

# Utah Air Quality Quantitative Findings

September 25, 2013



WITH INNOVATIVE RESEARCH WE  
YOU UNDERSTAND HOW TO ENGAGE  
THE HEARTS AND MINDS OF PEOPLE  
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# Research Design

## Methodology:

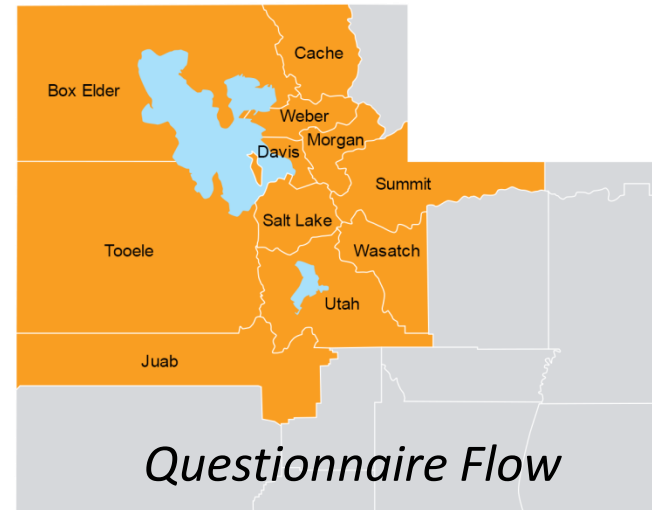
- Online survey
- 500 respondents

**Average Length:** 23 Minutes

**Field Dates:** 8/30-9/8

## Sample:

- Greater Wasatch Area Residents
- 18+ years old
- Living within Salt Lake, Utah, Summit, Weber, Davis, Morgan, Wasatch, Cache, Tooele, Juab or Box Elder counties



Screening

200: Quality of Life

300: Confirming Values Ladders

400: Utah Air quality perceptions

500: Air quality solutions

600: Message assessment

700: Naming

Demographics

# EXECUTIVE SUMMARY

YOUR GOALS WITH INNOVATIVE RESEARCH WE HELP YOU  
**UNDERSTAND** HOW TO ENGAGE THE HEARTS AND MINDS OF  
PEOPLE THAT MATTER MOST TO ACHIEVING YOUR GOALS

# Key Findings

- 1. Respondents view air quality as a major problem, but underestimate the contribution of vehicle and area sources.**
  - Scenic beauty and outdoor recreation are key factors contributing to a good quality of life in Utah. On the negative side, poor air quality has the strongest negative impact on quality of life among Utahns.
  - There is strong perception that air quality has worsened over the past 20 years with most (78%) believing the air quality has worsened.
  - However, half of respondents recognize that air quality is only a problem during a short period in the summer and winter.
  - Perceptual gaps exist in the sources of air pollution during winter inversion days. Residents correctly assume that vehicles are the largest contributor, though they underestimate the impact (44%). Industry sources are overestimated at 39% while area sources are grossly underestimated at 17%.

# Key Findings

## **2. Despite misconceptions of source, reduction of vehicle emissions is viewed as the most promising long-term and short-term strategy.**

- Respondents are nearly equally divided in belief that a year-round or 3-4 week effort is best, though there is slight preference for a year round effort.
- Expanding and improving public transportation is seen as the most beneficial long-term solution to improving air quality while improving energy efficiency of homes and changing the cars driven also rank highly.
- The short-term approaches viewed as most beneficial all involve the reduction of emissions, mainly through decreased vehicle usage — telecommuting, carpooling, taking public transportation, and reducing idling.

# Key Findings

## **3. Behaviors participants are most willing to personally engage in involve altering their transportation habits.**

- During the 3-4 weeks when air quality is poor, residents are most likely to engage in trip chaining, avoiding idling their car, avoiding errands altogether during this time, or turning down their thermostat by a few degrees.
- Nearly all (99%) of residents are willing to make some type of change year round in order to improve air quality.
  - Similar activities top the list; trip chains (79%), avoid idling their car (65%), avoid errands (62%), and turn down the thermostat by two degrees (56%).

# Key Findings

## 4. Incentives are enticing to about half, with free public transportation showing the most promise.

- If free public transportation were provided during the 3-4 weeks when there's a problem, three in five (60%) would be more likely to use public transportation (30% very likely).
- If given an option to waive a vehicle registration fee in exchange for agreeing not to drive during the 3-4 weeks when there's a problem, slightly over half (57%) would be likely to select this option (23% very likely).
- Nearly half would be likely to participate in a carpooling program earning a \$40 gas card each month (21% very likely).
- About half would reduce vehicle use with a gas tax ranging anywhere from 25¢ to 75¢ per gallon. However, a \$1 per gallon tax garners more influence as nearly two thirds would reduce vehicle use if the added tax was as high as \$1.

# Key Findings

## 5. **Positive messages are preferred with communications focused on the positive health benefits of good air quality most favored.**

- When it comes to improving air quality, three-quarters prefer positive messaging (ability to enjoy all the good things when air quality is good) vs. negative positioning.
- Better health and therefore improved quality of life and sense of well-being stands out as the dominant positive ladder orientation, though all three orientations show strong agreement.
- Good air quality allowing for more time/activity spent outdoors resulting in personal enjoyment or happiness is the secondary ladder orientation that also resonated strongly.



# Key Findings

## 5. **Positive messages are preferred with communications focused on the positive health benefits of good air quality most favored. (Continued)**

- The most compelling messaging includes aspects of health (43% rated very compelling and 48% somewhat compelling). Recreational opportunities and impact on future generations are also successful in making Utahans care more about their air quality, though only a quarter rate the messages 'very compelling'.
- Regular citizens are cited as the best deliverers of the air quality message (29%), followed by a local meteorologist (19%) and the Governor (13%).

# Key Findings

- **Of the three ads tested, the mental health billboard is viewed as most credible, personally relevant, and motivating.**
  - Nearly nine out of ten (87%) liked something about the Mental Health ad, often citing the imagery used, contrast shown and messaging focused on clean air making one feel better.
  - The Mental Health billboard has the highest credibility rating (79%) and performed strongest in terms of personal relevancy (58%) and ability to motivate (54%).
  - The biggest complaint with the Mental Health ad is the reference to Prozac, which some felt was inappropriate or may not be understood by all viewers.
  - While many found the Legacy Skate Kid ad credible and clever in the messaging, many were also turned off by the gloominess of the imagery and pessimistic angle it took.
  - More than a quarter (27%) found the Fishing ad confusing with many having difficulty connecting the imagery used to air quality.

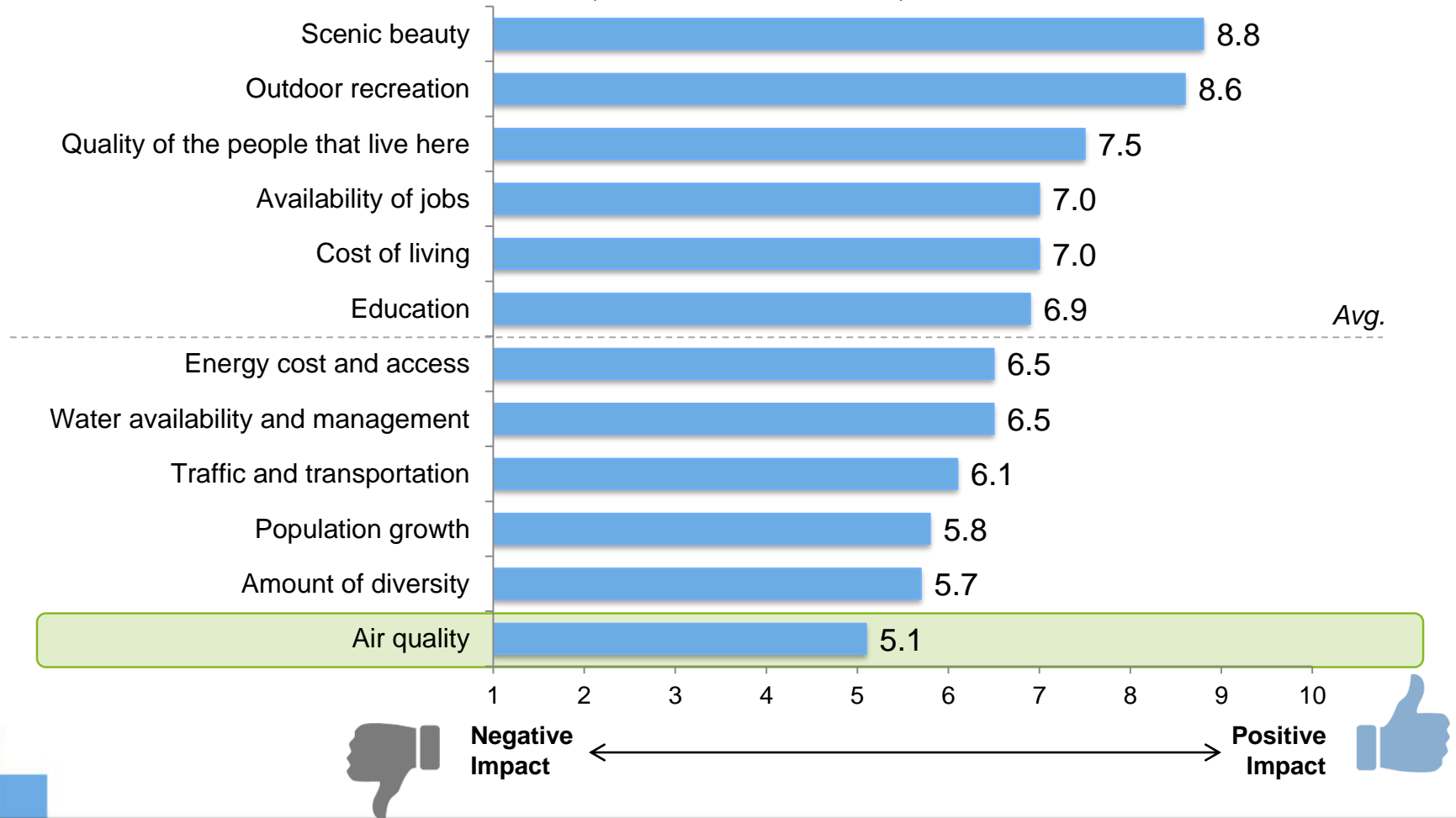
# QUALITY OF LIFE

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PEOPLE THAT MATTER MOST TO ACHIEVING YOUR GOALS

While scenic beauty and outdoor recreation are positive factors, air quality is viewed as the most negative influence on quality of life in Utah.

### Factors Impacting Quality of Life in Utah

(Mean Scores: 1-10 Scale)



BASE: ALL QUALIFIED RESPONDENTS

Q200. When we talk to people nationally, they mention several factors that impact their quality of life. For each of the following, please indicate the kind of impact you feel it has on the overall quality of life in the Greater Wasatch Area. Please use a rating scale from 1 to 10 where '1' is very strong negative impact and '10' is very strong positive impact.

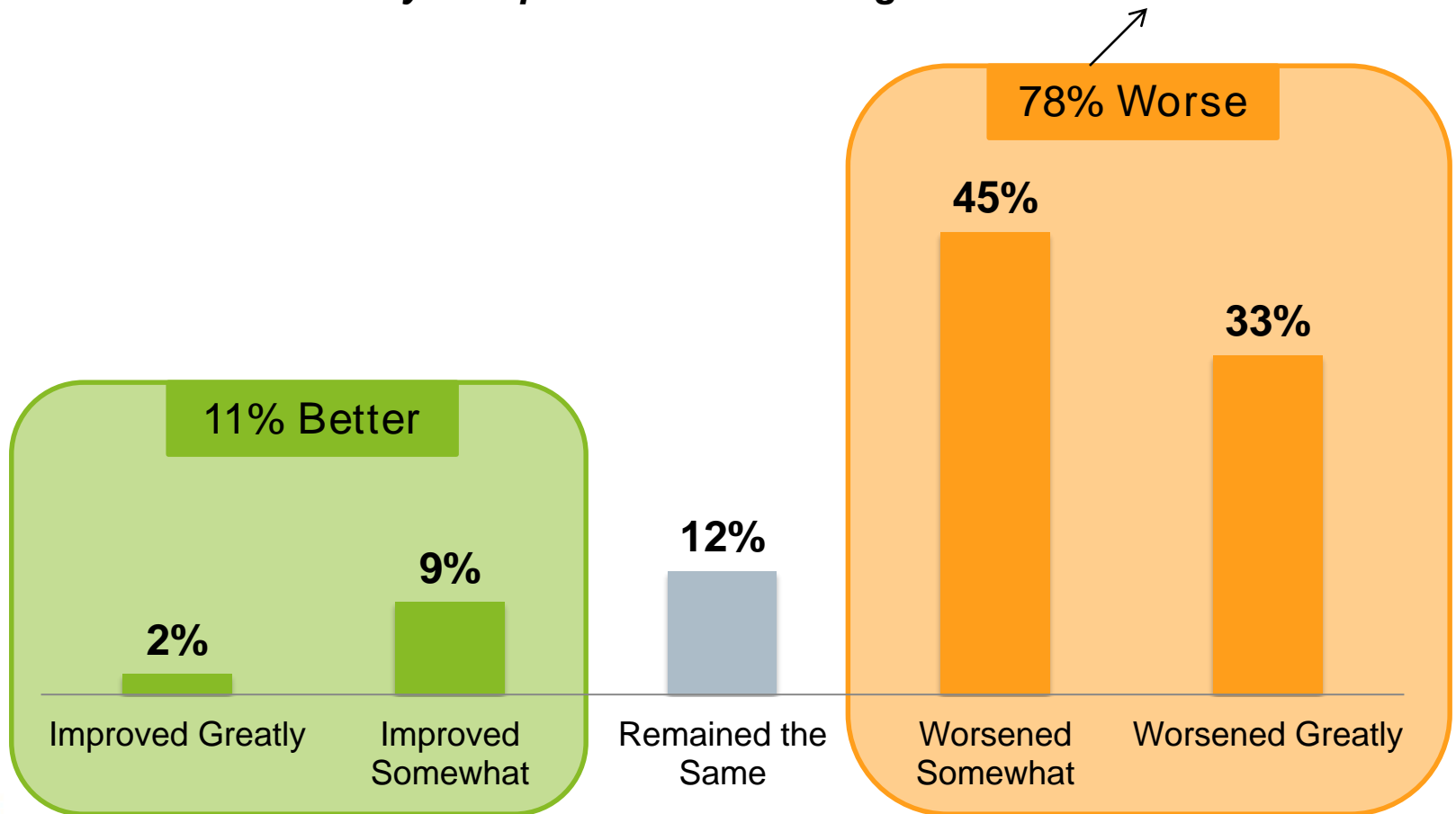
# PERCEPTION OF AIR QUALITY

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Strong majority believe the air quality has worsened over the past twenty years.

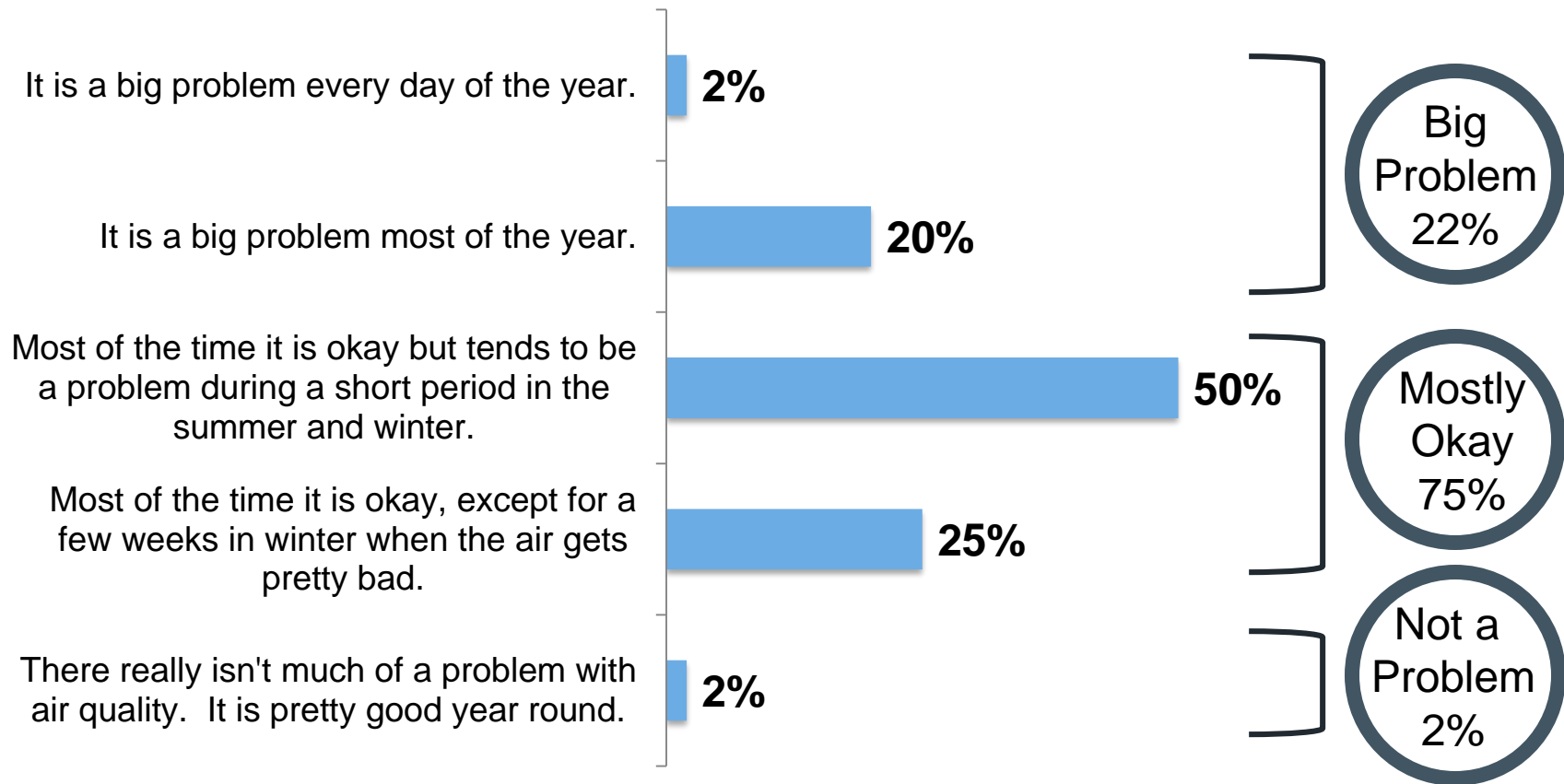
***Air Quality Compared to 20 Years Ago***

Females (86%), Liberals (84%) and Household Incomes <\$70k (82%) most likely to view air quality as 'worse'.



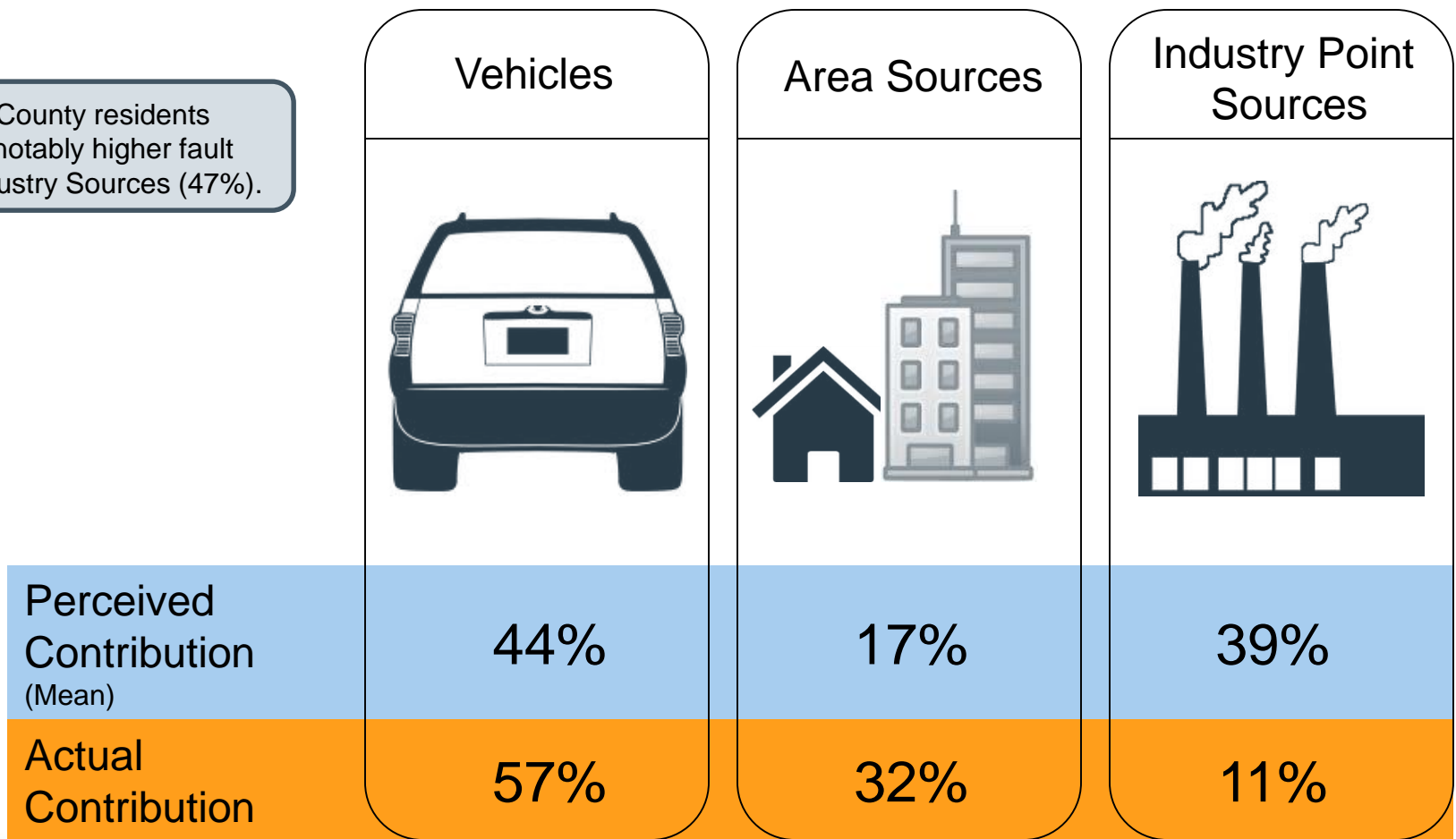
Half regard air quality as mostly okay with the exception of a short period in the summer and winter.

### *Perception of Air Quality Along Greater Wasatch Area*



While residents correctly perceive vehicles as the largest contributor to air pollution, area sources tend to be underestimated and industry sources are overestimated.

Davis County residents place notably higher fault on Industry Sources (47%).



**BASE: ALL QUALIFIED RESPONDENTS**

Q420. When thinking about who or what is most at fault on the winter days that air quality is poor, how much weight do you give to each of the following sources? Please take 100 percentage points and allocate them to the following 3 sources of air pollution in terms of what you feel is most to blame.



# AIR QUALITY SOLUTIONS

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# Slight majority believe that year round changes are the best way to improve air quality.

Strongly like Smith   Somewhat like Smith   Somewhat like Jones   Strongly like Jones

**Mr. Smith** believes that the air quality problem along the Greater Wasatch Area is an issue that lasts 3-4 weeks a year. The best or easiest way to address the problem is by making a major collective effort among citizens, businesses, industry and government during this time.



45% 10% 34% 35% 20% 55%

Liberals, Moderates and Non-Religious residents more likely to agree with Jones while Conservatives more likely to agree with Smith.

**Mr. Jones** believes that the air quality issue is a year round problem and that measures or changes implemented year round are the best or easiest way to address the issue. These changes would need to be adopted by everyone including citizens, businesses, industry and government.



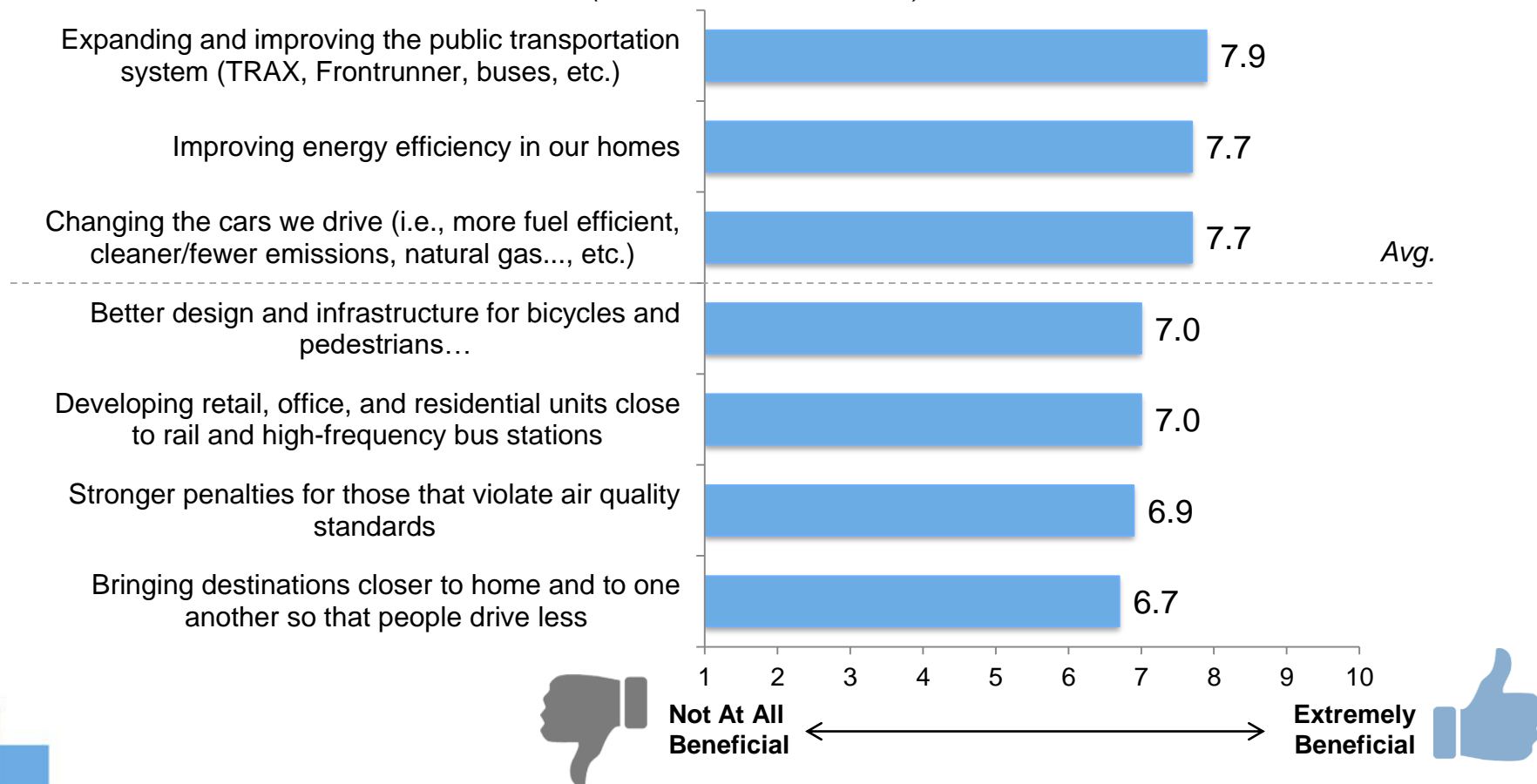
BASE: ALL QUALIFIED RESPONDENTS

Q410. Below are the opinions of two hypothetical residents. Please indicate which opinion comes closest to your own. Is your opinion more like Mr. Smith or more like Mr. Jones?

Improving public transportation, energy efficiency in homes, and changing the cars we drive are seen as the most beneficial long term strategies to improve air quality.

### Impact of Long Term Air Quality Strategies

(Mean Scores: 1-10 Scale)



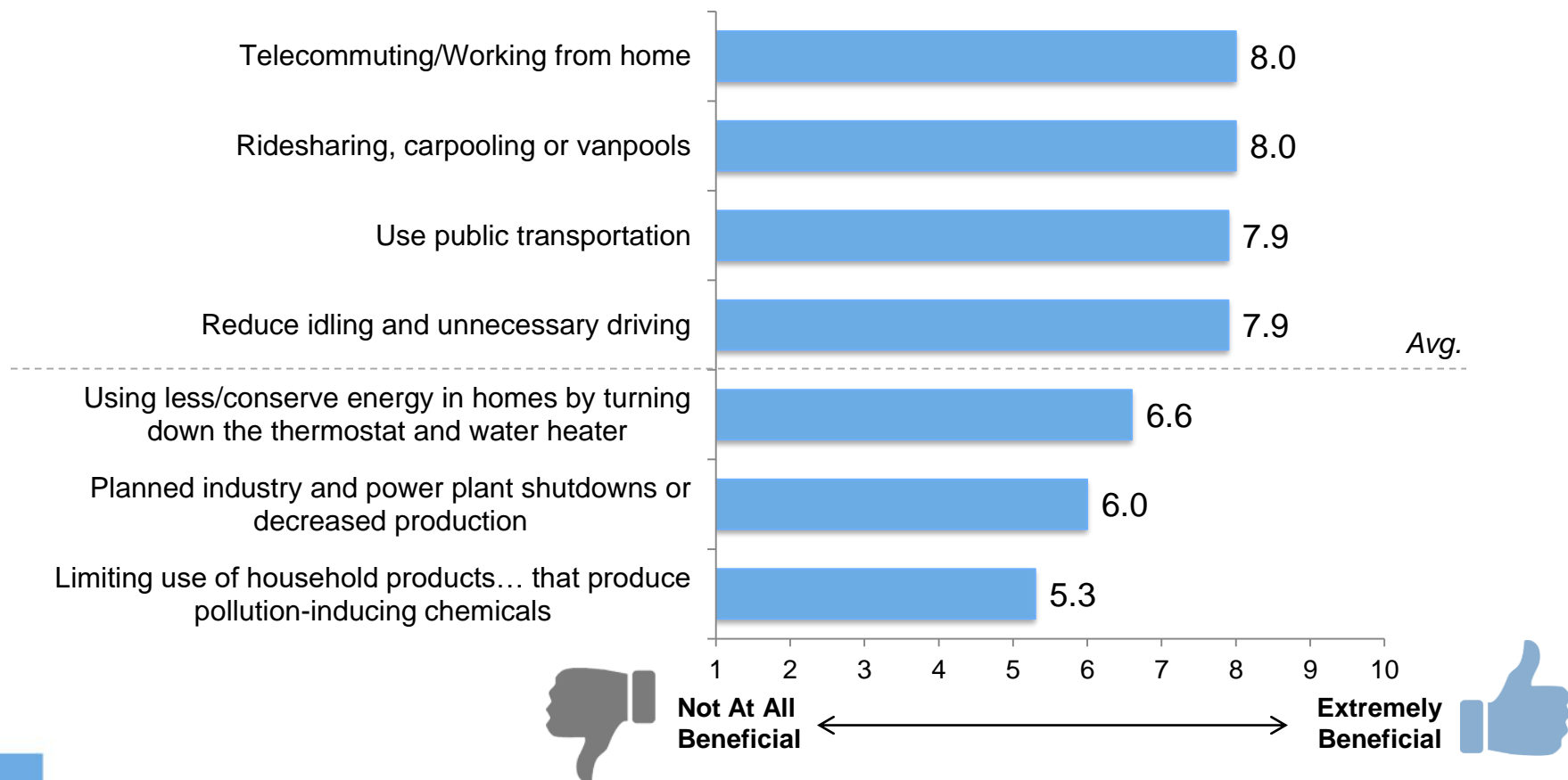
**BASE: ALL QUALIFIED RESPONDENTS**

Q500. Think for a moment about strategies or approaches that could be implemented now to improve air quality over the long term to have a lasting impact. On a scale from 1 to 10, where '10' is extremely beneficial and '1' is not at all beneficial, please rate the following strategies or approaches in terms of how beneficial they would be to the improvement of air quality in Utah.

Beneficial short term strategies focus on reducing vehicle emissions through increased telecommuting, carpooling, public transportation use, and reduced idling.

### Impact of Short Term Air Quality Strategies

(Mean Scores: 1-10 Scale)



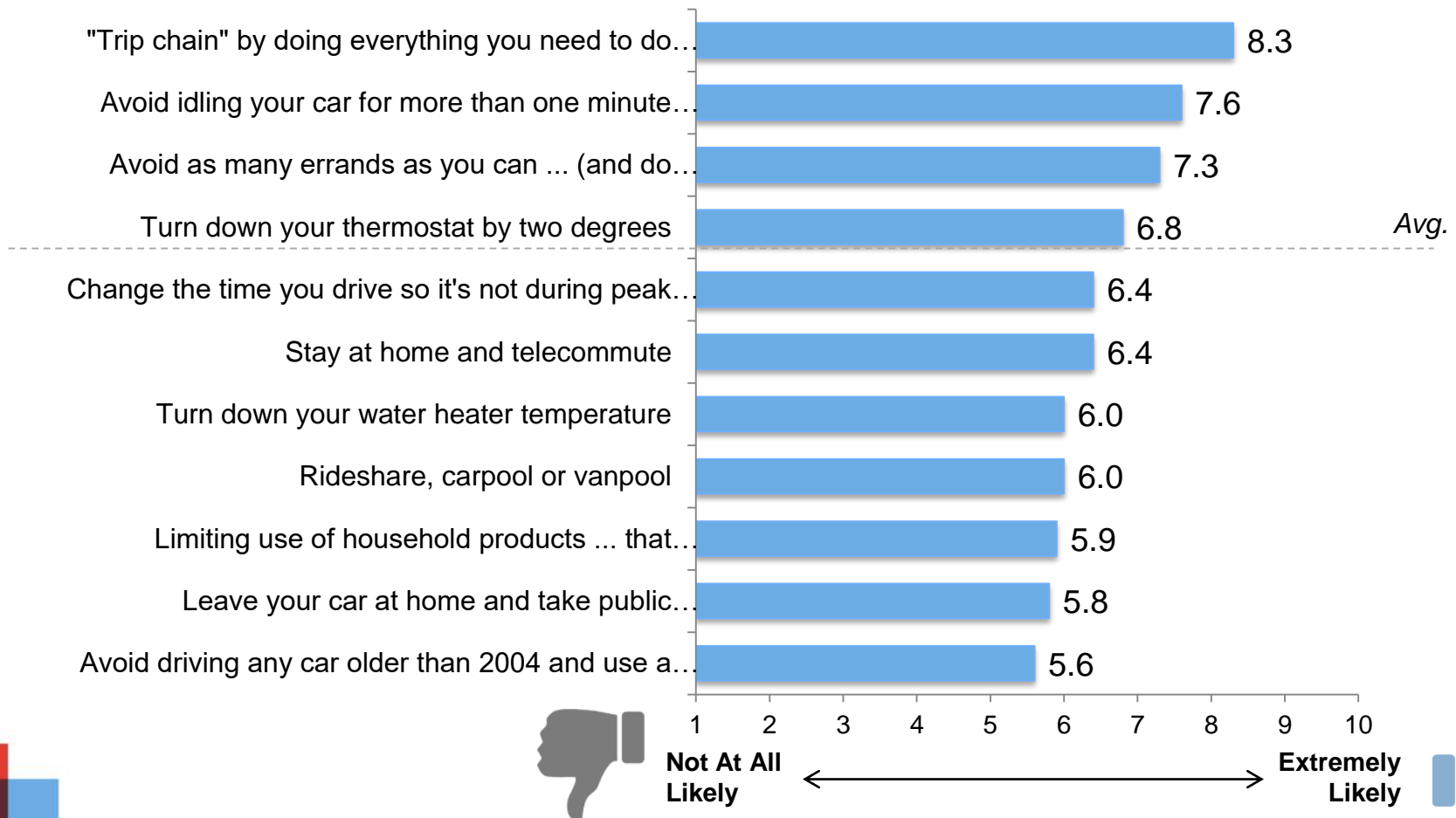
**BASE: ALL QUALIFIED RESPONDENTS**

Q505. Now thinking about the fact that bad air quality days can be forecast a few days in advance, how beneficial would each of the following short-term approaches be to improving air quality **DURING THE 3-4 WEEKS** each year when there is a real problem?

Please use a scale from 1 to 10, where '10' is extremely beneficial and '1' is not at all beneficial.

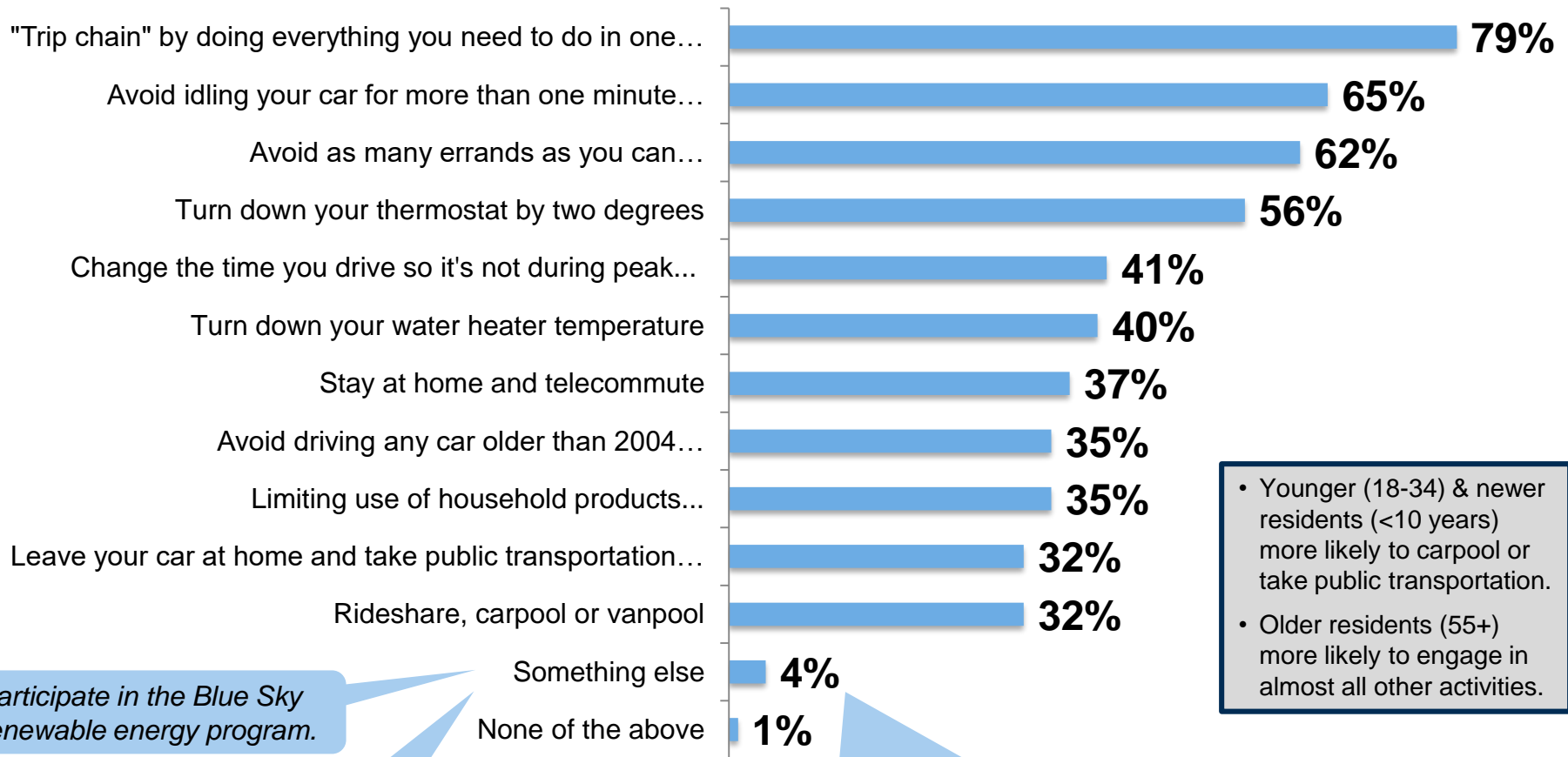
# Residents are most likely to personally engage in “trip chaining”, reduced idling and turning down the thermostat.

## **Likelihood to Engage In Short Term Activities to Improve Air Quality** (Mean Scores: 1-10 Scale)



# Virtually everyone is willing engage in some type of year round activity to promote air quality improvement.

## Activities Likely to Engage in Year Round to Improve Air Quality



- Younger (18-34) & newer residents (<10 years) more likely to carpool or take public transportation.
- Older residents (55+) more likely to engage in almost all other activities.

*Participate in the Blue Sky renewable energy program.*

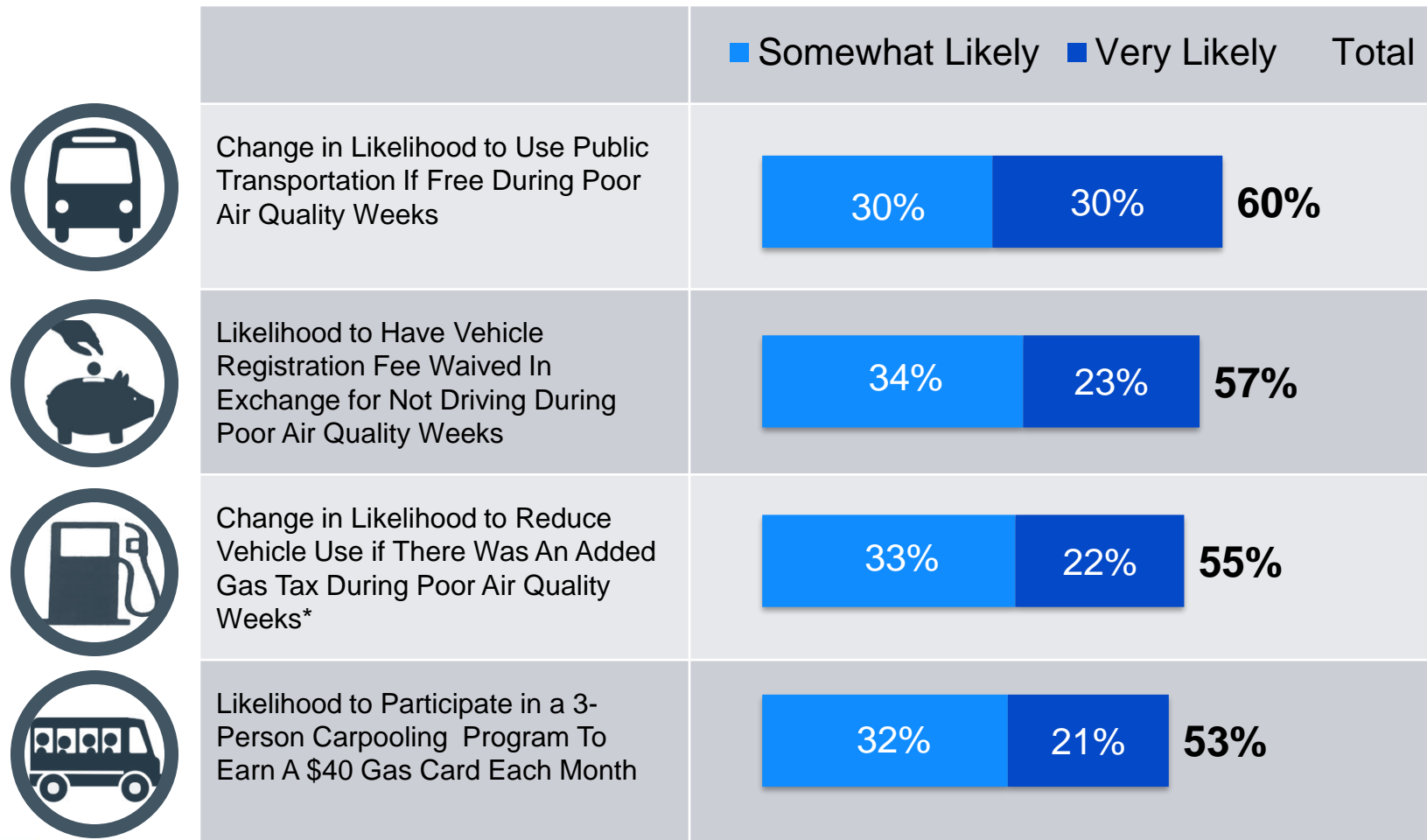
*Buy fuel efficient car.*

*Report cars/trucks sending out plumes of smoke if a number was available to call.*

# INCENTIVE IMPACT

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All incentive programs presented receive strong support, particularly use of free public transportation.



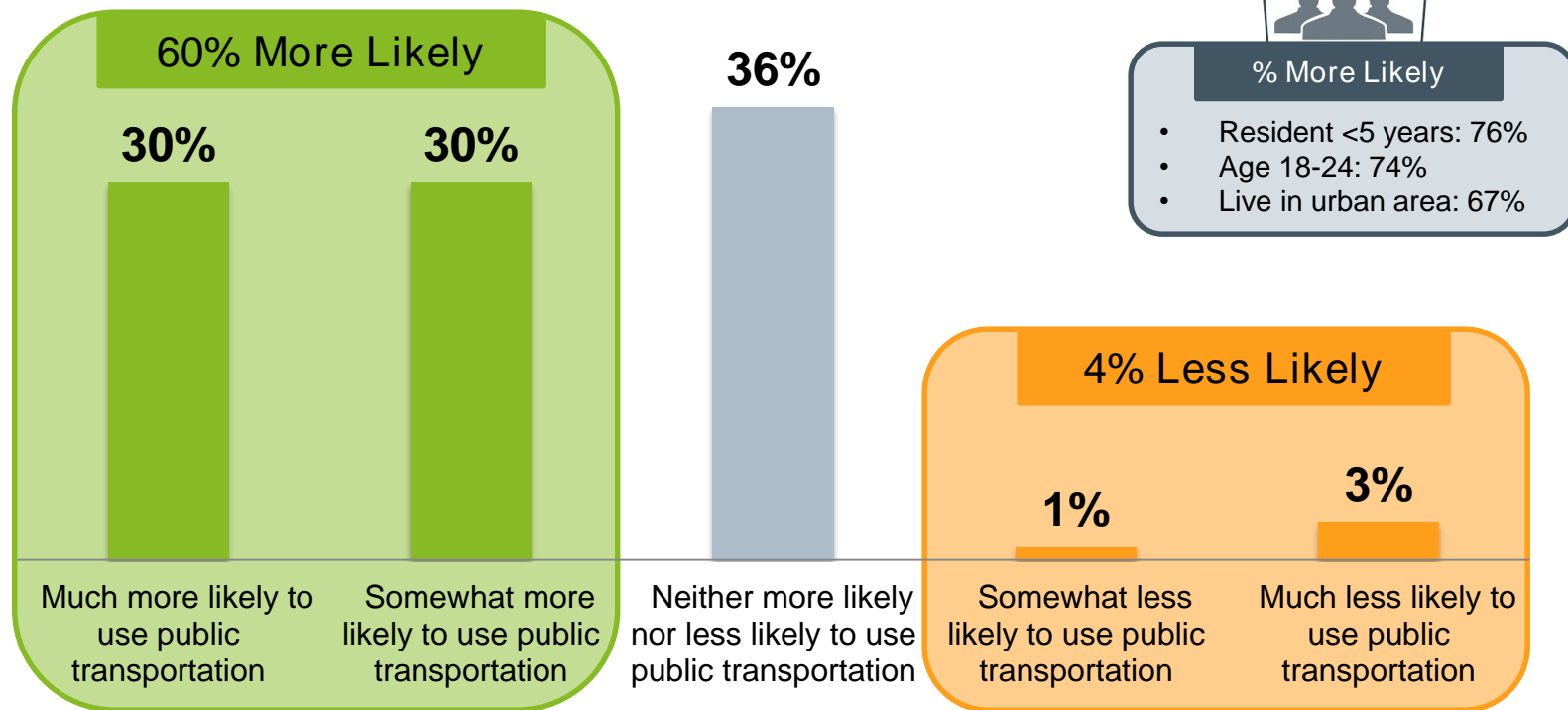
\*Four price points were tested. Details on slide 28.



If free during poor air quality days, nearly a third would be much more likely to use public transportation.



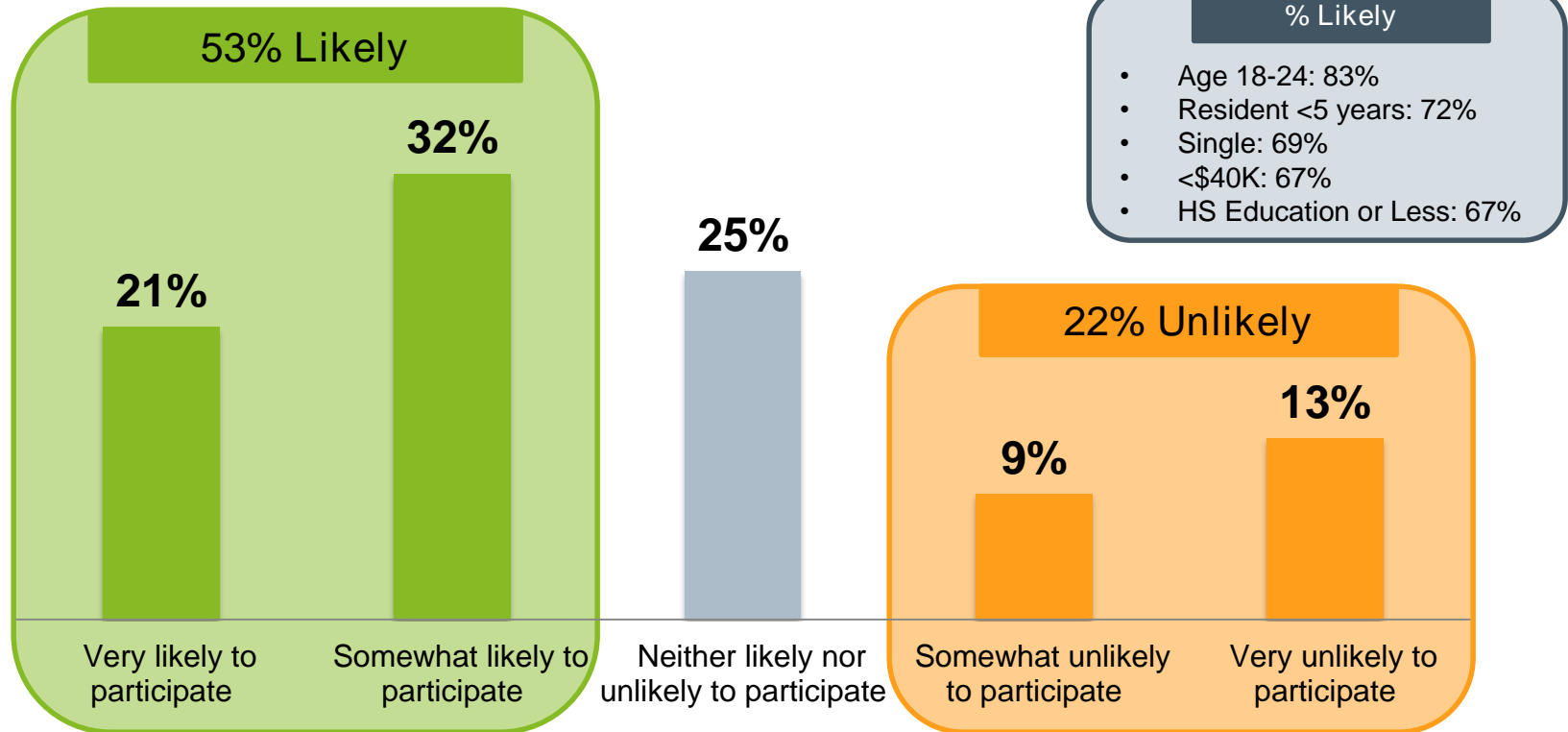
**Change in Likelihood to Use Public Transportation  
If Free During Poor Air Quality Weeks**



Just over half are likely to participate in a monthly carpool to earn gas money.



**Likelihood to Participate in a 3-Person Carpooling Program To Earn A \$40 Gas Card Each Month**



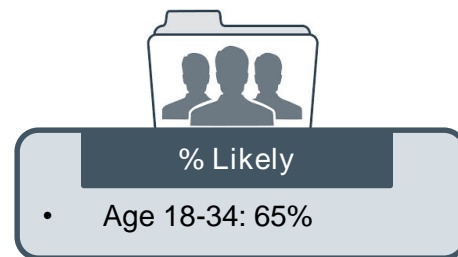
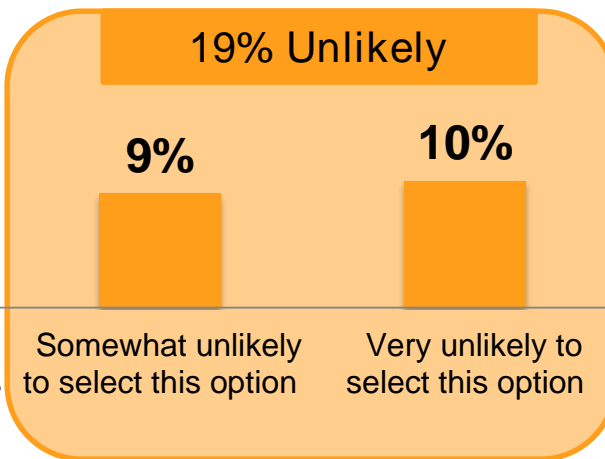
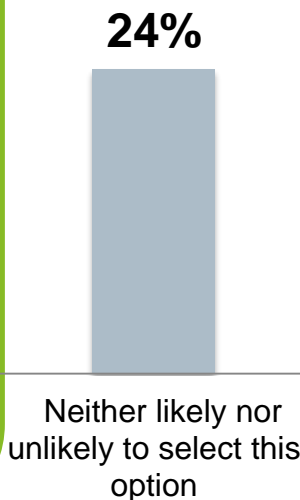
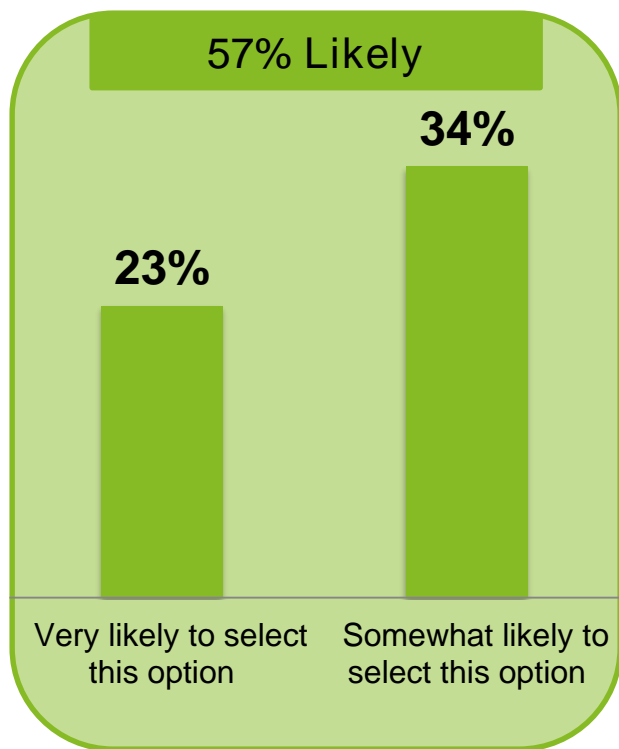
**BASE: ALL QUALIFIED RESPONDENTS**

Q540. Finally, consider that a 3-person carpooling program existed where you could sign up on a monthly basis to share rides with 2 other people. For every full month that you participate in carpool program, your carpool would earn a \$40 gas card. How likely would you be to participate in a program like this? Would you be... ?

Nearly a quarter would be very likely to not drive during poor air quality in exchange for waived registration fees.



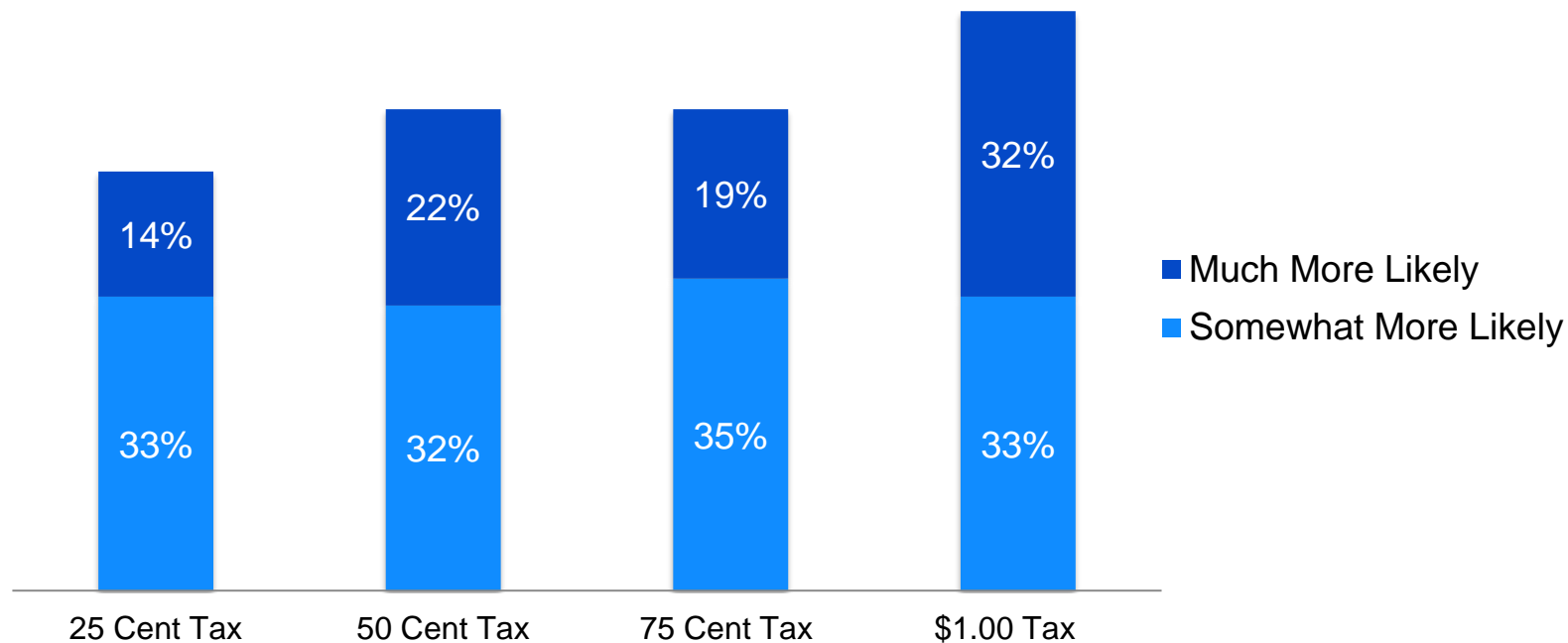
**Likelihood to Have Vehicle Registration Fee Waived In Exchange for Not Driving During Poor Air Quality Weeks**



About half would reduce vehicle use with a ¢25, ¢50, or ¢75 tax. A \$1 tax has a stronger impact with nearly two thirds likely to reduce vehicle use.



***Change in Likelihood to Reduce Vehicle Use if There Was An Added Gas Tax Poor Air Quality Weeks***



# CONFIRMING VALUES LADDER

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# Values-Based Strategic Hinge

There is a “strategic hinge” which exists, linking the benefits of clean air in the Greater Wasatch Area to the people.

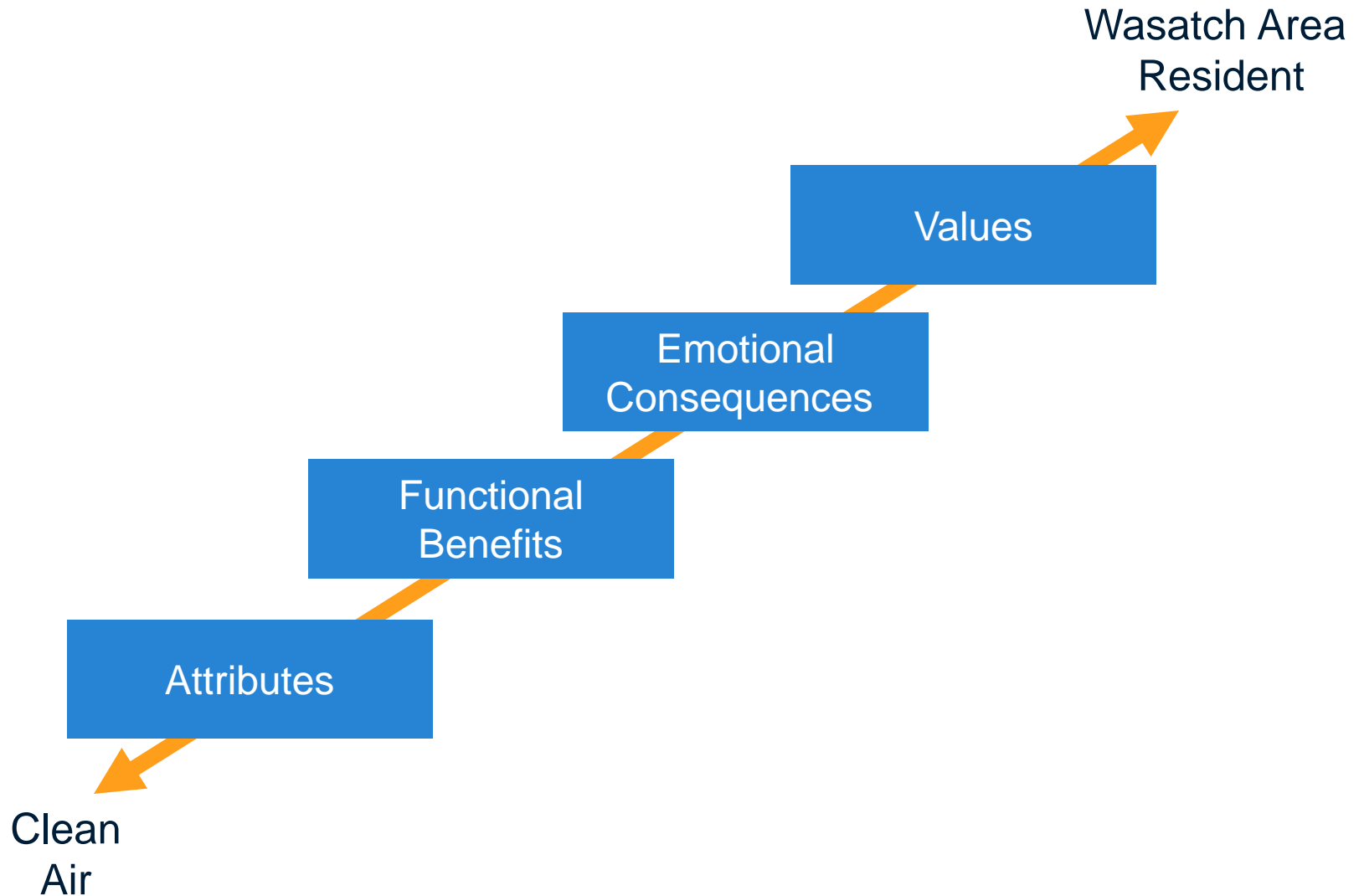


*Reason*  
*Emotion*

Identifying the rational and emotional drivers of this hinge is the purpose of “values” research.



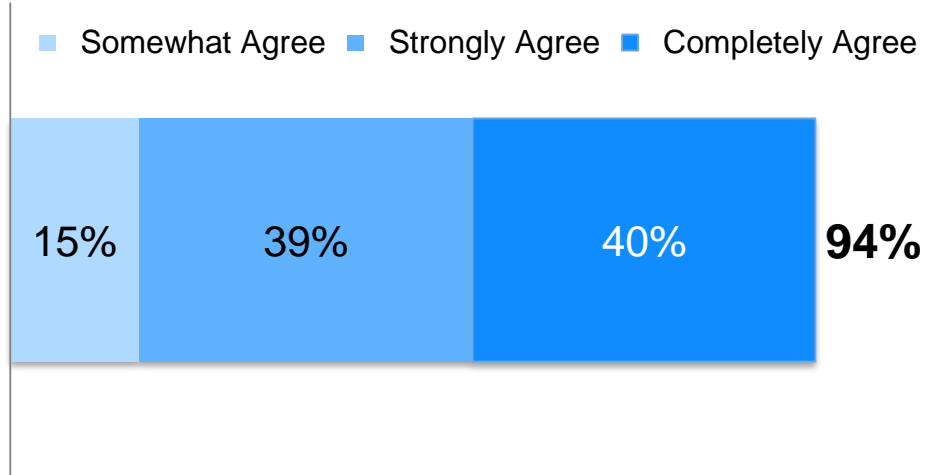
# Strategic Hinge: Levels



# Positive Ladder Orientations: Well Being



Good air quality is integral to maintaining my personal health and my family's good health. No one should have to worry about the air they are breathing or the impact on their health. Good health is key to a better quality of life for me and ultimately a sense of well-being.



- Influentials, Salt Lake City residents, Liberals and Ages 65+ are more likely to 'completely agree' with all three positive messaging positions.



# Positive Ladder Orientations: Personal Happiness



Good air quality leads to a healthy active lifestyle. It encourages more time spent outdoors doing the things I love with the people I love. Whether it is hiking, skiing, boating or just simply enjoying our beautiful natural surroundings, it allows for quality time spent with family or friends. This brings me much enjoyment and personal happiness.

Personal Happiness/Personal Enjoyment

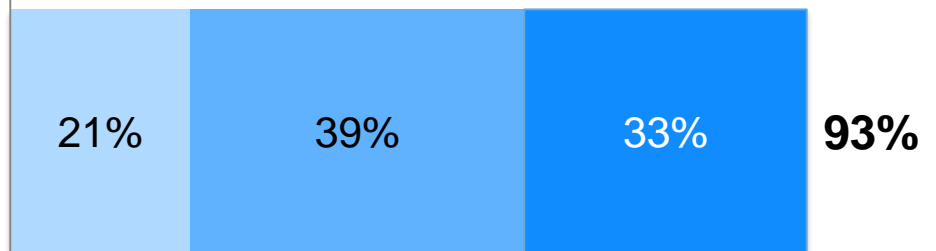
Time With Family

More Physical Activity/Time Outdoors

Good Health

Good Air Quality

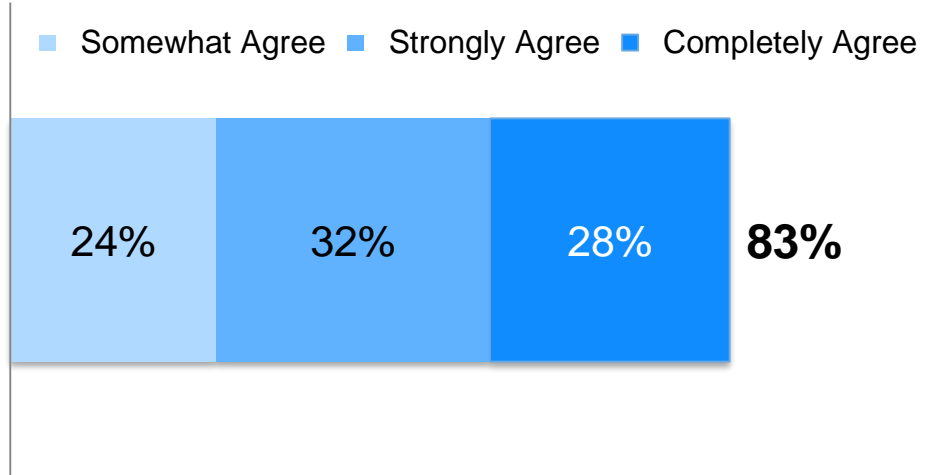
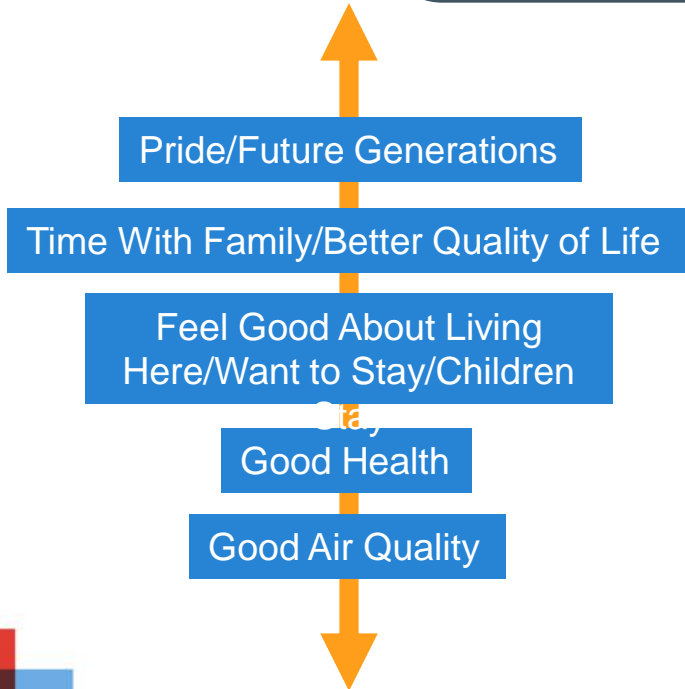
■ Somewhat Agree ■ Strongly Agree ■ Completely Agree



# Positive Ladder Orientations: Future Generations



Good air quality is important because it leads to good health. Being healthy makes me confident about choosing to live in the Greater Wasatch Area. I want to stay here for a long time and believe that my children will have a reason to stay as well which means more time with family and a better quality of life. I have a lot of pride in the impact this will have on future generations.



Better health and therefore improved quality of life leading to well-being is the dominant ladder orientation.



A healthy family, a better quality of life and an overall sense of well-being.

66%



Increased outdoor activity and time spent with those most important to you resulting in personal enjoyment and happiness.

21%

Appeals most to males, singles & 18-34 year olds.



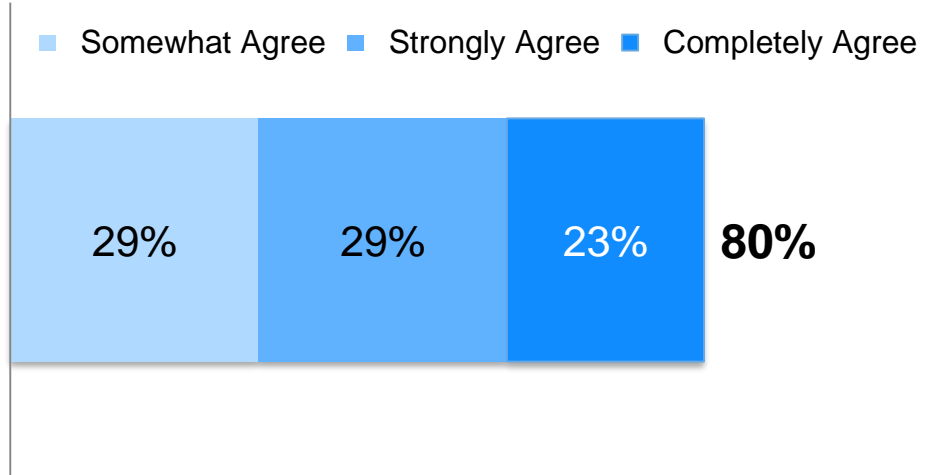
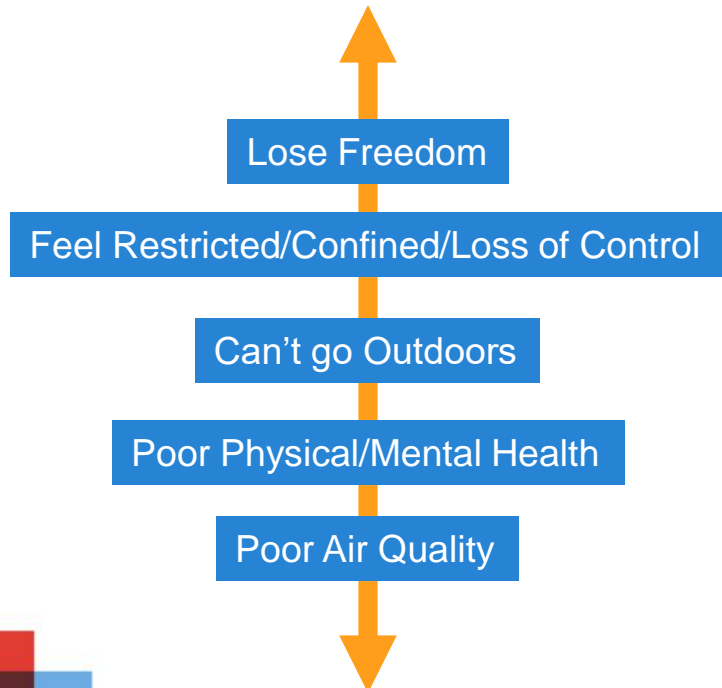
You feel good about living here while bringing promise that future generations will want to stay.

13%

# Negative Ladder Orientations: Lose Freedom



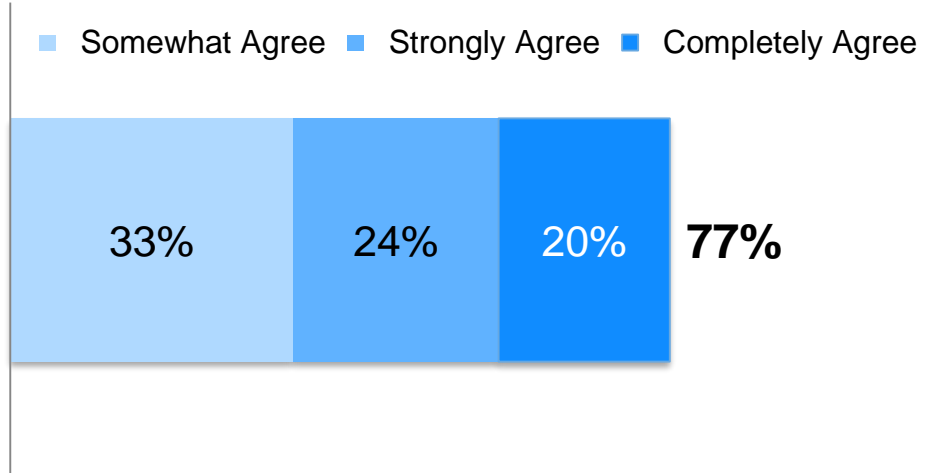
Poor air quality can take a serious toll on both your physical and your mental health. When you are forced to stay indoors you just can't do all of the things you really want to do, and you feel restricted and confined. Ultimately, it makes me feel I've lost my sense of personal freedom.



# Negative Ladder Orientations: Lose Peace of Mind



When the air is bad, it's unhealthy and ugly to go outside. I can't see the beautiful mountains around us or go out and do the things I like or be with those I enjoy spending time with. This means less time spent with family and friends doing the things we love which is both frustrating and disappointing. All of this results in unhappiness and a lack of enjoyment and peace of mind.



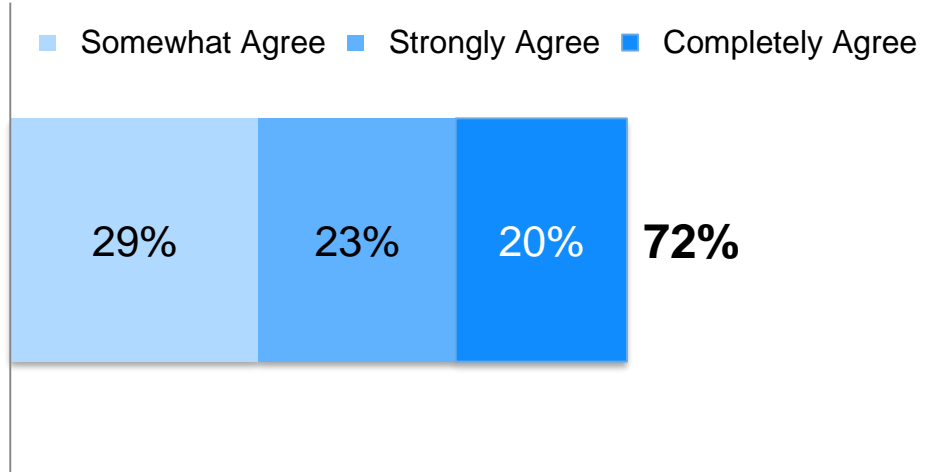
BASE: ALL QUALIFIED RESPONDENTS

Q335. To what extent do you agree or disagree that the following statement is personally relevant to you?

# Negative Ladder Orientations: Gloominess



Poor air quality negatively impacts your health. We stay inside to avoid getting sick from the pollutants in the air, but some children, older people and others with conditions like asthma actually do get sick. I also worry about the more long-term effects on my family and me. The situation really puts me in a bad mood and makes me feel gloomy or depressed. I lose my personal happiness and sense of well-being.



BASE: ALL QUALIFIED RESPONDENTS

Q330. To what extent do you agree or disagree that the following statement is personally relevant to you?

# The possibility of sickness from being outside leading to gloominess is the dominant negative ladder orientation.



Health issues and even sickness if you do go outdoors, leading to a feeling of gloominess and lack of well-being.

55%



Poor physical and mental health because you are confined indoors, losing your sense of freedom.

23%



Frustration because you can't go outdoors and spend quality time with family which takes away from peace of mind.

22%

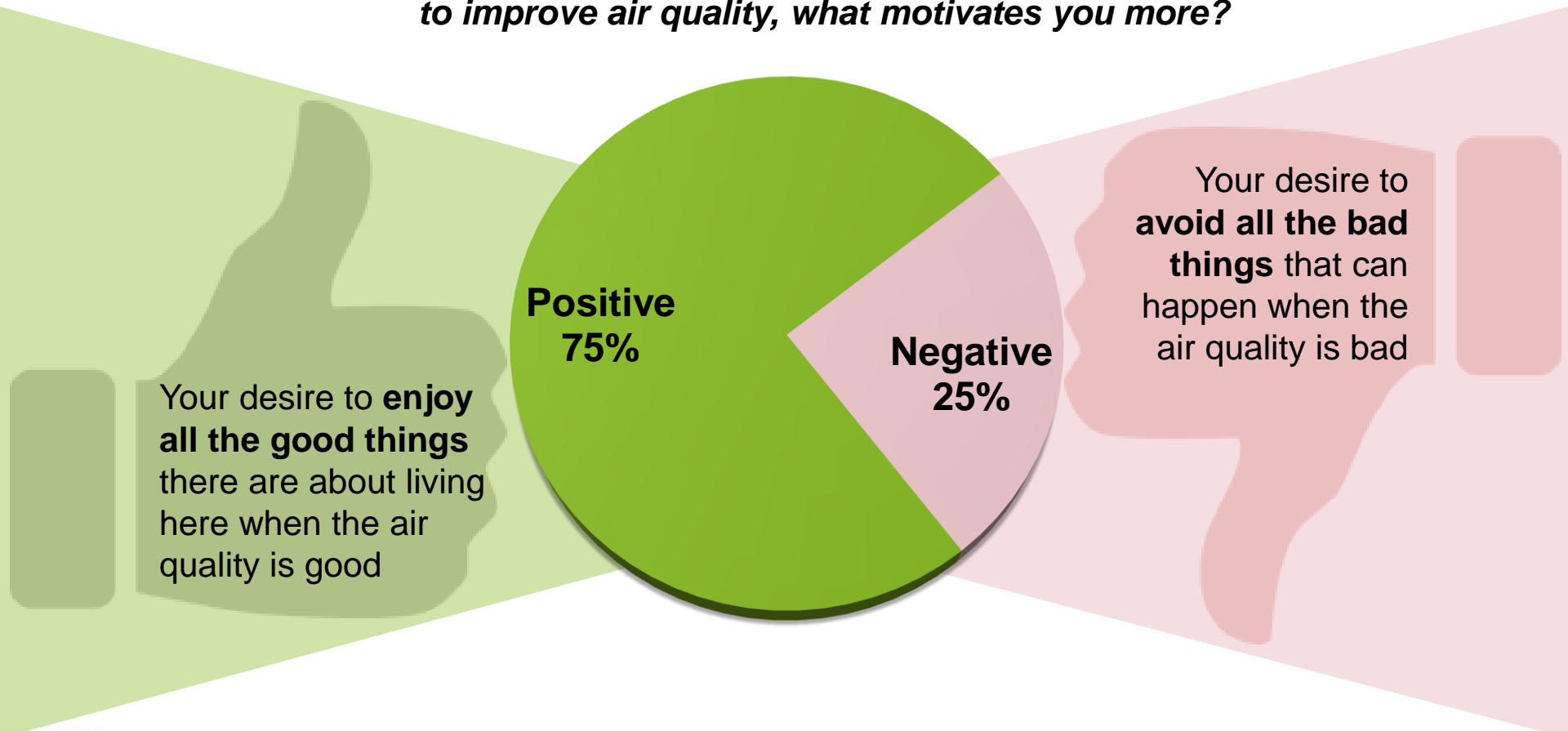
# MESSAGE ASSESSMENT

YOUR GOALS WITH INNOVATIVE RESEARCH WE HELP YOU  
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Positive messaging is preferred 3:1 over negative.

*When it comes encouraging changes in your personal behavior to improve air quality, what motivates you more?*



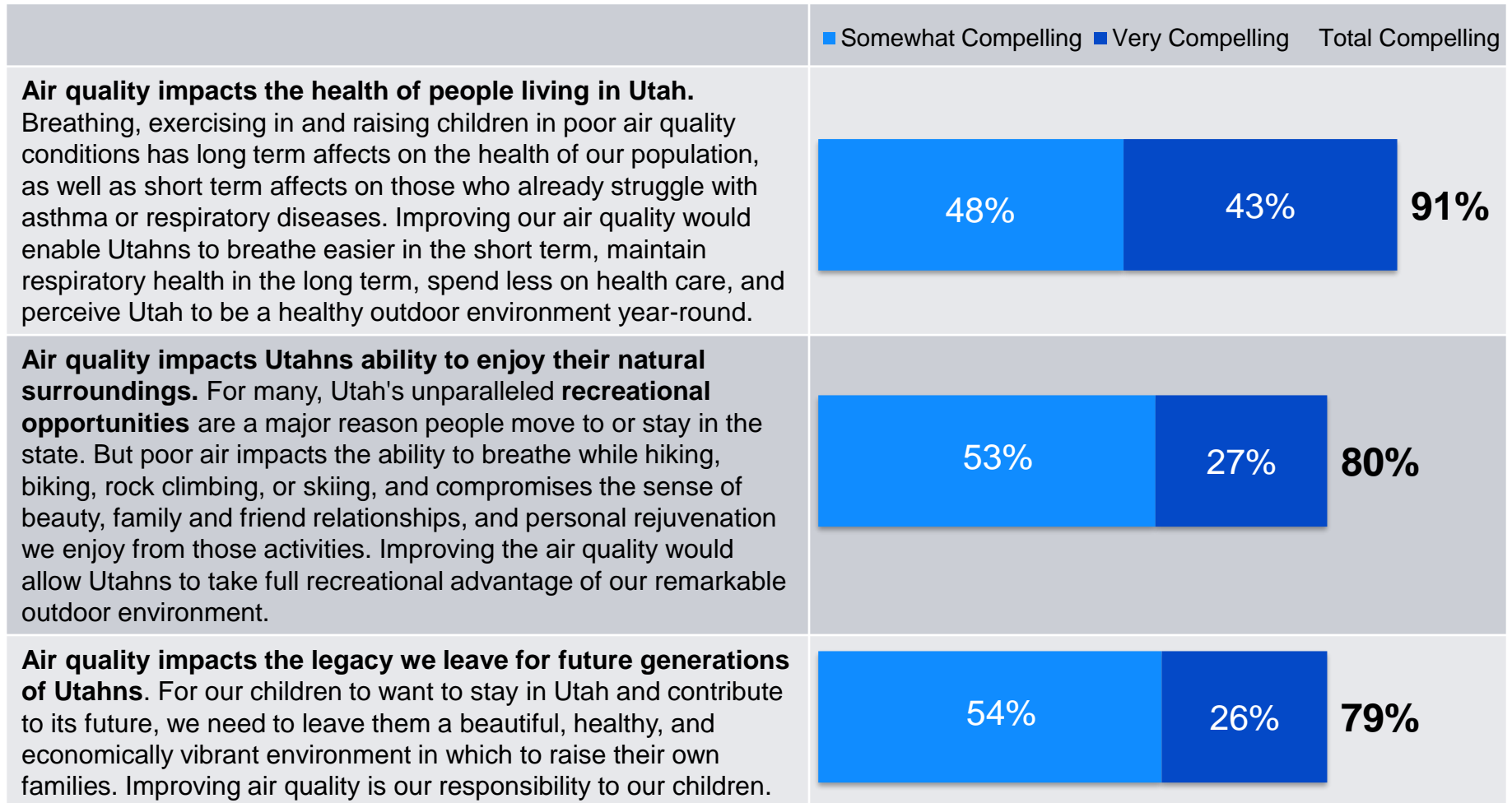
Your desire to **enjoy all the good things** there are about living here when the air quality is good

Your desire to **avoid all the bad things** that can happen when the air quality is bad

**Positive  
75%**

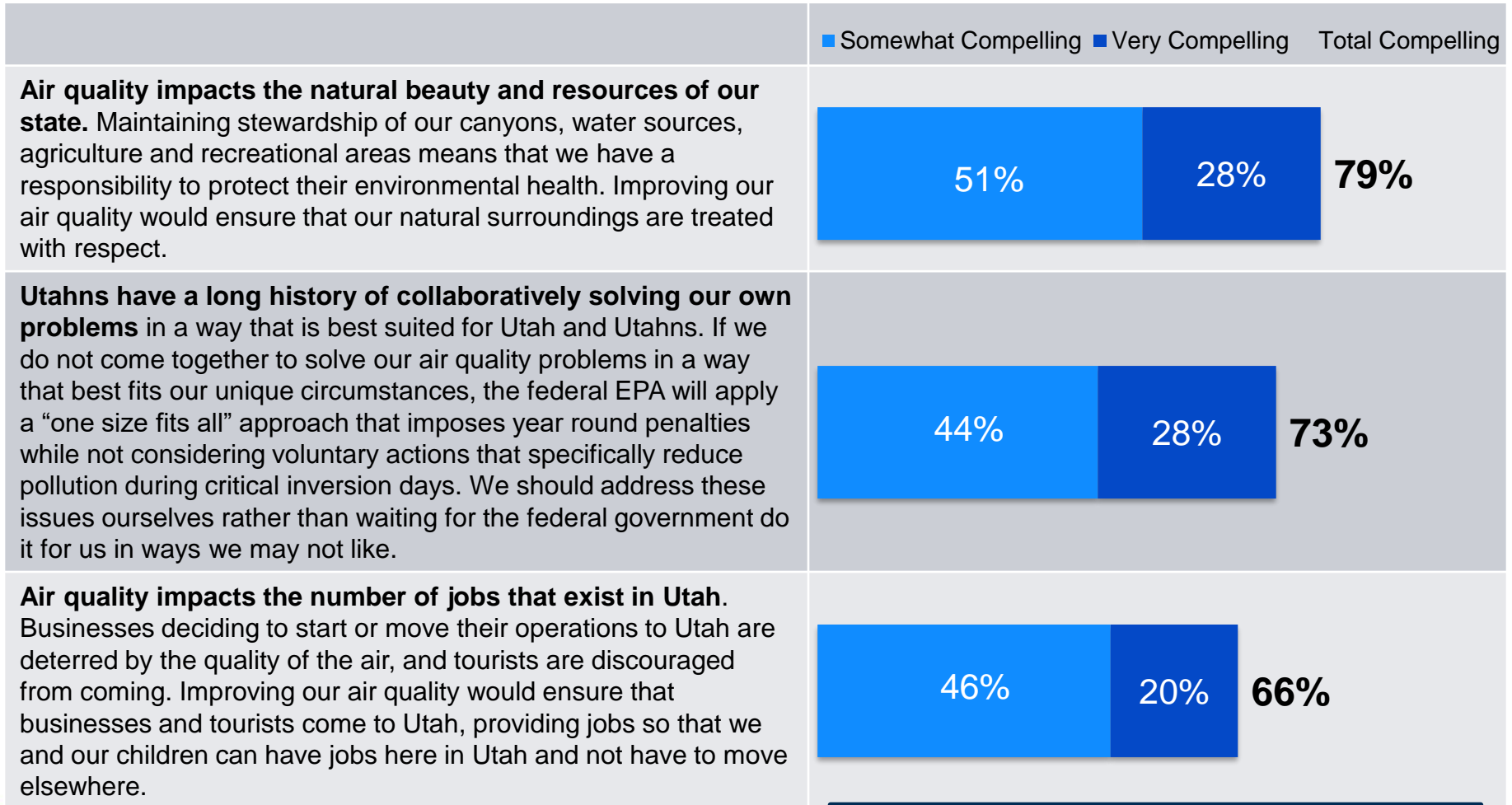
**Negative  
25%**

# Residents find the health-focused message most compelling.



• Females are more likely to agree with the top four messages on health, recreation, future generations, and natural beauty.

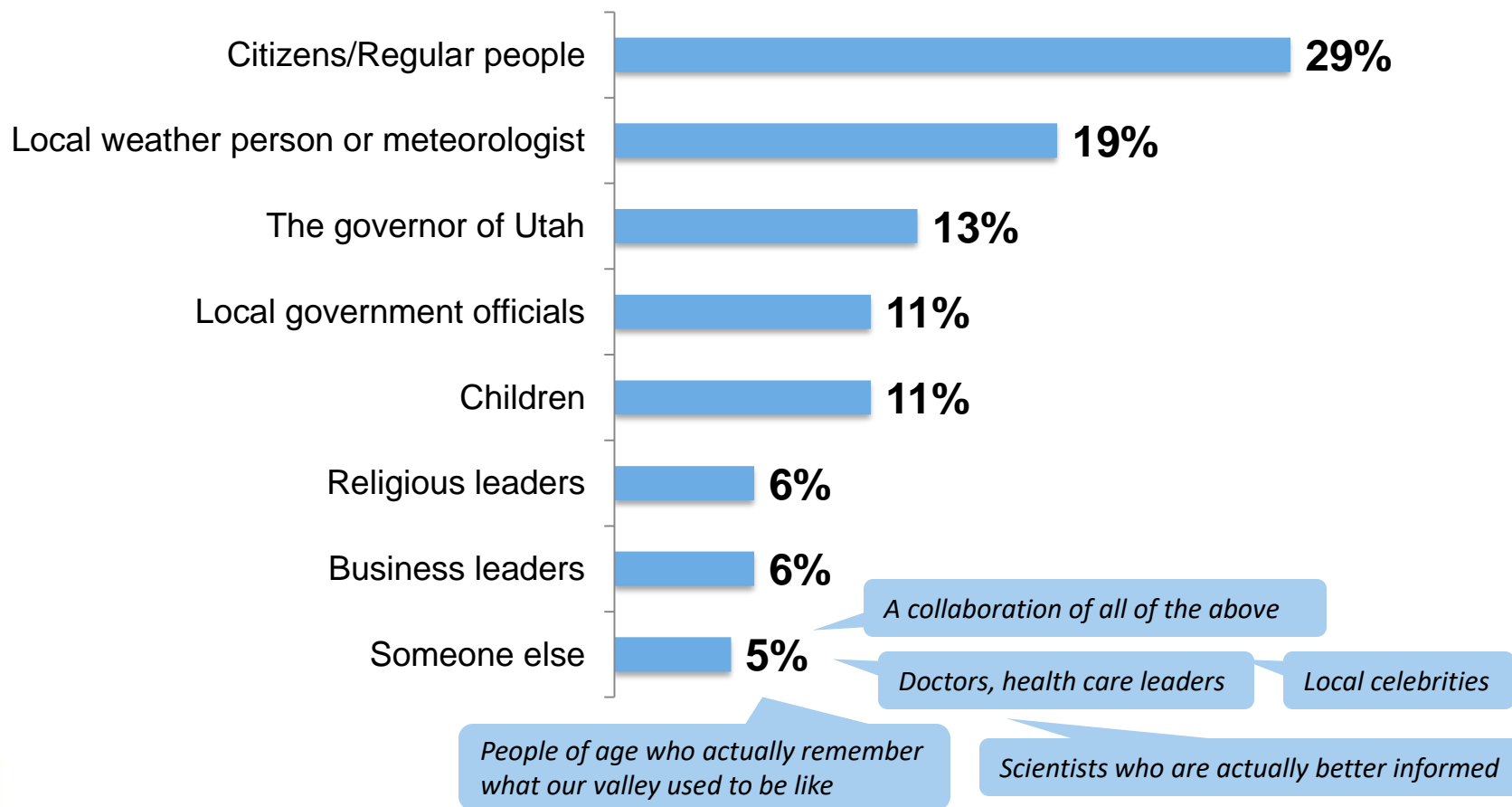
# Though still showing strong agreement, economic messaging performs weakest.



• Mormons and Conservatives are more likely to find the collaborative problem solving message compelling.

Regular citizens are considered the most compelling messengers of the air quality message.

***Which of These Names Do You Find Most Compelling in Attracting Your Support and Encouraging Participation in the Effort?***



# DEMOGRAPHICS

YOUR GOALS WITH INNOVATIVE RESEARCH WE HELP YOU  
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# Demographic Data



<b>Gender</b>	
Male	50%
Female	50%

<b>Age</b>	
18-24	14%
25-34	23%
35-44	18%
45-54	17%
55-64	14%
65+	13%

<b>Years in Utah</b>	
0-5	15%
6-9	9%
10-15	10%
16+	66%

<b>County</b>	
Salt Lake	42%
Utah	22%
Davis	14%
Weber	11%
Cache	5%
Box Elder	2%
Summit	2%
Tooele	2%
Wasatch	1%
Juab	<1%
Morgan	<1%

<b>Area of Residence</b>	
An urban or city area	28%
A suburban area next to a city	47%
Small town/Small city	21%
Rural with very few neighbors	2%
Decline to answer	1%

<b>Education</b>	
HS or less	9%
Vocational/Technical school	5%
Some college	28%
College	37%
Post graduate	22%

<b>HH Income</b>	
<\$30K	17%
\$30K-<\$70K	36%
>\$70K	34%
Decline to answer	12%

<b>Children in or out of HH</b>	
Have children living at home	39%
Have children, but none living at home	25%
No, do not have any children	34%
Decline to answer	2%

# Demographic Data



## Registered to Vote

Yes	87%
No	11%

## Party

Republican	36%
Democrat	15%
Independent	29%
Something Else	8%
Decline to answer	12%

## Ideology

Very Conservative	15%
Somewhat Conservative	17%
Lean Conservative	18%
Hard Moderate	11%
Lean Liberal	9%
Somewhat Liberal	7%
Very Liberal	7%
Not Sure	9%
Decline to Answer	8%

## Religion

Catholic	5%
Baptist	1%
Protestant (no denomination)	1%
Methodist/Wesleyan	1%
Lutheran	2%
Christian (no denomination)	4%
Mormon/Latter-day Saints	52%
Nondenominational	1%
Other Christian	2%
Buddhist	1%
Pagan	1%
Spiritualist	1%
Atheist	3%
Agnostic	4%
Humanist	2%
No Religion	7%
Other	1%
Decline to answer	6%

## Race/Hispanic Origin

White	85%
Black	1%
Hispanic	5%
Asian	6%
Native Hawaiian or other Pacific Islander	1%
Multi-race, non-Hispanic	2%
Other	2%
Decline to answer	3%

## Marital Status

Single, never married	18%
Married or Civil union	68%
Divorced	7%
Separated	1%
Widow/Widower	2%
Living with partner	3%
Decline to answer	1%