

Upper Kennebec River River Rafting Experience Survey

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At a Glance

- Summary of Results
- Detailed Results
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 - Expectations for Trip
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 - Familiarity with NECEC
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Summary of Results



Summary of Results – Current Visitation to Area

- Overall, only 2% expected to take a day trip in the area. Over half (55%) say they expect to spend 2 days in the area while 44% will spend 3 or more days.
- Three in five (60%) have visited upper Kennebec River area before.
 - Among those visiting the area before, almost half (46%) have visited 3 or more times.
- Overall, nearly six in ten (57%) have been river rafting on the upper Kennebec River prior to this trip.
 - Among those rafting in the area prior to this trip, seven in ten (69%) have rafted in this area 2 or more times during the past 10 years.

Summary Results – Expectations for Experience

Understanding the expectations of the recreation experience helps to determine the context in which respondents rate scenic quality.

The survey evaluated expectations on a number of dimensions including the environmental aspects of the experience such as the scenery, socio-cultural aspects such as camaraderie, and physical and mental aspects such as the physical challenge and excitement of the activity.

It also looked at expectations based on how crowded it might be during the activity and expectations for manmade development along the river.

- For nearly all respondents, the area met their expectations on all measured dimensions including the scenery and outdoors, camaraderie, the excitement, and enjoyment of being on the river, and the challenge.
- The areas in which the trip best met expectations include getting outdoors and enjoying the fresh air, the scenery, the camaraderie and being with family or friends, and the excitement of rafting the rapids.
- Respondents expected to experience modest crowds on the river but did not expect to see much in the way of development along the river.
- People enjoyed their river rafting experience and they plan on returning to raft again in the future
- On average, respondents rated their enjoyment of the trip as 6.8 on a 7 point scale indicating a high level of enjoyment. Rafters rated their likelihood to return as 6.7 on the 7 point scale.

Summary Results – Impact of Human Activity on Experience

Respondents were asked to evaluate the impact of human activity on the quality of their experience being on Maine's rivers.

This provides context into how respondents view the impact of a range of manmade changes in relation to one another.

- Respondents rated views of industrial facilities, views of powerlines, and views of parking lots as having the largest negative impact on their experience on the river.
- Views of motorized boats and residential development along the shore also had a significant negative impact on their rafting experience.
- Respondents indicated that views of large clear cuts on hillsides, views of wind power projects, views of hydroelectric and other dams, and views of bridges and road had a modest negative impact on the quality of the rafting experience.
- While motorized boats were seen in a negative light, seeing other kayakers and rafters had a positive impact on the rafting experience.

Summary of Results - A New Methodology For Assessing Visual Impact

- The traditional design of a visual impact assessment survey has each respondent evaluate the scenic value of a scene based on its current view and then rate the same scene with the introduction of a new visual element. In this survey, the new visual element introduced is powerlines.
- In designing the current survey, it was felt that the traditional methodology would be ineffective in providing a true assessment of visual impact.
 - Rafting is not a “static” experience. Rafters are not simply experiencing the natural scenery from a single point but moving through the scenery.
- There are already manmade impacts on the natural scenery.
 - How do you evaluate how a new manmade feature impacts scenic quality in a landscape where there are already significant manmade changes?

Summary of Results - A New Methodology For Assessing Visual Impact

- This new methodology relied on an experimental/control group design to measure the impact on scenic quality and the entire rafting experience by the proposed powerlines.
 - This is an established methodology to determine the impact of change; in this case, the introduction of the powerlines was the change.
 - Rather than looking at one image, each respondent was asked to look at a sequence of six images and rate the scenic quality of each of the six images.
 - The six images were designed to represent the experience a rafter would have for their entire trip down the upper Kennebec River from put in to take out.
 - This design allowed us to assess the potential impact of the new visual element (the powerlines) based on a rafter's entire experience.
 - It also allowed us to assess the potential impact relative to other manmade features that are already present along the upper Kennebec River.
- For the view with powerlines, respondents did not evaluate a "current" view and then a view with the new visual element.
 - Rather, the survey divided the respondents into two groups which rated the scenic quality of one view.
 - Respondents were randomly assigned to an experimental group or control group.
 - The experimental group rated scenic quality of the image with the powerlines while the control group rated the current view.
 - The other 5 images were the same for both groups.
- **This method allows a comparison of the results across the two groups to determine if the powerlines impact scenic quality.**

Summary Results – Scenic Value of the Upper Kennebec River

- Overall, of the 6 images, the image with the lowest scenic value was the image at the start of the trip showing the Harris Dam. The image with the second lowest scenic value was the picture of the parking lot at the put-in.
- The images with the highest scenic value were the images on the river through both calm water and the rapids.
- The presences of the powerlines did have an impact of the rating of scenic value of the fifth image. Those seeing the powerlines rated this view as 4.6 on average on the seven point scenic value scale compared to an average rating of 6.2 for the group that saw the image without the powerlines.

Impact on Enjoyment and Use

- After reviewing the images, respondents were still likely to enjoy the rafting trip (rating 5.8 on the 7 point scale) and would be likely to return to raft in the future (rating their likelihood as 6 on the 7 point scale).
- While the respondents that saw the image of the powerlines rated the scenic value lower than the group that did not see the powerlines, they were just slightly less likely to indicate they would still enjoy the rafting trip and would return in the future.
- But simply viewing all the images of the rafting trip did seem to have a slightly negative impact on respondents' perceived enjoyment of the rafting trip and their likelihood to return. This was observed among both those seeing the image with the powerlines and those seeing the image without the powerlines.



Detailed Results

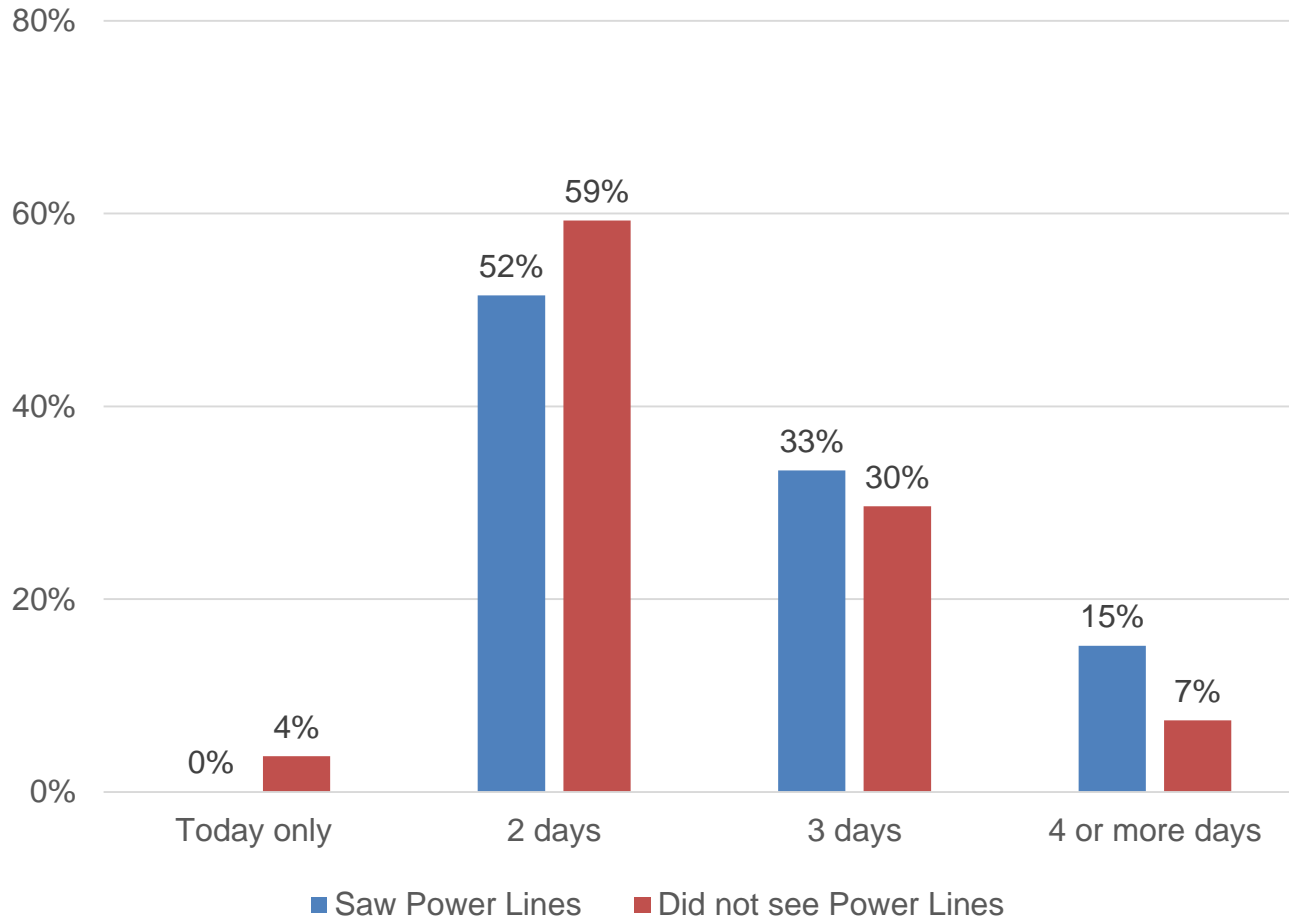


Presentation of the Survey Results

- The charts and tables below provide results broken out by the two study groups; the experimental and control group.
- The experimental group was presented the image that included the new visual element – the potential powerlines that would cross the Kennebec River as a part of the New England Clean Energy Connect project.
 - The experimental group responses are captured under the category “**Saw Power Lines**”.
- The control group was presented the current view, without the powerlines.
 - The control group responses are captured under the category “**Did not see Power Lines**”.

Visits to Area and Activities

Q1. For this entire trip, how long do you expect to spend in this area?



Summary

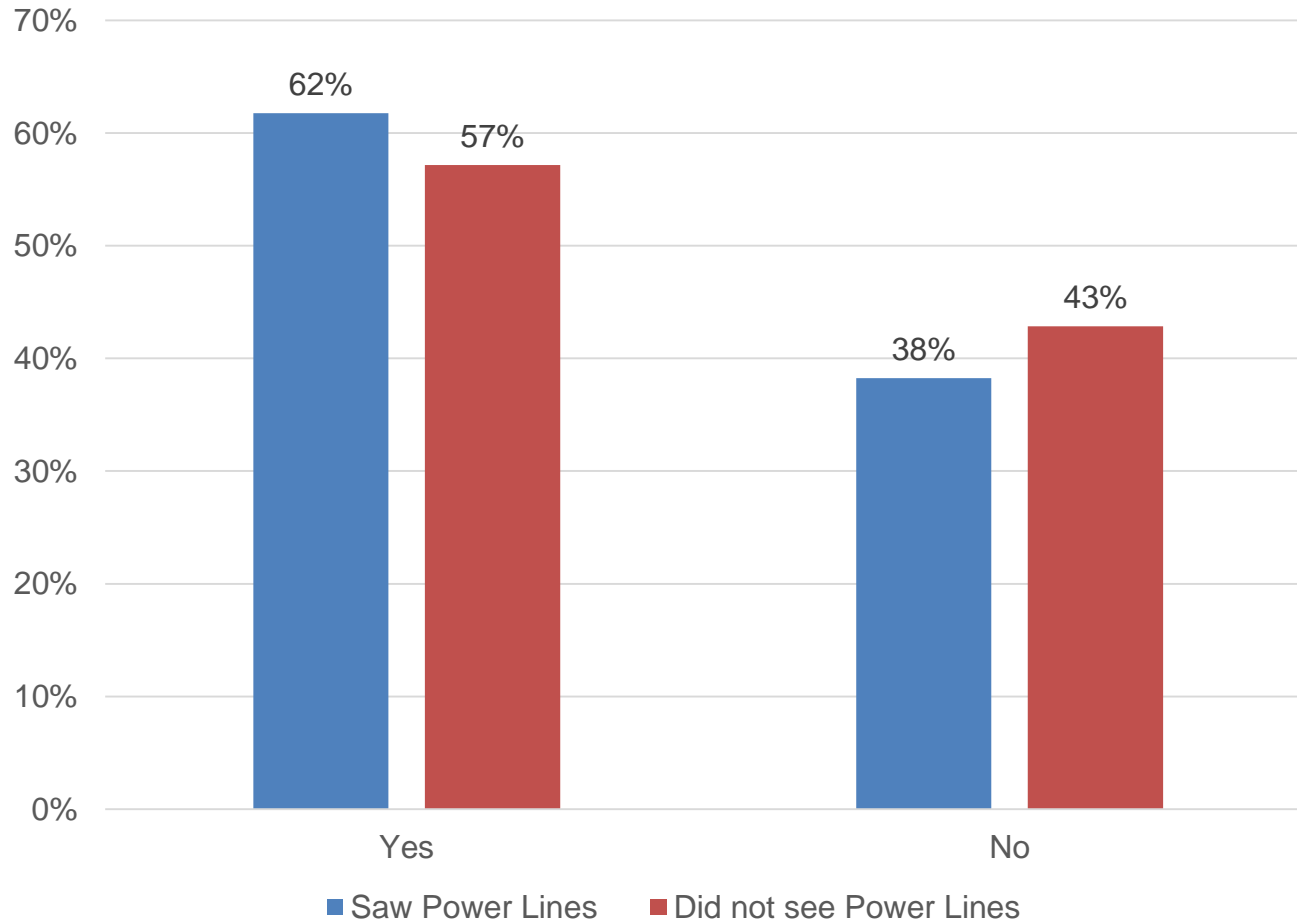
Overall, only 2% expected to take a day trip in the area. Over half (55%) say they expect to spend 2 days in the area while 44% will spend 3 or more days.

Bottom Line

Almost all rafters stayed overnight in the area.

Visits to Area and Activities

Q3. Have you visited upper Kennebec River area before today?



Summary

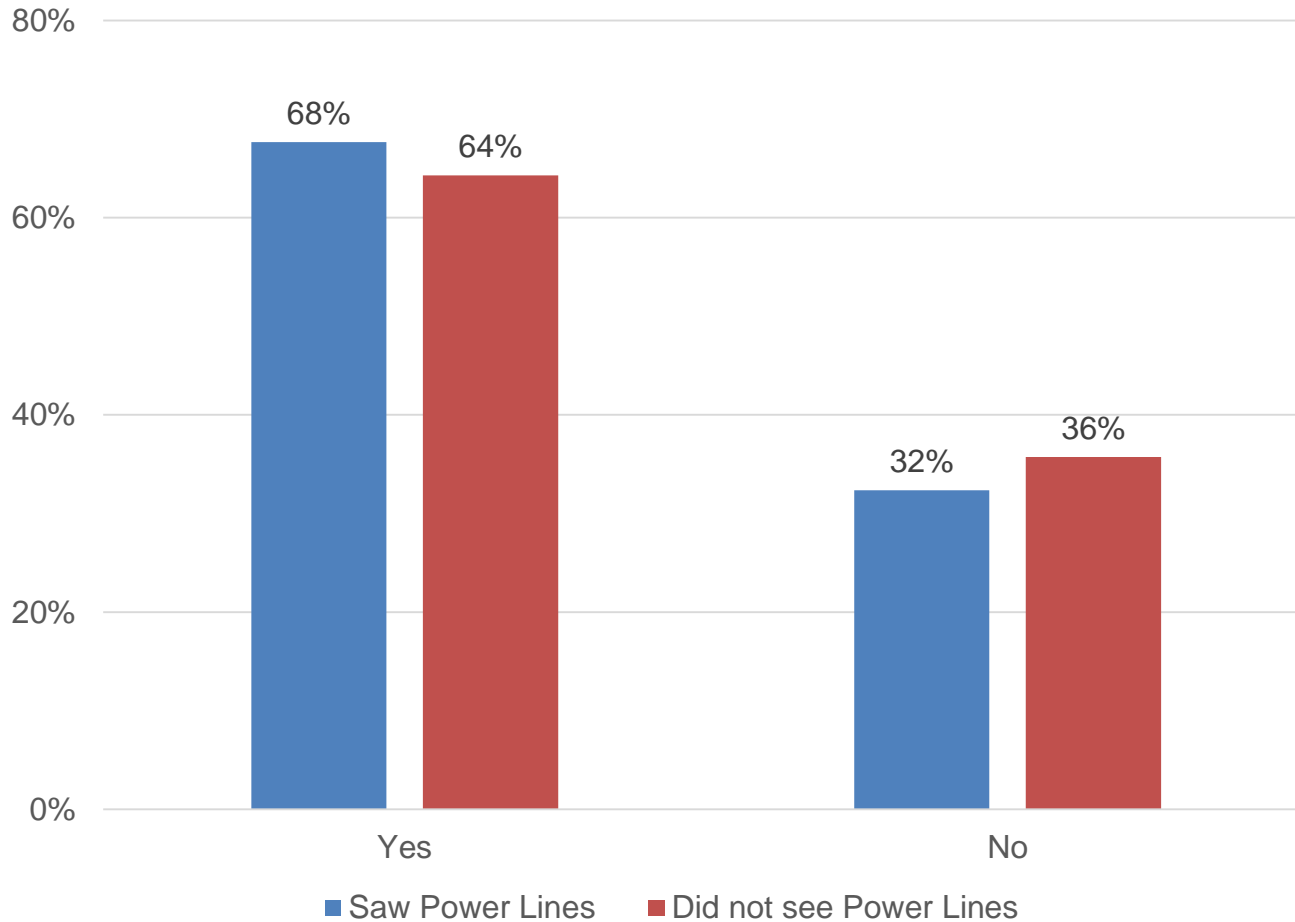
Three in five (60%) have visited upper Kennebec River area before. Among those visiting the area before, almost half (46%) have visited 3 or more times.

Bottom Line

Most rafters have been to the area before and they plan on returning in the future.

Visits to Area and Activities

Q17. *Have you ever been river rafting here or any other area before today?*



Summary

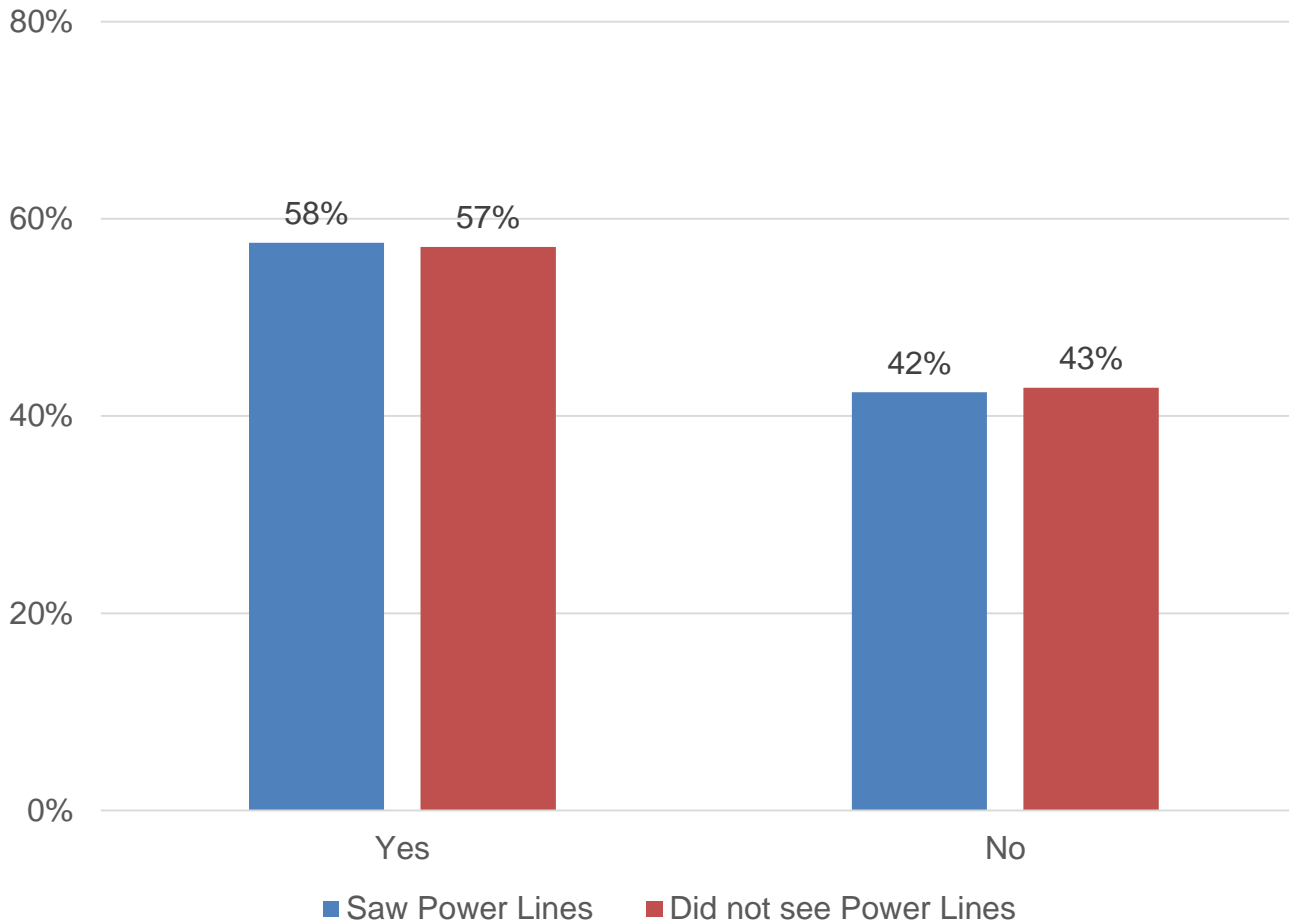
Two-thirds (66%) had been river rafting before this trip. Among those that have rafted before, three quarters (75%) had been river rafting 2 or more times during the past 10 years.

Bottom Line

Rafting is not a new experience for most of those visiting the upper Kennebec River area.

Visits to Area and Activities

Q18. Have you ever been river rafting on the upper Kennebec River before today?



Summary

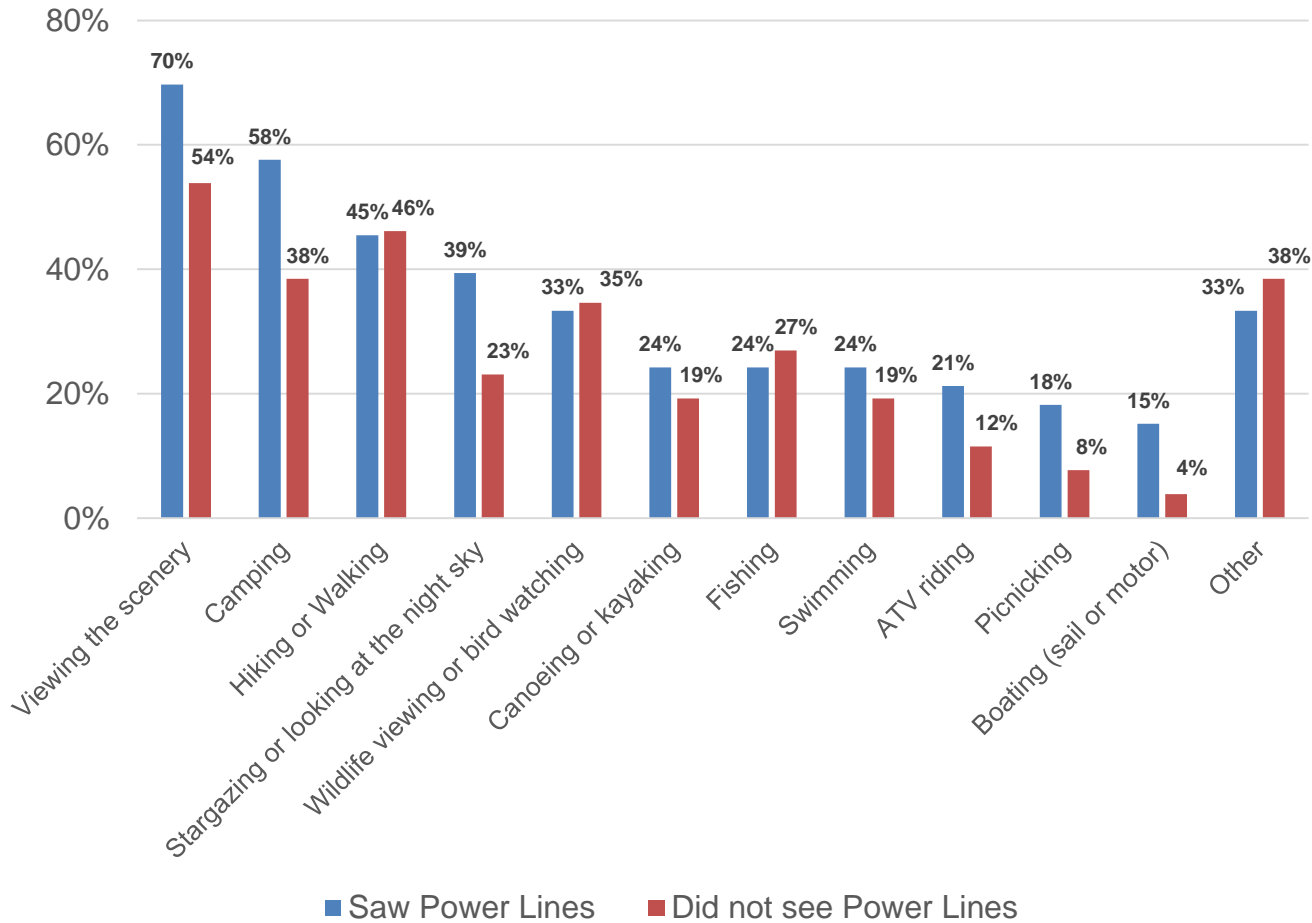
Overall, nearly six in ten (57%) had been river rafting on the upper Kennebec River prior to this trip. Among those rafting in the area prior to this trip, seven in ten (69%) had rafted in this area 2 or more times during the past 10 years.

Bottom Line

Most of those that have rafted the upper Kennebec return to raft again.

Visits to Area and Activities

Q4. Thinking about your visit to the upper Kennebec River area, what are your plans other than rafting?



Summary
Beside rafting, viewing the scenery, camping, hiking or walking were the most common activities for rafters visiting the upper Kennebec River area.

Expectations for Trip

Q5. Please think about what you were looking forward to when coming on this rafting trip. How well did the area meet your expectations?

	Total	Saw Power Lines	Did not see Power Lines
To get outdoors, enjoy the fresh air.	6.9	6.9	6.9
The exercise or physical challenge.	6.3	6.4	6.3
The companionship. Camaraderie, being with my family or friends.	6.8	6.7	6.9
The enjoyment of being on a the water.	6.7	6.7	6.8
The excitement of rafting the rapids.	6.8	6.8	6.7
The scenery.	6.9	6.8	6.9
To have a change from your daily routine.	6.6	6.6	6.6
Other expectations.	6.9	6.8	7.0

Please rate each on a 7 point scale where 7 is the area completely met my expectations and 1 is the area did not meet my expectations at all.

Summary

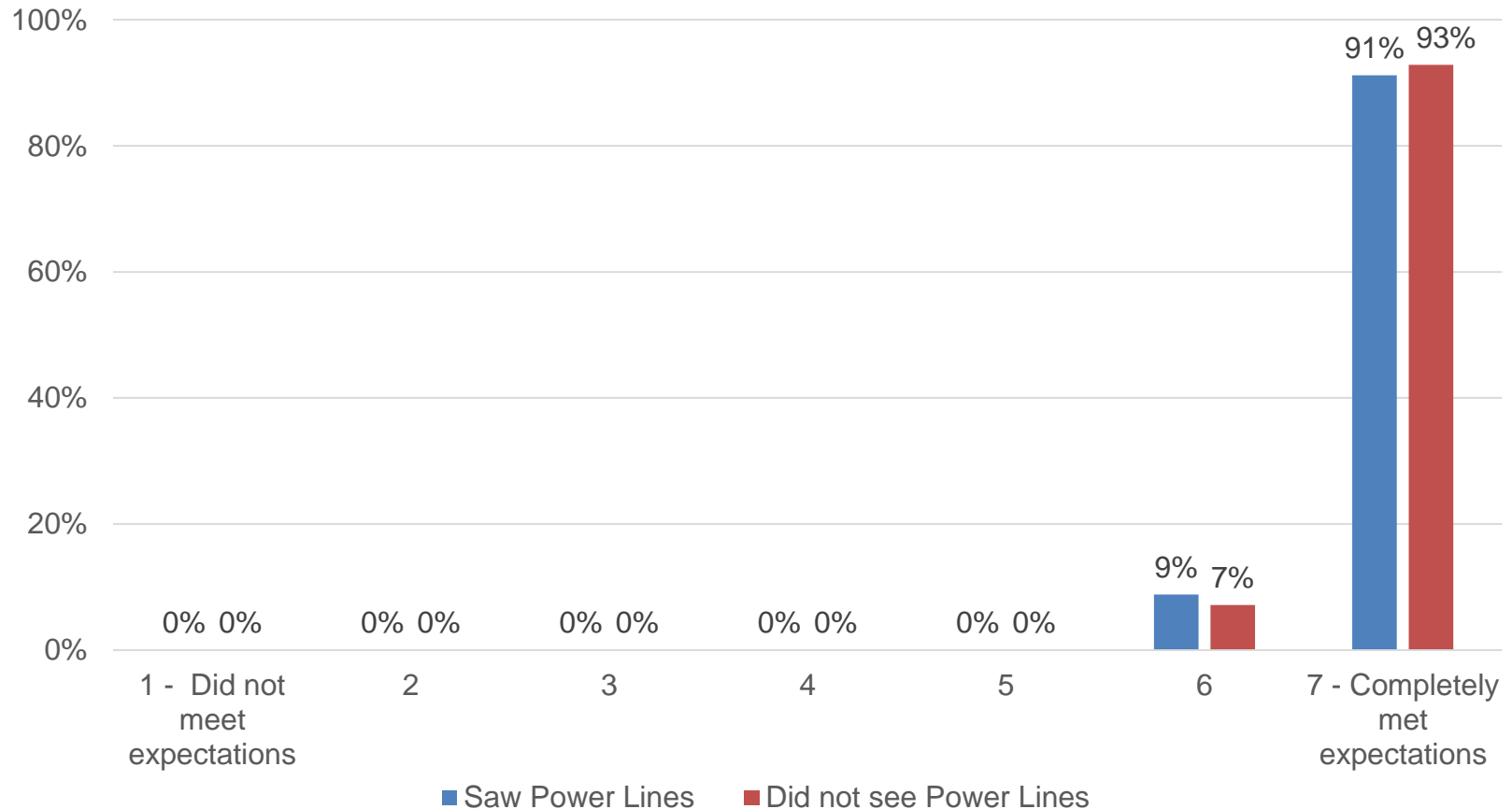
For nearly all respondents, the area met their expectations on a number of dimensions including the scenery and outdoors, camaraderie, the excitement and enjoyment of being on the river, and the challenge.

Bottom Line

Among respondents, the upper Kennebec River area and the rafting experience lived up to expectations.

Expectations for Trip

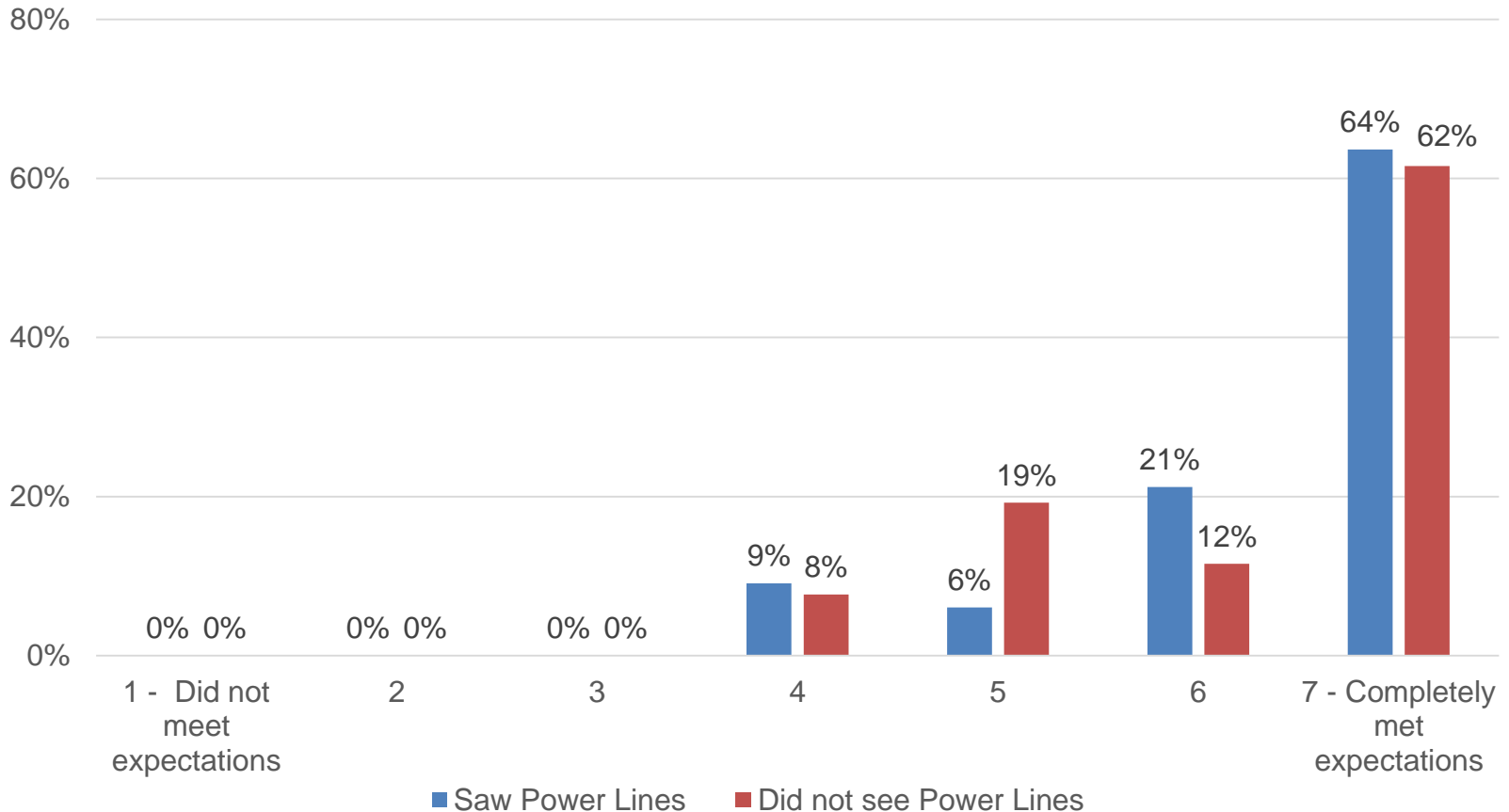
Q5. Please think about what you were looking forward to when coming on this rafting trip. How well did the area meet your expectations? - To get outdoors, enjoy the fresh air.



Please rate on a 7 point scale where 7 is the area completely met my expectations and 1 is the area did not meet my expectations at all.

Expectations for Trip

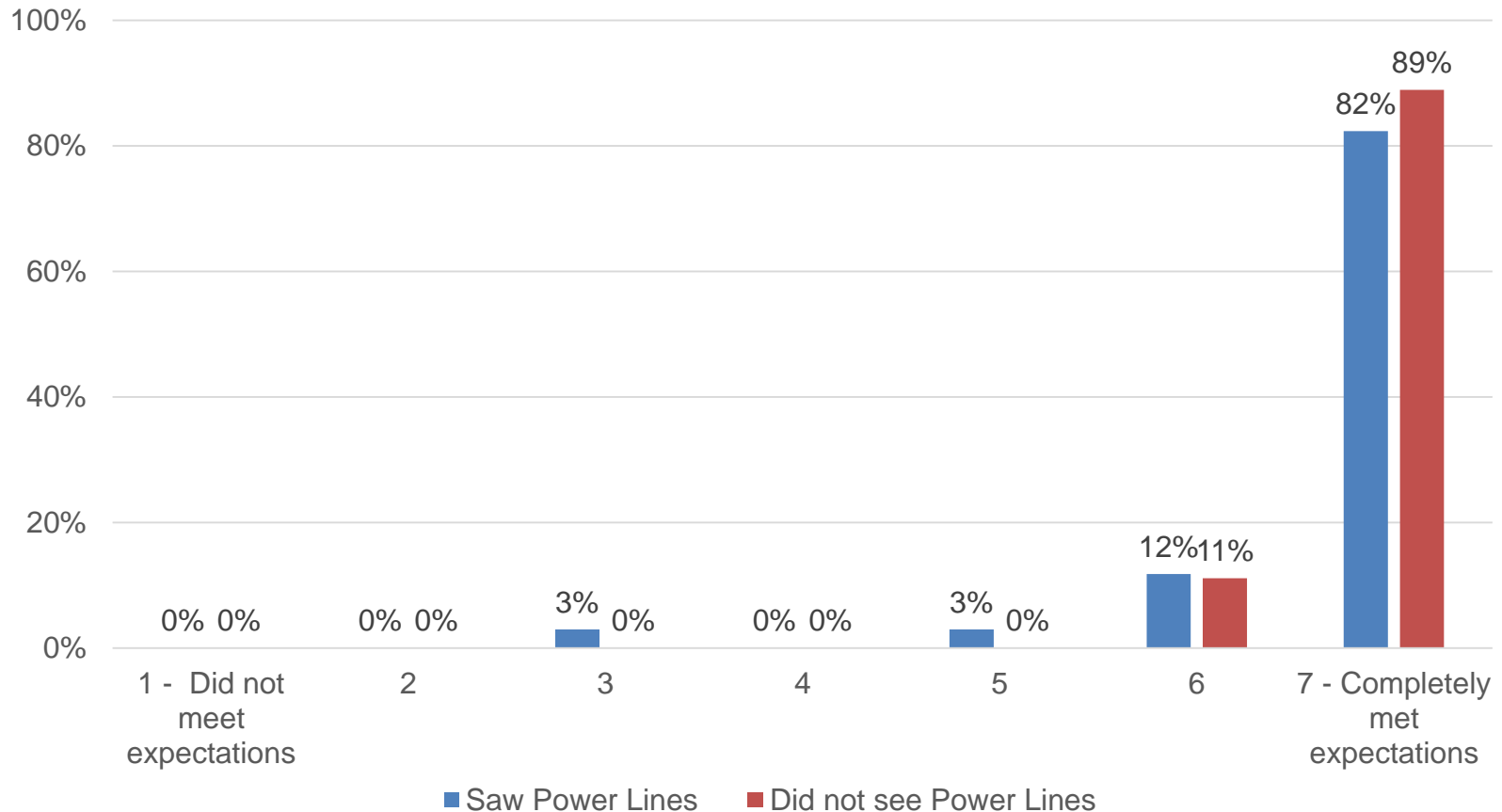
Q5. Please think about what you were looking forward to when coming on this rafting trip. How well did the area meet your expectations? - The exercise or physical challenge.



Please rate on a 7 point scale where 7 is the area completely met my expectations and 1 is the area did not meet my expectations at all.

Expectations for Trip

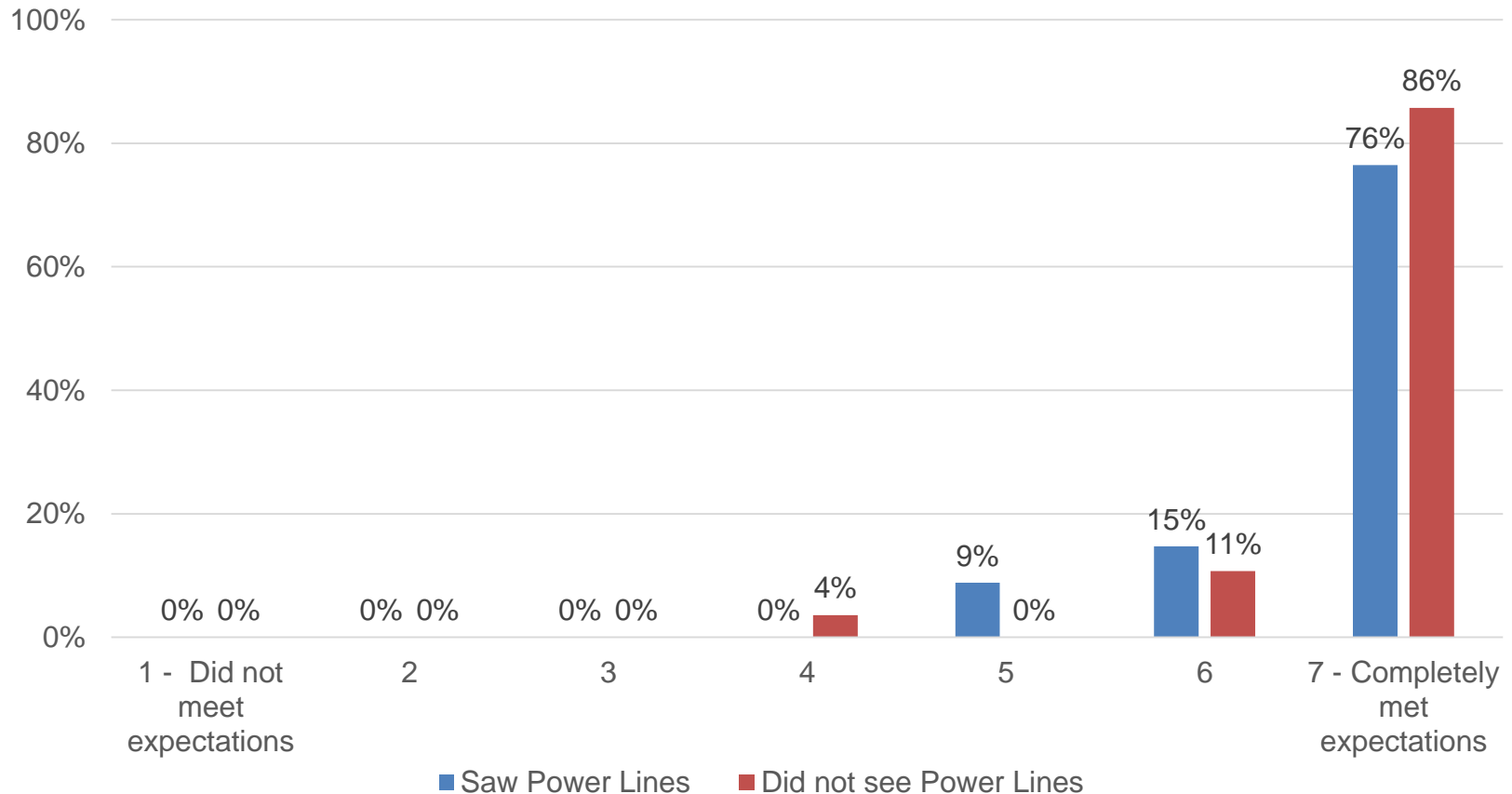
Q5. Please think about what you were looking forward to when coming on this rafting trip. How well did the area meet your expectations? - The companionship. Camaraderie, being with my family or friends.



Please rate on a 7 point scale where 7 is the area completely met my expectations and 1 is the area did not meet my expectations at all.

Expectations for Trip

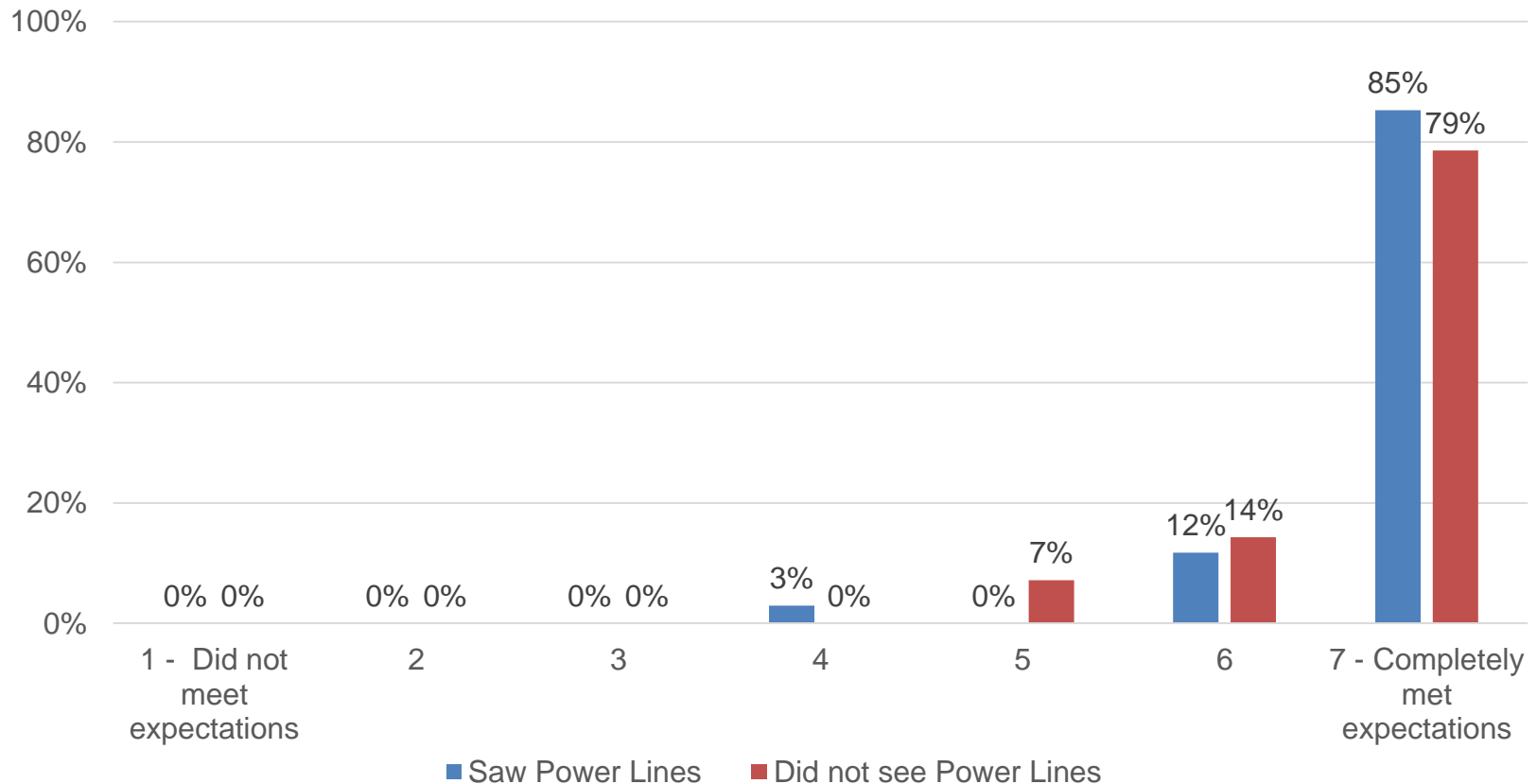
Q5. Please think about what you were looking forward to when coming on this rafting trip. How well did the area meet your expectations? - The enjoyment of being on a the water.



Please rate on a 7 point scale where 7 is the area completely met my expectations and 1 is the area did not meet my expectations at all.

Expectations for Trip

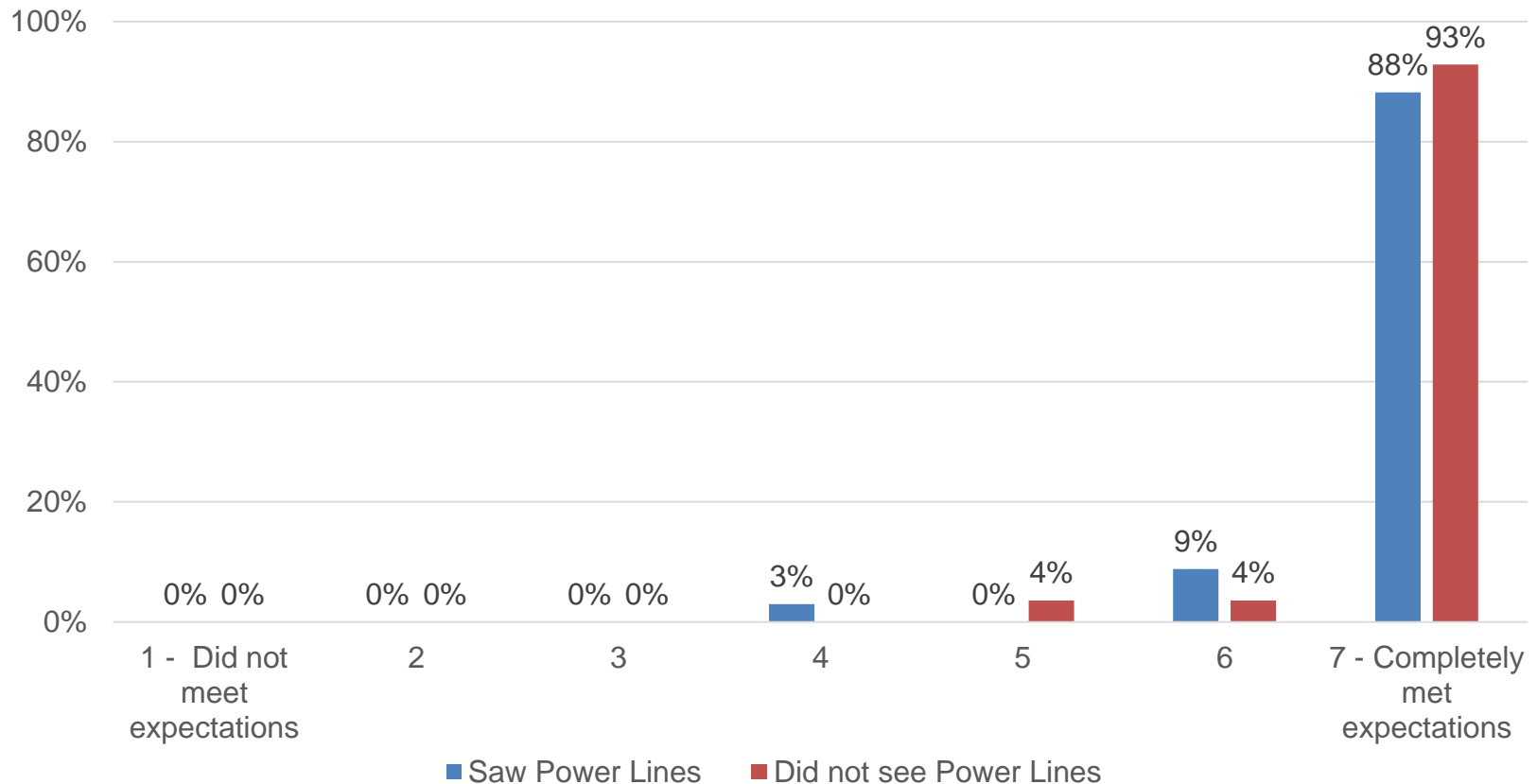
Q5. Please think about what you were looking forward to when coming on this rafting trip. How well did the area meet your expectations? - The excitement of rafting the rapids.



Please rate on a 7 point scale where 7 is the area completely met my expectations and 1 is the area did not meet my expectations at all.

Expectations for Trip

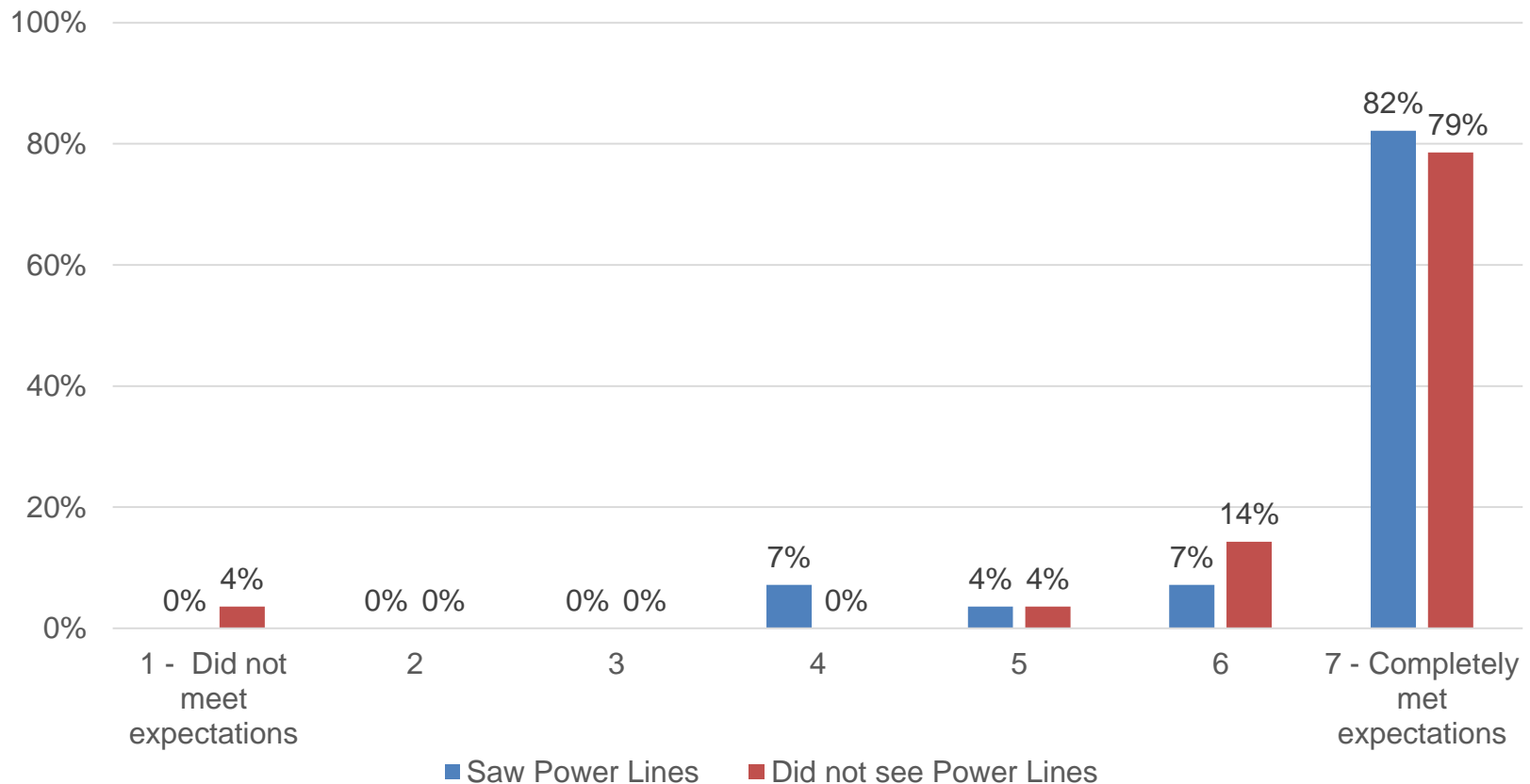
Q5. Please think about what you were looking forward to when coming on this rafting trip. How well did the area meet your expectations? - The scenery.



Please rate on a 7 point scale where 7 is the area completely met my expectations and 1 is the area did not meet my expectations at all.

Expectations for Trip

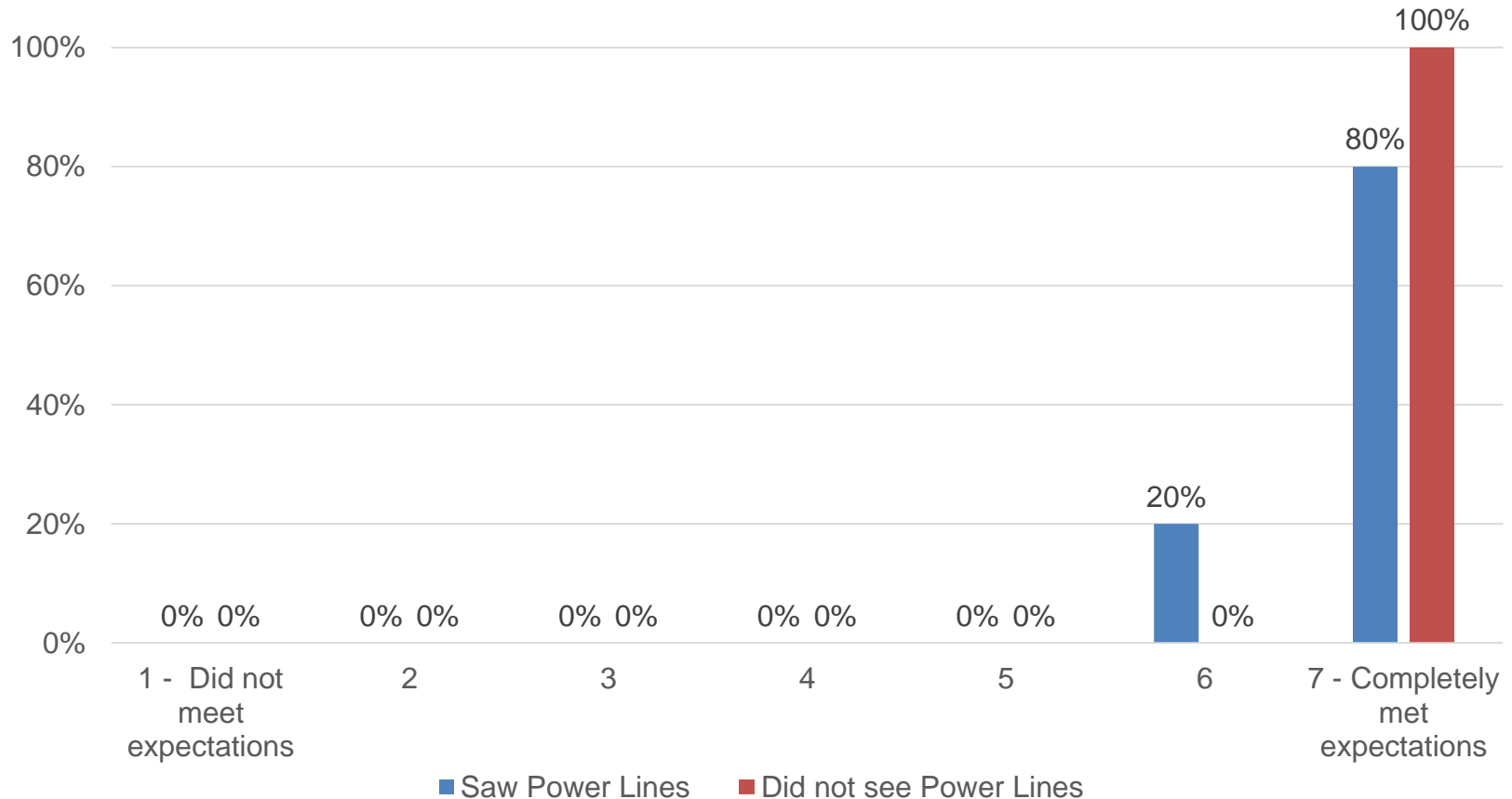
Q5. Please think about what you were looking forward to when coming on this rafting trip. How well did the area meet your expectations? - To have a change from your daily routine.



Please rate on a 7 point scale where 7 is the area completely met my expectations and 1 is the area did not meet my expectations at all.

Expectations for Trip

Q5. Please think about what you were looking forward to when coming on this rafting trip. How well did the area meet your expectations? - Other expectations.



Please rate on a 7 point scale where 7 is the area completely met my expectations and 1 is the area did not meet my expectations at all.

Expectations for Trip

I would like you to think about expectations about your rafting trip.

Q6. *How would you rate your expectations for the number of people on the river?*

Q7. *How would you rate your expectations for signs of development you would see along the river ?*

	Total	Saw Power Lines	Did not see Power Lines
<p>How would you rate your expectations for the number of people on the river?</p> <p><i>Rate on a scale where 7 means you expect it to be crowded with a large number of people and 1 means you expect it to be uncrowded with few or no other people.</i></p>	4.3	4.3	4.4
<p>How would you rate your expectations for signs of development you would see along the river?</p> <p><i>Rate on a scale where 7 means you expect it to highly developed and 1 means you expect the areas along the river to be largely undeveloped.</i></p>	2.6	3.0	2.2

Summary

The average rating of expectations for the number of people on the river was 4.3 while average rating on expectations for signs of development was 2.6.

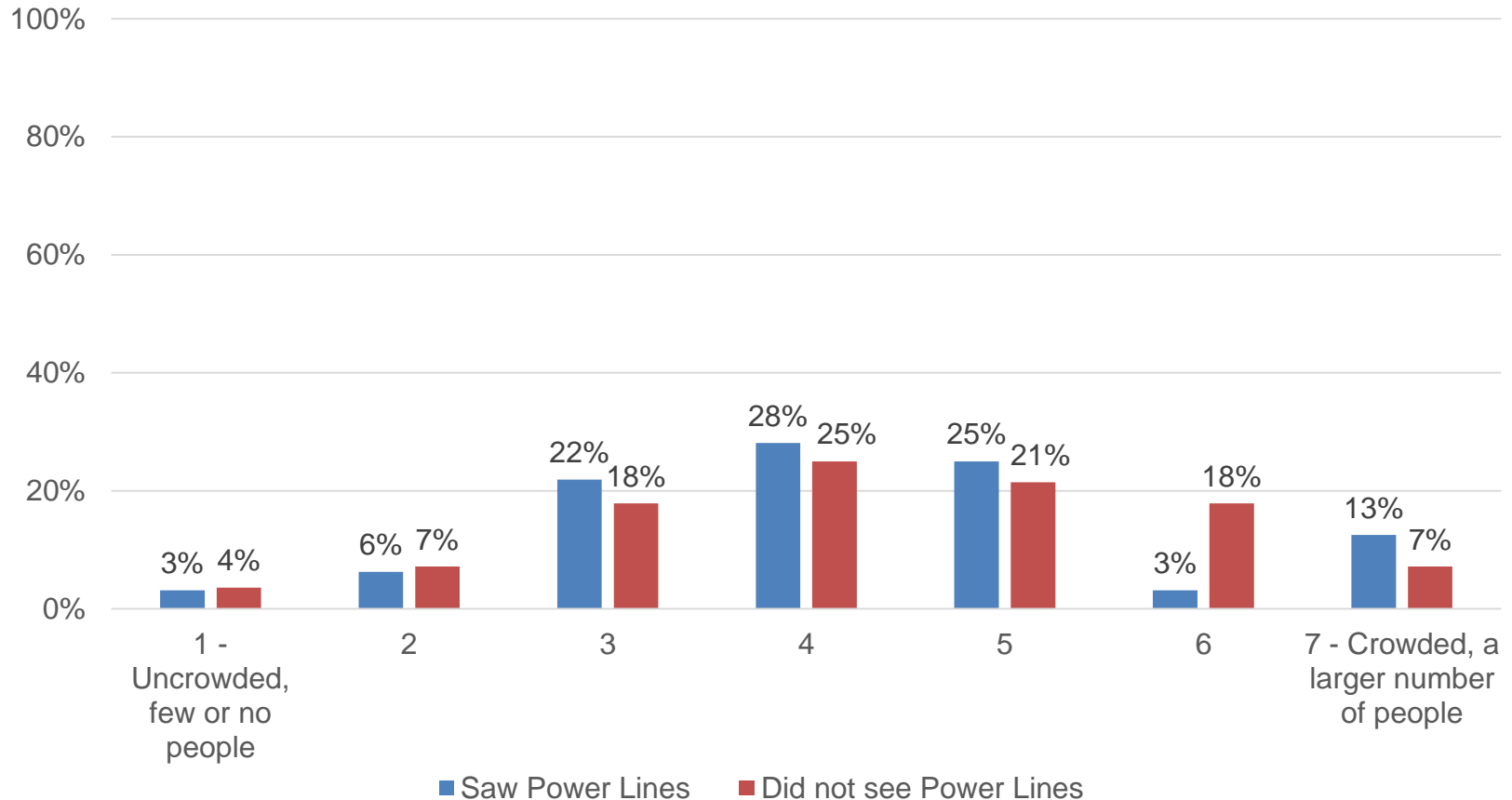
The experimental group that saw the image including powerlines had slightly greater expectations for signs of development along the river.

Bottom Line

Respondents expected to experience modest crowds on the river but did not expect to see much in the way of development along the river.

Expectations for Trip

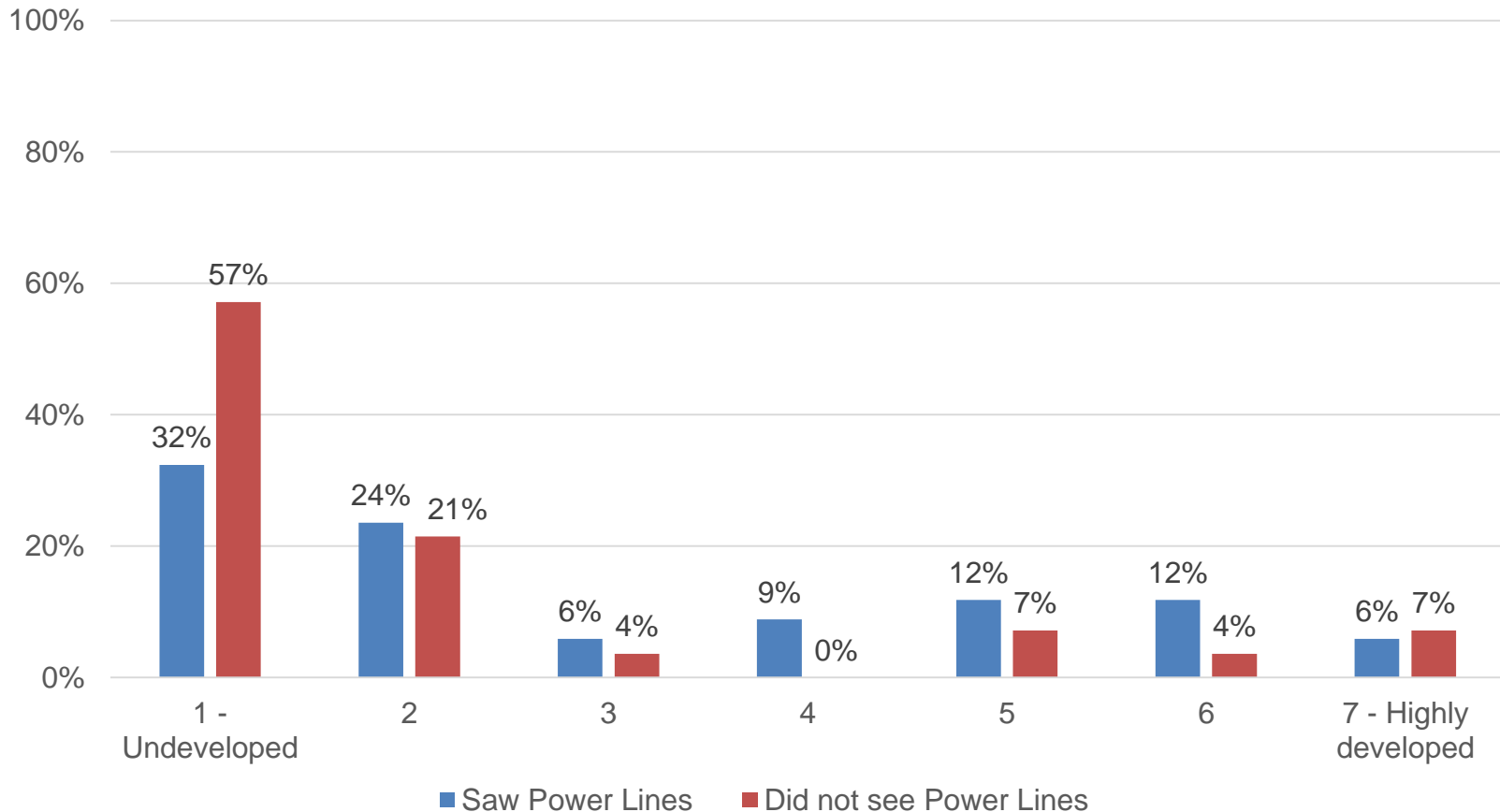
Q6. I would like you to think about expectations about your rafting trip. How would you rate your expectations for the number of people on the river?



Rate on a scale where 7 means you expect it to be crowded with a large number of people and 1 means you expect it to be uncrowded with few or no other people.

Expectations for Trip

Q7. I would like you to think about expectations about your rafting trip. How would you rate your expectations for signs of development you would see along the river ?



Rate on a scale where 7 means you expect it to highly developed and 1 means you expect the areas along the river to be largely undeveloped.

The Rafting Experience

Q8 How would you rate your enjoyment of today's rafting trip on a scale where 7 is very enjoyable and 1 is not at all enjoyable?

Q9. How would you rate the likelihood that you will return and take this rafting trip again, where 7 means you are more likely to return and 1 means you are less likely to return?

	Total	Saw Power Lines	Did not see Power Lines
How would you rate your enjoyment of today's rafting trip on a scale where 7 is very enjoyable and 1 is not at all enjoyable?	6.8	6.8	6.9
How would you rate the likelihood that you will return and take this rafting trip again, where 7 means you are more likely to return and 1 means you are less likely to return?	6.7	6.7	6.6

Summary

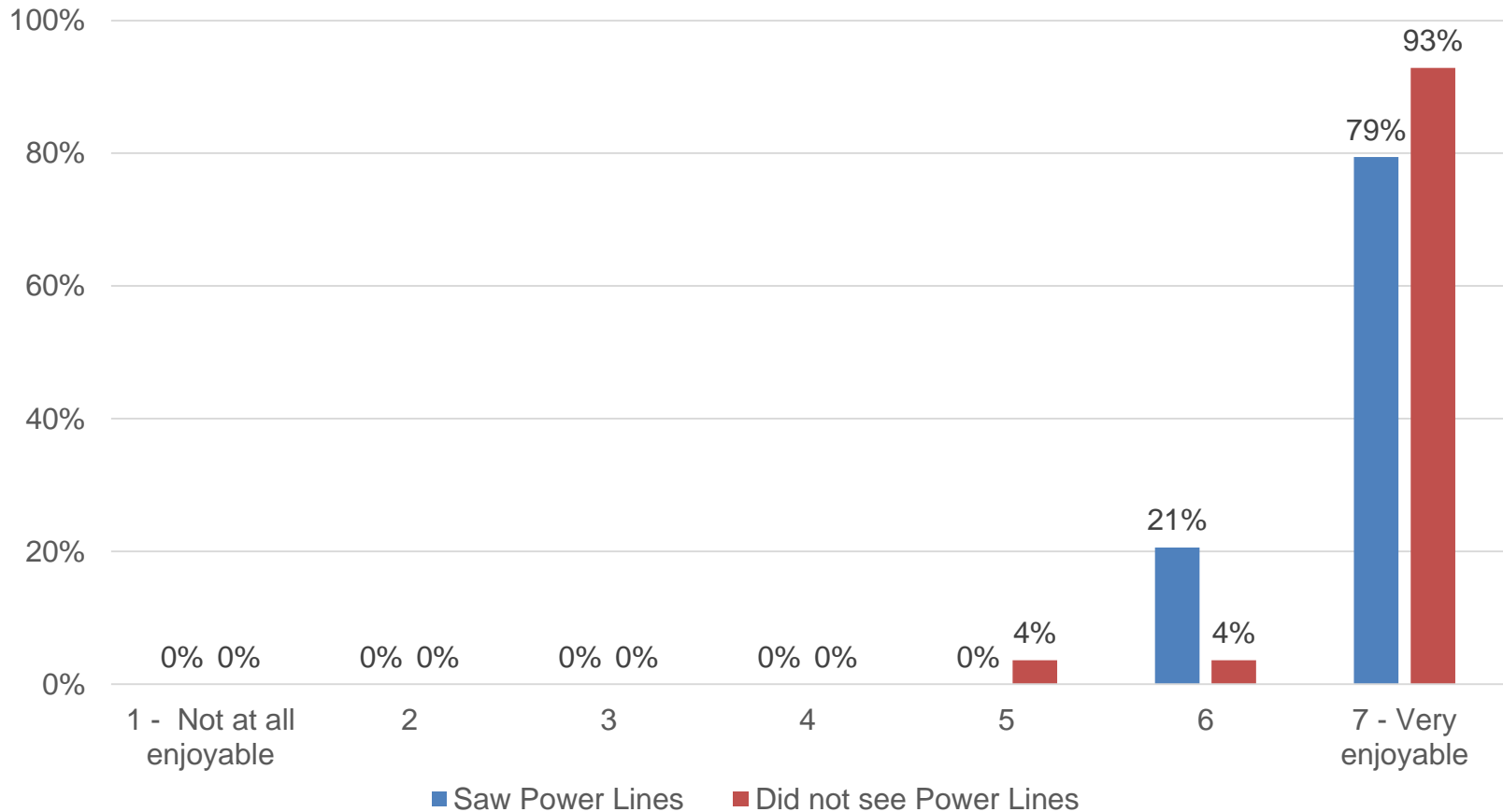
On average, respondents rated their enjoyment of the trip as 6.8 on a 7 point scale indicating a high level of enjoyment. Rafters rated their likelihood to return as 6.7 on the seven point scale.

Bottom Line

People enjoyed their river rafting experience and they plan on returning to raft again in the future.

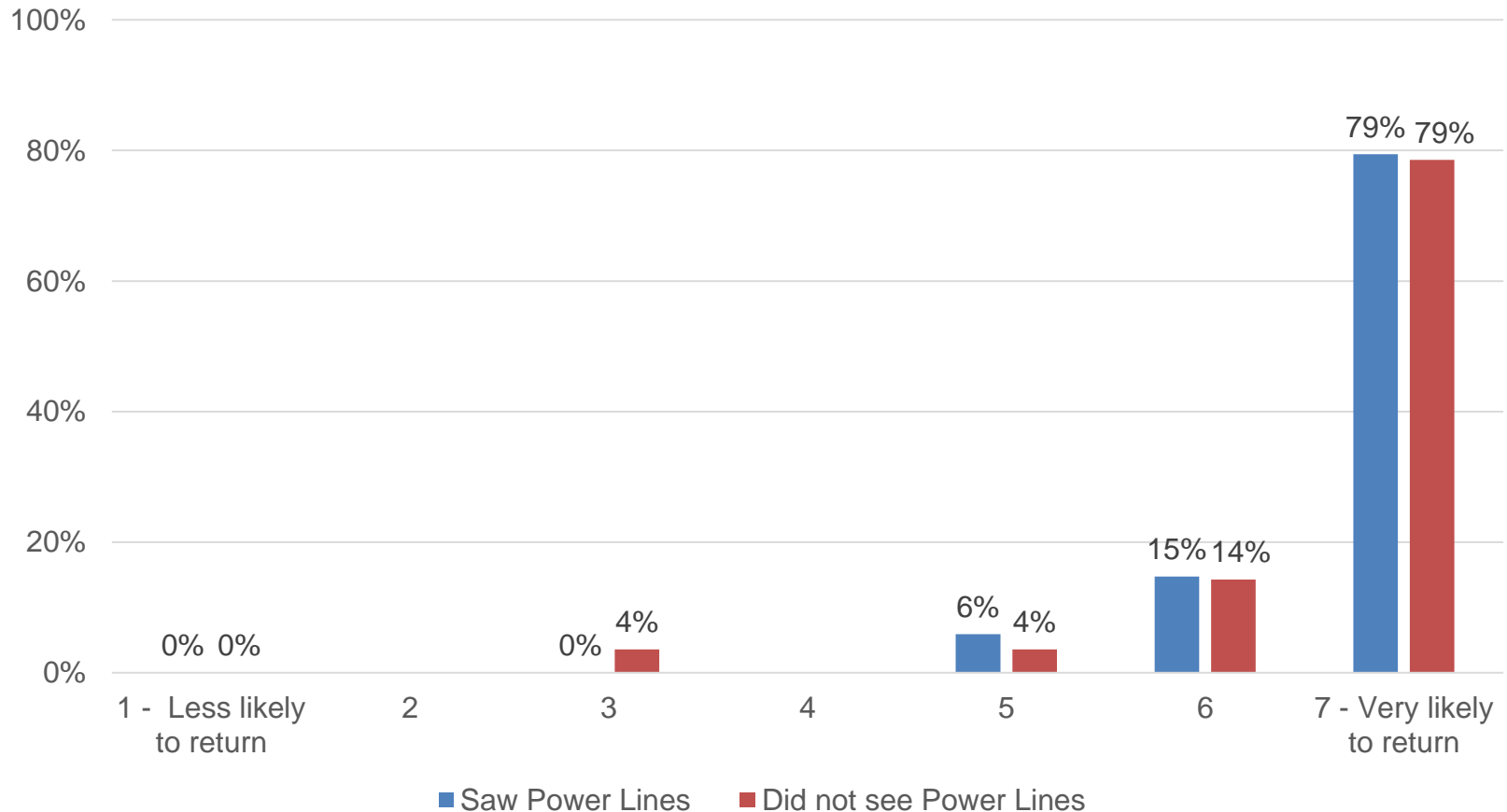
The Rafting Experience

Q8 How would you rate your enjoyment of today's rafting trip on a scale where 7 is very enjoyable and 1 is not at all enjoyable?



The Rafting Experience

Q9. How would you rate the likelihood that you will return and take this rafting trip again, where 7 means you are more likely to return and 1 means you are less likely to return?



Impact of Human Activity

Q10. Those that use Maine's rivers may see signs of human activity. Below is a list of things people may see from rivers in Maine. Please rate the impact each sign of activity may have on the quality of your experience today.

	Total	Saw Power Lines	Did not see Power Lines
Views of large clear cuts on hillsides.	3.2	3.0	3.5
Views of powerlines on hillsides.	2.0	2.0	2.1
Views of wind power projects.	3.2	3.0	3.4
Views of other rafts or kayaks on the river	5.8	6.1	5.5
Views of motorized boats on the river.	2.3	2.3	2.3
Views of industrial facilities such as a biomass generator, paper mill or landfill.	1.5	1.6	1.3
Views of residential development along the shore.	2.3	2.4	2.3
Views of hydroelectric or other types of dams.	3.4	3.5	3.4
Views of parking lots.	2.0	2.1	1.9
Views of bridges and roads.	3.4	3.5	3.2

Rate each on a scale 1 to 7 scale where 7 means a very positive impact on your experience and 1 means the factor would have a very negative impact on your experience.

Summary

Respondents rated views of industrial facilities, views of powerlines, and views of parking lots as having the largest negative impact on their experience on the river.

Bottom Line

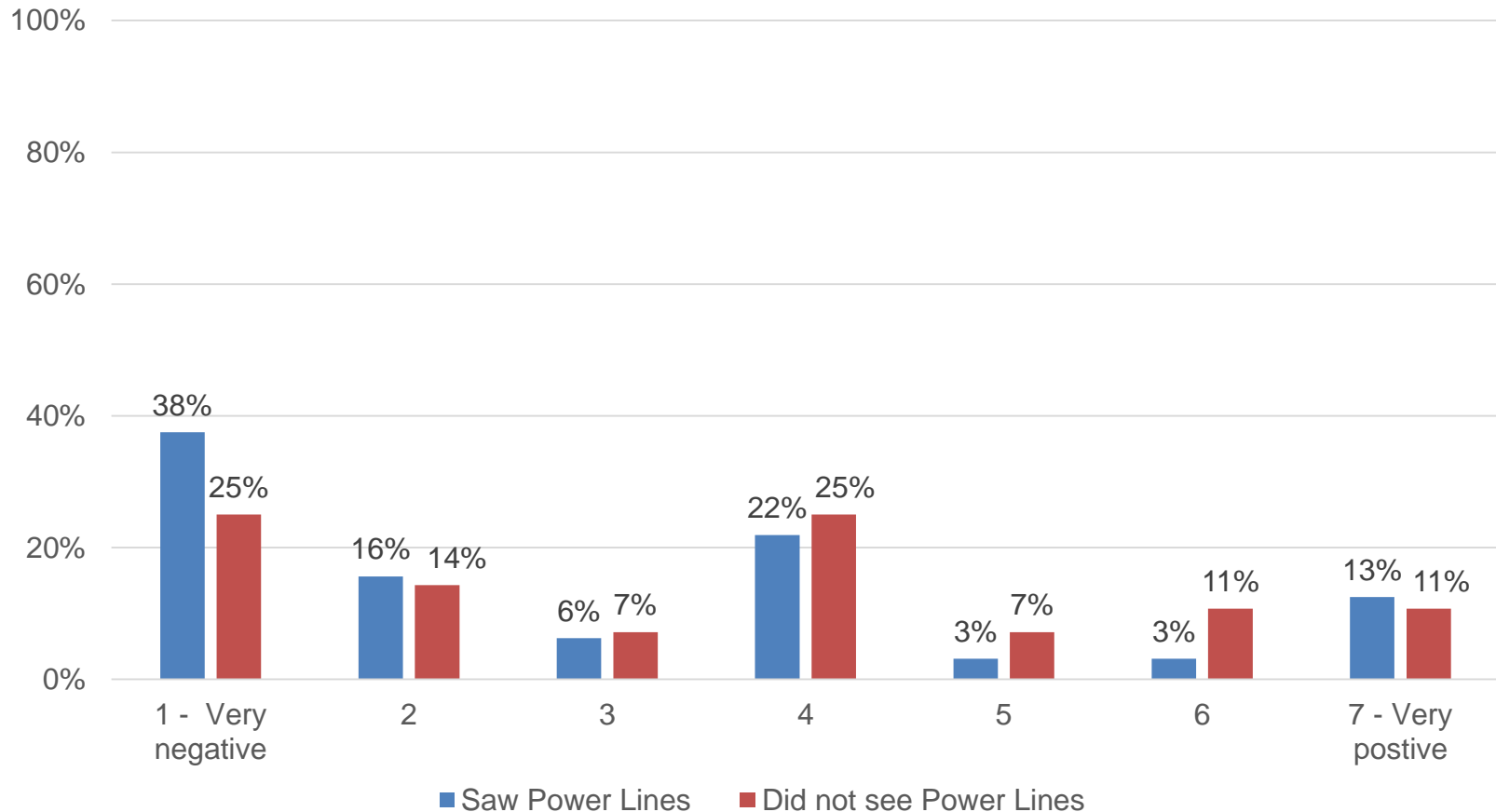
Respondents in general indicated that manmade changes to nature have a negative impact on their river experience.

Based on respondent comments, there is sensitivity to the sight of powerlines in general, not simply the new lines being proposed.

While motorized boats were seen in a negative light, seeing other kayakers and rafters we seen as a positive impact on the experience.

Impact of Human Activity

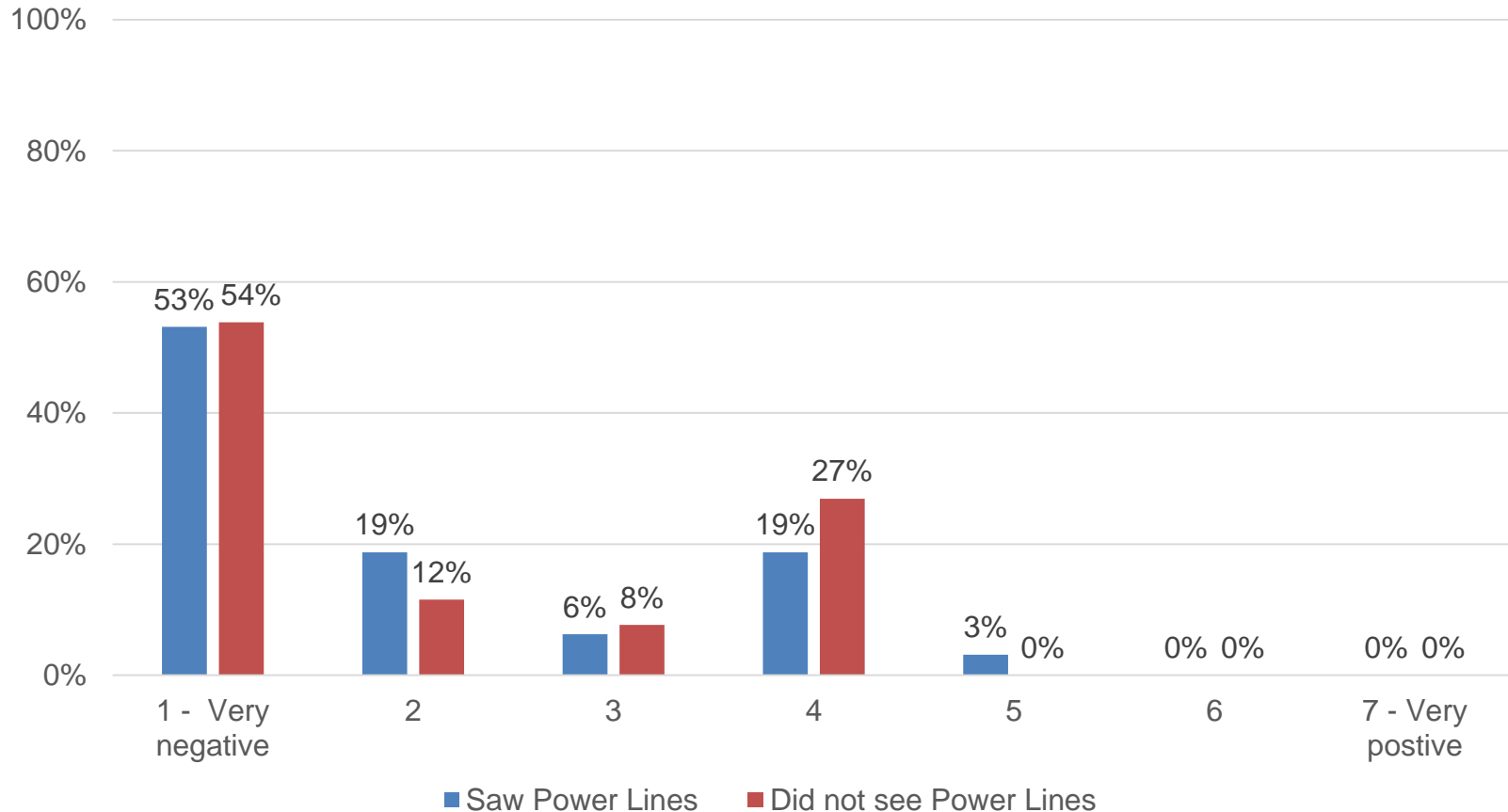
Q10. Please rate the impact this sign of activity may have on the quality of your experience today. - Views of large clear cuts on hillsides.



Rate on a scale 1 to 7 scale where 7 means a very positive impact on your experience and 1 means the factor would have a very negative impact on your experience.

Impact of Human Activity

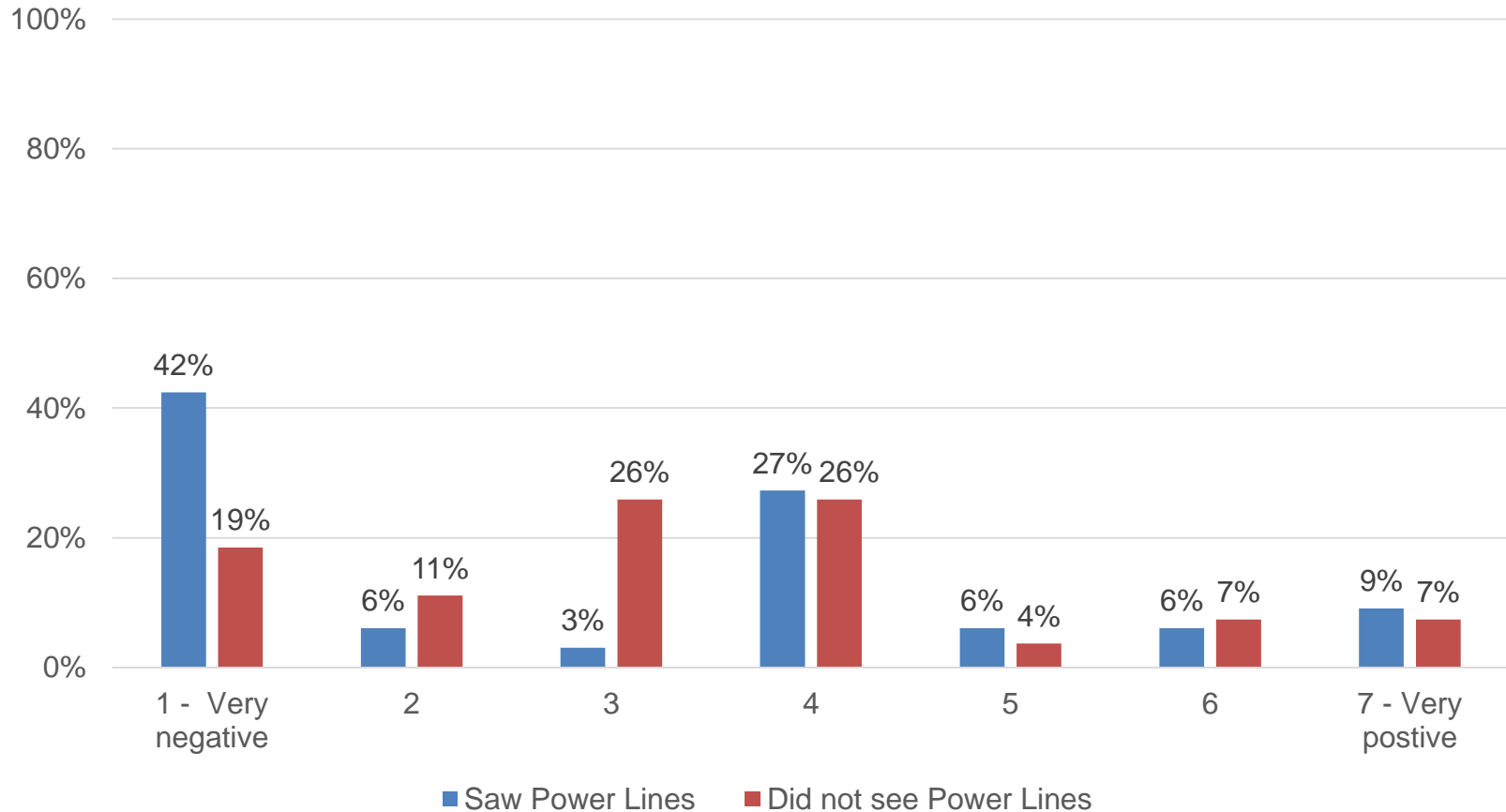
Q10. Please rate the impact this sign of activity may have on the quality of your experience today. - Views of powerlines on hillsides.



Rate on a scale 1 to 7 scale where 7 means a very positive impact on your experience and 1 means the factor would have a very negative impact on your experience.

Impact of Human Activity

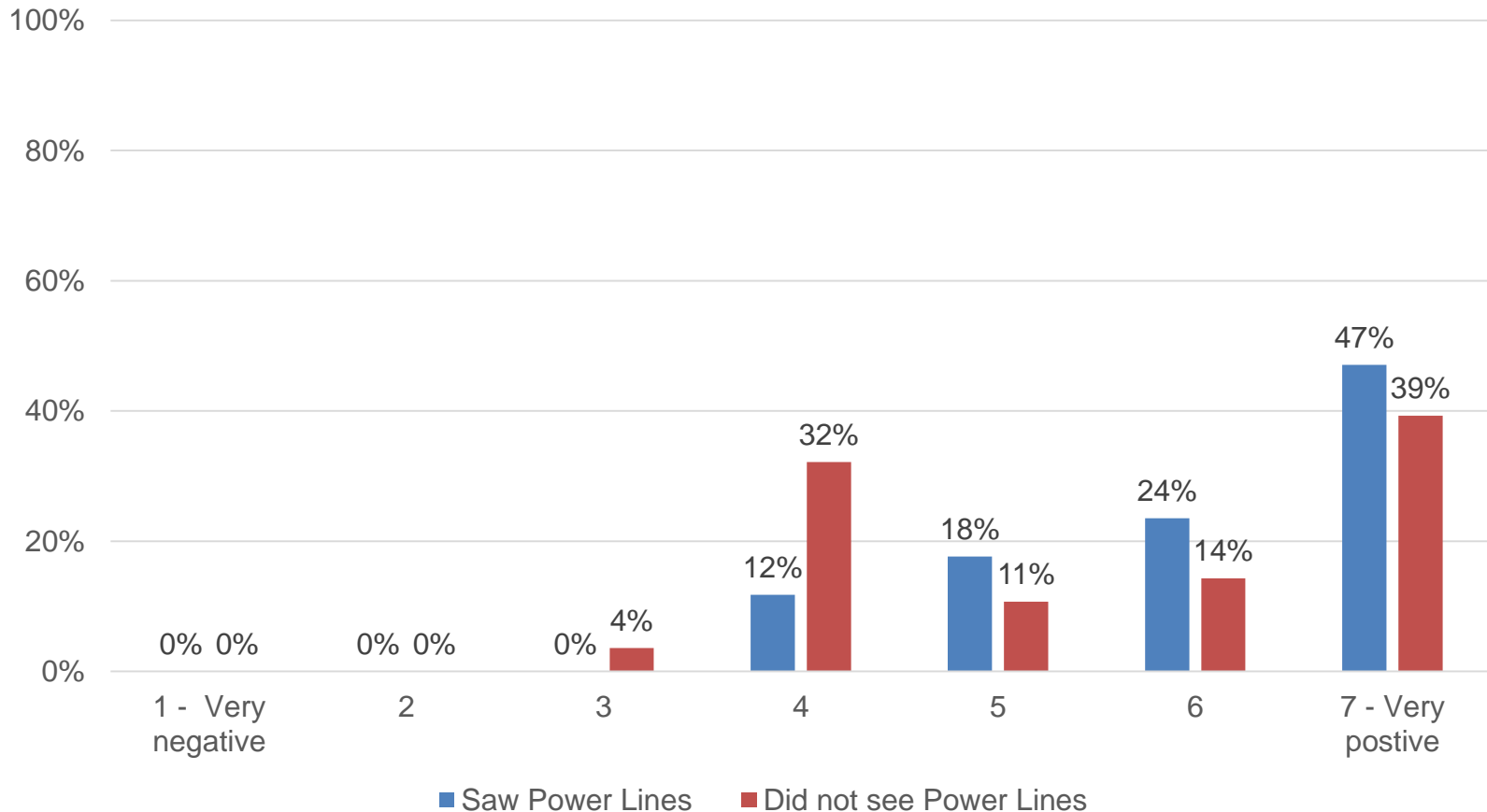
Q10. Please rate the impact this sign of activity may have on the quality of your experience today. - Views of wind power projects.



Rate on a scale 1 to 7 scale where 7 means a very positive impact on your experience and 1 means the factor would have a very negative impact on your experience.

Impact of Human Activity

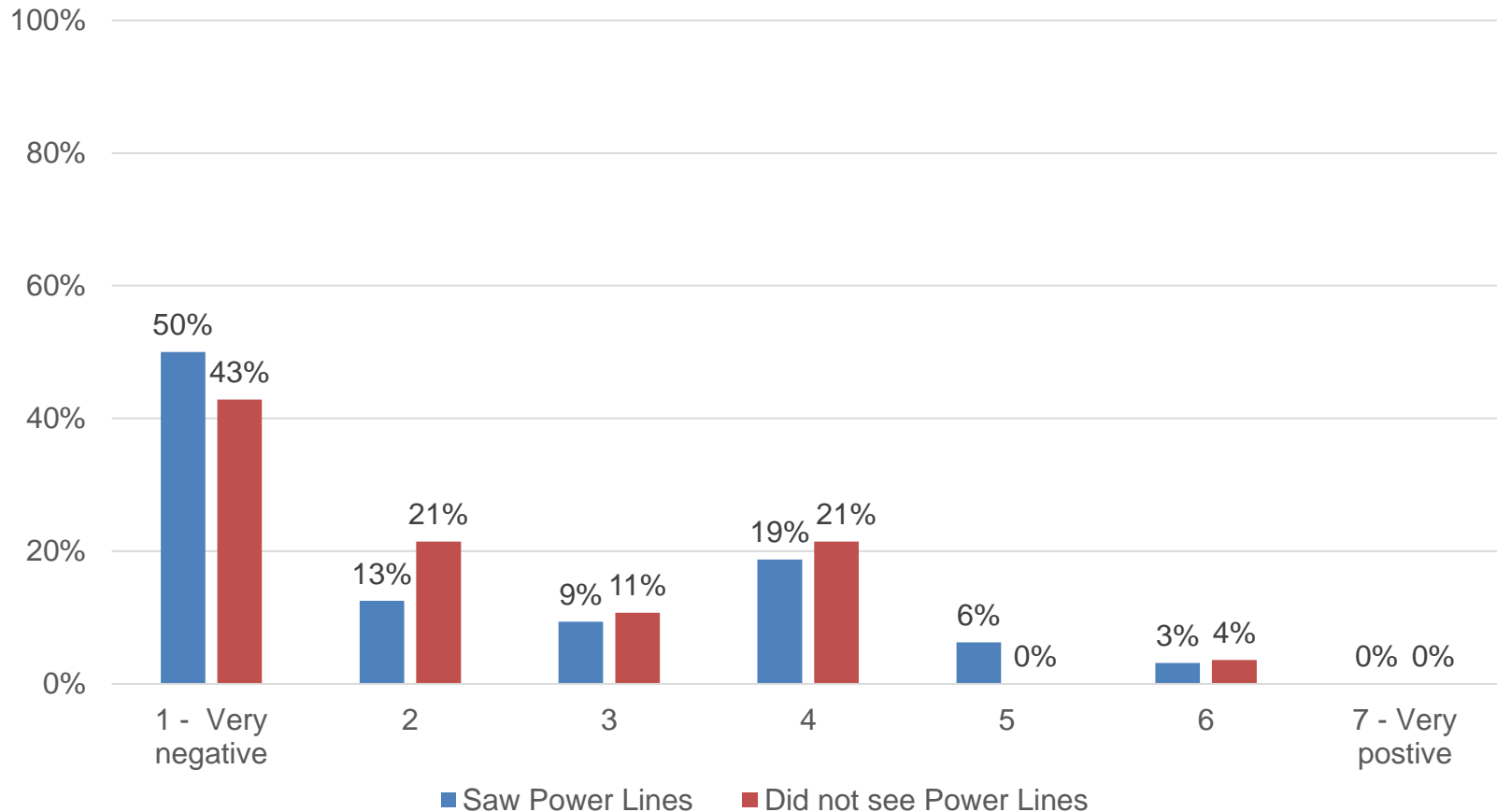
Q10. Please rate the impact this sign of activity may have on the quality of your experience today. - Views of other rafts or kayaks on the river.



Rate on a scale 1 to 7 scale where 7 means a very positive impact on your experience and 1 means the factor would have a very negative impact on your experience.

Impact of Human Activity

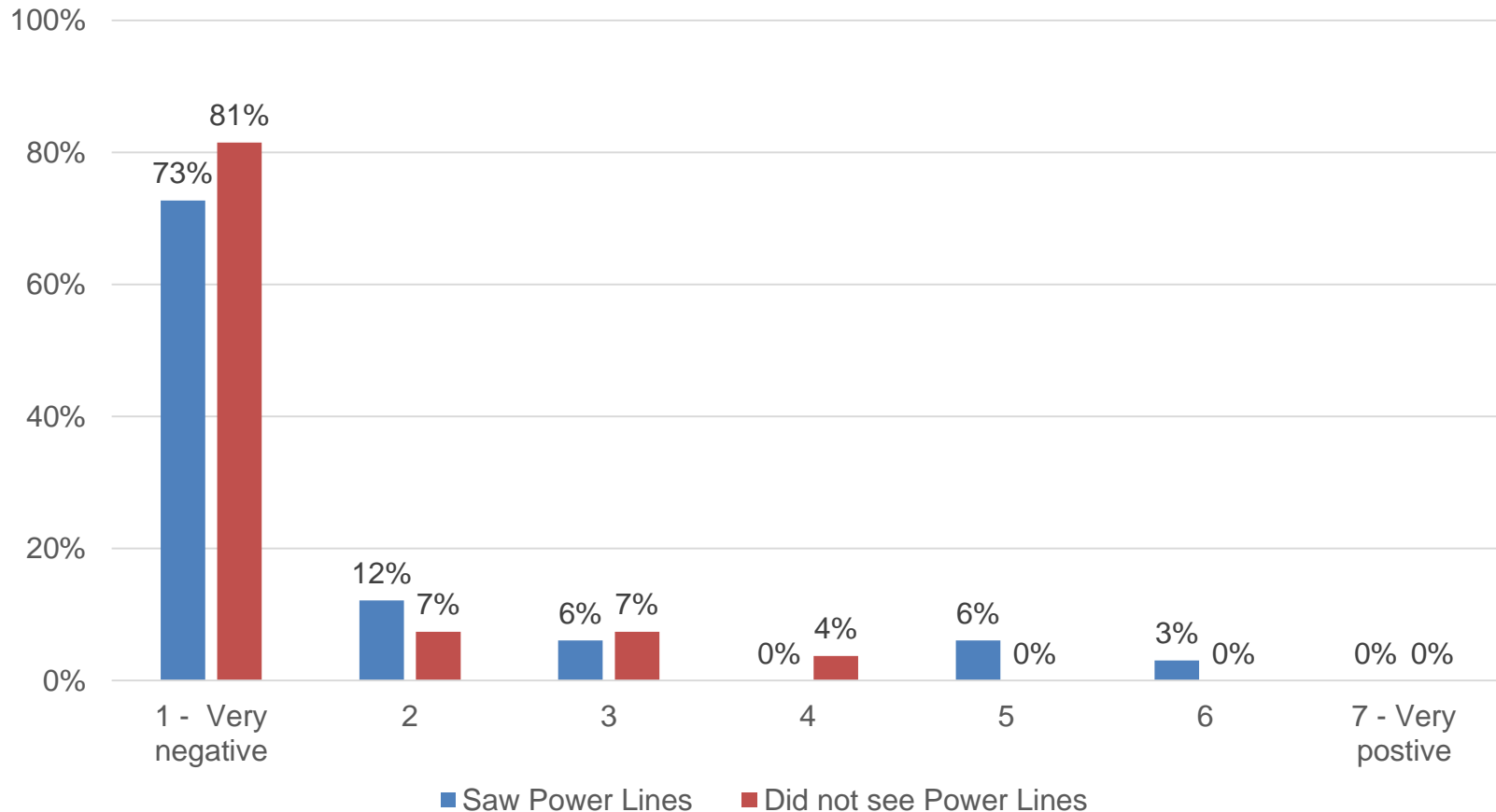
Q10. Please rate the impact this sign of activity may have on the quality of your experience today. - Views of motorized boats on the river.



Rate on a scale 1 to 7 scale where 7 means a very positive impact on your experience and 1 means the factor would have a very negative impact on your experience.

Impact of Human Activity

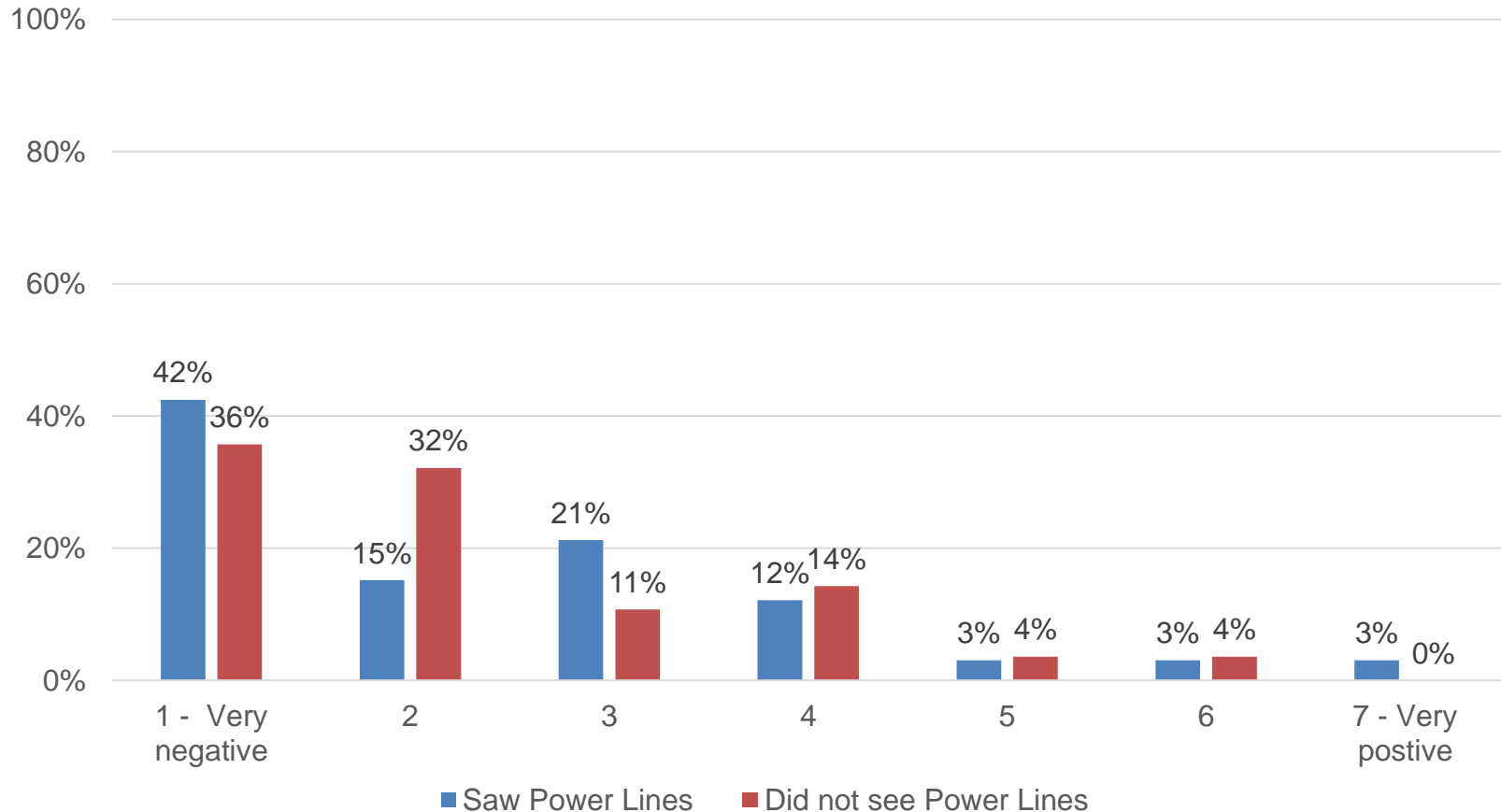
Q10. Please rate the impact this sign of activity may have on the quality of your experience today. - Views of industrial facilities such as a biomass generator, paper mill or landfill.



Rate on a scale 1 to 7 scale where 7 means a very positive impact on your experience and 1 means the factor would have a very negative impact on your experience.

Impact of Human Activity

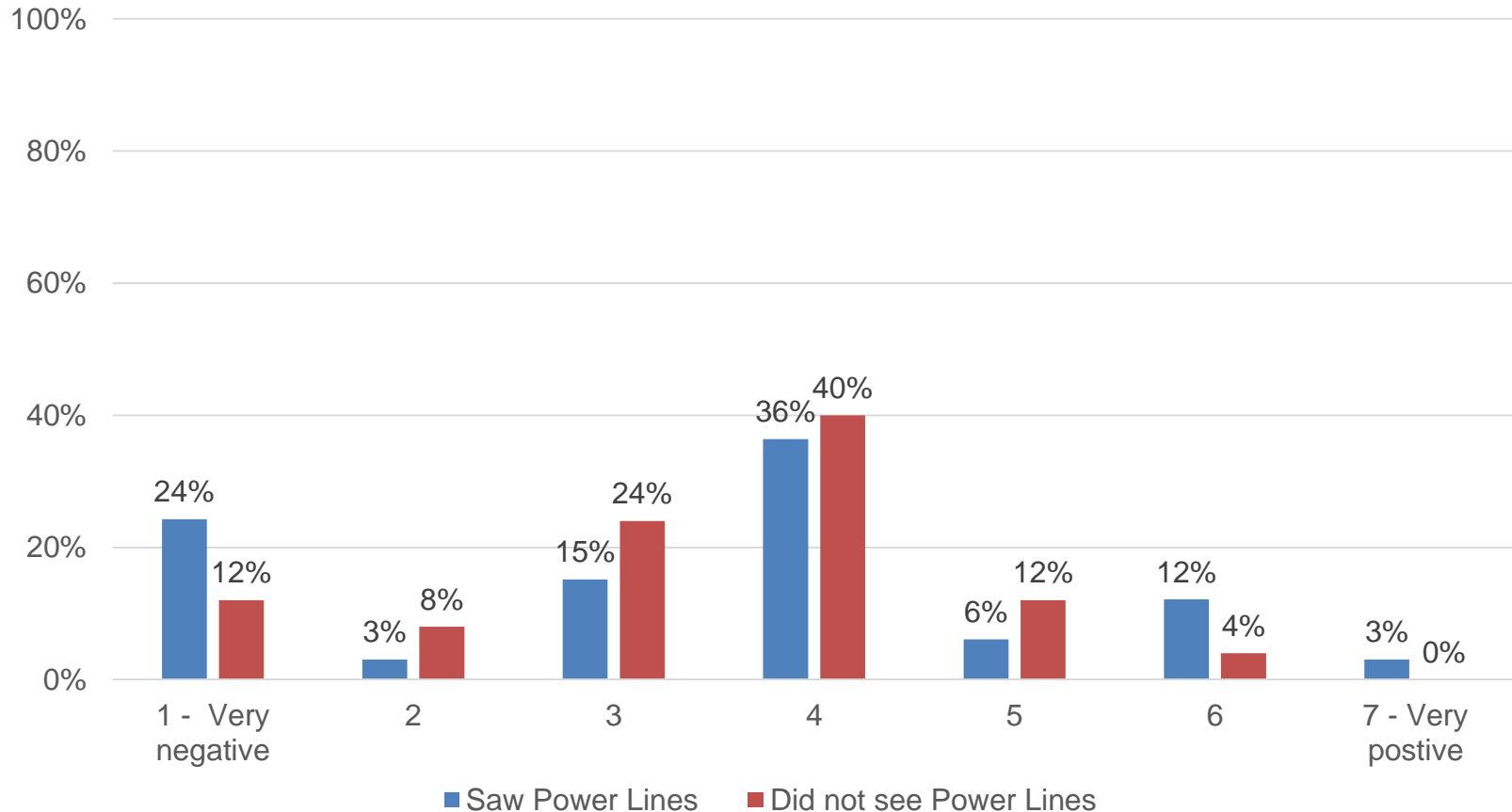
Q10. Please rate the impact this sign of activity may have on the quality of your experience today. - Views of residential development along the shore.



Rate on a scale 1 to 7 scale where 7 means a very positive impact on your experience and 1 means the factor would have a very negative impact on your experience.

Impact of Human Activity

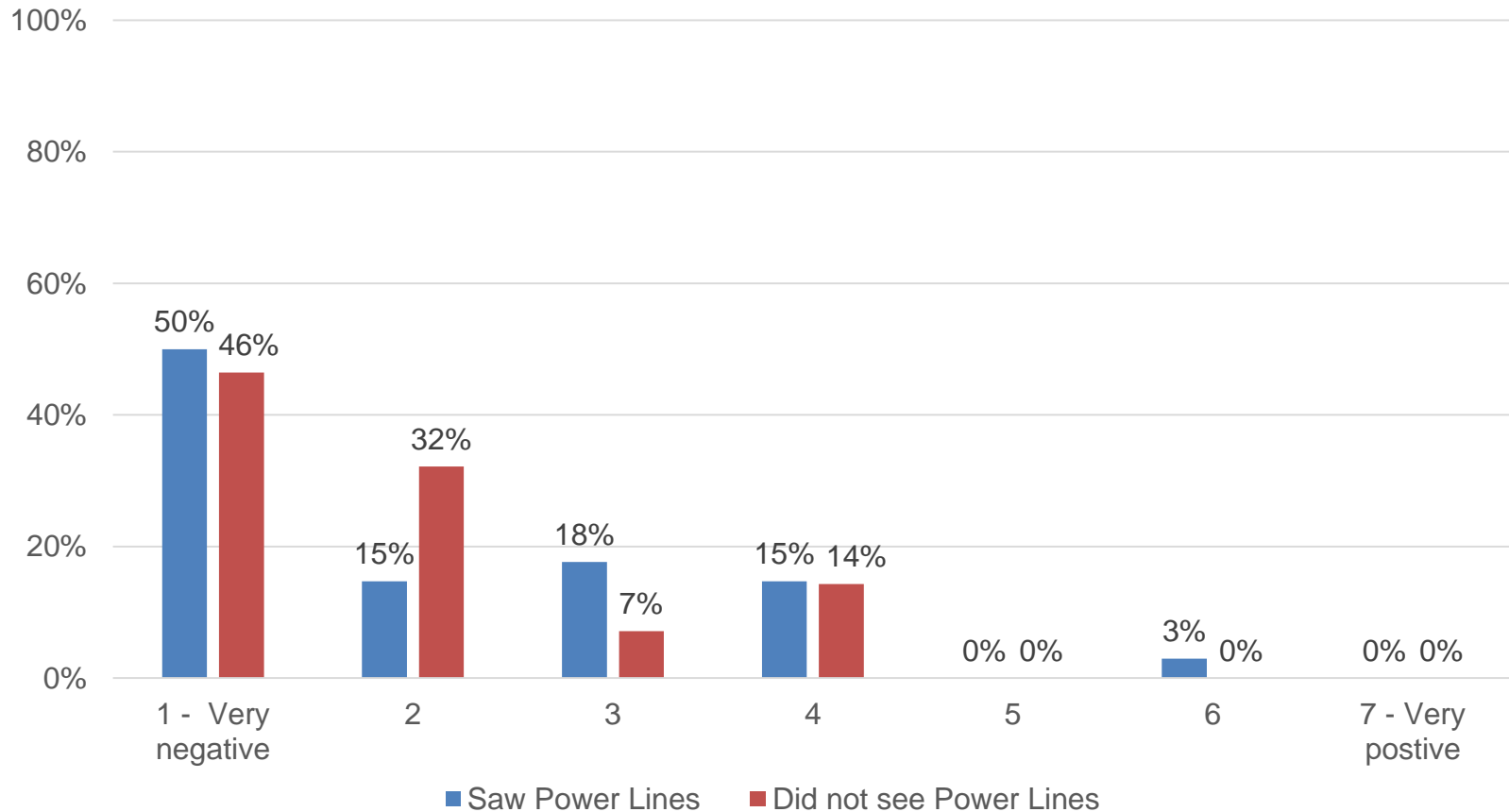
Q10. Please rate the impact this sign of activity may have on the quality of your experience today. - Views of hydroelectric or other types of dams.



Rate on a scale 1 to 7 scale where 7 means a very positive impact on your experience and 1 means the factor would have a very negative impact on your experience.

Impact of Human Activity

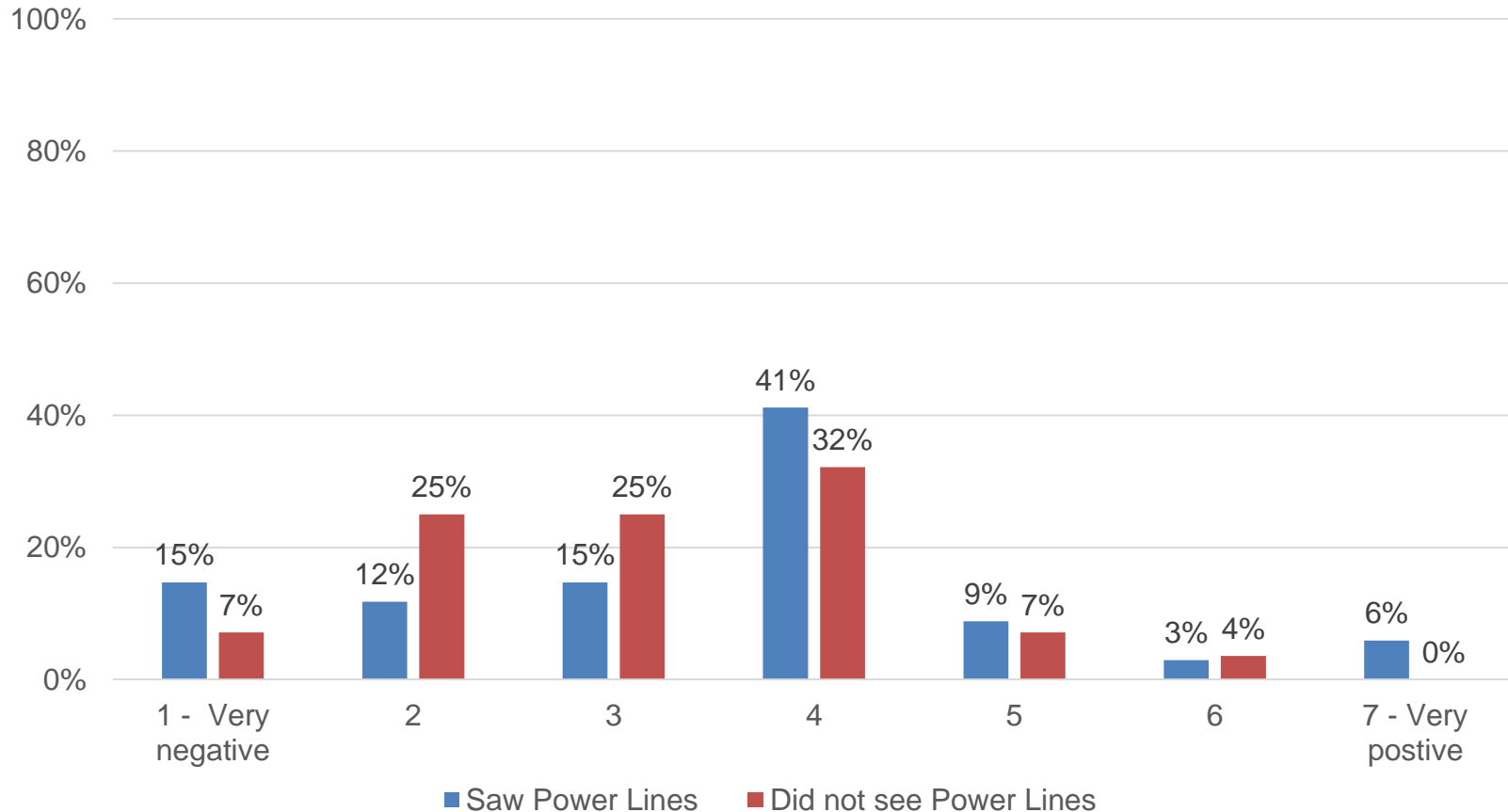
Q10. Please rate the impact this sign of activity may have on the quality of your experience today. - View of parking lots.



Rate on a scale 1 to 7 scale where 7 means a very positive impact on your experience and 1 means the factor would have a very negative impact on your experience.

Impact of Human Activity

Q11. Please rate the impact this sign of activity may have on the quality of your experience today. - Views of bridges and roads.



Rate on a scale 1 to 7 scale where 7 means a very positive impact on your experience and 1 means the factor would have a very negative impact on your experience.







Views of the Upper Kennebec River and Impact on Experience

A New Methodology For Assessing Visual Impact

- This new methodology relied on an experimental/control group design to assess impact on scenic quality and the rafting experience from the proposed powerlines:
 - Each respondent looked at a sequence of six images and was asked to rate the scenic value of each of the six images.
 - The six images were designed to represent the experience a rafter would have for their entire trip down the upper Kennebec River from put in to take out.
- The fifth of the six images was used to assess the impact of the powerlines on scenic value.
 - The experimental group was presented the image that included the new visual element – the potential powerlines that would cross the Kennebec River as a part of the New England Clean Energy Connect project.
 - The control group was presented the current view, without the powerlines.
- The remaining five images were the same for both groups.
- All images were rated on the seven point scenic value scale:
 - 1 being the lowest scenic value in Maine
 - 7 being the highest scenic value in Maine

Views of the Upper Kennebec River and Impact on Experience

Q11. For the next questions, think about the scenic quality of views you experienced along the upper Kennebec River. Think about the full range of views in Maine, from the most scenic to the least scenic. How would you rate the scenic quality of each view?

	Total	Saw Power Lines	Did not see Power Lines
	2.7	2.6	2.8
	3.8	3.4	4.3
	6.6	6.5	6.8
	6.4	6.5	6.3
	5.3	4.6	6.2
	4.7	4.5	5.0

Rate each image on a scale of scenic quality in Maine, where 7 is the highest scenic value and 1 is the lowest scenic value. How would you rate the scenic quality of each view?

Summary

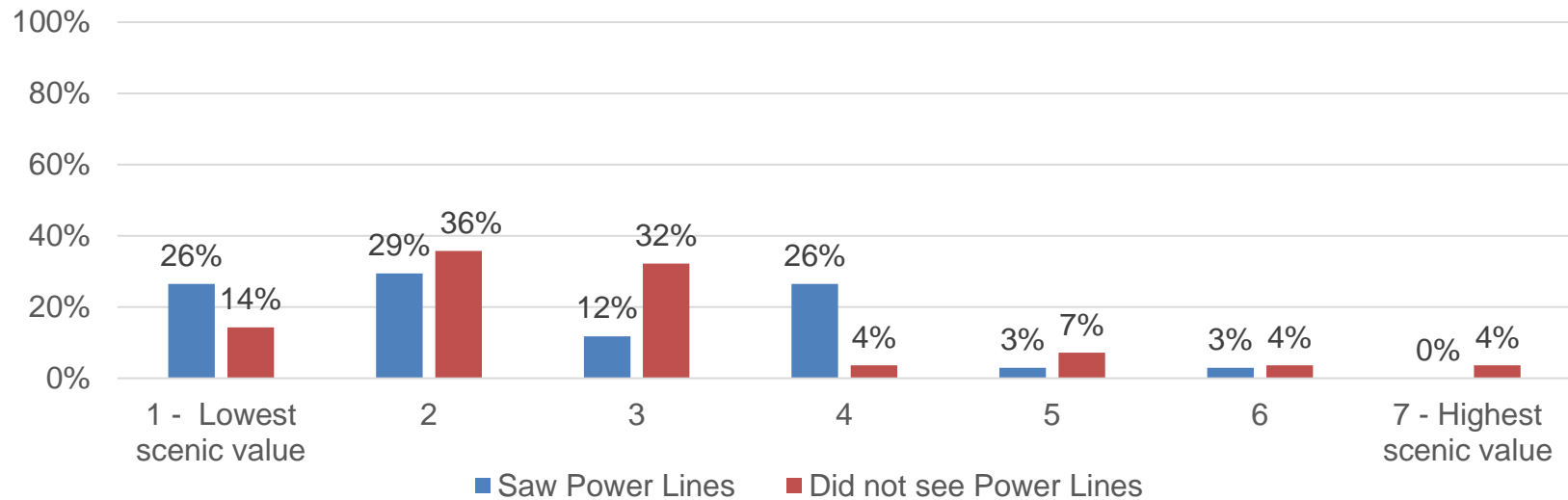
Overall, the image with the lowest scenic value was the image at the start of the trip followed by the parking lot at the put-in. Those with the highest scenic value were the images on the river through both calm water and the rapids.

Bottom Line

The presences of the powerlines did have an impact of the rating of scenic value; a difference of 1.7 points on the seven point scale compared to those that saw the current view.

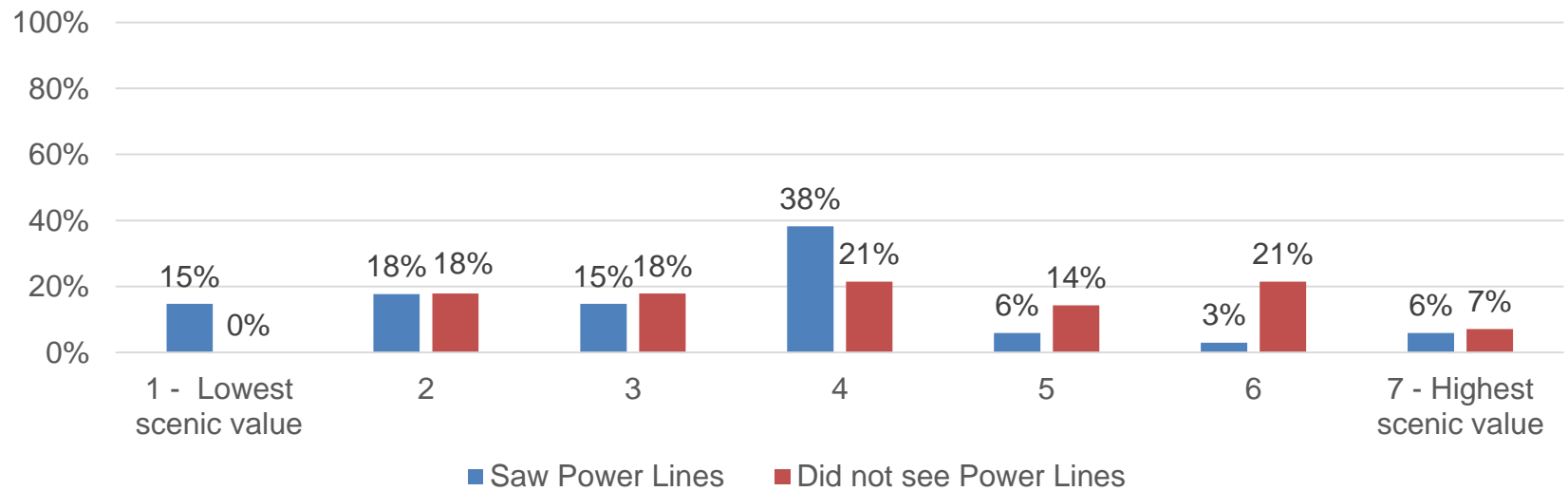
But the group that saw the powerlines in image 5 also tended to rate the other images with manmade changes lower than those that did not see the powerlines.

Views of the Upper Kennebec River and Impact on Experience



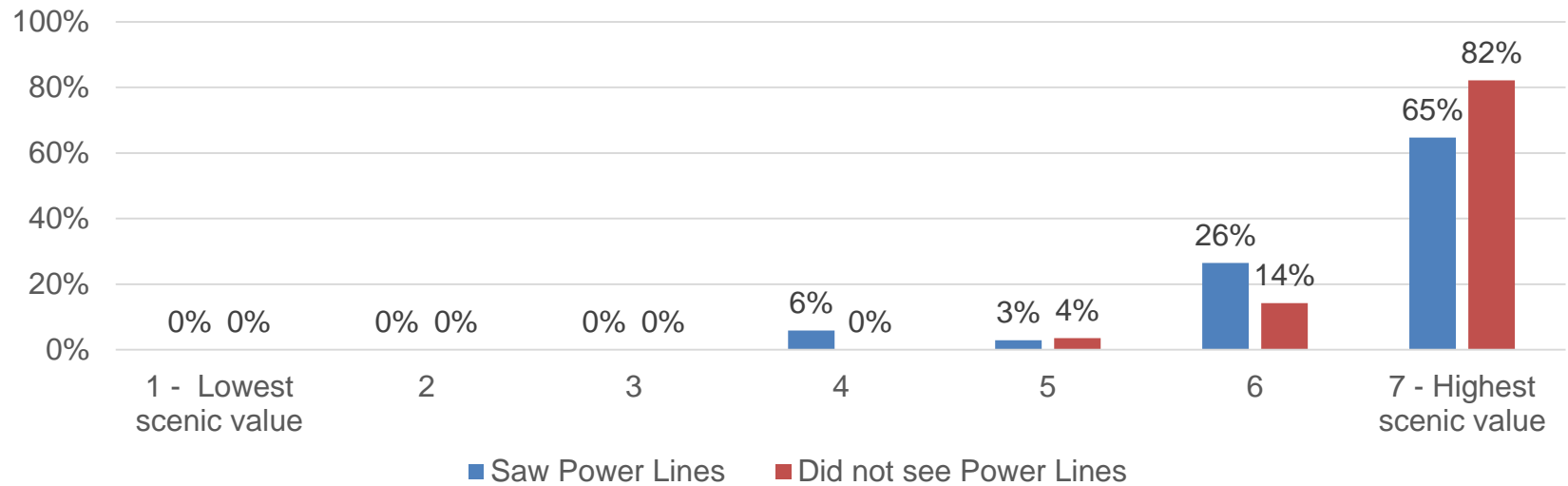
Rate the image on a scale of scenic quality in Maine, where 7 is the highest scenic value and 1 is the lowest scenic value. How would you rate the scenic quality of each view?

Views of the Upper Kennebec River and Impact on Experience



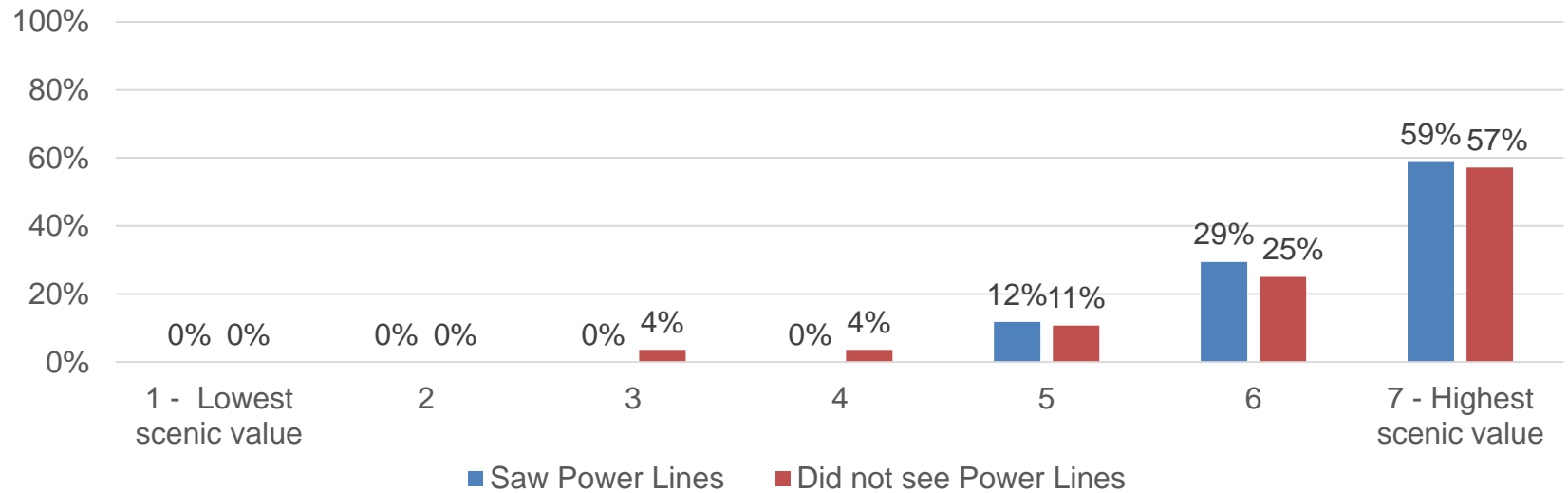
Rate the image on a scale of scenic quality in Maine, where 7 is the highest scenic value and 1 is the lowest scenic value. How would you rate the scenic quality of each view?

Views of the Upper Kennebec River and Impact on Experience



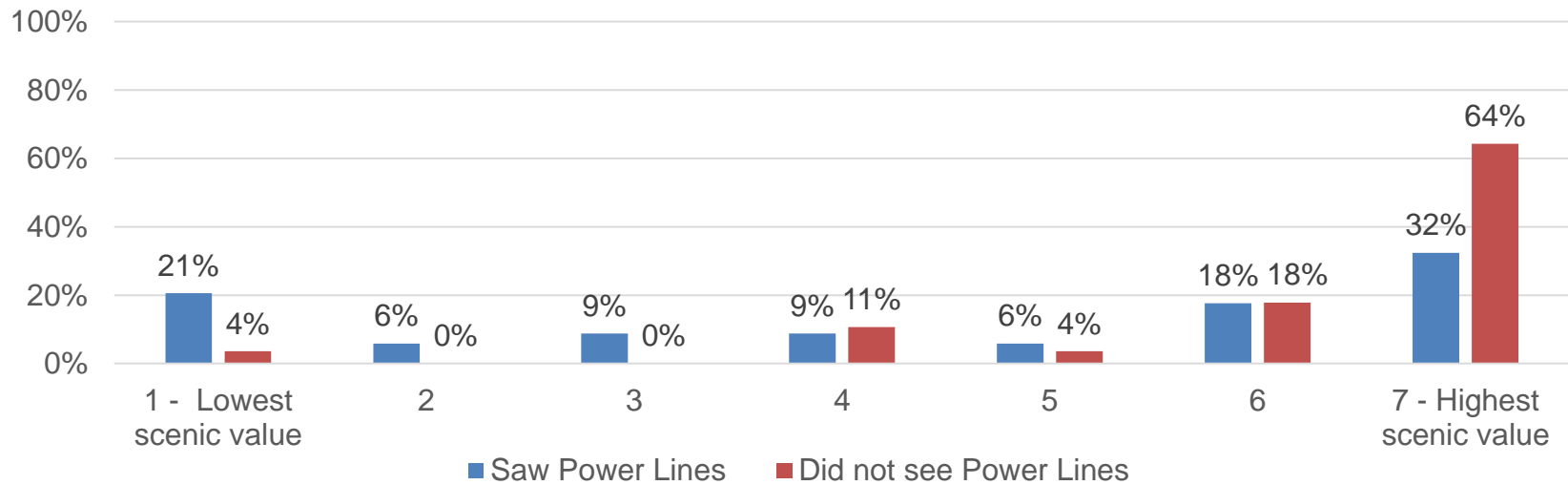
Rate the image on a scale of scenic quality in Maine, where 7 is the highest scenic value and 1 is the lowest scenic value. How would you rate the scenic quality of each view?

Views of the Upper Kennebec River and Impact on Experience



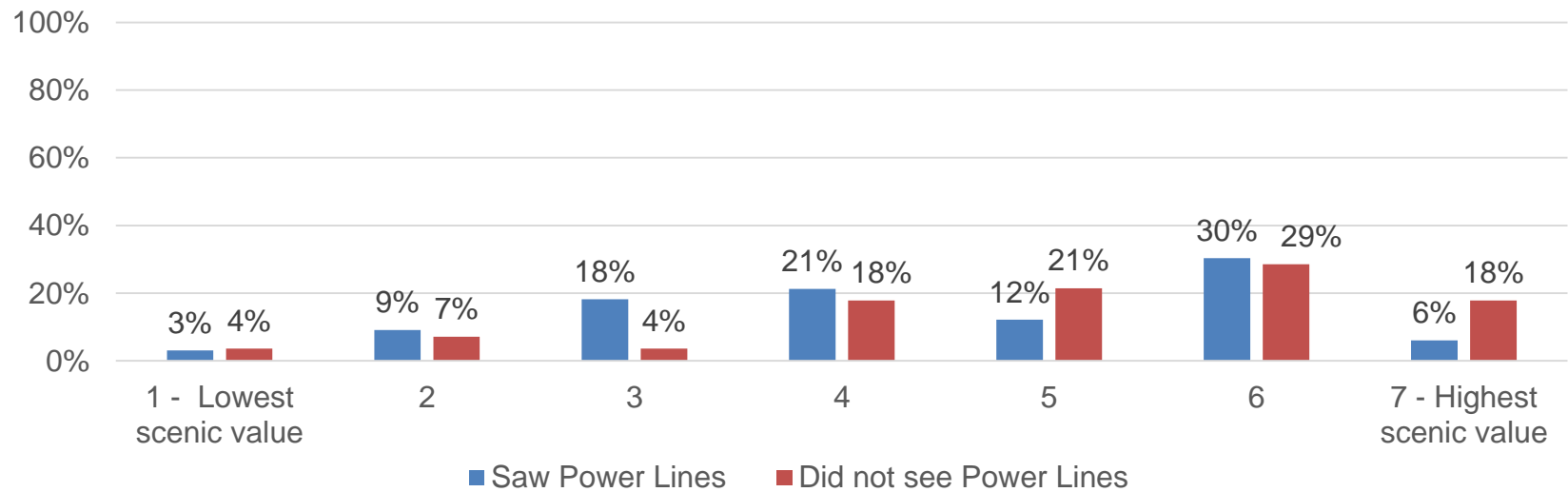
Rate the image on a scale of scenic quality in Maine, where 7 is the highest scenic value and 1 is the lowest scenic value. How would you rate the scenic quality of each view?

Views of the Upper Kennebec River and Impact on Experience



Rate the image on a scale of scenic quality in Maine, where 7 is the highest scenic value and 1 is the lowest scenic value. How would you rate the scenic quality of each view?

Views of the Upper Kennebec River and Impact on Experience



Rate the image on a scale of scenic quality in Maine, where 7 is the highest scenic value and 1 is the lowest scenic value. How would you rate the scenic quality of each view?

Views of the Upper Kennebec River and Impact on Experience

I'd like you to think about your experience rafting based on these images.

Q13. If you saw views like these images, how would you rate your enjoyment of today's rafting trip?

Q15. If you saw views like these images, rate how likely it would be that you would return and take this rafting trip again?

	Total	Saw Power Lines	Did not see Power Lines
<p>If you saw views like these images, how would you rate your enjoyment of today's rafting trip?</p> <p><i>Rate on a scale where 7 is very enjoyable and 1 is not at all enjoyable?</i></p>	5.8	5.7	6.0
<p>If you saw views like these images, rate how likely it would be that you would return and take this rafting trip again</p> <p><i>Rate on a scale where 7 means you are more likely to return and 1 means you are less likely to return?</i></p>	6.0	5.9	6.1

Summary

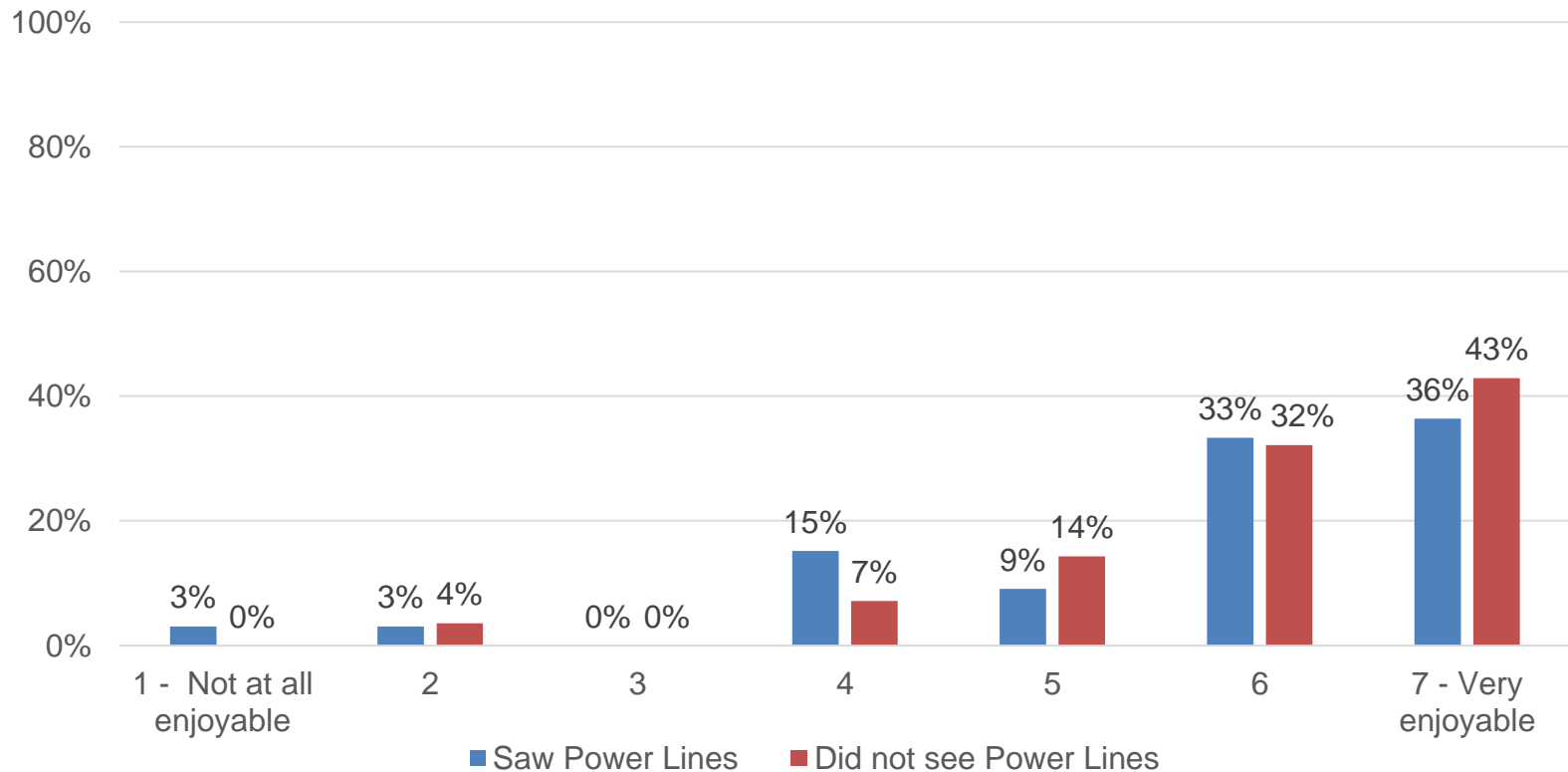
After reviewing the images, respondents were still likely to indicate they would enjoy the rafting trip (rating 5.8 on the 7 point scale) and would be likely to return to raft in the future (rating their likelihood as 6 on the 7 point scale).

Bottom Line

While the respondents that saw the image of the powerlines rated the scenic value much lower than the group that did not see the powerlines, they were just slightly less likely to indicate they would enjoy the rafting trip and return in the future after seeing the images.

Views of the Upper Kennebec River and Impact on Experience

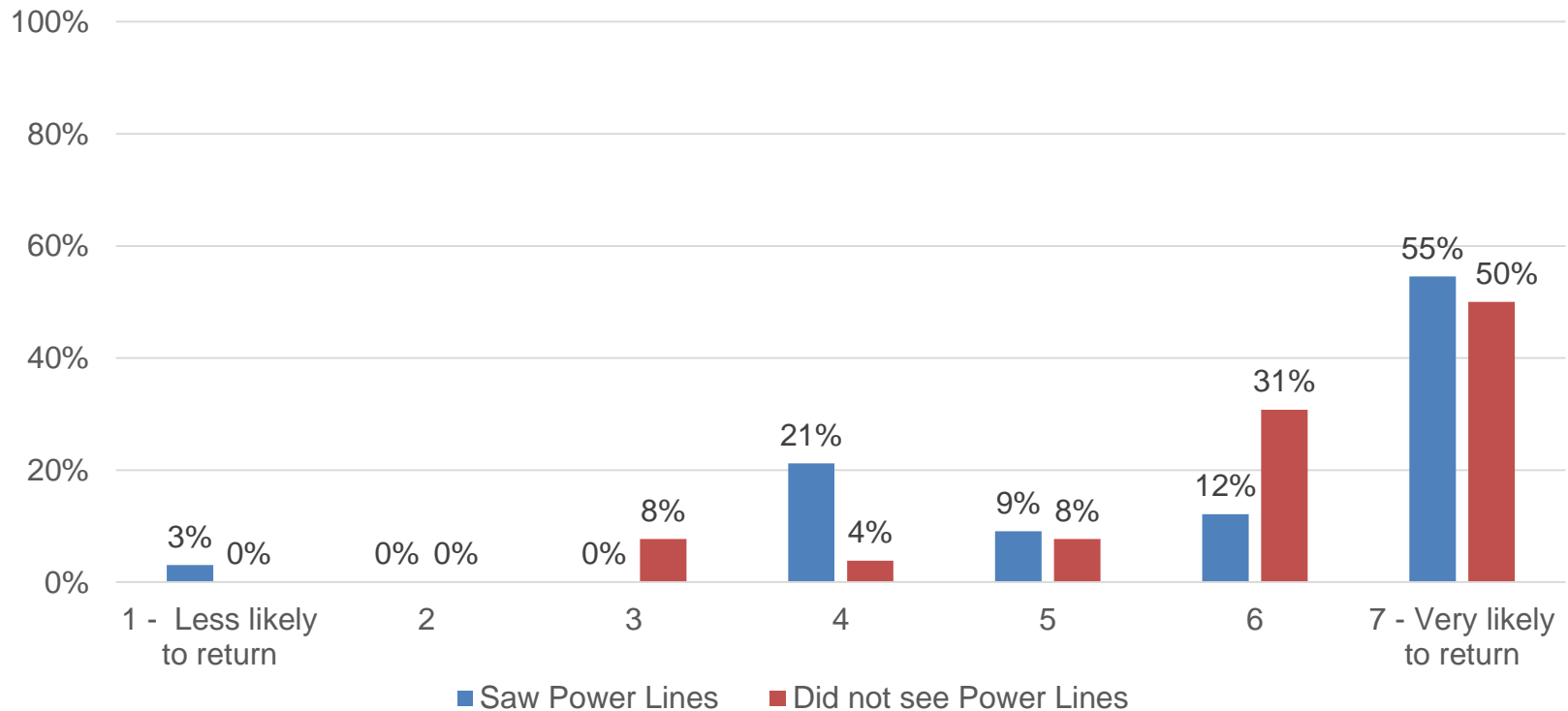
Q13. I'd like you to think about your experience rafting based on these images. If you saw views like these images, how would you rate your enjoyment of today's rafting trip?



Please rate on a scale where 7 is very enjoyable and 1 is not at all enjoyable.

Views of the Upper Kennebec River and Impact on Experience

Q15. I'd like you to think about your experience rafting based on these images. If you saw views like these images, rate how likely it would be that you would return and take this rafting trip again?



Rate on a scale where 7 means you are more likely to return and 1 means you are less likely to return.

Views of the Upper Kennebec River and Impact on Experience

Overall Impact of the Images on the Rafting Experience

- The survey was designed to assess potential impact of the powerlines on the scenic value and on the rafting experience but also to assess the general impact of manmade changes on the landscape.
- Given that the images included a number of manmade changes to the scenery it was hypothesized that viewing the images might impact enjoyment and likelihood to return regardless of whether the respondent saw the image with the powerlines.
- To test this, we compared respondents' responses regarding enjoyment of the rafting trip and the likelihood to return and raft again from before they viewed the images to their responses to the same questions after they viewed the images.
- This was done by subtracting the scores they provided prior to viewing the images from the score after viewing the images
 - A negative difference would imply that viewing the all the images might impact perceived enjoyment and likelihood to return.

Views of the Upper Kennebec River and Impact on Experience

Difference between enjoyment of rafting trip before and after viewing images .

Difference between likelihood to return to take rafting trip before and after viewing images.

	Total	Saw Power Lines	Did not see Power Lines
Difference between enjoyment of rafting trip before and after viewing the six images.	-1.0	-1.1	-0.9
Difference between likelihood to return to take rafting trip again before and after viewing the six images.	-0.7	-0.8	-0.5

Summary

Viewing the six images of the rafting trip had a slightly negative impact on the rating of the enjoyment of the rafting trip and likelihood to return.

The average difference between enjoyment of rafting trip before and after viewing images is -1.0, and the difference in likelihood to return is -0.7.

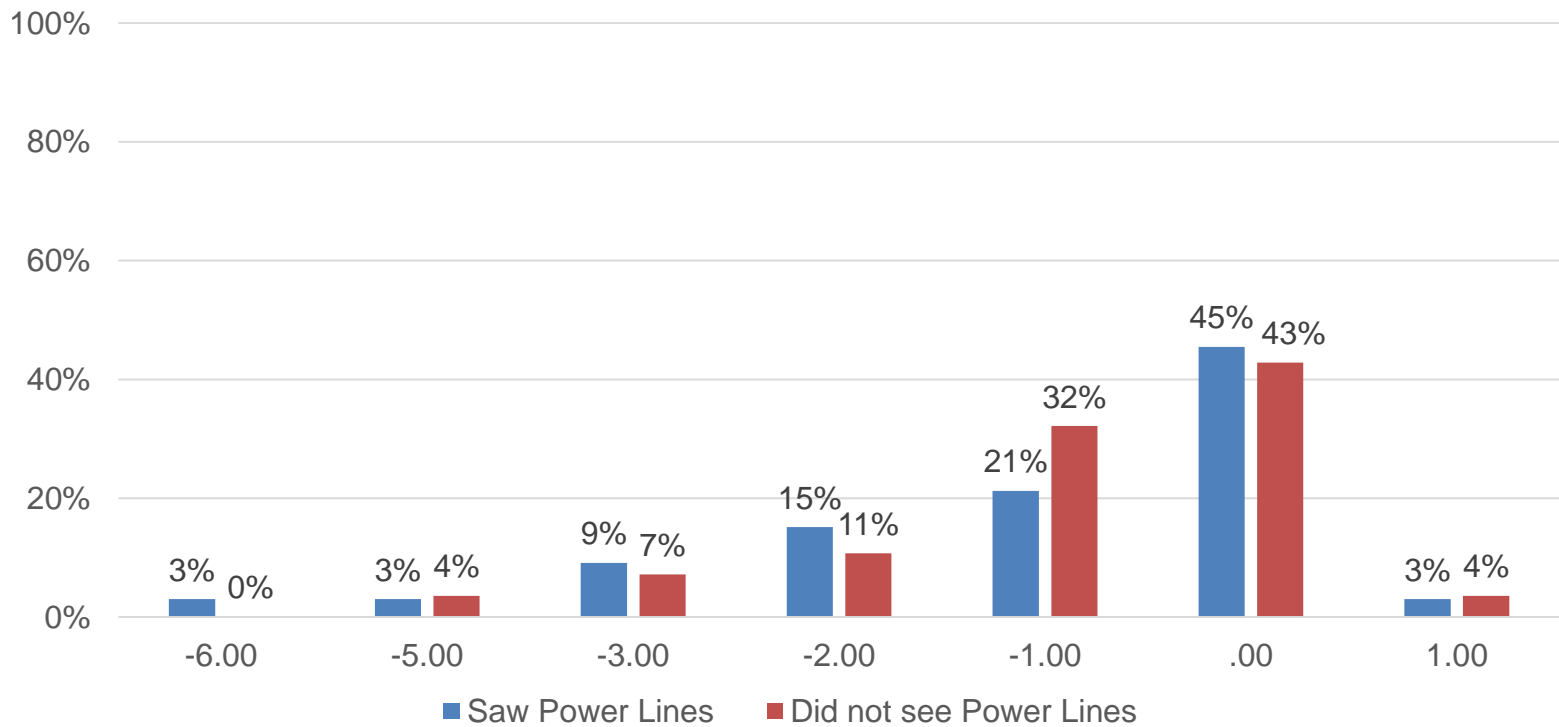
Bottom Line

Though each rafter actually experienced the manmade features shown in the images (aside from the powerlines), reminding the rafters by showing them images did impact their perceived enjoyment and likelihood to return.

This is not the result of the powerlines but all the manmade features. The observed reduction in enjoyment and likelihood to return is only slightly greater among those that saw the image with the powerlines compared to those that did not see the image with the powerlines.

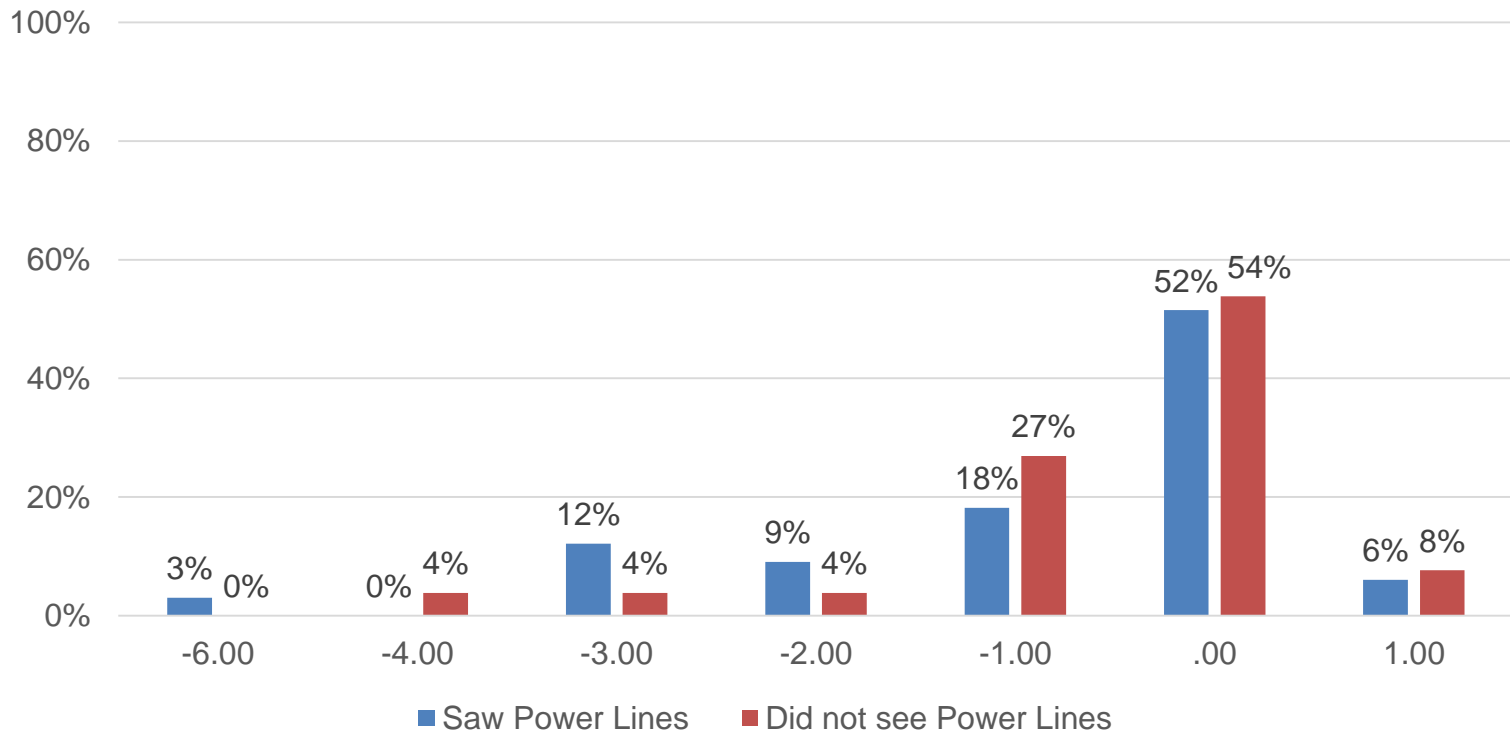
Views of the Upper Kennebec River and Impact on Experience

Difference between enjoyment of rafting trip before and after viewing images.



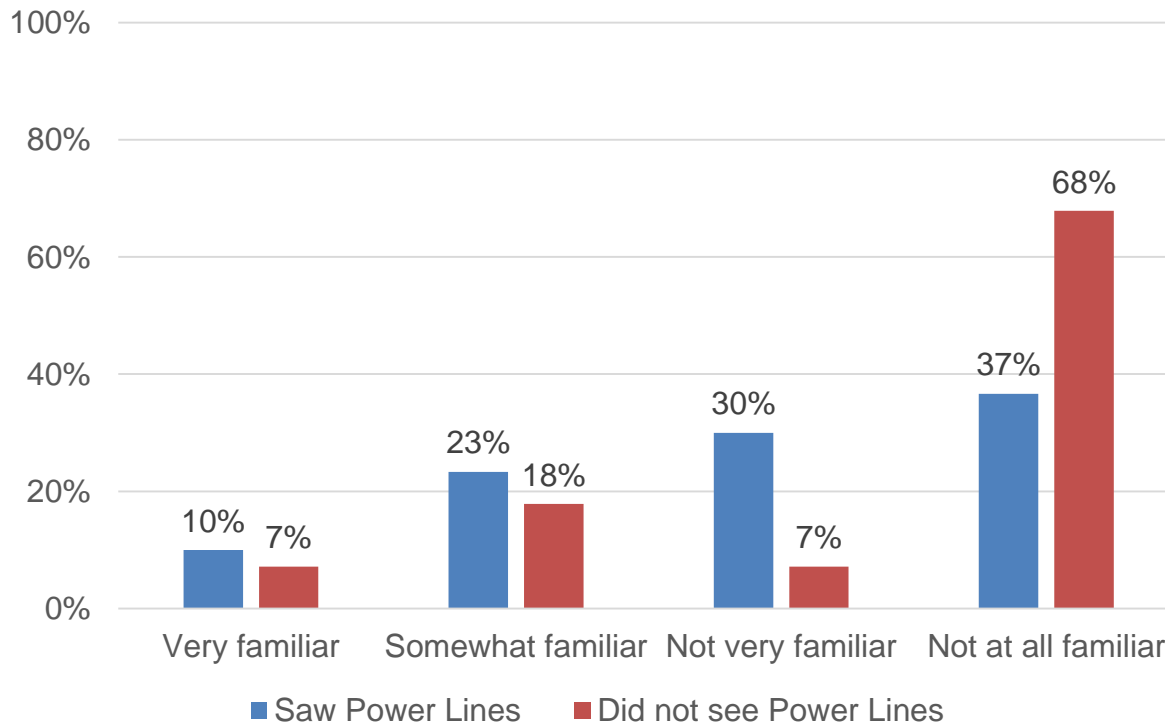
Views of the Upper Kennebec River and Impact on Experience

Difference between likelihood to return to take rafting trip before and after viewing images.



Familiarity with the New England Clean Energy Connect Project

Q19. How familiar are you with the New England Clean Energy Connect project?



Summary

Most people were not familiar with the New England Clean Energy Connect project.

Overall, three in ten say they were somewhat or very familiar with the New England Clean Energy Connect project.

Bottom Line

Seeing the image with the powerlines may have aided in recall of the NECEC. While 68% of those that did not see the image with the powerlines reported they were not at all familiar with the NECEC, this percentage was only 37% among those that did see the image with the powerlines.

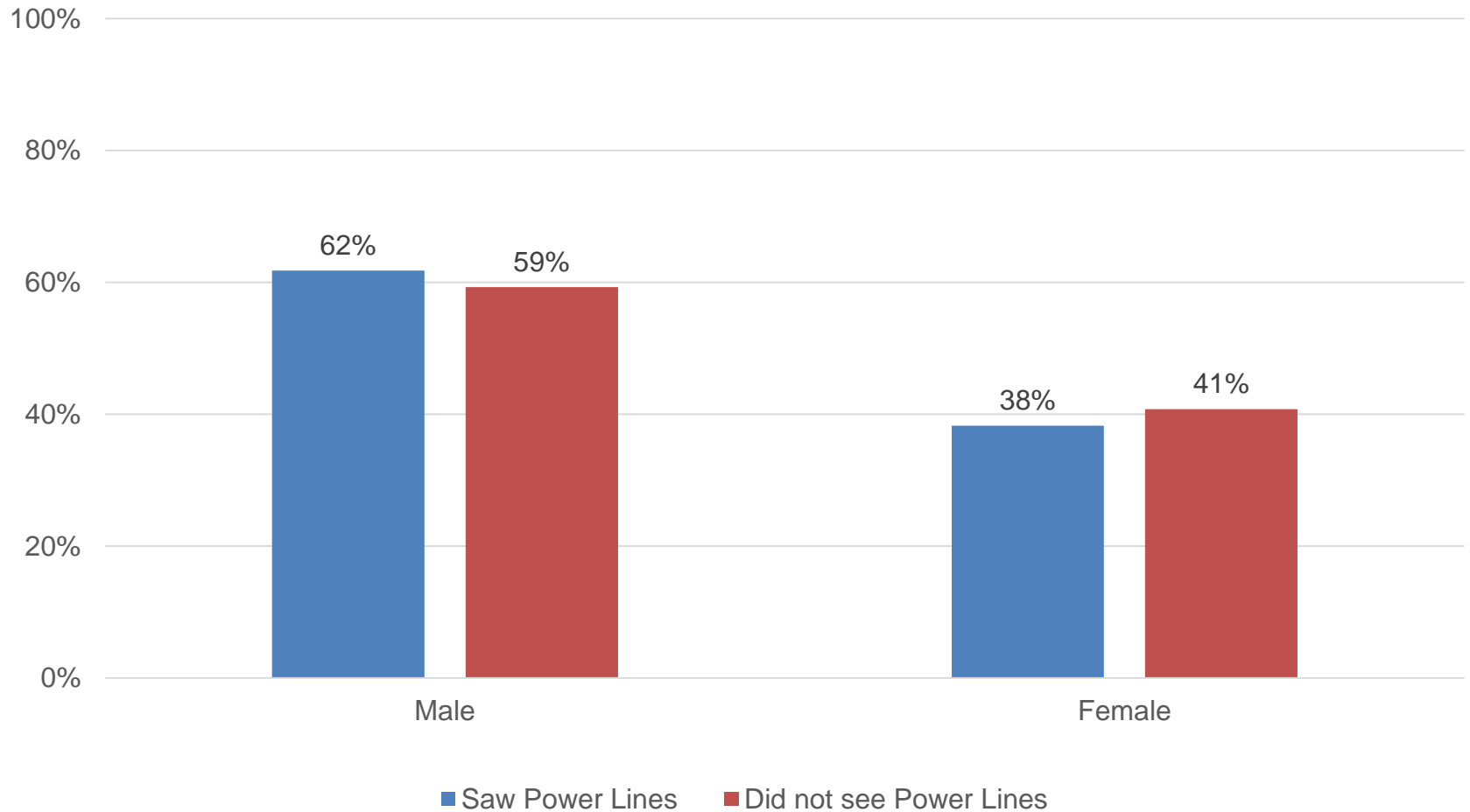
Demographics

State of residence

	Saw Power Lines	Did not see Power Lines
California	6%	0%
Connecticut	0%	14%
Maine	32%	21%
Massachusetts	35%	43%
New Hampshire	15%	4%
New York	9%	0%
Rhode Island	3%	14%
Outside US	0%	4%

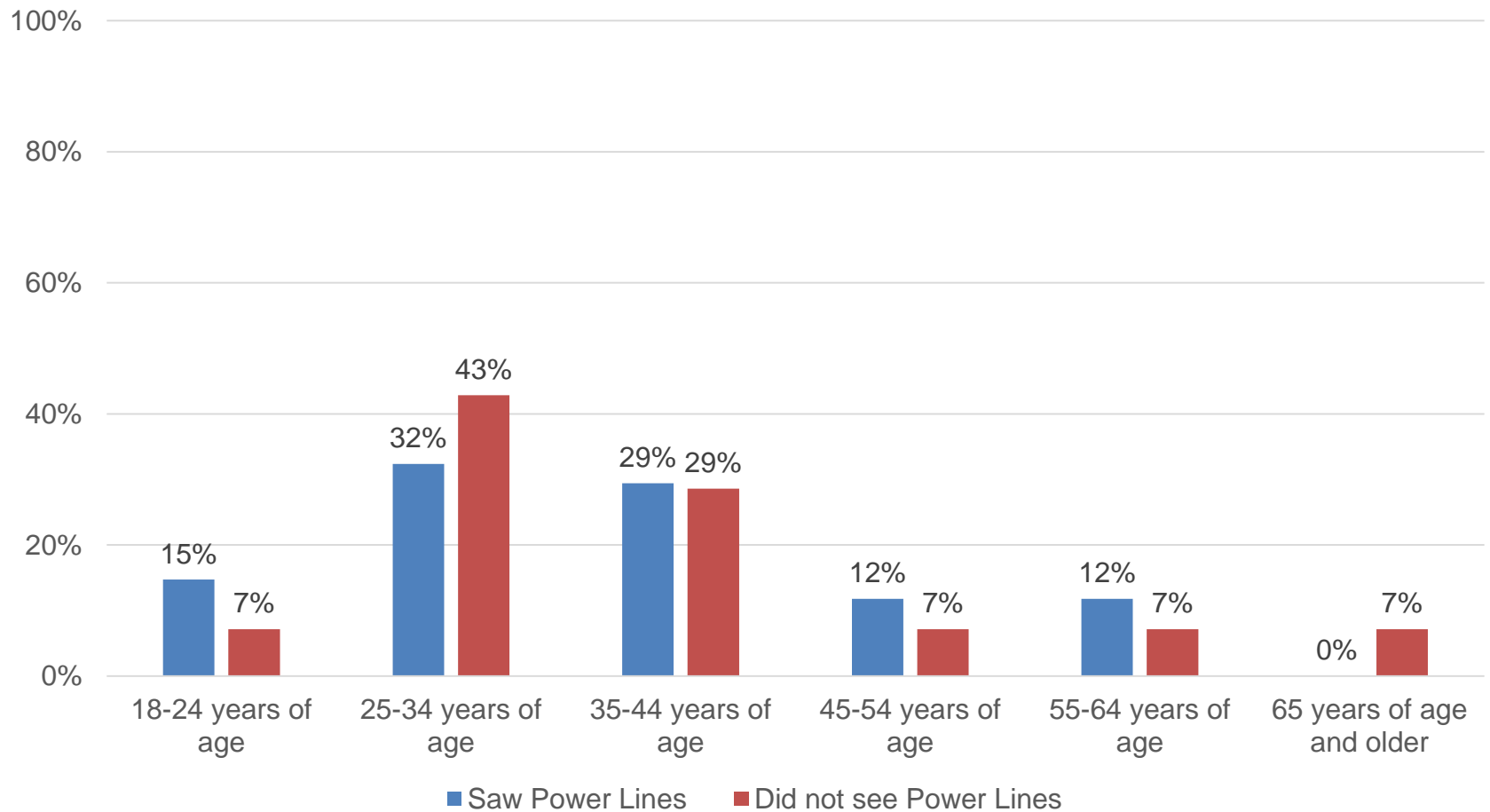
Demographics

Q21. Gender



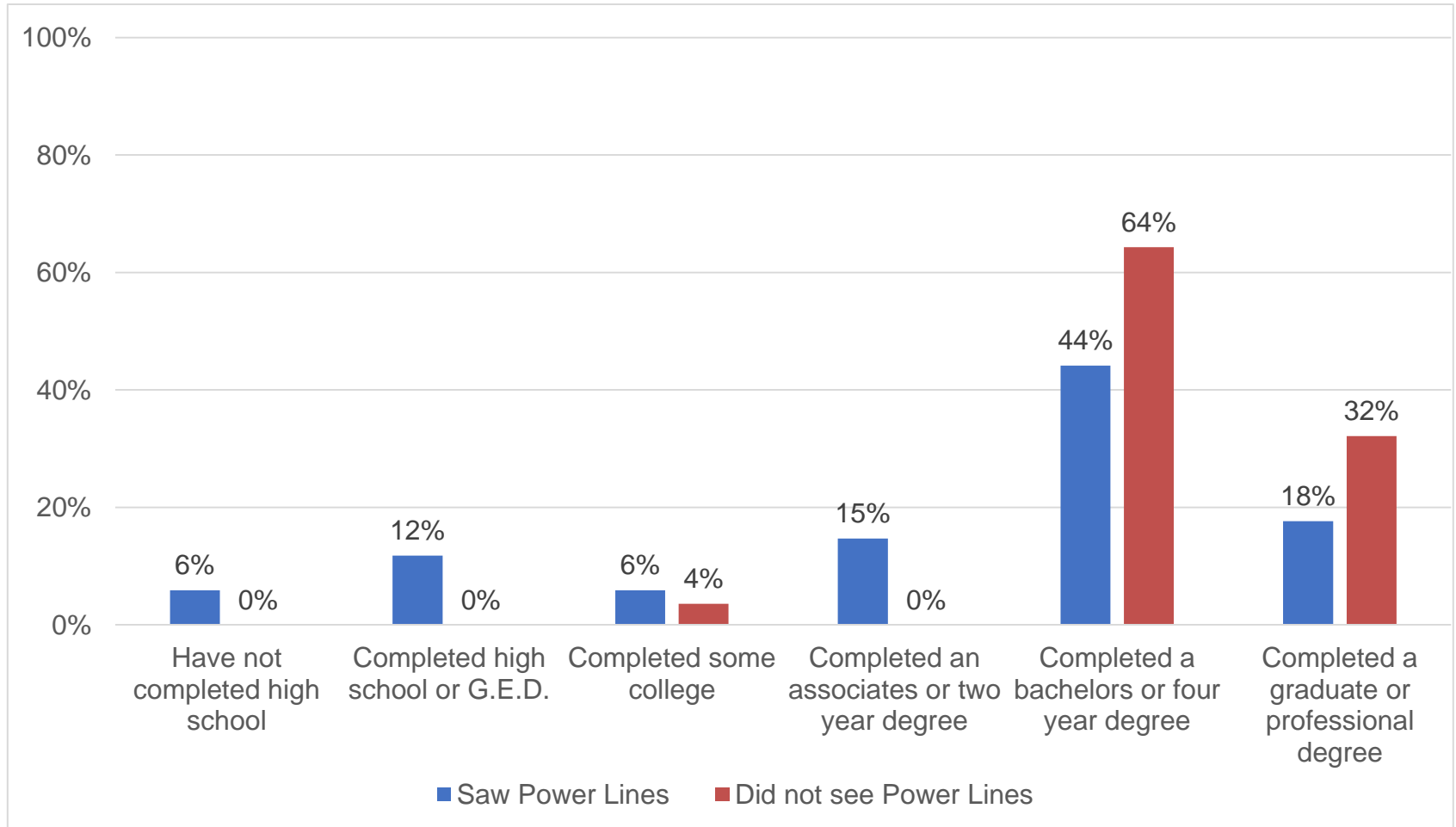
Demographics

Q22. Age



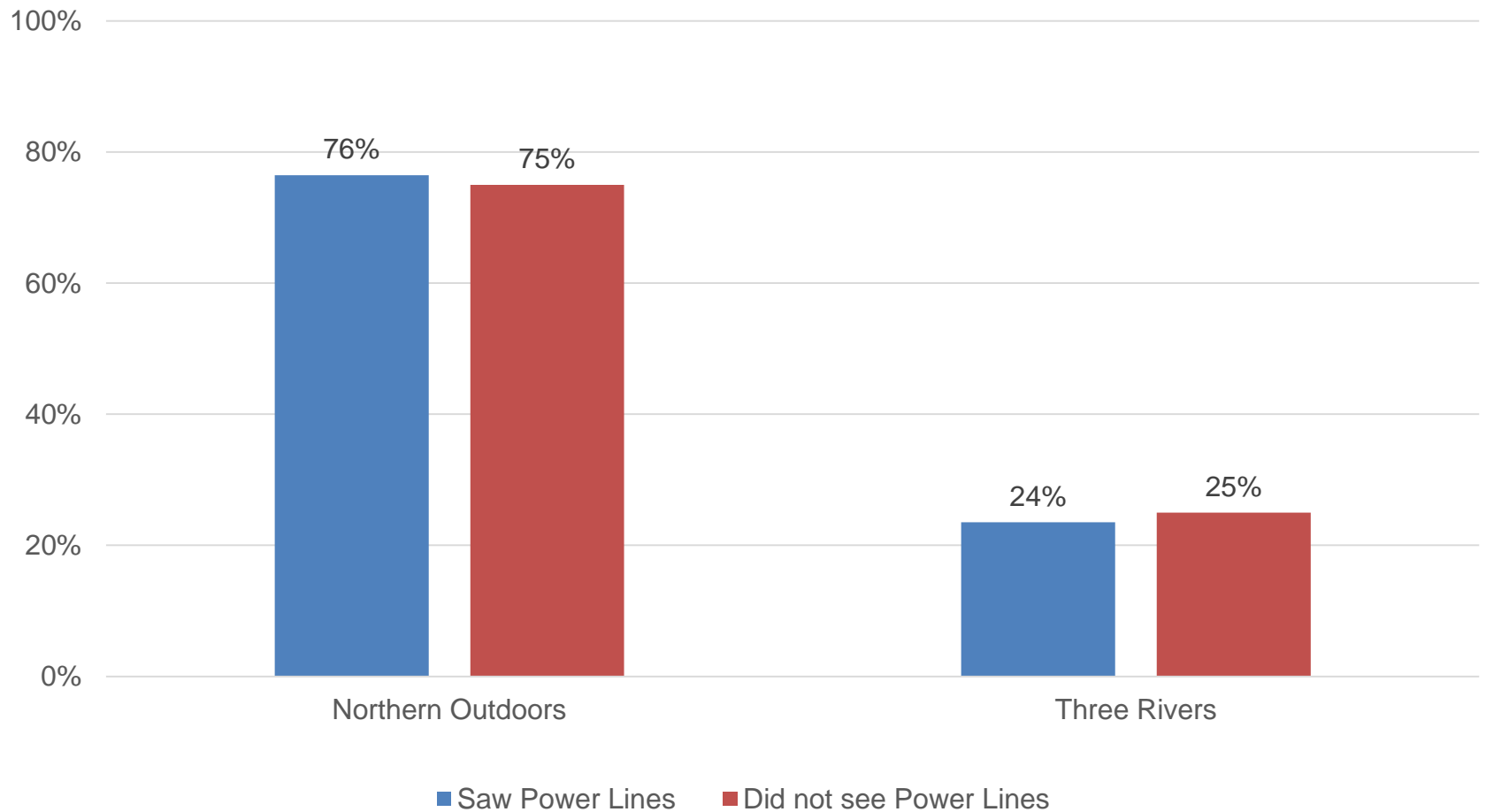
Demographics

Q23. Education



Demographics

Location of survey





Verbatim Comments



Visits to Area and Activities

Q2. *Why did you choose to raft the upper Kennebec River?*

Saw Power Lines	Did not see Power Lines
Accessory outing for Northern Maine wilderness weekend retreat.	Previous customer
Because it was something to do at Bachelor party	Close to camp and positive reviews for the company.
Husband had done in past!	Staying at friend's camp near Greenville, good adventure for the day.
For fun, do something different.	Internet, made some calls, correspondence responsive with Three Rivers.
I guide the Kennebec river because I love what I do being in the area, an opportunity to be in the untouched wilderness	I'm a raft guide
Guide for a rafting company, lover the area	Exciting whitewater and outdoors experience
I am a white water raft guide	I was here as a guide
I am a raft guide and live here	Sister organized a bachelorette party
I'm a guide and live here	Sports boat option at no additional charge
Accessory outing for Northern Maine wilderness weekend retreat.	Previous customer
Because it was something to do at Bachelor party	Close to camp and positive reviews for the company.
Husband had done in past!	Staying at friend's camp near Greenville, good adventure for the day.
My living depends on it and I use it for recreation	Fun group outing

Visits to Area and Activities

Q2. Why did you choose to raft the upper Kennebec River? - Continued

Saw Power Lines	Did not see Power Lines
Friends asked me to join	Good fun at a good price
Someone mentioned it	Friends invited us and never been
Never been	Having a bachelorette party - brides choice
Did it 20 years ago and wanted to go back	Yearly rafting trip rotating between rivers
Done it before and loved it	Because Northern Outdoors is a place that I can escape my crazy city life and get back to my roots. I love Maine and mother nature.
My friend Peter came here at least 10 times and he said he loved it here	The experience, fun of the Great Outdoors in Northern Maine.
Friends who have come invited us	We have been here before and really enjoyed it! Very scenic and a nice escape from city life.
Bucket list a and a friend asked	It was recommended by a friend.
Family trip to get away from Mass	Recommended by friend.
Proximity top a wedding we were attending	Send it
Family Trip	Its the best in NE.
Dad planned it	We wanted to do the turbine test - 1st time.

Views of the Upper Kennebec River and Impact on Experience

Q2. Why did you choose to raft the upper Kennebec River? - Continued

Saw Power Lines	Did not see Power Lines
Been here, loved it!	Friends know Dan Levy always come here
I work for Northern Outdoors.	Referred by Dan Levy
I heard it was awesome.	Have done it before. Labor day 10/1 2018. Had a great time.
Because its fun.	Heard about it while rafting Kennebec.
We wanted to experience the last blast	We stopped hiking at and rafting here. It was also a wish in this region.
I had a great time rafting the Kennebec with Three Rivers in August and I wanted to try something new.	
last blast!	
Dad is friends of the company	
My dad is friends with the company	
Previous visitors	
It was a surprise to me - gift form wife	
We wanted to experience the last blast, we have gone on Kennebec before	

Views of the Upper Kennebec River and Impact on Experience

Q12. What is it about these images that most influenced your ratings?

Saw Power Lines	Did not see Power Lines
Obviously I did not come to the Maine woods to see parking lots and power structures.	Viewing man made objects such as powerlines impacted my rating negatively.
Trees, foliage, things that you can only find in Maine	The dam and powerlines clearly disrupt both the view and the environment, other recreation areas as well as the landscape, but they don't affect the wild character of the landscape.
More nature views got my highest #s!	Natural images were more scenic and natural to me
Would be nice to have powerlines buried, else don't care about the dam.	Natural untouched wilderness
I love seeing untouched wilderness, the beauty of the gorge as it is, I also love seeing people enjoying the river as intended for whitewater enjoyment	Greenery, Aesthetic landscapes
Human influence on the natural scenery	Nature
Man made structures had the biggest negative impact for me	The natural object with no man made items are the most visually appealing
I live here and believe that all structures on or near the water enhance the experiences in the area	Untouched nature with no powerlines - powerlines above bridge
The natural beauty	Man made items subtract fro scenery
Wild and scenic river experience	Mother nature and beautiful views without the powerlines.
Powerlines	The natural beauty of the Maine Outdoors.

Views of the Upper Kennebec River and Impact on Experience

Q12. What is it about these images that most influenced your ratings? -

Continued

Saw Power Lines	Did not see Power Lines
The overall	Untouched land is the most scenic.
Didn't like the powerlines	My love of nature.
Powerlines - man made items blocking nature	I like the natural scenery and the muscular arms of the boy on the raft.
Man made items made them less scenic	Nature
Power lines -please!	Adventure, nature, renewables.
lower ratings for views of development	Gorgeous scenery, trees, water.
Poles and wires disrupting the views	No powerlines, pretty
The outdoors and powerlines	Nature
The adding of powerlines	The degree to which it is disturbed or shaped by civilization /vs enjoyment of an outdoor sport.
Wild and scenic river designation is just that, any usage along the river should be our right, development along the river should be limited to previous construction only	Natural settings are best
beautiful outdoors with no powerlines	nature, forest, colors

Views of the Upper Kennebec River and Impact on Experience

Q12. *What is it about these images that most influenced your ratings? - Continued*

Saw Power Lines
The "untouch-ness"
The natural beauty. The outdoor adventures geared towards family for.
beauty of nature; enjoyment of activity to be done in the area
I don't mind seeing subtle signs of development, bridges, roads, light settlement, etc are fine. Industrial complexes, power plants, not so much.
How beautiful they were
They look beautiful
My previous experience
The amount of unobstructed nature, distance panorama landscape
Having nature being predominant

Views of the Upper Kennebec River and Impact on Experience

Q14. If you saw views like these images, how would you rate your enjoyment of today's rafting trip on a scale where 7 is very enjoyable and 1 is not at all enjoyable? Why do you say that?

Saw Power Lines	Did not see Power Lines
All of the images were of things I would expect to see on a rafting trip - beautiful nature and manmade things in the environment related to rafting.	Because I like nature on my trips
Because if there were powerlines it would suck. It would be fun but the view is worse	because it's not Maine, we did know from Germany TV, books...
Dam isn't ugly, like that it generates clean energy and super waves.	Don't want powerlines
Depends on how much development would be there	Fun trip in nature
Due to the beauty of Maine	Great fun
Great guides	I don't think I'd have enjoyed it as much if there was more development.
Having a power line in the middle of the river would take away from scenic value.	I like a nice view.
I had a great experience today I have seen those images before. I understand development is important but necessary as long as a balance is maintained.	I really enjoyed the trip and most of the views, images #3 and #5 were beautiful
I loved getting slashed but then I took a swim and got cold	It was a fun and scenic trip
I would have enjoyed it less overall, but I still would have enjoyed myself	It was pretty and fun
If the dam/power plant feeds the river's flows then it's fine if we started there. But all the other images would make me enjoy the river less.	it's beautiful here
It isn't enjoyable seeing a lot of man made things while enjoying nature	It's natural and scenic nature, rural

Views of the Upper Kennebec River and Impact on Experience

Q14. If you saw views like these images, how would you rate your enjoyment of today's rafting trip on a scale where 7 is very enjoyable and 1 is not at all enjoyable? Why do you say that? - Continued

Saw Power Lines	Did not see Power Lines
It was very fun but it will be very ugly with powerlines	Love rafting
It would be less scenic and enjoyable to some degree	Many of the views are nice, but I did not enjoy the man made structures.
It's fun and beautiful	Natural beauty. Man made features not scenic but can't raft 800 CFS without a dam
Man Made items blocking nature	Neutral - the restructuring of the view would negatively impact while people enjoying the nature beauty is very enjoyable.
Other than the fun of the rafting, I came for the beautiful sights.	Some things change, some things didn't. I like the images of unaltered places, did not like the development
People come here to leave "modern" life behind ...	The beautiful outdoors.
Powelines	The images I liked were pristine wilderness, the one I didn't had strictures/powerlines that have been here since I started being up here
Still love the river and the whitewater. Would be fun either way	The river and rafting was fun and absolutely beautiful.
The #1,2 and 6 pics are normal spots as the beginning and ending of the trip, 3-5 are the natural parts, undisturbed	The trees were pretty, not too much development.
The area of untouched beauty not built up	We mostly saw untouched land, other than at the top and base of the river.
The dam allows the river to rise enough for a most enjoyable trip	
The environmental concern affiliated with my impressions of these images may distract me from my trip.	

Views of the Upper Kennebec River and Impact on Experience

Q14. If you saw views like these images, how would you rate your enjoyment of today's rafting trip on a scale where 7 is very enjoyable and 1 is not at all enjoyable? Why do you say that? - Continued

Saw Power Lines
The excitement of rafting, live in the city - used to wires
The natural landscape showed powerlines that took away from the untouched beauty.
The not so scenic areas were few and far between. Most of the river trip was beautiful scenic and undeveloped
The views are still scenic and still gets power.
Weather, views people, food, warm river water etc, just 'fabulous'!
While development such as dams and walkway don't fit into my idea of a wild area, in this case they are a part of what makes the raft experience possible.

Views of the Upper Kennebec River and Impact on Experience

Q16. If you saw views like these images, rate how likely it would be that you would return and take this rafting trip again, where 7 means you are more likely to return and 1 means you are less likely to return? Why do you say that?

Saw Power Lines	Did not see Power Lines
Because its awesome!	Because it's not raw nature [] pics included manmade to accommodate [].
Because w/ powerlines the area is still pretty great.	because we know it before in the original.
Guides	Had a blast, 1st time would definitely come again
I don't feel the Rivers are over developed and balance is check.	I enjoy white water rafting and the forks area, untouched nature is good.
I enjoyed the trip for other reasons than just scenic value.	I enjoyed my experience and would share with others
I had a great time and enjoyed my time immensely	I will continue to raft this river
I love the state of Maine	It was a natural and wild trip down the river
I still had a good time	It was fun and pretty.
I'd still come back as the trip was very fun. But if the area was overly developed I would consider other venues	It's natural and scenic nature, rural
It doesn't bother me enough to not return.	Love rafting and term
It might it would really depend on how much things change with scenery	Nature is my priority, and views at things other than nature would be negative for me.
It still a blast rafting down the river!	Pretty view for the most part and fin
It was fun and awesome	See comment in #14. The great majority of the trip was nature.
It was fun but don't like powerlines	Seeing powerlines, bridges in established towns is not new, seeing halfway through a trip is
It was very fun	Some images are good but other were just ok.

Views of the Upper Kennebec River and Impact on Experience

Q16. If you saw views like these images, rate how likely it would be that you would return and take this rafting trip again, where 7 means you are more likely to return and 1 means you are less likely to return? Why do you say that?

Saw Power Lines	Did not see Power Lines
It wouldn't be as enjoyable	Still good scenery here.
It's my second time, love this river!	The trip on a whole was most enjoyable
Live here	Work here and love the area
Man Made items blocking nature	
Most of the views are wonderful	
Next Sept!	
No impact on my feelings.	
Powerlines	
Still love the river and the whitewater. Would be fun either way	
The trip is beautiful, g/w start and finish	
They are views I expect to see.	
Trying to get away from the city	
Unlikely to be in this region again regardless	
Unlikely to make a recreational choice based on environmental impacts on an area.	
While development such as dams and walkway don't fit into my idea of a wild area, in this case they are a part of what makes the raft experience possible.	



Survey Methodology



Survey Methods

In order to implement the NECEC, a set of powerlines will be installed across the Kennebec River. The purpose of this survey is to assess how such powerlines might impact the experience of those using the river, specifically those involved in river rafting.

Data Collection Summary

- The research was conducted among those rafting the upper Kennebec River and the Dead River. The interviews were conducted after the respondent had completed a rafting trip at the following locations:
 - Northern Outdoors (The Forks Maine)
 - Three Rivers Whitewater Rafting (The Forks, Maine)
- Surveys were conducted over three weekends:
 - September 22 and September 23, 2018
 - September 29 and September 30, 2018
 - October 6 and October 7, 2018
- A total of 53 respondents who had been rafting during these weekends completed a survey along with 9 river rafting guides for a total of 62 respondents.
 - 54 respondents rafted or were guides on the Upper Kennebec River.
 - 8 respondents rafted the Dead River.

Survey Methods

The Survey

- The survey used in this research was developed by Market Decisions Research and Terrence J. DeWan and Associates. The survey was modified from a similar survey used to assess the visual impact of wind farms.
- The survey was designed to be completed by the respondent based on their experience after they had been rafting.
- The survey asked a total of 23 questions including demographic information. The survey assessed:
 - Prior visits to the area and use of scenic and recreational resources
 - Patterns of use/visitation in the area
 - Activities in which respondents are engaged or planning (other than rafting)
 - Reason for their current visit to the area
 - Expectations for the area
 - Impact of other human activity on enjoyment
 - Assessment of the scenic value (assessed through a sequence of six images)
 - Impact of the assessment of the images use and enjoyment of the scenic resources and the likelihood of returning.
 - Familiarity with the NECEC
 - Demographics
- A copy of the survey is provided as a separate document.

Survey Methods

Sampling

- The goal of the sampling approach was to obtain a representative sample of visitors.
- For this survey, the goal was to recruit as many people as possible to participate.
- At the two locations (Northern Outdoors and Three Rivers) rafters were approached, explained the purpose of the research, and asked to participate in the survey.
- All rafters age 18 and older were eligible to participate in the survey
- In appreciation for taking the time to complete the survey, those participating in the research were given a \$5 gift card.

Assessing the Scenic Value

- A Visual Impact Assessment is designed to determine the impact of manmade features on a person's enjoyment of a scenic area.
- The unique aspect of the survey process is that respondents will see a set of pictures for each of which they rate the scenic value.
- After viewing an image, the respondent rates its scenic value compared to the full range of views in Maine.
- An image is rated a seven point scenic value scale where one is the lowest scenic value and seven is the highest scenic value in Maine.

The traditional design of a survey to assess scenic value has each respondent evaluate the scenic value of a scene based on its current view and the same scene with the introduction of a new visual element. In this survey, the new visual element introduced is the powerlines.

Another aspect of the traditional methodology is that the method assesses the visual impact from a single location. For example, the impact of seeing wind turbines in a view from a mountain overlook.

Survey Methods

The Use of Experimental and Control Groups to Assess Scenic Value

In designing the current survey, it was felt that the traditional methodology would be ineffective in providing a true assessment of visual impact.

The rationale is that rafting is not a “static” experience. They are not simply experiencing the natural scenery from a single point but moving through the scenery.

Second, it was also important to understand how a new manmade visual element might impact the scenic value in an area where there are already significant manmade changes that might detract from the natural beauty.

Our proposed design allowed us to evaluate the impact of powerlines on scenic value and how this might impact the overall rafting experience.

The methodology relied on an experimental/control group design to determine any impact on scenic quality from the proposed powerlines.

Survey Methods

The Use of Experimental and Control Groups to Assess Scenic Value

It differed from the more traditional visual impact assessment methodology in two fundamental ways:

First, each respondent was asked to look at a sequence of six images and rate the scenic quality of each of the six images.

The six images were designed to represent the experience a rafter would have for their entire trip down the upper Kennebec River from put in to take out.

This design allowed us to assess the potential impact of the new visual element (the powerlines) based on a rafter's entire experience rather than the focusing exclusively on the short period of time during which they might see the powerlines.

It also allowed us to assess the potential impact relative to other manmade features that are already present along the upper Kennebec River.

Secondly, rather than having each respondent rate both the current view and the view with the new visual element, a respondent evaluated only one view; either the current view or the view with the powerlines (the traditional experimental and control group research design).

Survey Methods

The Use of Experimental and Control Groups to Assess Scenic Value

The value in this approach is that one can evaluate the impact of the visual element in a way that helps to minimize benchmarking.

Benchmarking can occur when a respondent does not evaluate each image independently but rather uses the “current view” image as a guide and rates the image with the new visual element relative to the current view.

Since each person evaluated a sequence of six views it was important not to provide cues that would make them more likely rate scenic quality in a relative fashion

Having each respondent evaluate both the current view and view with the powerlines in the midst of the sequence of six images would provide an unwanted cue that the scenic quality of these two images should be treated differently than the remaining five and thus the scenic value should be assessed differently.

Survey Methods

The Use of Experimental and Control Groups to Assess Scenic Value

To allow for the use of this methodology, respondents were randomly assigned to either experimental group in which the six images they rated included the view with the proposed powerlines or a control group which included an image of the current view among the six images.

In both case the image in question was number five in the sequence of six images from along the Upper Kennebec.

Overall, 34 people were assigned to the experimental group which included the among the six images the view with the powerlines and 28 were assigned to the control group and asked to rate the sequence of images that included the current view, that is, without the powerlines.

Thank you!

Please contact us with any questions
you may have.

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