Attitudes of Nebraska Residents on the Proposed Keystone XL Pipeline\textsuperscript{1}

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Preliminary Report
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Attitudes of Nebraska Residents on the Proposed Keystone XL Pipeline

In April through June 2012, we conducted a self-administered survey of Nebraska residents’ attitudes on a number of water management issues, including the proposed Keystone XL pipeline. This project also included an embedded survey experiment (not discussed in this report, which examined issues related to survey sponsorship and mode of request (web or mail).\(^2\) Web and mail questionnaire responses are combined for purposes of this brief report.

A random sample of 2,400 households was selected using the address-based sampling frame, the U.S. Postal Service Delivery Sequence File. We stratified the sample based on two major regions in Nebraska, to include a larger proportion of people residing in rural counties. We applied sampling weights to offset the effects of regional stratified sampling. A map of our stratification is displayed in Appendix 1. We obtained a final response rate of approximately 49% (n=1108), calculated utilizing American Association for Public Opinion Research standards. In this brief report we present preliminary findings from three questions related to the Keystone XL pipeline. Exact wording of questions is displayed in Appendix 2.

Have Nebraska Residents Heard of the Proposed Keystone XL Pipeline?
Results from this survey demonstrate that, by June 2012, 95% of Nebraska residents had heard of the proposed Keystone XL pipeline, which would transport oil from Alberta, Canada to refineries in Texas near the Gulf of Mexico. Among the remaining 5% who had not heard of the proposed pipeline, 55% had a high school degree or less, 14% had some college education but no degree, and 31% had a 2- or 4-year college degree or a graduate/professional degree. In contrast, 24% of those who had heard of the proposed pipeline had a high school degree or less, 22% had some college education but no degree, and 54% had a 2- or 4-year college degree or a graduate/professional degree. In comparing those residents who had heard of the proposed Keystone XL pipeline versus those who had not, we found both groups included similar proportions of respondents who reported living above the Ogallala Aquifer (35% versus 30%), though a greater proportion of residents who had not heard of the pipeline were also not sure of whether they lived above the Ogallala Aquifer (26% versus 10%).

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\(^2\) For two treatment groups, Washington State University sponsored the survey, and for two treatment groups, University of Nebraska-Lincoln sponsored the survey. Similarly, for two treatment groups, one from each university sponsor, we requested a mail-only response throughout the duration of the experiment (mail-only design). For two other treatment groups, one from each university sponsor, we initially requested a web response and withheld our offer of a mail questionnaire until the fourth and final contact (sequential 2web+mail design). More detail about the study procedures is available from the authors. Results reported here are from all Nebraska residents, aggregated across treatment groups, to reduce the potential for differences resulting from a particular sponsor or survey mode.
Do Nebraska Residents Support Approval of the Keystone XL Pipeline?
Overall, 48% of Nebraska residents supported approval of the Keystone XL pipeline, as proposed prior to June 2012. Approximately 25% of residents expressed opposition to the Keystone XL pipeline, and reported that it should not be approved. About 27% of Nebraska residents were not sure whether or not the Keystone XL pipeline should be approved, as of June 2012. Similar proportions of residents reported approval and disapproval across the two regions in this study, shown below in Figure 1. In southeastern Nebraska, about 49% of residents supported approval of the pipeline, 25% did not support approval, and 26% reported “not sure” to this question. In the rest of Nebraska, about 46% of residents supported approval of the pipeline, 24% did not support approval, and 30% reported “not sure” to this question. The proportion of respondents supporting approval of the proposed pipeline is similar among residents who report living above the Ogallala Aquifer (51%) and residents who report that they do not live above the Ogallala Aquifer (50%).

Figure 1. Attitudes on Whether or Not the Proposed Keystone XL Pipeline Should Be Approved, By Region.

In terms of demographic characteristics, a higher percentage of male respondents expressed support for approval of the proposed Keystone XL pipeline compared with female respondents (58% versus 39%), whereas similar percentages of male and female respondents expressed opposition to the Keystone XL pipeline. In contrast, a higher percentage of female respondents than male respondents reported “not sure” as their position on whether or not the proposed pipeline should be approved (35% versus 19%). This information is displayed in Figure 2.
Figure 2. Attitudes on Whether or Not the Proposed Keystone XL Pipeline Should Be Approved, By Sex.

Figure 3 below demonstrates the distribution of attitudes on the proposed Keystone XL pipeline by age group. Respondents from the younger age category reported lower levels of support for approval of the proposed Keystone XL pipeline than respondents from older age categories, with only slight differences between the distribution of responses for the 45-64 and 65+ age categories. In terms of attitudes across education levels, the odds that a respondent reported support for the proposed pipeline increased as the respondents’ level of education increased. Similarly, the odds that a respondent reported support for the proposed pipeline also increased as the respondents’ level of income increased.

Figure 3. Attitudes on Whether or Not the Proposed Keystone XL Pipeline Should Be Approved, By Age Categories.
Compared to age, education, and income, the largest differences in the distribution of responses to the question of whether or not the proposed Keystone XL pipeline should be approved occur when examining political party affiliation and political ideology. Among Republican-identifying respondents, 60% supported approval of the proposed pipeline, 17% opposed approval, and 23% were not sure of their position. In contrast, among Democrat-identifying respondents, 37% supported approval of the proposed pipeline, 35% opposed approval, and 28% were not sure of their position. The distribution of Independent-identifying respondents tended to fall between their Republican and Democrat counterparts. Similar trends were also seen in terms of political ideology, with higher levels of support for pipeline approval among conservatives, moderate levels of support among moderates, and higher levels of opposition among liberals.

Figure 4. Attitudes on Whether or Not the Proposed Keystone XL Pipeline Should Be Approved, By Political Party Affiliation.

To What Extent Are Nebraska Residents Concerned about a Possible Pipeline Leak or Spill Contaminating the Ogallala Aquifer?  
Overall, Nebraska residents expressed varying levels of concern about a future pipeline leak or spill contaminating the Ogallala Aquifer resulting from the proposed Keystone XL pipeline. About 24% of Nebraska residents were extremely concerned about a possible leak or spill, 16% were very concerned, 22% were somewhat concerned, 19% were slightly concerned, 15% were not at all concerned, and 5% were not sure of their level of concern. Residents from both the southeastern Nebraska region and the rest of Nebraska region reported similar levels of concern over a possible pipeline leak or spill contaminating the Ogallala Aquifer, as demonstrated in Figure 5.
Large differences in residents’ level of concern over a possible leak or spill exist between residents who supported approval of the proposed Keystone XL pipeline and residents who opposed approval, as demonstrated in Figure 6. For example, about 80% of respondents who did not support approval of the proposed pipeline reported being extremely or very concerned over a possible leak or spill from this pipeline contaminating the Ogallala Aquifer in the future. In contrast, about 17% of respondents who supported approval of the proposed pipeline reported being extremely or very concerned over a possible pipeline leak or spill contaminating the Ogallala Aquifer in the future. Unlike those opposed to or supportive of approval of the Keystone XL pipeline, the distribution of concern for individuals who were not sure of their position approximates a normal curve, with the highest proportion of respondents reporting that they were somewhat concerned about a possible leak or spill (32%).
In terms of demographic differences, on average, women reported higher levels of concern than men over a possible pipeline leak or spill contaminating the Ogallala Aquifer. Also, the proportion of respondents expressing each level of concern was quite similar across the different age categories. In terms of education, almost 40% of respondents in each of the educational categories reported being extremely or very concerned about a possible pipeline leak or spill contaminating the Ogallala Aquifer, and residents with higher levels of income expressed lower levels of concern than residents with lower levels of income. The largest differences in the distribution of responses over residents’ level of concern again occurred when examining political party affiliation and political ideology. Figure 7 demonstrates residents’ level of concern (using a reduced measure) by political ideology. For example, about 31% of residents identifying as politically very conservative reported being extremely or very concerned about a possible pipeline leak or spill compared to 61% of very liberal residents. Similar trends were also seen in analyses of political party affiliation.

**Figure 7. Residents’ Level of Concern over a Possible Leak or Spill from the Keystone XL Pipeline Contaminating the Ogallala Aquifer, By Support for Pipeline Approval.**
Appendix 1. Map of Two Regions within Nebraska (Based on Counties).

Appendix 2. Selected Questions on the Proposed Keystone XL Pipeline.

Q13. Another issue that might concern Nebraska residents is TransCanada’s proposed Keystone XL oil pipeline. If approved, the Keystone XL pipeline would transport oil from Alberta, Canada to refineries in Texas near the Gulf of Mexico. Have you heard of the proposed Keystone XL pipeline?

- Yes
- No

Q14. People have different opinions about whether or not the Keystone XL oil pipeline should be approved. In your opinion, do you think the Keystone XL pipeline should or should not be approved?

- Yes
- No
- Not sure

Q15. If the Keystone XL pipeline is built, to what extent are you concerned that a possible pipeline leak or spill from this pipeline would contaminate the Ogallala Aquifer in the future?

- Extremely concerned
- Very concerned
- Somewhat concerned
- Slightly concerned
- Not at all concerned
- Not sure