



VCU LIFE SCIENCES SURVEY 2008

A national public opinion survey conducted for VCU Life Sciences and the VCU College of Humanities and Sciences by the VCU Center for Public Policy

Contact:

Cary Funk, Survey Director, Phone 804 827 1212 Cell 703 286 9439/ E-mail clfunk@vcu.edu

Associate Professor, Wilder School of Government and Public Affairs

Thomas F. Huff, Vice Provost for Life Sciences, Phone 804 827 5600 / E-mail tfhuff@vcu.edu

VCU SURVEY FINDS SUPPORT FOR GENETIC RESEARCH, TESTING AND GOVERNMENT SPENDING ON SCIENTIFIC RESEARCH

In this age of the human genome, genetics is touching the lives of many Americans. Eight-in-ten adults nationwide favor making genetic testing easily available to all who want it. And, a 54% majority of adults say that the benefits of conducting genetic research outweigh the risks, while a quarter say the risks outweigh the benefits. Public concerns about genetic research are varied with a plurality of 38% saying their main concern is that too little is known about how to conduct such research safely. About three-in-ten (28%) say their main concern is that genetic research will be used in ways that violate moral principles while 21% are most concerned about discrimination. A majority of the U.S. public is skeptical that government regulation will protect the public from any risks associated with genetic science.

These findings are part of a new nationwide survey conducted by Virginia Commonwealth University. The VCU Life Sciences Survey was conducted by telephone with 1,005 adults nationwide, from Nov. 24 to Dec. 7, 2008. The margin of error for the poll is plus or minus 3.8 percentage points. This is the eighth annual VCU Life Sciences Survey, conducted for VCU Life Sciences and the VCU College of Humanities and Sciences by the VCU Center for Public Policy.

Other survey findings:

- **Support for government spending on scientific research, especially when it promises immediate benefits.** Despite the economic downturn, there is considerable public support for spending on scientific research. Nearly a quarter (23%) say that government spending on scientific research should be a top priority; another 59% say it should be important, but not a top priority. Only 15% of adults say that government spending on scientific research is not too or not at all important. Support for spending on research with immediate benefits is stronger than for basic science research. 54% of adults say spending on research with immediate benefits is important; 38% of adults say spending on research that advances knowledge even if there are no immediate benefits is important.
- **Which is more important: nature or nurture?** Where does the public come down on the nature vs. nurture debate? When asked which is a more important influence on behavior a majority (57%) say the environment, not genes. Similarly, most take the position that

environmental factors and living practices can alter a person's likelihood for disease. Two-thirds of Americans disagree that "a person's likelihood for disease is pretty much set from birth and cannot be greatly increased or decreased by their environment and living practices."

- **Science and society.** Fully 83% of Americans say that new developments in science has helped make society better; 46% say science has helped make society a lot better while 36% say it has helped make society somewhat better. More than six-in-ten (61%) agree that scientific research is essential for improving the quality of human lives. Some ambivalence in public sentiment continues to surface when it comes to how science matches up with moral principles. A majority (53%) of the public says that scientific decisions should be based primarily on an analysis of the risks and benefits involved rather than the moral and ethical issues involved (32%). At the same time, a majority (56%) agrees that scientific research doesn't pay enough attention to the moral values of society.
- **Embryonic and non-embryonic stem cell research.** New scientific developments have changed the landscape of stem cell research. Seven-in-ten adults favor stem cell research when it does not involve human embryos, down slightly from 75% just after the November 2007 announcement that human skin cells can be used to create stem cells or their near equivalents. Support for embryonic stem cell research is similar to past years; 57% of adults favor embryonic stem cell research while 36% oppose.
- **Cloning and therapeutic cloning.** Opinion about therapeutic cloning is more divided; 52% favor and 45% oppose using cloning technology for the development of new medical treatments. When cloning is not restricted to therapeutic purposes, about eight-in-ten (78%) oppose the use of cloning technology in humans. Opinion on both issues has been fairly stable since the first VCU Life Sciences Survey was conducted in 2001.

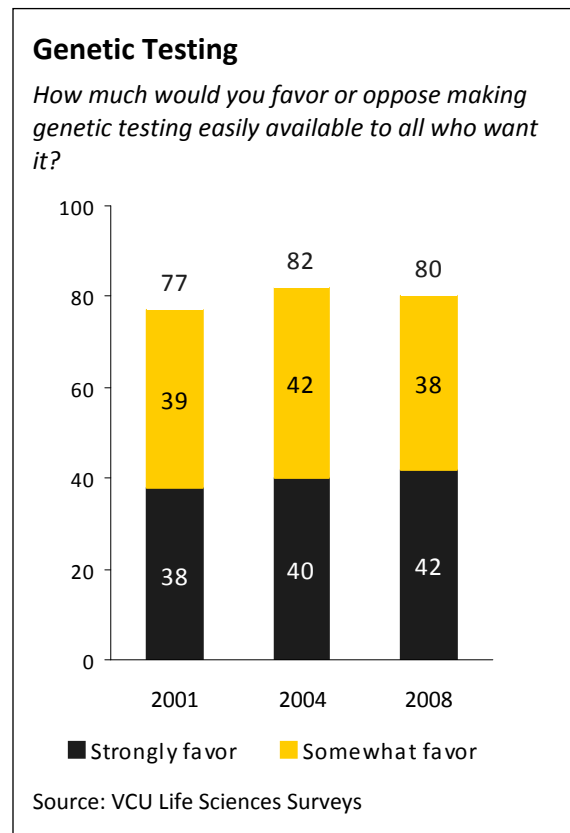
About the VCU Life Sciences Survey 2008

- National survey conducted by telephone with a representative sample of adults
- Conducted November 24-December 7, 2008
- 1,005 adults interviewed
- Margin of error is plus or minus 3.8 percentage points
- Annual survey conducted since 2001 with a focus on public opinion about science and biotechnology
- Current and past survey reports at http://www.vcu.edu/lifesci/centers/cen_lse_surveys.html

Genetic Testing and Genetic Research

The majority of the public continues to express support for genetic testing and genetic research. Eight-in-ten adults nationwide favor making genetic testing easily available to all who want it. Support for genetic testing has remained fairly steady over the past several years. In 2004, 82% favored making testing easily available; in 2001 that figure was 77%.

One way or another, genetics is touching the lives of a substantial number of Americans. Fully 45% of adults report having a disease or medical condition that is “strongly related to genetic factors” or having a family member with such a condition; this figure is up from 38% in the 2007 survey. Those with a personal or family history of a gene-related condition are more likely than those without such a history to strongly favor making genetic testing easily available.



A 54% majority of adults say that the benefits of conducting genetic research outweigh the risks, while a quarter say the risks outweigh the benefits.

Public concerns about genetic research are varied with a plurality of 38% saying their main concern is that too little is known about how to conduct such research safely.

About three-in-ten (28%) say their main concern is that genetic research will be used in ways that violate moral principles; 21% are most concerned about discrimination.

Genetic Research
Overall, would you say the benefits of conducting genetic research outweigh the risks or do the risks outweigh the benefits?

	2001	2004	2008
	%	%	%
Benefits outweigh risks	57	58	54
Risks outweigh benefits	27	27	25
Don't know/Refused	<u>16</u>	<u>15</u>	<u>21</u>
	100	100	100

Source: VCU Life Sciences Surveys

Those who believe the risks of genetic research outweigh the benefits are a little less likely to be concerned about the possibility of discrimination from genetic research information; this group is split in their concerns between the possibility of genetic research violating their moral principles (40%) and limited knowledge about the safety of such research (38%).

Key Concerns about Genetic Research

When you think about the risks of conducting genetic research, which of these is your MAIN concern? (read and rotate options) Genetic information will be used to discriminate against people, Genetic research will be used in ways that violate your moral principles, Too little is known about how to conduct genetic research safely?

	Will be used to discriminate	Will violate moral principles	Too little known about conducting safely	Don't Know/ None of these (vol.)	Number of cases
All adults	21%	28%	38%	13%	1005
Opinion about genetic research:					
Benefits outweigh risks	27%	23%	36%	13%	564
Risks outweigh benefits	16%	40%	38%	7%	218

Source: VCU Life Sciences Survey 2008
 Figures may add to 99 or 101 due to rounding

The public appears skeptical about the role of government in addressing any risks associated with genetic research. A majority of adults (53%) disagree with the statement “the rules set by government will keep us safe from any risks linked to modern genetic science.” In 2007, 57% disagreed with this statement.

Government Role in Genetic Research

“Rules set by government will keep us safe from any risks linked to modern genetic science.”

	%
Agree or strongly agree	17
Neither agree nor disagree	23
Disagree or strongly disagree	53
Don't know/Refused	7
	100

Source: VCU Life Sciences Survey 2008

The groups with more information about genetics are more likely to give a skeptical response to the idea that government regulation will protect the public from risks linked to genetic science. People with more information about science and medicine disagree more than those with less information; and those with a gene-related condition in the family disagree more than those without such a condition in the family.

Nature vs. Nurture: The View from the Public

Where does the public come down on the role of nature vs. nurture in human behavior? News about the genetic bases for behavior may be proliferating, but a majority of the public is siding with nurture. When asked which is a more important influence on behavior a majority (57%) say the environment, not genes. Similarly, most take the position that environmental factors and living practices can alter a person's likelihood for disease. Two-thirds of Americans disagree that "a person's likelihood for disease is pretty much set from birth and cannot be greatly increased or decreased by their environment and living practices."

Are scientists at odds with public thinking about the role of genetics and the environment? When it comes to public perceptions of scientific consensus, the public is more likely to say that scientists see genetic factors as more important (42%) than say the same about their own views (27%). Overall, however, the public is split with 42% seeing scientific consensus on the side of genetic factors and 39% seeing consensus on the side of environmental factors.

What's Your View?

On the whole, which would you say is a more important influence on people's behavior?

	%
The genes we inherit	27
Our environment and living practices	57
Neither/Both (volunteered)	11
Don't know/Refused	<u>5</u>
	100

What Do Most Scientists Believe?

Which do you think most scientific experts believe is a more important influence on people's behavior?

	%
The genes we inherit	42
Our environment and living practices	39
Neither/Both (volunteered)	6
Don't know/Refused	<u>12</u>
	100

Source: VCU Life Sciences Survey 2008

Figures may add to 99 or 101 due to rounding

Nature, Nurture and Disease

"A person's likelihood for disease is pretty much set from birth and cannot be greatly increased or decreased by their environment and living practices."

	%
Agree or strongly agree	29
Disagree or strongly disagree	66
Don't know/Refused	<u>4</u>
	100

Source: VCU Life Sciences Survey 2008

Support for Government Spending on Scientific Research

Does the public support government spending on scientific research? Despite the economic downturn, there is considerable public support for spending on scientific research. Nearly a quarter (23%) say that government spending on scientific research should be a top priority; another 59% say it should be important, but not a top priority. Only 15% of adults say that government spending on scientific research is not too or not at all important. Though the VCU survey does not compare views about government spending priorities across types of programs, it provides a gauge of public support for the research enterprise.

Support for spending on research with immediate benefits is stronger than for basic science research. 54% of adults say that spending on research with immediate benefits is important. This compares with 38% who say the same about research that advances knowledge even if there are no immediate benefits. A plurality of adults say that funding for basic science is necessary but of lower importance. Just 15% say this kind of research spending is not necessary.

Science and Government Spending

Do you think that government spending on scientific research should be a...

	%
Top priority	23
Important, not top priority	59
Not too/Not at all important	15
Don't know/Refused	<u>3</u>
	100

Basic vs. Applied Science

Do you think government spending on scientific research that will have immediate benefits is...?

	%
Important	54
Necessary but of lower importance	36
Not necessary	6
Don't know/Refused	<u>3</u>
	100

Do you think government spending on scientific research that advances knowledge even if there are no immediate benefits is...?

	%
Important	38
Necessary but of lower importance	47
Not necessary	12
Don't know/Refused	<u>3</u>
	100

Source: VCU Life Sciences Survey 2008
 Figures may add to 99 or 101 due to rounding

Science and Society

Fully 83% of Americans say that new developments in science have helped make society better; 46% say science has helped make society a lot better while 36% say it has helped make society somewhat better. Just 7% say scientific developments have not helped society.

Majority See Societal Benefit

On the whole, have developments in science helped make society better or not?

	%
A lot better	46
Somewhat better	36
Not better	7
Better, don't know how much	1
Don't know/Refused	<u>10</u>
	100

Source: VCU Life Sciences Survey 2008

More than six-in-ten (61%) agree that scientific research is essential for improving the quality of human lives. A similar proportion (57%) strongly agrees that new medical technology allows people to live longer and better.

Some ambivalence in public sentiment continues to surface when it comes to how science matches up with moral principles. A majority (56%) agree that “scientific research these days doesn’t pay enough attention to the moral values of society”. A majority of the public has agreed with this sentiment since the first VCU Life Sciences Survey in 2001.

When asked to choose, a 53% majority believe scientific decisions should be based primarily on an analysis of the risks and benefits involved; 32% believe these decisions should be based primarily on the moral and ethical issues involved. Views on this issue are virtually unchanged since 2007.

Priorities for Scientific Research Decisions

Which comes closer to your view? Decisions about science and technology should be based PRIMARILY on an analysis of the risks and benefits involved OR on the moral and ethical issues involved?

	%
An analysis of the risks and benefits	53
On the moral and ethical issues	32
Neither/Both (volunteered)	7
Don't know/Refused	<u>8</u>
	100

Source: VCU Life Sciences Survey 2008

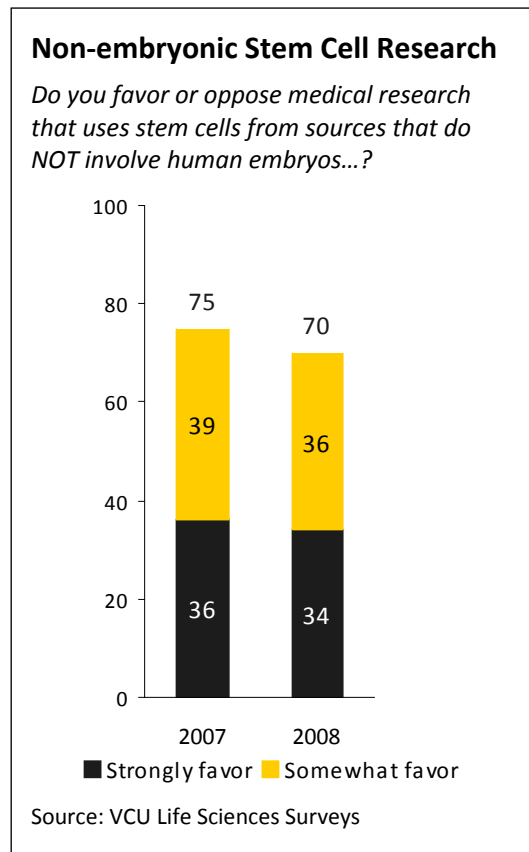
Those who have a gene-related condition or who have a family member with such a condition are more likely to believe these decisions should be based on a risk-benefit analysis (58% say this compared with 49% among those who do not have a gene-related condition in the family).

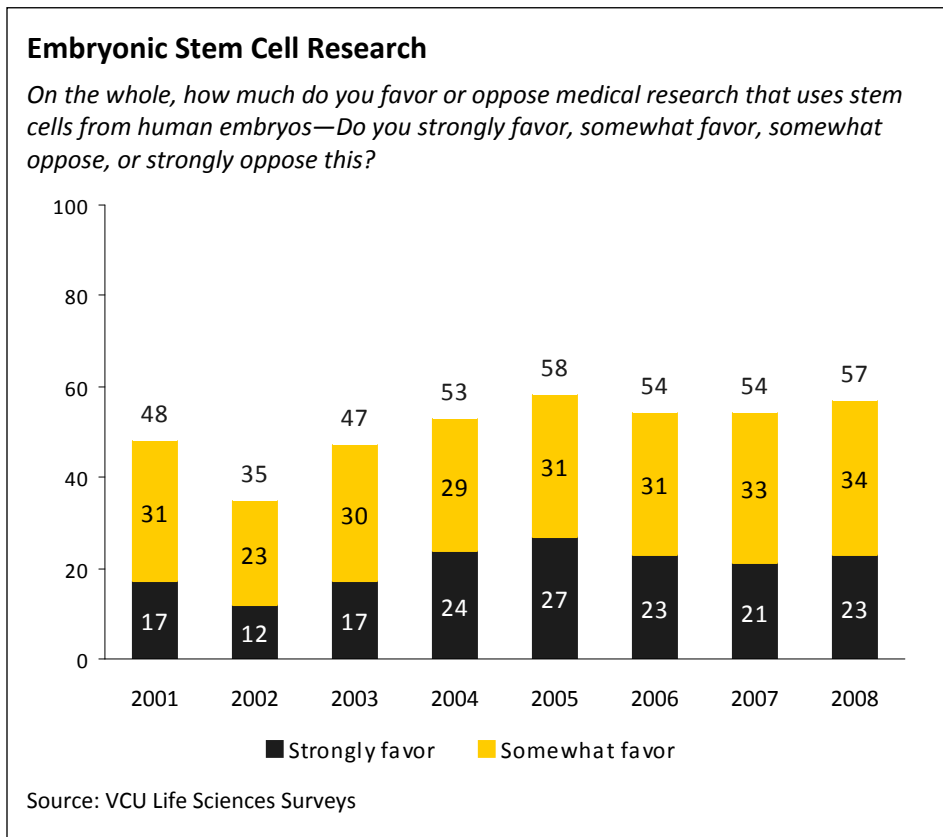
Religiosity tends to correlate with views about scientific decision-making. Those who are more religious tend to say that decisions should be based on the moral and ethical issues involved (44%); 39% of this group say the risk-benefit analysis should be primary. Those who are less religious clearly side in the opposite direction; 69% of those for whom religion is not important say decisions should be based on a risk and benefit analysis.

New Distinctions: Embryonic and Non-embryonic Stem Cell Research

New scientific developments have changed the landscape of stem cell research. Seven-in-ten adults favor stem cell research when it does not involve human embryos, down slightly from 75% just after the November 2007 announcement that human skin cells can be used to create stem cells or their near equivalents. Majorities of nearly all groups in society, including those with differing beliefs about abortion and religious commitment, favor non-embryonic stem cell research.

The 2008 survey finds 57% of adults in favor of embryonic stem cell research, while 36% are opposed to stem cell research of this kind. These figures have been about the same since 2004, after some fluctuation in opinion during the years embryonic stem cell research first became a topic for national policy debate. Views about abortion are strongly related to opinion about embryonic stem cell research. As in past years, those who oppose legal abortion under any circumstance are more likely than those who are pro-choice to oppose embryonic stem cell research.



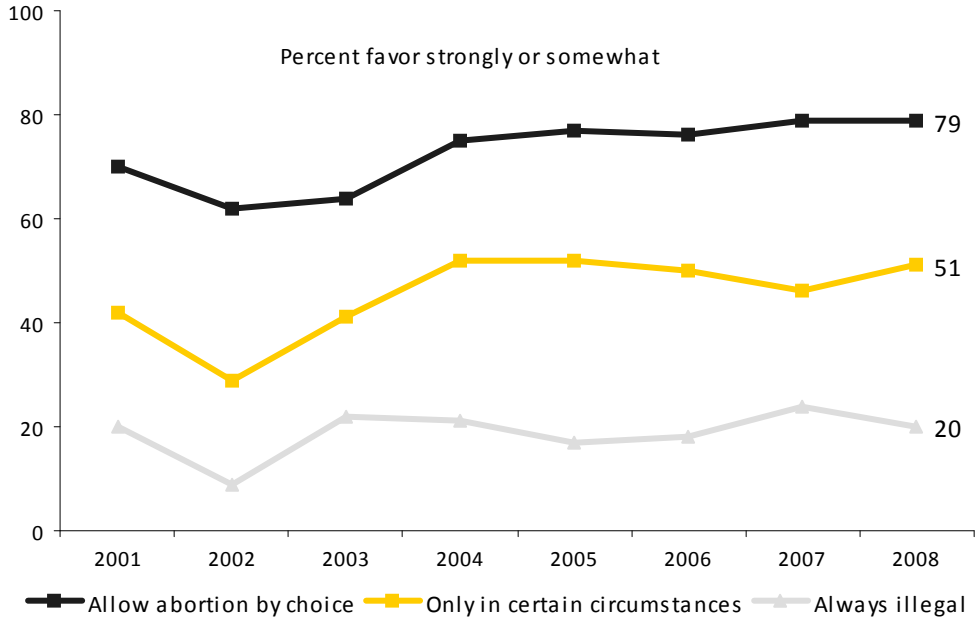


Knowledge and education are associated with greater support for embryonic stem cell research. Those who say they are very clear about the differences among different types of stem cells are more likely than those who consider themselves only somewhat clear or not clear about types of stem cells to favor this kind of research. Those with more education are more likely than those with less education to favor embryonic stem cell research.

Democrats are more likely than Republicans to favor embryonic stem cell research. Independents fall in between these two groups. Partisan groups are a bit more polarized today, compared with 2007.

Wide Differences on Embryonic Stem Cell Research by Abortion Views

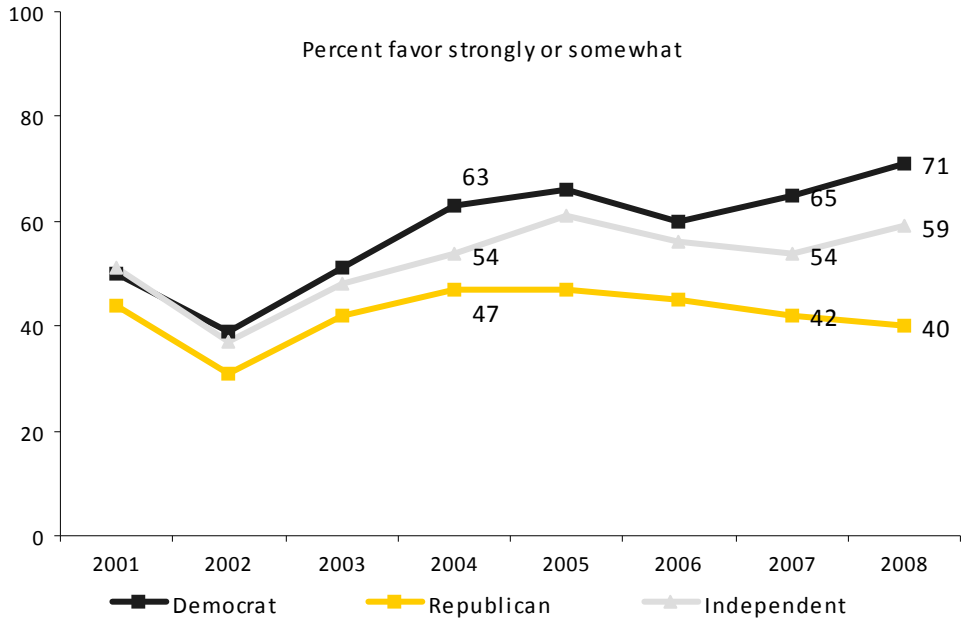
On the whole, how much do you favor or oppose medical research that uses stem cells from human embryos—Do you strongly favor, somewhat favor, somewhat oppose, or strongly oppose this?



Source: VCU Life Sciences Surveys

Partisan Differences on Embryonic Stem Cell Research

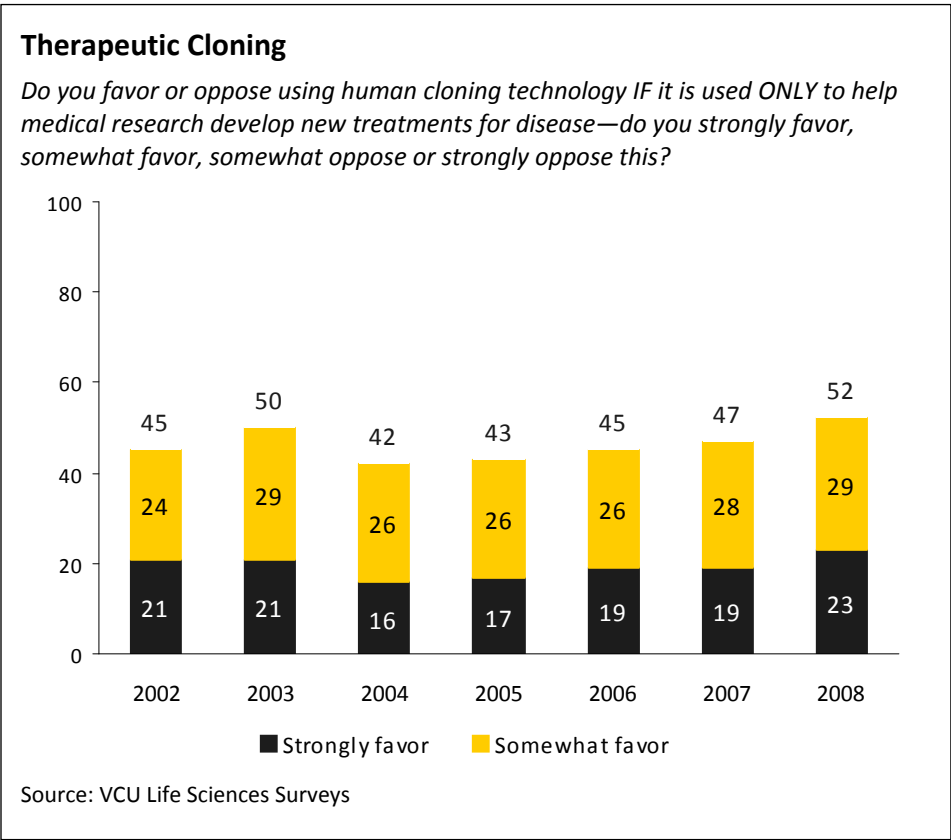
On the whole, how much do you favor or oppose medical research that uses stem cells from human embryos—Do you strongly favor, somewhat favor, somewhat oppose, or strongly oppose this?



Source: VCU Life Sciences Surveys

Cloning and Therapeutic Cloning in Medical Research

The idea of human cloning continues to draw strong opposition among the public. In the 2008 survey, 56% of adults strongly oppose the use of cloning technology in humans and another 22% somewhat oppose it. The degree of sentiment against human cloning has remained fairly steady since first asked in 2001. There is more support for cloning when it is limited to helping develop new treatments for disease. 52% favor this kind of therapeutic cloning, 45% oppose it. This is the highest percentage favoring therapeutic cloning since 2002. This is one of the few instances on the survey where men and women tend to hold different views. Among men, 58% favor therapeutic cloning; 48% of women do so.



METHOD OF THE VCU LIFE SCIENCES SURVEY

The VCU Life Sciences Survey is a public opinion survey of U.S. residents about issues in science, medicine and biotechnology. The survey was conducted by landline telephone from November 24-December 7, 2008 with a randomly-selected sample of 1,005 adults living in the continental United States. The survey was jointly sponsored by VCU's College of Humanities and Sciences and VCU Life Sciences, Virginia Commonwealth University's matrix academic organization that integrates the campuses around the life sciences. The survey questions were developed jointly by VCU Life Sciences and by the VCU Center for Public Policy at Virginia Commonwealth University. The interviewing was conducted through the facilities of Princeton Data Source (PDS), a research and polling company based in northern Virginia. They used a staff of professionally trained, paid interviewers and computer-assisted telephone interviewing software to conduct the survey.

The sample of telephone numbers was designed so that all residential telephones, including new and unlisted numbers, had a known chance of inclusion. The data are weighted to adjust for unequal probabilities of selection due to multiple adults living in the household. In addition, the data are weighted on sex, age, education, race/ethnicity, region and population density to reflect the demographic composition of the adult population in the U.S. Percentages reported in the text and tables are weighted, while the number of cases shown in the tables for various subgroups is the actual number of respondents.

Questions answered by the full sample of adults are subject to a sampling error of plus or minus 3.8 percentage points at the 95 percent level of confidence. This means that in 95 out of 100 samples like the one used here, the results obtained should be no more than 3.8 percentage points above or below the figure that would be obtained by interviewing all U.S. residents with telephones. Where the answers of subgroups are reported, the sampling error would be higher. Because of non-response (refusals to participate, etc.), standard calculations of sampling error are apt to understate the actual extent to which survey results are at variance with the true population values. Surveys are also subject to errors from sources other than sampling. While every effort is made to identify such errors, they are often difficult or impossible to measure. Readers making use of the results are urged to be mindful of the limitations inherent in survey research.

VCU Life Sciences Survey 2008
National survey of U.S. adults
November 24 to December 7, 2008
Number of Respondents: 1,005

Q1. How much attention do you pay to news reports about developments in science— a lot, some, not too much, or none at all?¹

	2008
	%
A lot	27
Some	42
Not too much	21
None at all	10
Don't know/Refused	0

Q2a. On the whole, have developments in science helped make society better or not? Q2b. IF Yes to Q2a: Would that be a lot better or somewhat better?

	2008
	%
Yes, A lot better	46
Yes, Somewhat better	36
Yes, DK how much better	1
No, Not better	7
Don't know/Refused	10

Trend available for Q2a only: On the whole, have developments in science helped make society better or not?

	2008	2003	2002	2001
	%	%	%	%
Yes, better	83	87	85	85
No, not better	7	9	10	8
Don't know/Refused	10	4	4	7

Please tell me whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with the following statements: (Q3 through Q6 asked in random order)

Q3. Scientific research these days doesn't pay enough attention to the moral values of society.

	2008	2007	2006	2005	2004	2003	2002	2001
	%	%	%	%	%	%	%	%
Strongly agree	22	27	23	25	25	28	29	28
Somewhat agree	34	36	33	31	36	35	40	45
Somewhat disagree	23	21	25	23	22	23	20	15
Strongly disagree	13	10	15	14	12	9	9	8
Don't know/Refused	7	6	5	7	6	5	2	6

Q4. Scientific research is essential for improving the quality of human lives.

	2008	2007	2006	2005	2004	2003	2002
	%	%	%	%	%	%	%
Strongly agree	61	62	60	58	56	59	48
Somewhat agree	31	30	30	29	36	31	42
Somewhat disagree	4	4	5	7	5	6	6
Strongly disagree	3	3	3	4	2	3	3
Don't know /Refused	2	2	2	3	1	2	1

¹ Percentages may add to 99 or 101 due to rounding. Cells that are blank contain no cases. Cells with a zero percent entry contain cases, but the percentage is less than 0.5%.

Q5. Scientific research has created as many problems for society as it has solutions

	2008	2007	2006	2005	2004	2003	2002	2001
	%	%	%	%	%	%	%	%
Strongly agree	14	17	16	16	17	19	18	18
Somewhat agree	34	36	35	36	34	36	41	36
Somewhat disagree	28	26	29	26	30	29	28	26
Strongly disagree	19	16	16	15	15	14	11	14
Don't know/Refused	6	6	4	6	4	3	3	6

Q6. New technology used in medicine allows people to live longer and better.

	2008	2007	2006	2005	2004	2003	2002
	%	%	%	%	%	%	%
Strongly agree	57	57	61	58	63	60	57
Somewhat agree	35	33	29	30	29	31	34
Somewhat disagree	4	6	6	7	5	5	6
Strongly disagree	2	3	3	4	2	4	2
Don't know/Refused	2	2	1	3	0	1	1

NO QUESTION 7

Q8. Which comes closer to your view? Decisions about science and technology should be based PRIMARILY on ...
(Rotate response options 1 and 2)

	2008	2007
	%	%
An analysis of the risks and benefits involved	53	51
The moral and ethical issues involved	32	32
Neither/Both (volunteered)	7	9
Don't know/Refused	8	8

Q9. Next, a question about the priorities for federal government spending this year. Do you think that government spending on scientific research should be a top priority, important but not a top priority, not too important or not at all important?

	2008
	%
Top priority	23
Important but not a top priority	59
Not too important	10
Not at all important	5
Don't know/Refused	3

ROTATE ORDER OF Q10 AND Q11

Q10. Do you think government spending on scientific research that advances knowledge even if there are no immediate benefits is important, necessary but of lower importance, or not necessary?

	2008
	%
Important	38
Necessary but of lower importance	47
Not necessary	12
Don't know/Refused	3

Q11. Do you think government spending on scientific research that will have immediate benefits is important, necessary but of lower importance, or not necessary?

	2008
	%
Important	54
Necessary but of lower importance	36
Not necessary	6
Don't know/Refused	3

Q12. How clear are you, personally, on the difference between: stem cells that come from human embryos; stem cells that come from adults; and stem cells that come from other sources?

	2008	2007	2006*	2005*
	%	%	%	%
Very clear	23	21	23	22
Somewhat clear	41	40	36	44
Not very clear	21	23	21	17
Not at all clear	13	15	18	15
Don't know/Refused	2	0	1	2

*Wording in 2006, 2005 asked: "...and stem cells that come from other sources such as an umbilical cord?"

Q13. On the whole, how much do you favor or oppose medical research that uses stem cells from human embryos—Do you strongly favor, somewhat favor, somewhat oppose, or strongly oppose this?

	2008	2007	2006	2005	2004	2003	2002	2001
	%	%	%	%	%	%	%	%
Strongly favor	23	21	23	27	24	17	12	17
Somewhat favor	34	33	31	31	29	30	23	31
Somewhat oppose	14	17	17	14	14	21	22	21
Strongly oppose	22	22	20	18	22	23	29	22
Don't know/Refused	8	8	8	11	11	9	15	9

NO QUESTION 14

Q15. Do you favor or oppose medical research that uses stem cells from sources that do NOT involve human embryos—strongly favor, somewhat favor, somewhat oppose, strongly oppose?

	2008	2007
	%	%
Strongly favor	34	36
Somewhat favor	36	39
Somewhat oppose	14	9
Strongly oppose	8	8
Don't know/Refused	7	8

On another topic.

Q16. The technology now exists to clone or genetically alter animals. How much do you favor or oppose allowing the same thing to be done in humans—do you strongly favor, somewhat favor, somewhat oppose, or strongly oppose this?

	2008	2007	2006	2005	2004	2003	2002	2001
	%	%	%	%	%	%	%	%
Strongly favor	4	4	4	3	2	4	6	4
Somewhat favor	13	12	13	12	11	9	10	10
Somewhat oppose	22	20	19	18	17	19	16	18
Strongly oppose	56	61	60	63	66	65	65	64
Don't know/Refused	4	4	4	4	4	2	3	3

Q17. Do you favor or oppose using human cloning technology IF it is used ONLY to help medical research develop new treatments for disease--do you strongly favor, somewhat favor, somewhat oppose, or strongly oppose this?

	2008	2007	2006	2005	2004	2003	2002
	%	%	%	%	%	%	%
Strongly favor	23	19	19	17	16	21	21
Somewhat favor	29	28	26	26	26	29	24
Somewhat oppose	16	15	16	16	18	16	13
Strongly oppose	29	32	35	35	38	32	38
Don't know/Refused	2	5	4	6	3	3	3

Q18. There are several different terms used when it comes to human cloning technology. How clear are you, personally, on the difference between human reproductive cloning and human therapeutic cloning—Very clear, somewhat clear, not very clear, or not at all clear?

	2008	2007	2006	2005	2004	2003	2002
	%	%	%	%	%	%	%
Very clear	8	7	7	10	8	8	11
Somewhat clear	26	21	22	23	26	26	31
Not very clear	31	32	35	31	34	32	29
Not at all clear	33	39	35	36	30	33	28
Don't know/Refused	1	1	1	1	2	0	2

Q19. Genetic testing is being used to identify people at risk for diseases such as cancer, heart disease, Alzheimer's and others. Overall, how much would you favor or oppose making genetic testing easily available to all who want it – do you strongly favor, somewhat favor, somewhat oppose, or strongly oppose this?

	2008	2004	2001
	%	%	%
Strongly favor	42	40	38
Somewhat favor	38	42	39
Somewhat oppose	9	9	13
Strongly oppose	7	5	7
Don't know/Refused	3	3	4

Q20. Overall, would you say the benefits of conducting genetic research outweigh the risks or do the risks outweigh the benefits?

	2008	2004	2001
	%	%	%
Benefits outweigh the risks	54	58	57
Risks outweigh the benefits	25	27	27
Don't know/Refused	21	15	16

Q21. When you think about the risks of conducting genetic research, which of these is your MAIN concern?

(READ AND RANDOMIZE RESPONSE OPTIONS)

	2008
	%
Genetic information will be used to discriminate against people	21
Genetic research will be used in ways that violate your moral principles	28
Too little is known about how to conduct genetic research safely	38
None (VOLUNTEERED)	3
Don't know/Refused (DO NOT READ)	10

Thinking about genes and genetics.

Q22. On the whole, which would YOU say is a MORE IMPORTANT influence on people's behavior?

(READ RESPONSE OPTIONS IN ORDER)

	2008
	%
The genes we inherit	27
Our environment and living practices	57
Neither/Both (VOLUNTEERED)	11
Don't know/Refused (DO NOT READ)	5

Q23. And which do you think MOST SCIENTIFIC EXPERTS believe is a MORE IMPORTANT influence on people's behavior? **(READ RESPONSE OPTIONS IN ORDER)**

	2008
	%
The genes we inherit	42
Our environment and living practices	39
Neither/Both (VOLUNTEERED)	6
Don't know/Refused (DO NOT READ)	12

Q24. Do you agree or disagree with the following statement? "A person's likelihood for disease is pretty much set from birth and cannot be greatly increased or decreased by their environment and living practices."

	2008
	%
Strongly agree	7
Agree	22
Disagree	41
Strongly disagree	25
Don't know/Refused (DO NOT READ)	4

How much do you agree or disagree with the following statements? (Do you strongly agree, agree, neither agree nor disagree, disagree, or strongly disagree with this statement?) (Q25 and Q26 asked in random order)

Q25. Those in charge of new developments in genetic science cannot be trusted to act in society's interests.

	2008	2007
	%	%
Strongly agree/Agree	26	27
Neither agree nor disagree	32	31
Disagree/Strongly disagree	36	34
Don't know/Refused (DO NOT READ)	7	9

Q26. Rules set by government will keep us safe from any risks linked to modern genetic science.

	2008	2007
	%	%
Strongly agree/Agree	17	16
Neither agree nor disagree	23	23
Disagree/Strongly disagree	53	57
Don't know/Refused (DO NOT READ)	7	4

Q27. How well informed are you about scientific discoveries—Are you very informed, somewhat informed, not too informed*, or not at all informed?

	2008	2007	2006*	2005*	2004*	2003*	2002*	2001*
	%	%	%	%	%	%	%	%
Very informed	11	9	10	11	10	9	7	11
Somewhat informed	58	59	64	63	64	63	57	60
Not too informed	24	27	20	20	22	22	29	24
Not at all informed	8	5	6	5	4	6	6	4
Don't know/Refused	1	0	0	1	0	0	0	1

*Wording 2001 to 2006 asked "not very informed"

Q28. How well informed are you about medical discoveries—Are you very informed, somewhat informed, not too informed*, or not at all informed?

	2008	2007	2006*	2005*	2004*	2003*	2002*	2001*
	%	%	%	%	%	%	%	%
Very informed	11	9	13	13	9	10	7	11
Somewhat informed	62	64	64	66	67	65	60	64
Not too informed	20	23	18	16	19	20	28	22
Not at all informed	6	4	5	4	4	4	5	3
Don't know/Refused	1	1	0	0	0	0	0	0

*Wording 2001 to 2006 asked "not very informed"

SELECTED BACKGROUND QUESTIONS ON THE SURVEY

Q29. Which of these comes closest to your views about abortion?: A woman should be able to get an abortion if she decides she wants one no matter what the reason; abortion should only be legal in certain circumstances, such as when a woman's health is endangered or when the pregnancy results from rape or incest; or abortion should be illegal in all circumstances. (READ RESPONSE OPTIONS IN ORDER)

	2008	2007	2006	2005	2004	2003	2002	2001
	%	%	%	%	%	%	%	%
Woman should be able to decide-any reason	37	34	37	39	32	37	29	37
Should be legal in certain circumstances	43	45	45	44	45	43	47	44
Should be illegal in all circumstances	15	17	15	12	17	15	18	14
Don't know/ Refused	5	4	3	4	6	5	6	5

Q30. How often do you attend religious services - more than once a week, once a week, once or twice a month, a few times a year, seldom, or never?

	2008	2007	2006	2005	2004	2003	2002	2001
	%	%	%	%	%	%	%	%
More than once a week	13	15	13	15	18	16	17	16
Once a week	26	25	27	26	23	24	26	24
Once or twice a month	12	14	14	15	15	14	15	16
A few times a year	19	17	19	16	19	20	16	16
Seldom	15	17	13	16	14	15	15	17
Never	12	9	12	10	9	11	10	9
Don't know/Refused	2	2	1	2	1	1	1	1

Q.31/Q32. Whether or not you attend services, do you consider religion to be an important part of your life, or not? (IF YES) Would you say your religious beliefs provide some guidance in your day-to-day living, quite a bit of guidance, or a great deal of guidance in your day-to-day living?

	2008	2007	2006	2005	2004	2003	2002	2001
	%	%	%	%	%	%	%	%
A great deal of guidance	41	42	38	51	45	43	44	41
Quite a bit of guidance	20	21	21	17	21	20	22	23
Some guidance	17	18	19	17	18	20	16	19
Not important	19	16	20	15	14	15	15	14
Don't know /Refused	3	3	2	0	2	2	2	2

Q33. Which of these statements comes closest to describing your feelings about the Bible—The Bible is the actual Word of God, The Bible is the Word of God but not everything in it should be taken literally, or the Bible is a book written by men and is not the Word of God?

	2008	2007	2006	2005	2004	2003	2002	2001
	%	%	%	%	%	%	%	%
Actual word of God	42	42	43	44	44	42	44	42
Not everything to be taken literally	33	36	38	33	36	37	35	36
Written by men	18	15	15	14	14	14	13	14
Don't know/Refused	7	7	5	8	7	6	7	7

Q34. Have you or has anyone in your family had a disease or chronic medical condition that is strongly related to genetic factors?

	2008	2007
	%	%
Yes	45	38
No	50	56
Don't know/Refused	5	6

Tables of Results by Selected Subgroups²

		Q1. How much attention do you pay to news reports about new developments in science — a lot, some, not too much, or none at all?					Number of cases
		A lot	Some	Not too much	None at all	Don't know	
All adults		27%	42%	21%	10%	0%	1005
Gender	Men	31%	41%	18%	10%	0%	433
	Women	23%	43%	23%	10%	0%	572
Age	18-44	20%	44%	26%	10%		292
	45-64	36%	44%	13%	7%	0%	404
	65 and older	26%	34%	25%	14%	1%	285
Education	High school or less	19%	38%	26%	15%	1%	354
	Some college	29%	49%	16%	5%		233
	College graduate or more	37%	43%	15%	4%		415
Religious Guidance in Daily Life	Great deal	29%	42%	17%	12%	0%	438
	Quite a bit	27%	43%	20%	11%		201
	Some guidance	24%	46%	22%	9%		158
	Not important	27%	40%	28%	5%	0%	178
Views on Abortion	Woman should be able to decide-any reason	28%	45%	17%	10%	0%	375
	Should be legal in certain circumstances	26%	42%	23%	9%	0%	427
	Should be illegal-all circumstances	26%	37%	23%	14%		153
Scientific and medical discoveries	More informed	65%	16%	14%	4%	0%	145
	Somewhat informed	28%	54%	14%	4%	0%	502
	Less informed	12%	37%	32%	20%		343
Self/family had a condition related to genetic factors?	Yes	32%	42%	20%	6%		448
	No	23%	41%	22%	14%	0%	498
Party identification	Democrat	30%	39%	20%	11%		364
	Republican	25%	47%	21%	7%	0%	286
	Independent	26%	43%	21%	11%	0%	274

² In the following tables, cells that are blank contain no cases. Cells with a zero percent entry contain cases, but the percentage is less than 0.5%. Percentages may add to 99 or 101 due to rounding.

		Q2a/2b. On the whole, have developments in science helped make society better or not?					Number of cases
		Yes, A lot better	Yes, Somewhat better	Yes, better, DK how much better	No, Not better	Don't know	
All adults		46%	36%	1%	7%	10%	1005
Gender	Men	48%	35%	1%	8%	9%	433
	Women	45%	37%	1%	7%	11%	572
Age	18-44	47%	36%		7%	10%	292
	45-64	51%	34%	1%	8%	6%	404
	65 and older	35%	36%	3%	8%	17%	285
Education	High school or less	37%	39%	1%	9%	14%	354
	Some college	48%	38%	1%	6%	7%	233
	College graduate or more	60%	29%	0%	6%	6%	415
Religious Guidance in Daily Life	Great deal	41%	39%	1%	10%	10%	438
	Quite a bit	43%	39%	1%	8%	8%	201
	Some guidance	47%	40%	0%	6%	7%	158
	Not important	57%	26%	0%	3%	13%	178
Views on Abortion	Woman should be able to decide-any reason	56%	32%	1%	4%	7%	375
	Should be legal in certain circumstances	44%	38%	1%	7%	10%	427
	Should be illegal-all circumstances	30%	40%	0%	15%	15%	153
Scientific and medical discoveries	More informed	53%	28%	0%	10%	9%	145
	Somewhat informed	52%	36%	1%	4%	7%	502
	Less informed	36%	39%	1%	10%	13%	343
Self/family had a condition related to genetic factors?	Yes	53%	33%	1%	7%	7%	448
	No	40%	38%	1%	7%	13%	498
Party identification	Democrat	50%	37%	1%	6%	7%	364
	Republican	49%	34%	1%	8%	9%	286
	Independent	41%	37%	1%	8%	13%	274

Q3. Scientific research these days doesn't pay enough attention to
the moral values of society.

		Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree	Don't know	Number of cases
All adults		22%	34%	23%	13%	7%	1005
Gender	Men	22%	32%	23%	14%	7%	433
	Women	22%	36%	23%	12%	7%	572
Age	18-44	19%	38%	26%	13%	4%	292
	45-64	24%	31%	23%	14%	9%	404
	65 and older	27%	33%	19%	11%	11%	285
Education	High school or less	24%	37%	23%	8%	9%	354
	Some college	28%	29%	21%	16%	7%	233
	College graduate or more	15%	35%	26%	19%	6%	415
Religious Guidance in Daily Life	Great deal	36%	32%	17%	9%	6%	438
	Quite a bit	17%	45%	19%	12%	7%	201
	Some guidance	9%	32%	34%	14%	10%	158
	Not important	12%	31%	29%	21%	7%	178
Views on Abortion	Woman should be able to decide-any reason	10%	28%	31%	23%	8%	375
	Should be legal in certain circumstances	25%	41%	20%	7%	8%	427
	Should be illegal-all circumstances	48%	26%	13%	8%	4%	153
Scientific and medical discoveries	More informed	26%	22%	23%	27%	3%	145
	Somewhat informed	24%	33%	23%	13%	7%	502
	Less informed	19%	41%	23%	8%	10%	343
Self/family had a condition related to genetic factors?	Yes	23%	33%	24%	15%	6%	448
	No	22%	36%	22%	12%	9%	498
Party identification	Democrat	18%	31%	24%	20%	8%	364
	Republican	33%	34%	20%	6%	6%	286
	Independent	17%	36%	27%	13%	7%	274

		Q4. Scientific research is essential for improving the quality of human lives.					Number of cases
		Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree	Don't know	
All adults		61%	31%	4%	3%	2%	1005
Gender	Men	60%	29%	5%	3%	2%	433
	Women	61%	32%	2%	3%	1%	572
Age	18-44	62%	29%	4%	4%	1%	292
	45-64	65%	31%	3%	1%	1%	404
	65 and older	53%	33%	6%	2%	5%	285
Education	High school or less	55%	34%	4%	3%	3%	354
	Some college	65%	27%	5%	2%	1%	233
	College graduate or more	67%	27%	3%	3%	0%	415
Religious Guidance in Daily Life	Great deal	56%	32%	6%	4%	2%	438
	Quite a bit	57%	31%	3%	5%	5%	201
	Some guidance	69%	28%	2%	1%		158
	Not important	70%	26%	3%	0%	0%	178
Views on Abortion	Woman should be able to decide-any reason	73%	22%	2%	2%	1%	375
	Should be legal in certain circumstances	56%	36%	4%	2%	1%	427
	Should be illegal-all circumstances	47%	33%	7%	9%	3%	153
Scientific and medical discoveries	More informed	73%	13%	5%	4%	5%	145
	Somewhat informed	67%	30%	3%	0%	1%	502
	Less informed	50%	38%	5%	6%	2%	343
Self/family had a condition related to genetic factors?	Yes	64%	29%	3%	2%	2%	448
	No	58%	31%	5%	4%	2%	498
Party identification	Democrat	66%	27%	4%	2%	1%	364
	Republican	62%	28%	4%	3%	2%	286
	Independent	59%	33%	4%	2%	2%	274

Q5. Scientific research has created as many problems for society as
it has solutions.

		Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree	Don't know	Number of cases
All adults		14%	34%	28%	19%	6%	1005
Gender	Men	15%	30%	28%	21%	6%	433
	Women	14%	37%	27%	17%	5%	572
Age	18-44	12%	30%	34%	20%	4%	292
	45-64	14%	37%	23%	21%	5%	404
	65 and older	19%	33%	22%	14%	12%	285
Education	High school or less	16%	39%	23%	14%	8%	354
	Some college	14%	29%	31%	22%	4%	233
	College graduate or more	12%	28%	33%	25%	3%	415
Religious Guidance in Daily Life	Great deal	19%	34%	26%	15%	6%	438
	Quite a bit	13%	35%	29%	16%	6%	201
	Some guidance	8%	38%	28%	24%	3%	158
	Not important	9%	26%	34%	25%	6%	178
Views on Abortion	Woman should be able to decide-any reason	11%	30%	28%	28%	3%	375
	Should be legal in certain circumstances	14%	36%	29%	14%	6%	427
	Should be illegal-all circumstances	20%	34%	24%	14%	9%	153
Scientific and medical discoveries	More informed	19%	25%	26%	26%	4%	145
	Somewhat informed	14%	32%	29%	21%	4%	502
	Less informed	13%	39%	27%	14%	8%	343
Self/family had a condition related to genetic factors?	Yes	16%	33%	27%	19%	5%	448
	No	12%	34%	29%	19%	6%	498
Party identification	Democrat	16%	33%	25%	21%	4%	364
	Republican	14%	34%	34%	13%	5%	286
	Independent	11%	32%	24%	25%	8%	274

		Q6. New technology used in medicine allows people to live longer and better.					Number of cases
		Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree	Don't know	
All adults		57%	35%	4%	2%	2%	1005
Gender	Men	58%	33%	3%	3%	3%	433
	Women	56%	37%	4%	2%	1%	572
Age	18-44	55%	38%	4%	2%	1%	292
	45-64	61%	32%	4%	1%	2%	404
	65 and older	56%	34%	4%	4%	2%	285
Education	High school or less	54%	37%	3%	3%	3%	354
	Some college	58%	35%	3%	3%	1%	233
	College graduate or more	61%	33%	4%	1%	0%	415
Religious Guidance in Daily Life	Great deal	54%	38%	4%	3%	2%	438
	Quite a bit	58%	32%	7%	1%	2%	201
	Some guidance	60%	32%	2%	2%	3%	158
	Not important	63%	31%	1%	3%	1%	178
Views on Abortion	Woman should be able to decide-any reason	60%	34%	3%	2%	1%	375
	Should be legal in certain circumstances	57%	35%	5%	2%	1%	427
	Should be illegal-all circumstances	51%	35%	3%	7%	5%	153
Scientific and medical discoveries	More informed	66%	23%	7%	1%	2%	145
	Somewhat informed	63%	33%	2%	2%	1%	502
	Less informed	47%	43%	4%	4%	2%	343
Self/family had a condition related to genetic factors?	Yes	58%	38%	2%	2%	1%	448
	No	57%	32%	5%	3%	3%	498
Party identification	Democrat	60%	34%	4%	1%	2%	364
	Republican	56%	38%	3%	1%	2%	286
	Independent	54%	36%	5%	3%	2%	274

		Q8. Which comes closer to your view? Decisions about science and technology should be based PRIMARILY on...(READ—ROTATE RESPONSE OPTIONS 1 AND 2)				
		An analysis of the risks and benefits involved	The moral and ethical issues involved	Neither/Both (VOL)	Don't know	Number of cases
All adults		53%	32%	7%	8%	1005
Gender	Men	54%	31%	9%	7%	433
	Women	53%	32%	6%	9%	572
Age	18-44	58%	30%	7%	6%	292
	45-64	55%	33%	7%	5%	404
	65 and older	41%	33%	8%	18%	285
Education	High school or less	48%	37%	6%	9%	354
	Some college	57%	27%	7%	8%	233
	College graduate or more	60%	25%	9%	6%	415
Religious Guidance in Daily Life	Great deal	39%	44%	7%	10%	438
	Quite a bit	50%	31%	9%	9%	201
	Some guidance	76%	18%	4%	2%	158
	Not important	69%	18%	8%	6%	178
Views on Abortion	Woman should be able to decide-any reason	68%	20%	6%	6%	375
	Should be legal in certain circumstances	51%	31%	9%	9%	427
	Should be illegal-all circumstances	24%	65%	6%	5%	153
Scientific and medical discoveries	More informed	55%	32%	9%	4%	145
	Somewhat informed	56%	30%	8%	6%	502
	Less informed	51%	33%	5%	11%	343
Self/family had a condition related to genetic factors?	Yes	58%	26%	9%	6%	448
	No	49%	37%	6%	9%	498
Party identification	Democrat	65%	23%	4%	7%	364
	Republican	42%	44%	9%	5%	286
	Independent	54%	28%	10%	8%	274

Q9. Next a question about the priorities for federal government spending this year. Do you think that government spending on scientific research should be a ...?

		Top priority	Important, but not top priority	Not too important	Not at all important	Don't know	Number of cases
All adults		23%	59%	10%	5%	3%	1005
Gender	Men	23%	56%	12%	7%	2%	433
	Women	23%	62%	8%	3%	3%	572
Age	18-44	23%	58%	10%	7%	2%	292
	45-64	23%	64%	7%	3%	3%	404
	65 and older	28%	52%	12%	4%	4%	285
Education	High school or less	25%	55%	11%	6%	3%	354
	Some college	26%	62%	7%	3%	1%	233
	College graduate or more	19%	65%	10%	3%	2%	415
Religious Guidance in Daily Life	Great deal	24%	57%	10%	6%	3%	438
	Quite a bit	26%	53%	10%	7%	3%	201
	Some guidance	16%	70%	8%	2%	4%	158
	Not important	26%	62%	10%	2%	1%	178
Views on Abortion	Woman should be able to decide-any reason	21%	64%	8%	4%	3%	375
	Should be legal in certain circumstances	27%	58%	10%	4%	1%	427
	Should be illegal-all circumstances	18%	53%	17%	11%	1%	153
Scientific and medical discoveries	More informed	42%	44%	6%	8%	0%	145
	Somewhat informed	21%	63%	9%	4%	2%	502
	Less informed	20%	60%	12%	5%	4%	343
Self/family had a condition related to genetic factors?	Yes	27%	57%	9%	4%	3%	448
	No	21%	62%	11%	6%	1%	498
Party identification	Democrat	26%	61%	8%	3%	2%	364
	Republican	19%	58%	14%	7%	2%	286
	Independent	24%	59%	9%	5%	2%	274

		Q10. Do you think government spending on scientific research that advances knowledge even if there are no immediate benefits is important, necessary but of lower importance, or not necessary?				
		Important	Necessary, but of lower importance	Not necessary	Don't know	Number of cases
All adults		38%	47%	12%	3%	1005
Gender	Men	41%	44%	12%	3%	433
	Women	35%	49%	11%	4%	572
Age	18-44	36%	48%	13%	3%	292
	45-64	43%	49%	6%	2%	404
	65 and older	29%	45%	19%	8%	285
Education	High school or less	34%	45%	15%	6%	354
	Some college	44%	48%	7%	1%	233
	College graduate or more	40%	50%	8%	1%	415
Religious Guidance in Daily Life	Great deal	33%	50%	14%	3%	438
	Quite a bit	35%	49%	12%	4%	201
	Some guidance	45%	47%	6%	2%	158
	Not important	47%	42%	9%	2%	178
Views on Abortion	Woman should be able to decide-any reason	47%	42%	9%	2%	375
	Should be legal in certain circumstances	35%	52%	11%	2%	427
	Should be illegal-all circumstances	29%	44%	23%	5%	153
Scientific and medical discoveries	More informed	49%	35%	13%	3%	145
	Somewhat informed	39%	50%	9%	2%	502
	Less informed	33%	49%	14%	4%	343
Self/family had a condition related to genetic factors?	Yes	40%	44%	13%	3%	448
	No	38%	48%	11%	3%	498
Party identification	Democrat	46%	42%	10%	2%	364
	Republican	25%	59%	13%	2%	286
	Independent	38%	47%	11%	5%	274

		Q11. Do you think government spending on scientific research that will have immediate benefits is important, necessary but of lower importance, or not necessary?				
		Important	Necessary, but of lower importance	Not necessary	Don't know	Number of cases
All adults		54%	36%	6%	3%	1005
Gender	Men	54%	34%	8%	3%	433
	Women	54%	38%	4%	4%	572
Age	18-44	56%	37%	6%	2%	292
	45-64	57%	36%	5%	3%	404
	65 and older	46%	36%	10%	7%	285
Education	High school or less	47%	40%	8%	5%	354
	Some college	62%	32%	4%	2%	233
	College graduate or more	60%	33%	5%	2%	415
Religious Guidance in Daily Life	Great deal	46%	44%	6%	3%	438
	Quite a bit	57%	33%	6%	4%	201
	Some guidance	57%	37%	5%	1%	158
	Not important	69%	24%	4%	3%	178
Views on Abortion	Woman should be able to decide-any reason	63%	32%	3%	2%	375
	Should be legal in certain circumstances	55%	36%	6%	3%	427
	Should be illegal-all circumstances	33%	48%	16%	4%	153
Scientific and medical discoveries	More informed	60%	30%	6%	3%	145
	Somewhat informed	56%	37%	3%	4%	502
	Less informed	51%	37%	9%	3%	343
Self/family had a condition related to genetic factors?	Yes	58%	33%	4%	5%	448
	No	51%	39%	8%	2%	498
Party identification	Democrat	60%	34%	4%	2%	364
	Republican	47%	41%	8%	3%	286
	Independent	58%	33%	6%	3%	274

		Q12. How clear are you, personally, on the difference between...stem cells that come from human embryos... stem cells that come from adults... and stem cells that come from other sources? Are you ...?					Number of cases
		Very clear	Somewhat clear	Not too clear	Not at all clear	Don't know	
All adults		23%	41%	21%	13%	2%	1005
Gender	Men	27%	38%	21%	11%	2%	433
	Women	19%	44%	20%	14%	3%	572
Age	18-44	22%	46%	20%	10%	1%	292
	45-64	26%	40%	20%	12%	2%	404
	65 and older	20%	31%	21%	22%	5%	285
Education	High school or less	16%	37%	26%	16%	4%	354
	Some college	23%	50%	14%	12%	1%	233
	College graduate or more	34%	41%	16%	8%	1%	415
Religious Guidance in Daily Life	Great deal	22%	41%	19%	16%	2%	438
	Quite a bit	21%	44%	20%	12%	3%	201
	Some guidance	23%	41%	23%	9%	3%	158
	Not important	28%	41%	22%	9%	0%	178
Views on Abortion	Woman should be able to decide-any reason	27%	39%	23%	9%	1%	375
	Should be legal in certain circumstances	20%	41%	22%	15%	2%	427
	Should be illegal-all circumstances	26%	45%	13%	12%	4%	153
Scientific and medical discoveries	More informed	66%	23%	7%	3%	1%	145
	Somewhat informed	25%	54%	14%	6%	1%	502
	Less informed	6%	32%	33%	24%	4%	343
Self/family had a condition related to genetic factors?	Yes	26%	43%	17%	11%	3%	448
	No	21%	40%	23%	15%	2%	498
Party identification	Democrat	21%	38%	25%	13%	2%	364
	Republican	27%	49%	12%	10%	3%	286
	Independent	24%	45%	17%	12%	1%	274

Q13. On the whole, how much do you favor or oppose medical research that uses stem cells from human embryos – do you ...?

		Strongly Favor	Somewhat Favor	Somewhat Oppose	Strongly Oppose	Don't know	Number of cases
All adults		23%	34%	14%	22%	8%	1005
Gender	Men	25%	33%	11%	23%	7%	433
	Women	21%	35%	16%	21%	8%	572
Age	18-44	22%	36%	14%	21%	7%	292
	45-64	23%	35%	13%	23%	7%	404
	65 and older	26%	29%	14%	21%	10%	285
Education	High school or less	17%	35%	17%	21%	10%	354
	Some college	25%	34%	9%	27%	5%	233
	College graduate or more	31%	32%	12%	19%	6%	415
Religious Guidance in Daily Life	Great deal	12%	27%	18%	35%	7%	438
	Quite a bit	22%	35%	14%	22%	7%	201
	Some guidance	27%	40%	9%	15%	9%	158
	Not important	43%	40%	7%	2%	8%	178
Views on Abortion	Woman should be able to decide-any reason	39%	40%	8%	6%	6%	375
	Should be legal in certain circumstances	14%	37%	18%	23%	9%	427
	Should be illegal-all circumstances	9%	11%	12%	61%	6%	153
Scientific and medical discoveries	More informed	49%	22%	5%	21%	2%	145
	Somewhat informed	23%	35%	14%	22%	6%	502
	Less informed	14%	36%	16%	23%	11%	343
Self/family had a condition related to genetic factors?	Yes	25%	34%	12%	22%	7%	448
	No	21%	34%	15%	23%	7%	498
Party identification	Democrat	33%	38%	12%	11%	5%	364
	Republican	13%	27%	11%	41%	8%	286
	Independent	23%	36%	16%	17%	8%	274
Clear about differences between types of stem cells?	Very clear	40%	20%	6%	30%	4%	258
	Somewhat clear	24%	39%	14%	21%	2%	416
	Not too/Not at all clear	11%	39%	18%	16%	16%	309

Q15. Do you favor or oppose medical research that uses stem cells
from sources that do NOT involve human embryos?

		Strongly Favor	Somewhat Favor	Somewhat Oppose	Strongly Oppose	Don't know	Number of cases
All adults		34%	36%	14%	8%	7%	1005
Gender	Men	37%	36%	13%	9%	5%	433
	Women	32%	36%	14%	8%	9%	572
Age	18-44	35%	37%	17%	8%	4%	292
	45-64	39%	37%	11%	4%	9%	404
	65 and older	25%	31%	14%	17%	14%	285
Education	High school or less	26%	32%	20%	12%	10%	354
	Some college	36%	43%	9%	7%	5%	233
	College graduate or more	47%	36%	8%	3%	6%	415
Religious Guidance in Daily Life	Great deal	28%	37%	17%	12%	7%	438
	Quite a bit	34%	32%	15%	11%	9%	201
	Some guidance	39%	38%	12%	4%	6%	158
	Not important	47%	35%	7%	3%	7%	178
Views on Abortion	Woman should be able to decide-any reason	39%	39%	11%	6%	6%	375
	Should be legal in certain circumstances	33%	34%	17%	8%	8%	427
	Should be illegal- all circumstances	28%	37%	11%	17%	7%	153
Scientific and medical discoveries	More informed	54%	26%	5%	11%	5%	145
	Somewhat informed	39%	39%	13%	4%	5%	502
	Less informed	23%	36%	19%	12%	11%	343
Self/family had a condition related to genetic factors?	Yes	39%	33%	17%	5%	7%	448
	No	31%	39%	12%	11%	7%	498
Party identification	Democrat	33%	40%	13%	9%	6%	364
	Republican	39%	33%	16%	6%	6%	286
	Independent	36%	35%	12%	9%	9%	274
Clear about differences between types of stem cells?	Very clear	59%	25%	6%	6%	3%	258
	Somewhat clear	37%	41%	15%	4%	4%	416
	Not too/Not at all clear	16%	37%	19%	14%	14%	309

		Q16. The technology now exists to clone or genetically alter animals. How much do you favor or oppose allowing the same thing to be done in humans?					
		Strongly Favor	Somewhat Favor	Somewhat Oppose	Strongly Oppose	Don't know	Number of cases
All adults		4%	13%	22%	56%	4%	1005
Gender	Men	7%	18%	24%	48%	4%	433
	Women	1%	9%	21%	64%	4%	572
Age	18-44	6%	17%	23%	51%	2%	292
	45-64	1%	10%	23%	60%	6%	404
	65 and older	2%	10%	18%	62%	7%	285
Education	High school or less	4%	13%	22%	56%	5%	354
	Some college	5%	13%	20%	59%	3%	233
	College graduate or more	3%	14%	25%	54%	4%	415
Religious Guidance in Daily Life	Great deal	2%	8%	17%	70%	3%	438
	Quite a bit	3%	11%	22%	62%	3%	201
	Some guidance	1%	18%	34%	44%	3%	158
	Not important	11%	22%	23%	35%	9%	178
Views about the Bible	Actual Word of God	2%	7%	17%	70%	4%	410
	Word of God, not everything to be taken literally	4%	13%	28%	53%	2%	351
	Written by men	9%	26%	23%	34%	8%	174
Scientific and medical discoveries	More informed	7%	20%	22%	46%	4%	145
	Somewhat informed	4%	12%	23%	58%	3%	502
	Less informed	2%	12%	22%	58%	5%	343
Self/family had a condition related to genetic factors?	Yes	5%	13%	24%	54%	4%	448
	No	4%	13%	21%	57%	5%	498
Party identification	Democrat	5%	18%	29%	45%	3%	364
	Republican	2%	6%	17%	71%	3%	286
	Independent	4%	15%	21%	57%	3%	274
Clear about differences between types of cloning?	Very/Somewhat clear	7%	19%	20%	53%	2%	349
	Not too/Not at all clear	2%	11%	23%	58%	5%	645

		Q17. How much do you favor or oppose using human cloning technology IF it is used ONLY to help medical research develop new treatments for disease?					
		Strongly Favor	Somewhat Favor	Somewhat Oppose	Strongly Oppose	Don't know	Number of cases
All adults		23%	29%	16%	29%	2%	1005
Gender	Men	27%	31%	15%	25%	2%	433
	Women	20%	28%	16%	33%	2%	572
Age	18-44	27%	29%	17%	27%	1%	292
	45-64	21%	29%	16%	31%	3%	404
	65 and older	19%	33%	14%	30%	3%	285
Education	High school or less	22%	31%	17%	29%	2%	354
	Some college	25%	26%	17%	30%	2%	233
	College graduate or more	25%	29%	13%	30%	3%	415
Religious Guidance in Daily Life	Great deal	13%	26%	16%	42%	2%	438
	Quite a bit	24%	27%	16%	32%	2%	201
	Some guidance	30%	37%	14%	16%	3%	158
	Not important	39%	34%	12%	13%	2%	178
Views about the Bible	Actual Word of God	17%	24%	15%	44%	1%	410
	Word of God, not everything to be taken literally	22%	35%	17%	22%	3%	351
	Written by men	39%	34%	14%	11%	1%	174
Scientific and medical discoveries	More informed	31%	24%	17%	26%	2%	145
	Somewhat informed	22%	31%	15%	31%	2%	502
	Less informed	24%	30%	16%	29%	2%	343
Self/family had a condition related to genetic factors?	Yes	23%	31%	17%	26%	3%	448
	No	24%	27%	15%	32%	1%	498
Party identification	Democrat	28%	34%	19%	17%	1%	364
	Republican	13%	24%	17%	43%	3%	286
	Independent	26%	29%	13%	31%	1%	274
Clear about differences between types of cloning?	Very/Somewhat clear	28%	29%	14%	28%	2%	349
	Not too/Not at all clear	21%	30%	17%	30%	2%	645

		Q18. There are several different terms used when it comes to human cloning technology. How clear are you, personally, on the difference between human reproductive cloning and human therapeutic cloning?			
		Very clear/ Somewhat clear	Not too clear/ Not at all clear	Don't know	Number of cases
All adults		34%	65%	1%	1005
Gender	Men	39%	60%	1%	433
	Women	30%	69%	1%	572
Age	18-44	35%	64%	1%	292
	45-64	39%	60%	0%	404
	65 and older	25%	72%	2%	285
Education	High school or less	29%	69%	1%	354
	Some college	37%	63%		233
	College graduate or more	41%	58%	1%	415
Scientific and medical discoveries	More informed	67%	33%		145
	Somewhat informed	43%	56%	1%	502
	Less informed	13%	86%	1%	343
Self/family had a condition related to genetic factors?	Yes	40%	60%	1%	448
	No	30%	69%	1%	498
Party identification	Democrat	35%	64%	1%	364
	Republican	31%	67%	2%	286
	Independent	36%	64%		274

Q19. Genetic testing is being used to identify people at risk for diseases such as cancer, heart disease, Alzheimer's and others. How much would you favor or oppose making genetic testing easily available to all who want it ?

		Strongly Favor	Somewhat Favor	Somewhat Oppose	Strongly Oppose	Don't know	Number of cases
All adults		42%	38%	9%	7%	3%	1005
Gender	Men	43%	35%	11%	9%	3%	433
	Women	42%	41%	7%	6%	4%	572
Age	18-44	44%	37%	10%	7%	3%	292
	45-64	40%	41%	8%	7%	3%	404
	65 and older	43%	37%	8%	9%	4%	285
Education	High school or less	38%	42%	9%	8%	4%	354
	Some college	47%	35%	9%	7%	2%	233
	College graduate or more	47%	35%	9%	6%	3%	415
Religious Guidance in Daily Life	Great deal	34%	38%	14%	11%	3%	438
	Quite a bit	40%	41%	9%	7%	3%	201
	Some guidance	52%	39%	3%	4%	1%	158
	Not important	56%	37%	4%	1%	2%	178
Views on Abortion	Woman should be able to decide-any reason	53%	37%	4%	3%	2%	375
	Should be legal in certain circumstances	39%	42%	9%	6%	3%	427
	Should be illegal-all circumstances	24%	32%	19%	21%	3%	153
Scientific and medical discoveries	More informed	53%	24%	10%	11%	1%	145
	Somewhat informed	44%	40%	8%	4%	4%	502
	Less informed	37%	42%	10%	8%	3%	343
Self/family had a condition related to genetic factors?	Yes	46%	37%	9%	6%	3%	448
	No	38%	39%	10%	9%	3%	498
Party identification	Democrat	50%	37%	4%	8%	1%	364
	Republican	34%	39%	17%	7%	4%	286
	Independent	44%	36%	7%	8%	5%	274

		Q20. Overall, would you say the benefits of conducting genetic research outweigh the risks or do the risks outweigh the benefits?			
		Benefits outweigh risks	Risks outweigh benefits	Don't know	Number of cases
All adults		54%	25%	21%	1005
Gender	Men	57%	26%	18%	433
	Women	51%	25%	24%	572
Age	18-44	59%	25%	16%	292
	45-64	54%	24%	22%	404
	65 and older	40%	28%	32%	285
Education	High school or less	44%	29%	27%	354
	Some college	58%	24%	18%	233
	College graduate or more	67%	20%	14%	415
Religious Guidance in Daily Life	Great deal	40%	36%	23%	438
	Quite a bit	53%	22%	25%	201
	Some guidance	63%	19%	17%	158
	Not important	73%	12%	15%	178
Views on Abortion	Woman should be able to decide-any reason	67%	17%	16%	375
	Should be legal in certain circumstances	48%	28%	24%	427
	Should be illegal-all circumstances	40%	43%	17%	153
Scientific and medical discoveries	More informed	69%	24%	7%	145
	Somewhat informed	57%	23%	20%	502
	Less informed	45%	29%	27%	343
Self/family had a condition related to genetic factors?	Yes	57%	23%	21%	448
	No	51%	28%	21%	498
Party identification	Democrat	59%	24%	17%	364
	Republican	49%	28%	23%	286
	Independent	56%	23%	21%	274

		Q21. When you think about the risks of conducting genetic research, which of these is your MAIN concern?...					Number of cases
		Genetic information will be used to discriminate against people	Genetic research will be used in ways that violate your moral principles	Too little is known about how to conduct genetic research safely	None of these (VOL)	Don't know	
All adults		21%	28%	38%	3%	10%	1005
Gender	Men	22%	26%	39%	5%	8%	433
	Women	21%	29%	37%	2%	11%	572
Age	18-44	22%	30%	37%	2%	8%	292
	45-64	24%	27%	39%	5%	6%	404
	65 and older	12%	23%	41%	4%	21%	285
Education	High school or less	13%	25%	48%	2%	12%	354
	Some college	26%	27%	36%	3%	7%	233
	College graduate or more	32%	31%	24%	6%	7%	415
Religious Guidance in Daily Life	Great deal	17%	36%	35%	2%	10%	438
	Quite a bit	20%	27%	37%	3%	13%	201
	Some guidance	27%	22%	42%	3%	5%	158
	Not important	25%	15%	44%	7%	10%	178
Views on Abortion	Woman should be able to decide-any reason	32%	15%	37%	7%	9%	375
	Should be legal in certain circumstances	15%	31%	43%	1%	10%	427
	Should be illegal-all circumstances	14%	51%	27%	1%	7%	153
Scientific and medical discoveries	More informed	35%	26%	30%	5%	4%	145
	Somewhat informed	23%	28%	37%	4%	8%	502
	Less informed	14%	27%	44%	2%	13%	343
Self/family had a condition related to genetic factors?	Yes	26%	28%	35%	4%	8%	448
	No	17%	27%	42%	3%	11%	498
Party identification	Democrat	27%	18%	42%	4%	9%	364
	Republican	18%	42%	28%	3%	9%	286
	Independent	20%	26%	41%	4%	10%	274

		Q22. On the whole, which would YOU say is a MORE IMPORTANT influence on people's behavior?				
		The genes we inherit	Our environment and living practices	Neither/a Both (VOL)	Don't know	Number of cases
All adults		27%	57%	11%	5%	1005
Gender	Men	27%	57%	9%	7%	433
	Women	27%	56%	12%	4%	572
Age	18-44	24%	64%	7%	4%	292
	45-64	30%	54%	13%	4%	404
	65 and older	28%	45%	15%	12%	285
Education	High school or less	33%	51%	8%	8%	354
	Some college	22%	65%	10%	3%	233
	College graduate or more	22%	58%	17%	3%	415
Religious Guidance in Daily Life	Great deal	28%	58%	9%	6%	438
	Quite a bit	28%	53%	12%	7%	201
	Some guidance	26%	59%	11%	5%	158
	Not important	27%	57%	14%	2%	178
Views on Abortion	Woman should be able to decide-any reason	28%	57%	13%	3%	375
	Should be legal in certain circumstances	28%	58%	8%	6%	427
	Should be illegal-all circumstances	22%	58%	12%	8%	153
Scientific and medical discoveries	More informed	24%	65%	8%	2%	145
	Somewhat informed	25%	57%	12%	5%	502
	Less informed	31%	53%	10%	6%	343
Self/family had a condition related to genetic factors?	Yes	26%	56%	13%	6%	448
	No	29%	58%	9%	4%	498
Party identification	Democrat	29%	57%	9%	5%	364
	Republican	24%	58%	12%	6%	286
	Independent	30%	55%	11%	5%	274

		Q23. And which do you think MOST SCIENTIFIC EXPERTS believe is a MORE IMPORTANT influence on people's behavior?				
		The genes we inherit	Our environment and living practices	Neither/Both (VOL)	Don't know	Number of cases
All adults		42%	39%	6%	12%	1005
Gender	Men	36%	44%	6%	14%	433
	Women	48%	35%	6%	11%	572
Age	18-44	46%	40%	6%	8%	292
	45-64	45%	37%	6%	13%	404
	65 and older	30%	42%	6%	21%	285
Education	High school or less	41%	42%	3%	13%	354
	Some college	43%	39%	8%	9%	233
	College graduate or more	44%	36%	8%	13%	415
Religious Guidance in Daily Life	Great deal	45%	40%	5%	9%	438
	Quite a bit	37%	42%	7%	14%	201
	Some guidance	49%	37%	2%	11%	158
	Not important	37%	38%	10%	16%	178
Views on Abortion	Woman should be able to decide-any reason	43%	39%	6%	12%	375
	Should be legal in certain circumstances	43%	42%	4%	11%	427
	Should be illegal-all circumstances	40%	40%	6%	13%	153
Scientific and medical discoveries	More informed	40%	46%	6%	8%	145
	Somewhat informed	45%	35%	7%	14%	502
	Less informed	41%	43%	5%	11%	343
Self/family had a condition related to genetic factors?	Yes	43%	39%	6%	12%	448
	No	41%	41%	5%	12%	498
Party identification	Democrat	41%	45%	5%	9%	364
	Republican	43%	38%	6%	13%	286
	Independent	46%	33%	6%	15%	274

		Q24. 'A person's likelihood for disease is pretty much set from birth and cannot be greatly increased or decreased by their environment and living practices.'					
		Strongly agree	Agree	Disagree	Strongly disagree	Don't know	Number of cases
All adults		7%	22%	41%	25%	4%	1005
Gender	Men	9%	19%	42%	28%	3%	433
	Women	6%	25%	41%	23%	5%	572
Age	18-44	7%	24%	41%	27%	2%	292
	45-64	8%	18%	44%	27%	4%	404
	65 and older	8%	28%	40%	18%	6%	285
Education	High school or less	11%	23%	40%	21%	5%	354
	Some college	5%	24%	42%	27%	2%	233
	College graduate or more	3%	19%	43%	32%	2%	415
Religious Guidance in Daily Life	Great deal	8%	21%	45%	22%	4%	438
	Quite a bit	8%	30%	37%	20%	5%	201
	Some guidance	3%	30%	37%	25%	5%	158
	Not important	7%	12%	39%	40%	3%	178
Views on Abortion	Woman should be able to decide-any reason	8%	21%	39%	30%	2%	375
	Should be legal in certain circumstances	7%	23%	42%	23%	5%	427
	Should be illegal-all circumstances	6%	21%	45%	24%	3%	153
Scientific and medical discoveries	More informed	11%	18%	38%	31%	2%	145
	Somewhat informed	7%	20%	41%	29%	4%	502
	Less informed	6%	27%	44%	18%	4%	343
Self/family had a condition related to genetic factors?	Yes	10%	21%	39%	26%	4%	448
	No	5%	23%	43%	25%	3%	498
Party identification	Democrat	8%	24%	40%	25%	3%	364
	Republican	7%	21%	44%	26%	2%	286
	Independent	7%	20%	41%	28%	4%	274

		Q25. 'Those in charge of new developments in genetic science cannot be trusted to act in society's interests.'				
		Agree/ Strongly agree	Neither agree nor disagree	Disagree/ Strongly disagree	Don't know	Number of cases
All adults		26%	32%	36%	7%	1005
Gender	Men	30%	30%	36%	5%	433
	Women	22%	34%	36%	8%	572
Age	18-44	22%	40%	34%	4%	292
	45-64	30%	29%	37%	5%	404
	65 and older	27%	18%	39%	16%	285
Education	High school or less	27%	33%	32%	8%	354
	Some college	29%	31%	33%	7%	233
	College graduate or more	20%	32%	44%	4%	415
Religious Guidance in Daily Life	Great deal	33%	28%	32%	7%	438
	Quite a bit	20%	35%	36%	8%	201
	Some guidance	22%	45%	32%	1%	158
	Not important	17%	31%	47%	5%	178
Scientific and medical discoveries	More informed	25%	23%	50%	2%	145
	Somewhat informed	27%	30%	35%	8%	502
	Less informed	24%	38%	31%	6%	343
Self/family had a condition related to genetic factors?	Yes	24%	33%	37%	5%	448
	No	26%	32%	35%	7%	498
Party identification	Democrat	23%	34%	40%	4%	364
	Republican	29%	29%	34%	9%	286
	Independent	25%	34%	36%	5%	274

		Q.26 'Rules set by government will keep us safe from any risks linked to modern genetic science.'				
		Agree/ Strongly agree	Neither agree nor disagree	Disagree/ Strongly disagree	Don't know	Number of cases
All adults		17%	23%	53%	7%	1005
Gender	Men	18%	23%	54%	5%	433
	Women	15%	24%	52%	8%	572
Age	18-44	20%	28%	49%	3%	292
	45-64	13%	22%	58%	8%	404
	65 and older	17%	14%	55%	14%	285
Education	High school or less	21%	22%	48%	9%	354
	Some college	12%	23%	59%	6%	233
	College graduate or more	13%	26%	57%	4%	415
Religious Guidance in Daily Life	Great deal	17%	19%	59%	5%	438
	Quite a bit	20%	26%	43%	10%	201
	Some guidance	14%	26%	55%	5%	158
	Not important	16%	29%	48%	7%	178
Scientific and medical discoveries	More informed	19%	18%	60%	3%	145
	Somewhat informed	17%	22%	56%	5%	502
	Less informed	16%	28%	46%	9%	343
Self/family had a condition related to genetic factors?	Yes	15%	22%	57%	6%	448
	No	20%	25%	49%	7%	498
Party identification	Democrat	16%	25%	52%	6%	364
	Republican	16%	24%	55%	5%	286
	Independent	20%	22%	51%	7%	274

Q34. Have you or has anyone in your family had a
disease or chronic medical condition that is strongly
related to genetic factors?

		Yes	No	Don't know	Number of cases
All adults		45%	50%	5%	1005
Gender	Men	43%	54%	3%	433
	Women	47%	47%	6%	572
Age	18-44	45%	52%	3%	292
	45-64	51%	45%	5%	404
	65 and older	38%	53%	9%	285
Education	High school or less	43%	52%	5%	354
	Some college	51%	47%	3%	233
	College graduate or more	46%	48%	6%	415
Family Income	Under \$50,000	48%	49%	3%	388
	50K to under \$100,000	46%	49%	5%	240
	\$100,000 or more	46%	52%	2%	168
Scientific and medical discoveries	More informed	57%	41%	3%	145
	Somewhat informed	48%	47%	5%	502
	Less informed	39%	57%	4%	343
