

Methodology:

To gain insights on commuters' and parents' perceptions of gas stations and how they impact air quality in Utah, we held eight focus groups totaling 41 people, each lasting 30-60 minutes. We sought people who are permanent Utah residents and plan on staying for the foreseeable future. Participants were recruited through personal networks. The discussion guide created beforehand was used fairly strictly throughout the focus groups. Each interview was transcribed through the Otter or Zoom transcription services, and the data was analyzed using thematic analysis.

Insights on Decision Making:

To begin with, we wanted to learn why people choose the gas stations they do. We found that most people choose a gas station based on convenience, cleanliness, rewards programs, and what is best for their car. Our focus group participants live busy lives and conveniently located gas stations are essential to their busy schedule.

They care about how clean the actual gas station facility is. One participant stated that "during the times that you do have to enter one of those facilities, [I like] making sure that it is just nice and clean. I think those factors would greatly consider where I was stopping for gas."

Money is also an issue and people want to use gas stations where they get rewarded at the same time. Another individual said:

"I go to Costco because I have the credit card and I like the points. I try to make it a habit that every time I go there-and I go there more than I should-to fill up. I fill up even when I'm half empty."

Also, some people are aware and care about what type of gas is being put into their car. One participant goes to Chevron because:

"My car runs better. My car requires the 91 octane class by the highest grade, so I prefer to go to Chevron because I feel like my car performs better when I go there."

Not all of these people know for sure what is good for their car, so they guess saying: "I think Sinclair doesn't have ethanol in it. And so it's supposed to burn cleaner and make your car run better is what I've heard." We found it very interesting that individuals were concerned with gas that is clean for their car, but they did not give much thought as to whether or not it is clean for the environment.

With this in mind, we decided to ask our participants about what would motivate them to switch to a gas station that sells cleaner fuels for the environment, and the results were very interesting. The focus groups reaffirmed what we already suspected: people are most heavily influenced by convenience and price. One participant explained that he would be interested in trying new gas if there was a price incentive. He stated that "if they did a promotional five cents

cheaper gasoline, [he'd] be all over it. Just give us a trial run on our new gas." However, it seems that people are not willing to sacrifice convenience for price.

In addition, one focus group found that their participants wanted proof in the form of hard data to convince them to try a new type of gas. This group also felt that education would be important in motivating change. One participant said:

"I feel like sometimes I worry about the things that I hear about a lot, so if there was also a big campaign - like advertising and marketing - where it brought that to my attention where I could make a difference."

The concept of a greater sense of community is also very important when it comes to selecting a gas station. One participant made the assertion that she would not want to be the only individual in her community who refuses to switch to cleaner fuels.

"If it became more mainstream and that is just what it is. If more people were doing it, then I would be more inclined. Like if everyone else is doing it, then I should do my part too, even if we are paying double."

Based on these insights, it appears that the most beneficial approach would be to inform people through data-based facts about clean fuels that are at gas stations close to them.

As we analyzed these insights into what drives Utahn's choices, two types of people emerged in our focus groups. There were those who did not feel empowered to make a change and those who did. Each group had a distinct persona.

People Who Didn't Feel Empowered

The people who did not feel empowered or motivated to change to a new gas station had several similar characteristics. They tended to be unaware of pollution and pollution-caused problems, feel uneducated about options that led to better air quality, lack a sense of community, feel that pollution was worse in other places, and feel that their efforts to change air quality would just be "a drop in the bucket."

Don't Pay Attention to Pollution

The people in this group tended to not pay much attention to pollution. One participant said this when asked how often she thinks about it:

"I don't know that I think about it a lot. You think about it more when there's inversion or things like that, or when I'm sitting in the carpool lane... but I wouldn't say it weighs heavily on my mind."

These people cited different reasons as to why they don't pay attention: they talked about how they feel that there is worse pollution in other places; that they only notice it on days when it is really bad; and that they don't feel that it personally impacts their health.

Feel Uneducated About Air Pollution

We found that people do not feel educated enough to act or think they can make a difference--they do not know their options.

“I think for me, I don't, I don't feel educated enough as a Utah driver to know what my options are to help improve. So I think there's a lack of education. Unless I'm just not looking correctly.”

Want Proof and Data

People do not know how much their actions explicitly affect the environment and they want hard numerical data on what their actions cause.

“What would be more motivating for me personally is if I saw the numbers like actual data on how much better it was.”

“I would like to know how much this one action would help. And then, I would do it.”

Personally Unempowered but Empowered By Community

This group of people described how they did want to make changes but felt that their actions were just a drop in the bucket. They seemed to feel unsure of the impact they could make individually. In addition, some people did not feel like there was a sense of community surrounding air pollution. They did not trust that people around them would try to make changes in Utah. They have seen other communities come together on similar issues but felt that unity was lacking in the Utah community. They also described how they didn't feel empowered to change to a new gas station personally, but they would feel empowered to make that change as a community. One participant said that “if we could find a way to get everybody to do it, I think it could have a really significant impact.” Another participant stated: “if everyone was doing the same thing, I would say like - ‘oh my gosh, I'm the only one who's not doing that like, I'm not helping out.’”

People Who Felt Empowered

The second group of people established their own distinct persona. They were often already doing things to try to better the air quality; were excited to hear about cleaner fuel options but did not know much about them; had health problems or knew someone who did; wanted clear evidence and data proving the effectiveness of tier three fuels; and still did not want to go too far out of their way to make a change.

Already Doing Things to Help with Air Quality

The people who felt empowered to change to cleaner fuel options tended to already be doing things to help with air quality. Many people mentioned that they try to not idle, mentioning the *Turn Your Key Be Idle Free* campaign. One mother from Millcreek described that:

“They'll have a ‘be idle-free’ week at school, and they'll come home and be like - ‘Mom, you have to turn your car off! Mom, you have to turn your car off!’ So, it's kind of fun to have them remind me too.”

Other people mentioned that they try to limit driving to help with air quality. A participant said that:

“We really limit how many car trips we do. I mean some people told me, well, you can just order stuff on Amazon and have it delivered.”

They also mentioned that they buy hybrid cars and try to carpool when they can.

Health Problems

People who feel empowered see first-hand the consequences of Utah's air quality on health. Asthma was mentioned several times by this group of people who have been affected by it or have seen family relatives struggle with health issues. One participant said “[they] know it can be bad for people with asthma. So, [his wife] and one of [his] kids has asthma and knows it can exacerbate those symptoms. You know, especially on terrible inversion days in the winter.” Some participants mentioned they had only seen some of these health problems once they moved to Utah. One participant knew from experience:

“I have asthma and I wasn't diagnosed with asthma until I moved to Utah. I grew up in northern Idaho where there's nothing but you know, farms and forests. And I don't have that asthma when I'm in Idaho. But when I'm along the Wasatch Front, I do and I have a 16-year-old daughter that was diagnosed when she was about nine with asthma. And we can very definitely tell you before we even leave our bedrooms in the morning, what the air quality is outside. When we wake up, we can feel it.”

Wanted Data and Proof

The people who felt empowered to switch to cleaner fuel options wanted evidence that what they would be doing would actually make an impact. They described how if they saw the facts, then going out of their way would be worth it. When asked if they would go out of their way to go to gas stations offering cleaner fuels, one participant answered: “It just - it depends on like, how clean it is? Like what are they? You know, what are they promising? You know, and like for how much?” Another participant said: “What would be more motivating for me personally is if I saw the numbers, like actual data on how much better it was.”

Conclusion

As we analyzed the data with our research objectives in mind, we found a few key points. First, there are two key publics that will have to be addressed in the campaign; there is a notable difference between each distinct persona. The unempowered group is not very aware of pollution and must be informed; messaging should be focused on bringing awareness, showing how this will help, and find ways to unite communities to motivate change. On the other hand, the

empowered group is aware, but they need to have their self-interests appealed to; they feel empowered but they still want proof that this will actually work. They need to be shown the data to encourage them, and communities need to be appealed to as that has shown success with *Be Idle Free* in such areas.

By appealing to communities and proving that cleaner fuels will make a difference (while specifically appealing to each public's interests and doubts as discussed), Utahns will be more motivated to seek out cleaner fuel. With the proper data being shown and uniting a sense of community, our publics will also gain a better understanding of the impact clean fuel will make when their doubts and their emotions are addressed.