chemicals used in natural gas drilling? Would you say they are . . .
(READ ENTIRE LIST BEFORE RECORDING ONE ANSWER)

6% Doing everything they should
27% Doing some of what they should
47% Not doing as much as they should
15% Or, not doing anything at all
5% DON'T KNOW/NOT SURE

- D4 Based on what you know or have heard about the chemicals used in ‘fracking’, how concerned would you be to have such an energy project close enough to your home that there was even a small chance that it could have an impact on your drinking water? Are you . . .

(READ ENTIRE LIST BEFORE RECORDING ONE ANSWER)

67% Very concerned
15% Somewhat concerned
12% Not very concerned
6% Not concerned at all
- DON’T KNOW/NOT SURE

- D5 I want you to imagine a situation where a natural gas drilling project was proposed close enough to your home that there might be an impact on the quality of your drinking water.

How likely would it be that you would get involved at the community level to raise concerns about such a ‘fracking’ project? Would you be . . .

(READ ENTIRE LIST BEFORE RECORDING ONE ANSWER)

45% Very likely
34% Somewhat likely
12% Not very likely
8% Not likely at all
- DON’T KNOW/NOT SURE

[ASK EVERYONE]

- D6 Congress and most states do not require energy companies that drill for natural gas to disclose the chemicals used in the process, even though there are concerns about the potential for contamination of drinking water and other bodies of water.

How much would you support or oppose tighter public disclosure requirements as well as studies of the health and environmental consequences of the chemicals used in natural gas drilling? Would you . . .

(READ ENTIRE LIST BEFORE RECORDING ONE ANSWER)

BASE N =403

57% Strongly support
25% Somewhat support
10% Somewhat oppose
6% Strongly oppose
3% DON’T KNOW/NOT SURE

D7 If you could speak directly to your member of Congress, your governor or state lawmaker, which of the two following statements would you be MOST LIKELY to make to them?

(READ ENTIRE LIST BEFORE RECORDING ONE ANSWER)

[ROTATE]

76% When it comes to energy production that requires large amounts of water or where water quality is in jeopardy as a result of the energy production, my vote would be for coming down on the side of the public's health and the environment. We should favor cleaner energy sources that use the least water and involve the lowest possible risk to the public and environment (or)

21% When it comes to energy production that requires large amounts of water or where water quality is in jeopardy as a result of the energy production, my view is that energy production priorities have to come first. There is always going to be some risk involved when it comes to energy production. We have to accept that there are going to be tradeoffs when it comes to the public's health and the environment (or)

3% DON'T KNOW/NOT SURE

D8 Which of the following statements BEST expresses your view about where America should focus its energy production in the future?

(READ ENTIRE LIST BEFORE RECORDING ONE ANSWER)

[ROTATE]

80% Water shortages and clean drinking water are real concerns. America should put the emphasis on first developing new energy sources that require the least water and have minimal water pollution (or)

16% Energy supply needs should override concerns about water shortages and water pollution. America should proceed first with developing energy sources even if they may pollute water or create water shortages (or)

4% DON'T KNOW/NOT SURE

D9 How much more would you be willing to pay in terms of energy costs for the development of renewable energy sources that protect the air and water better than other alternatives? Would you say . . .

(READ ENTIRE LIST BEFORE RECORDING ONE ANSWER)

8% 25 to 50 % more

22% 10 to 25% more

29% Up to 10% more

37% Or, no additional amount

3% DON'T KNOW/NOT SURE

- D10 To what degree do you agree or disagree with the following statement? Smarter energy choices are the key to creating new jobs and a future that is healthy and safe because fossil fuels create toxic wastes that are a threat to our health and safety.

Do you . . .

(READ ENTIRE LIST BEFORE RECORDING ONE ANSWER)

- 39% Strongly agree
- 39% Somewhat agree
- 12% Somewhat disagree
- 9% Strongly disagree
- 1% DON'T KNOW/NOT SURE

- D11 Which of the following do you believe is the MOST URGENT concern today?
(READ ENTIRE LIST BEFORE RECORDING ONE ANSWER)
[ROTATE 01-02]

- 3% Addressing climate change and its impacts
- 25% Protecting our drinking water from chemicals used in drilling for natural gas and from the wastes generated from burning coal
- 65% Or, these are both major concerns of roughly equal concern to you
- 7% DON'T KNOW/NOT SURE

- D12 In general, how concerned are you about the potential for Pennsylvania drinking water sources to be compromised by the natural gas drilling process known as 'fracking'? Are you . . .
(READ ENTIRE LIST BEFORE RECORDING ONE ANSWER)

- 44% Very concerned
- 37% Somewhat concerned
- 13% Not very concerned
- 6% Not concerned at all
- 1% DON'T KNOW/NOT SURE

- D13 According to the Pennsylvania Budget and Policy Center, Pennsylvania is one of the only natural gas producing states in the United States that does not currently impose a severance tax on energy companies that extract this natural resource.

How much do you support or oppose Pennsylvania imposing a severance tax on natural gas drilling companies? Would you say you . . .

(READ ENTIRE LIST BEFORE RECORDING ONE ANSWER)

- 37% Strongly support
- 30% Somewhat support
- 12% Somewhat oppose
- 17% Strongly oppose
- 4% DON'T KNOW/NOT SURE

- D14 I want to ask one more question about the potential for Pennsylvania drinking water sources to be polluted by 'fracking'.

How acceptable do you think this potential threat to water quality is if it could mean somewhat lower heating bills? Would you say . . .

(READ ENTIRE LIST BEFORE RECORDING ONE ANSWER)

15%	Very acceptable
35%	Somewhat acceptable
16%	Not very acceptable
31%	Not acceptable at all
3%	DON'T KNOW/NOT SURE