Survey questionnaire and topline

2018 PEW RESEARCH CENTER'S AMERICAN TRENDS PANEL MARCH 27-APRIL 9, 2018 TOTAL N=2,541

ASK ALL:

FUTURE

Do you think each of the following things will or will not happen in the next 50 years, that is, before the year 2068? **[RANDOMIZE ITEMS]**

| a. | People will routinely travel | Will definitely <u>happen</u> | Will probably <u>happen</u> | Will probably <u>not happen</u> | Will definitely <u>not</u> <u>happen</u> | No <u>Answer</u> |
|----|--|-------------------------------------|--------------------------------|------------------------------------|--|---------------------|
| | in space as tourists Mar 27-Apr 9, 2018 | 9 | 42 | 41 | 9 | <1 |
| b. | People will build colonies that can be lived in for long periods of time on other planets ⁶ Mar 27-Apr 9, 2018 | 5 | 28 | 50 | 18 | 1 |
| c. | Most of the meat people eat will be grown in a lab Mar 27-Apr 9, 2018 | 5 | 36 | 49 | 9 | <1 |
| d. | The average person in the U.S. will live to be at least 120 years old ⁷ Mar 27-Apr 9, 2018 | 4 | 22 | 53 | 20 | 1 |
| e. | We will eliminate almost all birth defects by manipulating the genes of an embryo before a baby is born Mar 27-Apr 9, 2018 Mar 2-Mar 28, 2016 ⁸ | 8 7 | 44 40 | 40 44 | 8 9 | <1 1 |
| f. | We will routinely use implanted sensors to monitor and adjust all food and medications that enter our bloodstream Mar 27-Apr 9, 2018 Mar 2-Mar 28, 2016 | 8 8 | 45 40 | 36 43 | 10 7 | <1 1 |

⁶ A <u>2014 Pew Research Center telephone survey</u> asked "How likely to do you think it is that humans will build colonies on another planet that can be lived in for long periods" in the next 50 years? 5% said this will definitely happen, 28% said this will probably happen, 39% said this will probably not happen, 25% said this will definitely not happen, and 3% did not know.

⁷ A <u>2013 Pew Research Center telephone survey</u> asked, "How likely you think it is that the average person in the U.S. will live to be at least 120 years old in about the next 40 years?", rather than "in the next 50 years." In the 2013 Pew Research Center survey, 3% said this will definitely happen, 22% said this will probably happen, 52% said this will probably not happen, 21% said this will definitely not happen and 1% did not know or refused.

⁸ In 2016, the question asked about "the genes of embryos" rather than "the genes of an embryo."

ASK ALL:

SPACE1 In the past 12 months, how much, if anything, have you heard or read about NASA, the National Aeronautics and Space Administration?

Mar 27-

Apr 9

- <u>2018</u>
- 10 A lot
- 55 A little
- 35 Nothing at all
- <1 No Answer

NO SPACE 2

ASK ALL:

SPACE3

How would you rate each of the following priorities for NASA's space efforts? [RANDOMIZE ITEMS] Should be an

| а. | Searching for life and | Should be a top priority | Should be an important but lower <u>priority</u> | Should not be too <u>important</u> | Should <u>not be done</u> | No <u>Answer</u> |
|----|--|-----------------------------|---|--|------------------------------|---------------------|
| a. | planets that could support life Mar 27-Apr 9, 2018 | 31 | 42 | 20 | 7 | 1 |
| b. | Searching for raw materials and natural resources that could be used on Earth Mar 27-Apr 9, 2018 | 34 | 43 | 16 | 5 | <1 |
| c. | Conducting basic scientific research to increase knowledge and understanding of space Mar 27-Apr 9, 2018 | 47 | 40 | 10 | 2 | 1 |
| d. | Developing technologies that could be adapted for uses other than space exploration Mar 27-Apr 9, 2018 | 41 | 44 | 11 | 3 | 1 |
| e. | Monitoring asteroids and other objects that could potentially hit the Earth Mar 27-Apr 9, 2018 | 62 | 29 | 7 | 2 | 1 |
| f. | Monitoring key parts of the Earth's climate system Mar 27-Apr 9, 2018 | 63 | 25 | 7 | 3 | 1 |
| g. | Sending human astronauts to explore the moon Mar 27-Apr 9, 2018 | 13 | 42 | 38 | 6 | <1 |

| SPACE3 CONTINUED | | Should be a <u>top priority</u> | Should be an important but lower priority | Should not be too important | Should not be done | No Answer |
|------------------|---|---------------------------------|--|-----------------------------------|-----------------------|--------------|
| h. | Sending human astronauts to explore Mars Mar 27-Apr 9, 2018 | 18 | 45 | 30 | 7 | <1 |
| i. | Conducting scientific research on how space travel affects human health Mar 27-Apr 9, 2018 | 38 | 41 | 17 | 3 | 1 |

ASK ALL:

SPACE4

Do you think the space station has been...

| Mar 27- | |
|-------------|--|
| Apr 9 | |
| <u>2018</u> | |
| 80 | A GOOD investment for this country |
| 19 | NOT a good investment for this country |
| 2 | No Answer |

TREND FOR COMPARISON

Pew Research Center survey conducted by telephone: Do you think the SPACE STATION has been a good investment for this country, or don't you think so?

Aug. 15-25

| <u>2014</u> | |
|-------------|-----------------------|
| 64 | Good investment |
| 29 | Not a good investment |

7 Don't know/Refused (VOL.)

ASK ALL:

SPACE5 The cost of sending human astronauts to space is considerably greater than the cost of using robotics for space exploration.

As you think about the future of the U.S. space program, do you think it is...

Mar 27-

Apr 9 <u>2018</u>

58 ESSENTIAL to include the use of human astronauts in space

- 41 NOT ESSENTIAL to include the use of human astronauts in space
- 1 No Answer

23

TREND FOR COMPARISON

Pew Research Center survey conducted by telephone: The cost of sending human astronauts to space is considerably greater than the cost of using robotic machines for space exploration. As you think about the future of the U.S. space program, do you think it is essential or not essential to include the use of human astronauts in space?

Aug. 15-25

| <u>2014</u> | |
|-------------|----------------------------------|
| 59 | Essential |
| 39 | Not essential |
| 3 | Don't know/Refused (VOL.) |

ASK ALL:

SPACE6 In your view, do you think it is...

| Mar 27- Apr 9 2018 | |
|--------------------------|---|
| 72 | ESSENTIAL that the United States continue to be a world leader in space exploration |
| 27 | NOT ESSENTIAL that the United States continue to be a world leader in space exploration |
| 1 | No Answer |

TREND FOR COMPARISON

Pew Research Center survey conducted by telephone: In your view, is it essential or not essential that the United States continue to be a world leader in space exploration?

Jun 15-19 <u>2011</u> 58 Essential 38 Not essential 4 Don't know/Refused **(VOL.)**

NO SPACE 7 AND SPACE 8

ASK ALL:

SPACE9 How much, if anything, have you heard or read about private companies, such as SpaceX, Blue Origin and Virgin Galactic, developing space exploration capabilities?

Mar 27-

| Apr 9 | |
|-------------|--|
| <u>2018</u> | |

| 18 | A lot |
|-----|-------|
| · - | |

45 A little

- 37 Nothing at all
- <1 No Answer

ASK ALL:

SPACE10 Which statement comes closer to your views - even if neither is exactly right? [RANDOMIZE OPTIONS]

Mar 27-

| Apr 9 | |
|-------|--|
| 2018 | |
| 65 | |
| 22 | |

| <u>2018</u> | |
|-------------|--|
| 65 | It is essential that NASA continue to be involved in space exploration |
| 33 | Private companies will ensure that enough progress is made in space exploration, even without NASA's involvement |
| 1 | No Answer |

ASK ALL:

SPACE11

In the future, private companies expect to allow people to orbit the Earth in a spacecraft. How much, if at all, would you, personally, be interested in doing this?

Mar 27-

Apr 9

2018

- 19 Definitely interested
- 23 Probably interested
- Probably NOT interested 26
- 32 Definitely NOT interested
- No Answer <1

ASK IF DEFINITELY OR PROBABLY INTERESTED IN ORBITING EARTH IN A SPACECRAFT (SPACE11=1,2) [N=1,011]:

SPACE12 What is the MAIN REASON you would be interested in orbiting the Earth in a spacecraft? [RANDOMIZE OPTIONS 1-3 WITH 4 ALWAYS LAST]

Based on those definitely or probably interested in orbiting Earth in a spacecraft

Mar 27-

- Apr 9
- 2018
- 29 To see the view of Earth from space
- 20 To learn more about the world
- 45 To experience something unique
- Something else [SPECIFY] 5
- 2 All of the above
- 3 Other
- 1 No Answer

ASK IF PROBABLY NOT OR DEFINITELY NOT INTERESTED IN ORBITING EARTH IN A SPACECRAFT (SPACE11=3,4) [N=1,520]:

SPACE13 What is the MAIN REASON you would NOT be interested in orbiting the Earth in a spacecraft? **[RANDOMIZE OPTIONS 1-3 WITH 4 ALWAYS LAST]**

Based on those probably not or definitely not interested in orbiting Earth in a spacecraft Mar 27-

- Apr 9
- 2018

28 It would be too expensive

- 28 It would be too scary
- 28 My age or health would not allow this
- 16 Something else [SPECIFY]
- 8 Not interested, no reason to go
- 1 All of the above
- 7 Other
- <1 No Answer

ASK ALL:

SPACE14

How much confidence, if any, do you have that private companies developing space exploration capabilities will... **[RANDOMIZE ITEMS]**

| | | A great deal <u>of</u> <u>confidence</u> | A fair amount <u>of</u> <u>confidence</u> | Not too much <u>confidence</u> | No confidence <u>at</u> <u>all</u> | No <u>Answer</u> |
|----|---|--|---|--------------------------------------|--|---------------------|
| a. | Build rockets and spacecraft that are safe and reliable Mar 27-Apr 9, 2018 | 26 | 51 | 17 | 5 | 1 |
| b. | Minimize the debris from rockets, satellites and other human-made objects in the Earth's orbit Mar 27-Apr 9, 2018 | 13 | 35 | 38 | 13 | 1 |
| | Mai 27-Api 9, 2016 | 15 | 22 | 20 | 15 | T |
| c. | Control costs for developing rockets and spacecraft Mar 27-Apr 9, 2018 | 24 | 41 | 26 | 9 | 1 |
| d. | Conduct basic scientific research to increase knowledge and understanding of space Mar 27-Apr 9, 2018 | 23 | 47 | 22 | 7 | 1 |
| e. | Make a profit for their companies | | | | | |
| | Mar 27-Apr 9, 2018 | 44 | 36 | 14 | 4 | 1 |

OTHER QUESTIONS PREVIOUSLY RELEASED