

## **CSU Research Class Completes Survey Study of Uranium Mining Concerns**

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During the 2008 spring semester, students in CSU's Journalism and Technical Communication course Communication and Evaluation Research Methods undertook a class project to examine citizen concerns about the uranium mining operation proposed for the area between Nunn and Wellington, Colorado. The project, a mail survey, was designed primarily as a hands-on learning experience for the nine seniors and eight graduate students in the class, and was supported by The Institute for Learning and Teaching at CSU. The course instructor, Dr. Craig Trumbo, oversaw the class project. As per standard policy, the conduct of the survey was reviewed and approved for protection of human subjects by CSU's Institutional Review Board.

Because funding resources would only support a fairly modest survey, the class decided to focus the study on individuals living in greater proximity to the proposed mining site, eliminating Fort Collins from the study. The main communities included in the study were Wellington, Carr, Nunn, Ault and Pierce.

The class designed the four-page questionnaire at the start of the semester and mailed it to 450 randomly selected individuals in late February. By the end of April, 203 completed questionnaires had been returned. Taking into account undeliverable and forwarded addresses, the response rate for the survey was 48%. Since the sample size was relatively small, the margin of error for the study is fairly large, about +/- 7%. It should also be noted that while the proportional representation of the communities in the study was fair (40% of the responses were from Wellington), a comparison to current census estimates show that the survey respondents were more likely to be older males in higher educational and higher income brackets than average for the area.

The content of the questionnaire focuses on details concerning how individuals perceive potential risks and benefits associated with the proposed mining operation. It also focuses on how individuals view the information that has been provided through the media and other channels by two high-profile sources on the issue, Powertech Uranium and the citizen's group Coloradoans Against Resource Destruction (CARD). While there have been a number of other important information sources on this issue, the size of the survey required that the project focus on only these two.

The results of the survey offer some interesting insights into the way in which individuals are thinking about this issue. First, awareness of the proposed mining operation is nearly universal in the area. Of the 203 survey responses, only 11 (5%) indicated that they had never heard of the issue (these were not included in following analyses). We asked if individuals had made their minds up on the issue one way or another. Very few respondents were in favor of the mining operation (5%), about a fifth (20%) reported they were undecided, while a strong majority (74%) said they were against it.

We were interested to know the degree to which people feel fully informed about the issue, and from where they have received information. A little more than half (58%) felt they needed more information on the issue. Respondents rated newspapers as the most important source of information, followed by Web sites, and interpersonal sources (family, friends, neighbors). Radio and television were the least important sources of information.

When asked if they were familiar with Powertech and CARD, most respondents reported they were (78% and 82%, difference within the margin of error). Of the individuals who stated that they were familiar with both CARD and Powertech, we also asked a set of questions asking how credible and how trustworthy each group was in terms of the information they have provided. Respondents strongly reported that CARD was both more credible (85 vs. 50 on a 100-point scale) and more trustworthy (84 vs. 56 on a 100-point scale).

A core part of the survey looked at the specific concerns people have about the proposed mine. We asked how important nine potential risks were, using scales running from 1 (unimportant) to 5 (very important). Less important risks included threats to existing businesses, industrial overdevelopment, rail and truck accidents, and wind-borne materials (all with average scores between 3.5 and 4.2). The most important risks identified by respondents were threats to home values, potential costs of future clean-up, and water contamination (all average scores over 4.5).

We also asked how important nine potential benefits were, using the same scale. One stood out as clearly least important: potential employment for the respondent (1.75). Most others were rated about the same, around 2.5 on the

scale: supporting free enterprise, improved industrial base in the area, potential employment for others, and economic benefits for the town, county and state. The two highest-rated benefits were the support of national energy independence and reduction of carbon emissions through nuclear energy (both scoring about 3).

The average score for the nine risks was significantly higher than for the nine benefits (4 versus 2.5) and the calculation of a risk/benefit ratio shows that 16% of the respondents felt that the benefits outweigh the risks, with the balance (84%) reporting that the risks outweigh the benefits up to a factor of five.

Finally, we asked a set of questions concerning actions and voting intention. Of our respondents, 3% had written a letter to the editor, 12% had donated money to some issue group, 14% had written a letter to an elected official, 35% had attended a public meeting, and 39% had signed a petition. Of the respondents who said they intended to vote in some local or state election this year (93%), a strong majority (79%) indicated that this issue will affect their voting choices.

Taken overall, this study not only confirms the common wisdom that public opinion is against the proposed mining operation, but also gives an indication of the strength of this opposition and provides some nuanced insight into the factors shaping public opinion.