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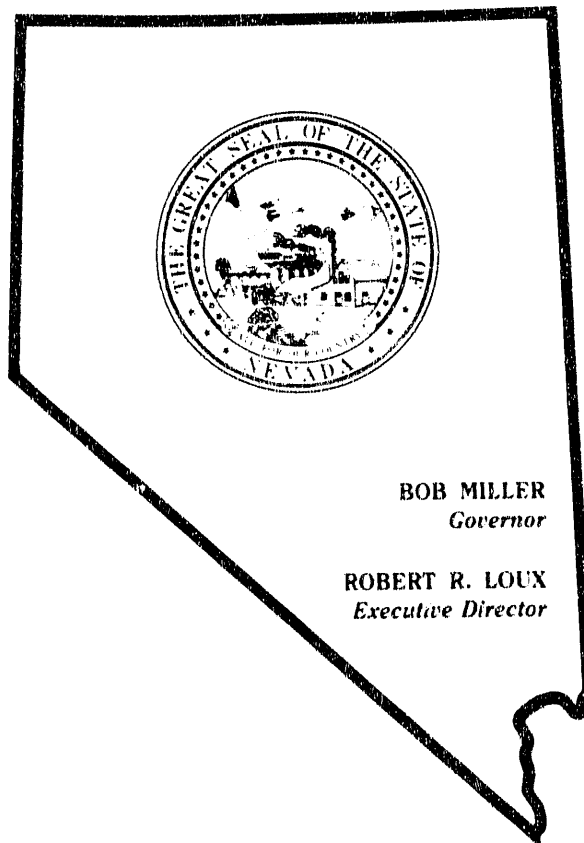
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Yucca Mountain Socioeconomic Project

The 1991 Nevada State Telephone Survey:
Key Findings
by

James H. Flynn
C. K. Mertz
Paul Slovic
(Decision Research)

May 1991



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The Nevada Agency for Nuclear Projects/Nuclear Waste Project Office (NWPO) was created by the Nevada Legislature to oversee federal high-level waste activities in the State. As part of its oversight role, NWPO has contracted for studies designed to assess the socioeconomic implications of a repository and of repository-related activities. This study was funded by DOE grant number DE-FG08-85-NV10461.

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Introduction

The 1991 Nevada State Telephone Survey was implemented by Decision Research on behalf of the State of Nevada, Agency for Nuclear Projects/Nuclear Waste Project Office (NWPO) as part of an ongoing socioeconomic impact assessment study. The scope of this survey was considerably smaller than a previous survey conducted in 1989 and focused more upon public evaluations of the Yucca Mountain repository program and the trust Nevadans place in key public officials who are currently addressing the siting issues. In order to provide longitudinal data on the repository program, the 1991 questionnaire consisted of questions that were used in the 1989 NWPO survey which was conducted by Mountain West Research. As a result, the findings from this survey are compared with analogous items from the 1989 survey, and with the results from a survey commissioned by the *Las Vegas Review-Journal* and reported in their issue of October 21, 1990. The *Review-Journal* survey was conducted by Bruce Merrill of the Arizona State University Media Research Center. A more complete comparison of the 1989 and 1991 surveys sponsored by NWPO is possible since the researchers at Decision Research had access to both these databases. The only source of information for the *Review-Journal* findings was the articles published in the Fall, 1990.

Methodology

A random sample of telephone numbers was generated by Survey Sampling, Inc. of Fairfield, Connecticut. This sample allowed access to all households with telephones, whether listed or unlisted, in proportion to the household population of the state. The survey interviews were conducted by Standage Accureach, Inc. of Denver, Colorado during the period March 25 to April 1, 1991. Telephone numbers were contacted a minimum of three times to determine if they met the criteria of being a residential household with a respondent over the age of 18 years of age. The 500 completed interviews represent a response rate of 48.1 percent from a total of 1,039 qualified households. The margin of error for the entire sample is ± 4.5 percent. Appendix A contains a copy of the survey instrument. Appendix B contains a copy of the frequency distributions for the sociodemographic characteristics of the respondents and the trust questions; other frequency distributions are contained in the report.

Findings

The findings of the 1991 survey show that Nevadans oppose the federal government attempts to locate a high-level radioactive waste repository at Yucca Mountain. They support a policy of opposition on the part of Nevada officials. They believe that Nevadans should have the final say in whether to accept the repository or not, and they reject the proposition that benefits from the repository program will outweigh the harms. These findings are very similar to survey results from 1989 and 1990 and once again demonstrate very widespread public opposition by Nevadans to the current federal repository program.

- In responding to a referendum vote on the hypothetical location of a repository at Yucca Mountain, 80.2 percent voted against it while only 15.4 percent voted for it.
- Over 90 percent said that Nevadans should have the final say on whether or not to have the repository located inside the state. Only 8.2 percent disagree with the statement which proposed this right for state residents.
- Almost two-thirds of Nevadans (64.0 percent) said that they disagreed with the statement that the Department of Energy (DOE) could be trusted to disclose serious problems with the Yucca Mountain project. Only about a quarter (26 percent) felt that DOE could be trusted on this issue.
- In terms of the potential for the repository to have a negative impact upon the tourist industry, 62.0 percent of the respondents agreed with the statement that this could happen. Those who disagreed with this possibility made up 29.6 percent of the respondents.
- On the overall evaluation of benefits and harms, 67.4 percent disagreed with the statement that benefits would outweigh harms. Only a fifth (20.0 percent) agreed with this possibility.
- When offered a choice between: (1) stopping opposition to the repository and making a deal with the federal government; or (2) continuing opposition even if that meant forgoing benefits, almost three-quarters (72.8 percent) said to continue opposition while 21.8 percent opted for making a deal.
- On the measures of trust, the Nevada Governor topped the list of officials, agencies and institutions. The three federal entities — DOE, the Nuclear Regulatory Commission (NRC), and the U.S. Congress — were clustered together below the midpoint (a score of 5) on the zero to ten scale. DOE and NRC were the only governmental entities to record a decline compared to the results of the 1989 survey.
- The results of the 1991 survey are quite consistent with the findings from surveys conducted in 1989 and 1990. The degree of opposition in Nevada to the Yucca Mountain program is very high and has persisted since the Amendments Act of 1987 modified the Nuclear Waste Policy Act of 1982 and selected Yucca Mountain as the only site to be studied as a location of a repository.

Yucca Mountain Referendum

Following a short introduction (see Appendix A for complete text of the questionnaire), the first survey question posed a hypothetical situation in order to ascertain

whether the respondent supported the development of the proposed high-level nuclear waste repository at Yucca Mountain. The question was as follows:

For the purpose of this question, let us suppose that the Department of Energy selected the Yucca Mountain site for the nation's first high-level radioactive waste repository, but that the repository would not be located at Yucca Mountain unless Nevada residents voted in favor of it. If you had to vote on that issue today, would you vote for or against locating the repository at Yucca Mountain?

This question was asked in both the 1991 and 1989 Nevada surveys conducted as part of the NWPO socioeconomic studies. The 1990 *Review-Journal* survey asked a similar question: "Should the Federal government build the nation's first high-level nuclear waste facility in Nevada?"

Survey results indicate that not only do Nevada respondents continue to be adamantly opposed to locating the repository at Yucca Mountain, but that opposition appears to be increasing. Eighty percent of the 1991 state-wide respondents would vote against locating the repository at Yucca Mountain, a 10.8 percent increase over 1989 responses (see Table 1).

Table 1
Yucca Mountain Referendum

	NEVADA			CLARK COUNTY ¹	
	1991	1990 ²	1989	1991	1989
Vote For	15.4%	12.0%	14.4%	18.7%	15.8%
Vote Against	80.2	77.0	69.4	76.5	68.0
Wouldn't Vote	0.4	--	7.4	0.3	6.8
Don't Know	3.8	11.0	7.8	4.4	8.3
Refused	0.2	--	1.0	--	1.1
Number of Respondents	500	379	500	294	266

¹Clark County figures are subsets of the 1991 and 1989 state-wide surveys, respectively.

²*Review-Journal* 1990 Survey: "Should the Federal government build the nation's first high-level nuclear waste facility in Nevada?"

Although the percentages are slightly lower, these findings hold true for Clark County respondents as well as for the state as a whole. One 1991 survey question asked if the respondent or any member of the respondent's household worked for the U.S. Department of Energy or any of its contractors during the past ten years. Of the 33 respondents who answered "yes" to this question, 28 of them resided in Clark County. As these 28 respondents made up nearly ten percent of the Clark County respondents, the data was compared to respondents without the past and present DOE employment. It was found that the percentage voting against the repository in Clark County (78.3%) was slightly higher when the present and past DOE households were excluded, but still slightly lower than the state-wide results. A similar trend was found in the 1989 survey. Interestingly, a majority of 1991 respondents from DOE households voted against the repository, 16 of 28 households (57.1 percent) opposed the program at Yucca Mountain.

A survey conducted by the State of Nevada in 1987 also found low levels of support. This survey was conducted prior to the 1987 Amendments to the Nuclear Waste Policy Act of 1982 when three sites were being considered for the repository. The 1987 survey asked: "If a vote were held today on building a permanent repository, would you vote for locating a repository at: Hanford in Washington State; Yucca Mountain in Nevada; Deaf Smith County in Texas; None of the Above; or Don't Know." The largest proportion of respondents (43.5%) voted for none of the three sites. Of those Nevada respondents who supported one of the three sites, Yucca Mountain was the most preferred site with slightly less than one-quarter (24%) of the total vote.¹ Subsequent surveys have found considerably less support in Nevada, as is shown in Table 1.

More people have "made up their minds" about the repository issue. The proportion of respondents who would vote either "yes" or "no" is larger, 95.6 percent in 1991 compared to 83.8 percent in 1989. The proportion who "don't know," "wouldn't vote," or "refused to answer" are all substantially smaller.

Women were more likely to vote no on the repository issue than men; 89.4 percent of the female respondents voted no as compared to 70.7 percent of the males in the 1991 survey (see Table 2). Similar trends were found in the 1989 survey. No other strong sociodemographic trends were detected.

¹Kunreuther, H., Slovic, P., Nigg, J., and Desvousges, W. (1987). Final report: Risk perception telephone survey. Technical Report: Carson City, Nevada. Nuclear Waste Project Office.

Table 2
Yucca Mountain Referendum Crosstabs By Gender
1991 and 1989 Nevada Surveys

	1991		1989	
	Male	Female	Male	Female
Vote For	23.2%	7.9%	23.7%	6.9%
Vote Against	70.7	89.4	59.4	77.5
Wouldn't Vote	0.4	0.4	6.3	8.3
Don't Know	5.3	2.4	9.4	6.5
Refused	0.4	0.0	1.3	0.7

Views Toward Self-Determination

The 1991 survey asked respondents to respond to a list of statements about the issues associated with the Yucca Mountain repository program. They were instructed to indicate whether they "strongly disagree," "somewhat disagree," "neither agree nor disagree," "somewhat agree," or "strongly agree" with the statement. The first statement read to the respondents was: "Nevada residents should have the final say on whether or not the repository is built inside the state." The 1990 *Review-Journal* and the 1989 State of Nevada surveys did not ask this question.

Both state-wide and Clark County respondents overwhelmingly feel Nevadans should have the final say on whether the repository is built inside their state. For the state, 90.2 percent of the respondents somewhat or strongly agree. The agree total for Clark County was 87.5 percent. If the past and present DOE households are excluded the percentages for Clark County are 88.2 percent agreeing with this agreement. As Table 3 shows most of the respondents strongly agree with this statement.

A greater percentage of women agreed with this statement than men; 95.2 percent of the female respondents agreed that Nevadans should have the final say on whether the repository is built inside Nevada compared to 85.0 percent of the males (see Table 4).

Table 3
Nevada Residents Should Have Final Say on Repository

	NEVADA			CLARK COUNTY ¹	
	1991	1990 ²	1989 ²	1991	1989 ²
Strongly Disagree	4.4%			6.1%	
Somewhat Disagree	3.8			4.8	
Neither Disagree/Agree	1.6			1.7	
Somewhat Agree	7.6			8.2	
Strongly Agree	82.6			79.3	
Number of Respondents	500			294	

¹Clark County figures are subsets of the 1991 and 1989 state-wide surveys, respectively.

²The 1990 *Review-Journal* survey and 1989 State of Nevada (NWPO) surveys did not ask this question.

Table 4
Nevadans Should Have Final Say Crosstabs By Gender
1991 and 1989 Nevada Surveys

	1991		1989*	
	Male	Female	Male	Female
Strongly Disagree	7.7%	1.2%		
Somewhat Disagree	5.7	2.0		
Neither Disagree/Agree	1.6	1.6		
Somewhat Agree	11.0	4.3		
Strongly Agree	74.0	90.9		

*This question was not asked on the 1989 survey.

Trust in DOE to Disclose Problems with Yucca Mountain

The U.S. Department of Energy (DOE) is the agency responsible for performing the technical studies to determine if the Yucca Mountain site is suitable for a high-level nuclear waste repository. The manner in which these studies are conducted may influence people's attitudes and support for the program. In order to gauge people's perception of the DOE management effort, respondents were asked to indicate their agreement with the statement: "The U.S. Department of Energy can be trusted to provide prompt and full disclosure of any serious problems with the Yucca Mountain project."

As Table 5 shows, 64 percent of 1991 Nevada respondents do not feel DOE will provide prompt and full disclosure of any serious problems with the Yucca Mountain project. Clark County respondents were somewhat less distrustful of DOE, although a sizable majority of 56.1 percent indicated lack of trust. If past and present DOE households are excluded from the Clark County responses, 58.1 percent of Clark County respondents distrust DOE, still about seven percent less than the state as a whole.

Table 5
DOE Can Be Trusted to Provide Full Disclosure of Serious Problems

	NEVADA			CLARK COUNTY ¹	
	1991	1990 ²	1989	1991	1989
Strongly Disagree	48.6%	27.0%	46.8%	41.8%	45.9%
Somewhat Disagree	15.4	41.0	28.2	14.3	29.7
Neither Disagree/Agree	10.0	3.0	1.6	11.2	2.3
Somewhat Agree	17.2	21.0	15.4	22.4	13.1
Strongly Agree	8.8	8.0	5.6	10.2	6.0
Don't know/No answer	--	--	2.4	--	2.3
Number of Respondents	500	379	500	294	266

¹Clark County figures are subsets of the 1991 and 1989 state-wide surveys, respectively.

²*Review-Journal* 1990 Survey: "The Federal government will be honest in the scientific research it does to determine if nuclear waste can be stored at Yucca Mountain."

The 1991 responses record the opinion that DOE is now more likely to disclose problems with Yucca Mountain than was the opinion recorded with the 1989 survey results, which found 75 percent of state-wide respondents and 77.3 percent of Clark County respondents were distrustful of DOE. The 1990 *Review-Journal* also shows evidence of this trend with 68 percent of the respondents feeling that DOE would not be honest in the scientific research it does to determine if nuclear waste can be stored at Yucca Mountain.

This results, partly from increased trust in DOE, and partly from a substantial increase in the undecided category. Ten percent of the state-wide respondents "neither disagree nor agree" with the statement, compared to only 1.6 percent in 1989. A similar pattern holds for Clark County in this category: 11.2 percent in 1991 compared with only 2.3 percent in 1989.

Those agreeing with the statement increased somewhat between the time of the 1989 and the 1991 surveys. For the state the 1989 figure was 21.0 percent and the 1991 figures is 26.0 percent. Clark County agreement totals were 19.9 percent in 1989 and 32.6 percent in 1991, an increase of over 12 percentage points.

A look at gender differences shows that women are somewhat more inclined to distrust DOE to disclosure serious problems with Yucca Mountain than men. In the 1991 responses, 67.7 percent of the females did not feel DOE could be trusted compared to 60.1 percent of the males (see Table 6). While the level of distrust (as measured by the percentage of those disagreeing with the statement) declined for both men and women, the percentage of those agreeing with the statement increased ten percent for men but remained relatively constant for women. However, the percent of those who were neutral (neither disagree nor agree) increased for both males and females.

Perceptions of Negative Impacts on Tourist Economy

As people's perceptions regarding expected benefits and harms associated with a development may affect their level of support for the project, two questions on the 1991 survey dealt with perceptions of benefits and harms associated with the repository. The first question was more specific in nature and asked respondents whether they disagreed or agreed with the statement: "Development of a high-level radioactive waste repository at Yucca Mountain could have a negative impact on the tourist economy."

Sixty-two percent of the state-wide and 60.9 percent of the Clark County respondents agree that the development of Yucca Mountain could have a negative impact on the tourist economy, with over 40 percent strongly agreeing with this statement (see Table 7).

Table 6
Trust in DOE to Disclosure Information Crosstabs by Gender
1991 and 1989 Nevada Surveys

	1991		1989	
	Male	Female	Male	Female
Strongly Disagree	45.9%	51.2%	49.5%	46.6%
Somewhat Disagree	14.2	16.5	26.1	31.2
Neither Disagree/Agree	8.1	11.8	2.7	0.8
Somewhat Agree	21.5	13.0	15.8	15.8
Strongly Agree	10.2	7.5	5.9	5.6

Table 7
Yucca Mountain Could Have Negative Impact on the Tourist Economy

	NEVADA			CLARK COUNTY ¹	
	1991	1990 ²	1989 ³	1991	1989 ³
Strongly Disagree	15.4%			19.0%	
Somewhat Disagree	14.2			13.9	
Neither Disagree/Agree	8.4			6.1	
Somewhat Agree	18.8			16.3	
Strongly Agree	43.2			44.6	
Don't know/No answer	--			--	
Number of Respondents	500			294	

¹Clark County figures are subsets of the 1991 and 1989 state-wide surveys, respectively.

²Review-Journal 1990 survey did not ask this question.

³The 1989 survey asked: "Having a high-level radioactive waste repository at Yucca Mountain could result in both benefits and problems. I am going to read you a list of possible benefits and problems. On a scale of 0 to 10, with 0 meaning "Not At All Likely" to occur and 10 meaning "Very Likely" to occur, please tell me how likely you think each benefit or problem will occur?: Cause some tourists to avoid coming to Nevada. State-wide results were: 33.6% found it unlikely (0-4); 11.6% were neutral (5); 54.6% thought it was likely (6-10); and 0.2% didn't know. Clark County results: 41.0% found it unlikely; 8.3% were neutral; and 50.8% thought it was likely.

The 1989 State of Nevada survey worded and scored the question somewhat differently as shown in the footnote to Table 7. That survey found that respondents thought it likely that the repository would cause tourists to avoid coming to Nevada; 54.6 percent of the state-wide respondents voiced this opinion and 50.8 percent of the Clark County respondents.

Due to differences in the wording and scoring of responses, comparisons between the 1991 and 1989 survey results should be made with caution. However, the results indicate that perceptions of negative impacts on the tourist economy may have increased since the 1989 survey.

Women are much more likely to perceive negative impacts on the tourist economy than men; 70.9 percent of the female respondents agree with the statement compared to 52.8 percent of the males (see Table 8). Similar results were found in the 1989 survey: 63 percent of the females thought the repository was likely to cause tourists to avoid Nevada, for males the figure was 44.4 percent.

Table 8
Perceptions of Negative Tourism Impacts Crosstabs By Gender
1991 and 1989 Nevada Surveys

	1991		1989*	
	Male	Female	Male	Female
Strongly Disagree	21.5%	9.4%		
Somewhat Disagree	16.3	12.2		
Neither Disagree/Agree	9.3	7.5		
Somewhat Agree	19.5	18.1		
Strongly Agree	33.3	52.8		

*Question worded and scored differently on 1989 survey.

Evaluation of Benefits and Harms

The second question dealing with benefits and harms resulting from the repository was more general in nature and asked respondents if they disagreed or agreed with the statement:

"If the repository were eventually built, I believe that the overall benefits would outweigh the harms."

Over two-thirds (67.4%) of the state-wide respondents did not believe that the overall benefits of the repository would outweigh the harms; most of these respondents (53.2%) felt strongly about this. The figures for Clark County are slightly less with 63.6 percent disagreeing with the statement (see Table 9).

Table 9
Repository Benefits Will Outweigh Harms

	NEVADA			CLARK COUNTY ¹	
	1991	1990 ²	1989	1991	1989
Strongly Disagree	53.2%		47.2%	49.3%	42.5%
Somewhat Disagree	14.2		21.2	14.3	22.2
Neither Disagree/Agree	12.6		4.8	12.9	5.3
Somewhat Agree	8.0		14.6	9.2	16.2
Strongly Agree	12.0		7.8	14.3	9.8
Don't know/No answer	--		4.4	--	4.1
Number of Respondents	500		500	294	266

¹Clark County figures are subsets of the 1991 and 1989 state-wide surveys, respectively.

²Review-Journal 1990 survey did not ask this question.

The disagree response, basically representing the position that benefits do not match harms, is about the same for both surveys. The decline in support for the idea that benefits would exceed harms, results mainly from the increase in those who are neutral (neither disagree nor agree) and the decline in the "don't know/no answer" category.

Again, an examination of gender responses show that females are less likely to perceive benefits outweighing the harms; 74.8 percent of the females respondents disagree with the statement compared to 59.8 percent of the males, a difference of 15 percent (see Table 10). The 1989 survey responses showed the same pattern with nearly 20 percent more females disagreeing with the statement than males.

Table 10
Benefits Will Outweigh Harms Crosstabs By Gender
1991 and 1989 Nevada Surveys

	1991		1989	
	Male	Female	Male	Female
Strongly Disagree	43.1%	63.0%	42.6%	55.0%
Somewhat Disagree	16.7	11.8	18.1	25.6
Neither Disagree/Agree	13.0	12.2	7.4	3.1
Somewhat Agree	11.0	5.1	19.4	11.8
Strongly Agree	16.3	7.9	12.5	4.6

Should State of Nevada "Make a Deal" with DOE or Continue Their Opposition?

Finally, respondents were asked to evaluate two possible strategies state and local public policy makers could take in responding to the federal repository program. Should Nevada officials continue their opposition to siting the repository in Nevada or "make a deal" with the federal government in order to obtain benefits? The question was:

Some people in the state think that Nevadans should stop fighting the repository and try instead, to make a deal with the federal government in order to get benefits for the State. Others believe that Yucca Mountain is a poor choice, and that Nevada's resistance should not be weakened or compromised by entering into a deal for benefits. Do you believe the State should stop its opposition and make a deal or continue opposition and turn down offers.

Nearly 73 percent of the respondents in the state as a whole and 68 percent of the Clark County respondents were against "making a deal." These figures are almost identical to the 1989 results (see Table 11). Support for the position to make a "deal" is up slightly for the state with a noticeable increase from 22.9 percent to 27.2 percent for Clark County.

Table 11
Make a Deal or Continue Fighting

	NEVADA			CLARK COUNTY ¹	
	1991	1990 ²	1989	1991	1989
Stop Fighting & Make a Deal	21.8%		19.6%	27.2%	22.9%
Continue Opposition/ Turn Down Offers	72.8		73.6	68.0	69.9
Don't Know	4.6		5.6	4.4	6.0
No answer	0.8		1.2	0.3	1.1
Number of Respondents	500		500	294	266

¹Clark County figures are subsets of the 1991 and 1989 state-wide surveys, respectively.

²1990 *Review-Journal* survey broke this question into two parts; see Table 12 and 13 for their results.

The 1990 *Review-Journal* survey structured this question somewhat differently. They asked respondents to indicate their support to two different statements: (1) Nevada's political leaders should continue to fight against building the nuclear waste facility; and (2) Nevada's political leaders should make a deal with the federal government now and get as much money as possible for letting the waste facility be built in the state. Tables 12 and 13 show their survey results.

The *Review-Journal* survey found that 80 percent of the respondents thought Nevada's political leaders should continue to fight against building the nuclear waste facility (see Table 12). Seventy percent opposed making a deal with the federal government (see Table 13). Thus, all three surveys conducted since 1989 show strong opposition to making a deal with the federal government to obtain benefits for accepting the repository.

Table 12
1990 Review-Journal Poll Results

Nevada's political leaders should continue to fight against building the nuclear waste facility.

Strongly Support	45.0%
Support	35.0
Oppose	13.0
Strongly Oppose	3.0
Don't Know	4.0

Source: Papinchak, S. and L. Wingard, "Nuke Views Changing: Yucca Mountain, A Question of Credibility," *Las Vegas Review-Journal*, October 21, 1990, p. 10A.

Table 13
1990 Review-Journal Poll Results

Nevada's political leaders should make a deal with the federal government now and get as much money as possible for letting the waste facility be built in the state.

Strongly Support	7.0%
Support	16.0
Oppose	38.0
Strongly Oppose	32.0
Don't Know	7.0

Source: Papinchak, S. and L. Wingard, "Nuke Views Changing: Yucca Mountain, A Question of Credibility," *Las Vegas Review-Journal*, October 21, 1990, p. 10A.

Opposition is particularly strong among women; 85.5 percent of the females respondents were opposed to making a deal compared to 66.9 percent of the males, an 18.6 percent difference. Similar results were found in the 1989 survey as shown in Table 14.

Table 14
Public Policy Options Crosstabs By Gender
1991 and 1989 Nevada Surveys

	1991		1989	
	Male	Female	Male	Female
Stop Fighting & Make A Deal	31.4%	14.5%	29.4%	12.1%
Continue Opposition/ Turn Down Offers	66.9	85.5	65.2	82.1
No Answer	1.7	0.0	5.4	5.9

Trust in Government

One set of questions was designed to measure the level of trust people have in a number of federal, state, and local institutions and officials. People were asked

On a scale of 0 to 10 where 0 means you have NO TRUST AT ALL and 10 means you have COMPLETE TRUST. Please tell me how much you trust each of the following to do what is right with regard to a nuclear waste repository.

The following entities were included:

- President of the United States
- U.S. Congress
- U.S. Environmental Protection Agency
- U.S. Department of Energy
- U.S. Nuclear Regulatory Commission
- Governor of Nevada
- Nevada State Legislature
- State of Nevada Officials and Agencies
- Your County Commissioners
- Your Local City and Town Officials

Given the role that some of these entities have in the repository program, the confidence people have in them seems like a relevant question. It will also play an important role in the effectiveness of many of these actors. The ability of the Department of Energy to properly manage the repository program has already been widely questioned due to the publicized problems at other DOE facilities. Thus the trust Nevadans place in various governmental entities is of considerable interest. The survey results are shown in Table 15.

The Governor of Nevada elicited the highest rating of trust (mean = 7.0) followed by the Nevada State Legislature (mean = 6.4). Respondents expressed the lowest level of trust for the U.S. Nuclear Regulatory Commission (mean = 3.9) followed by the U.S. Department of Energy (mean = 4.3) and the U.S. Congress (mean = 4.5)

Trust in all levels of government increased somewhat since the 1989 survey with the exception of trust in NRC and DOE, which declined slightly. The greatest increases in trust were seen for the President, the Governor of Nevada, and the Nevada State Legislature. It might be noted that the President's rating was made in the days following the successes of the Gulf War when President Bush's approval in national polls had reached unprecedented high scores.

Women typically expressed slightly less trust than men in all the governmental entities with the exception of their local city or town official (female mean = 5.7; male mean = 5.5). The greatest difference in trust between males and females was found for the Nuclear Regulatory Commission; the male mean rating was 4.3 compared to the female mean rating of 3.4.

Table 15
Trust in Government

		NEVADA			CLARK COUNTY ¹	
		1991	1990 ²	1989	1991	1989
U.S. President	Mean	6.0		5.1	6.2	5.2
	Median	6		5	6	5
	Mode	5		5	5	5
U.S. Congress	Mean	4.5		4.3	4.8	4.2
	Median	5		5	5	5
	Mode	5		5	5	5
U.S. Environmental Protection Agency	Mean	5.7		5.4	5.8	5.5
	Median	6		5	6	5
	Mode	5		5	5	5
U.S. Dept. of Energy	Mean	4.3		4.6	4.6	4.7
	Median	5		5	5	5
	Mode	5		5	5	5
U.S. Nuclear Regulatory Comm.	Mean	3.9		4.3	4.0	4.3
	Median	4		5	5	5
	Mode	0		5	0	5
Governor of Nevada	Mean	7.0		6.3	7.0	6.5
	Median	8		7	8	7
	Mode	10		8	10	10
Nevada State Legislature	Mean	6.4		5.7	6.3	5.7
	Median	7		6	7	6
	Mode	8		5	8	5
Nevada State Officials & Agencies	Mean	5.9		5.5	5.9	5.5
	Median	6		5	6	5
	Mode	5		5	5	5
Your County Commissioners	Mean	5.6		5.1	5.5	5.0
	Median	5		5	5	5
	Mode	5		5	5	5
Your local city or town officials	Mean	5.6		5.3	5.7	5.2
	Median	6		5	6	5
	Mode	5		5	5	5
Number of Respondents		500		500	294	266

¹Clark County figures are subsets of the 1991 and 1989 state-wide surveys, respectively.

²Review-Journal survey did not ask this question.

APPENDIX A

1991 Survey Instrument

Hello, I'm _____, a public opinion interviewer with Standage Market Research, a public opinion research firm. We are conducting a survey to find out what residents of Nevada think about the proposed High-Level Radioactive Waste Repository program. As you may know, the federal government is currently considering Yucca Mountain, Nevada as a possible site for this facility.

A. First of all, I need to know, are you a resident of the state of Nevada?
YES....CONTINUE
NO.....DISCONTINUE

B. We are trying to get a random sample of household members and we need to speak with the person in your household who is 18 years of age or older and who has had the most recent birthday.

Are you the person 18 or older who has had the most recent birthday in your household?
YES....GO TO QUESTION 1
NO.....ASK C.

C. Would it be possible for me to speak to the person 18 or older who has had the most recent birthday?

YES....REPEAT INTRODUCTION TO CORRECT PERSON AND CONTINUE MAIN INTERVIEW.
NO.....RESCHEDULE A TIME-RECORD TIME ON CALL RECORD SHEET AND GO TO NEXT NUMBER.

1. The first question deals with the disposal and storage of high-level radioactive wastes. The disposal and storage of high level radioactive wastes is a significant problem for the nuclear industry. The wastes are currently produced and stored at a number of nuclear power plants and several military and research facilities around the country. In 1987 Congress decided that Yucca Mountain, Nevada would be studied as a possible repository site.

For the purpose of this question, let's suppose that the Department of Energy selected the Yucca Mountain site for the nation's first high-level radioactive waste repository, but that the repository would not be located at Yucca Mountain unless Nevada residents voted in favor of it. If you had to vote on that issue today, would you vote for or against locating the nation's first high-level radioactive waste repository at Yucca Mountain?

Vote For1
Vote Against2
Wouldn't vote.3
Don't Know0
Refused to Answer.9

(4)

2. I am going to read a list of statements about the issues associated with the Yucca Mountain Repository Program. In response to each statement please tell me if you STRONGLY DISAGREE, SOMEWHAT DISAGREE, NEITHER AGREE NOR DISAGREE, SOMEWHAT AGREE, OR STRONGLY AGREE.

	<u>STRONGLY DIS</u>	<u>SOMEWHAT DIS</u>	<u>NEITHER DIS/AGR</u>	<u>SOMEWHAT AGR</u>	<u>STRONGLY AGR</u>	
Nevada residents should have the final say on whether or not the repository is built inside the state.	1	2	3	4	5	(5)
The U.S. Department of Energy can be trusted to provide prompt and full disclosure of any serious problems with the Yucca Mountain project.	1	2	3	4	5	(6)
Development of a high-level radioactive waste repository at Yucca Mountain could have a negative impact on the tourist and visitor economy in Nevada.	1	2	3	4	5	(7)
If the repository were eventually built, I believe that the overall benefits would outweigh the harms.	1	2	3	4	5	(8)

3. Now I am going to ask you how you feel about various government agencies and institutions. On a scale of 0 to 10 where 0 means you have NO TRUST AT ALL and 10 means you have COMPLETE TRUST. Please tell me how much you trust each of the following to do what is right with regard to a nuclear waste repository.

A. The President of the United States	9-10
B. The U.S. Congress.	11-12
C. The U.S. Environmental Protection Agency	13-14
D. The U.S. Department of Energy.	15-16
E. The U.S. Nuclear Regulatory Commission	17-18
F. The Governor of the State of Nevada.	19-20
G. The Nevada State Legislature	21-22
H. State of Nevada officials and agencies	23-24
I. Your County Commissioners.	25-26
J. Your local city and town officials	27-28

4. Some people in the state think that Nevadans should stop fighting the repository and try, instead, to make a deal with the Federal Government in order to get benefits for the State. Other people believe that Yucca Mountain is a poor choice, and that Nevada's resistance should not be weakened or compromised by entering into a deal for benefits. Do you believe the State should stop its opposition and make a deal, or do you think the State should continue to do all that it can to oppose the repository even if that means turning down benefits that may be offered by the Federal Government?

Stop Fighting and Make a Deal 1
 Continue opposition and turn down benefit offers. .22
 Don't Know. 3
 No Answer 4

5. Finally, we would like to ask some questions about you and your family to help us interpret the results of this study. Remember that your responses are completely confidential.

5. What was the highest grade of school or college that you completed?

Didn't go to school 1
 Grade School (1-8) 2
 Some High School 3
 High School Graduate. 4
 Some College (13-15). 5 ³⁰
 Professional/Technical. 6
 College Graduate. 7
 Post Graduate (17+) 8
 Don't Know. 0
 Refused 9

6. Please tell me your age 31 32

7. What is your current marital status?
 Are you . . .

Married 1
 Living as Married 2
 Single and Never Been Married 3
 Divorced ~~3~~ 4
 Separated 5
 Widowed 6
 Don't Know. 0
 Refused/No Answer 9

8. What county do you live in?

Churchill 01
 Clark 02
 Douglas 03
 Elko. 04
 Esmeralda 05
 Eureka. 06
 Humboldt. 07
 Lander. 08 ³⁴⁻³⁵
 Lincoln 09
 Lyon. 10
 Mineral 11
 Nye 12
 Pershing. 13
 Storey 14
 Washoe 15
 White Pine. 16
 Carson City 17

9. How long have you lived in Nevada?

36 - 37
 No. of Years.

10. What is your zip code?

38 39 40 41 42

12. I'd like to get some general categories regarding levels of family income. Please include total family income from all sources before taxes during 1990. Stop me when I get to yours.

Under \$5,000.00 1
 \$5,000 but less than \$15,000. . . 2
 \$15,000 but less than \$25,000 . . 3 ⁴⁴
 \$25,000 but less than \$35,000 . . 4
 \$35,000 but less than \$50,000 . . 5
 \$50,000 but less than \$65,000 . . 6
 \$65,000 but less than \$85,000 . . 7
 \$85,000 and over. 8
 Don't Know. 0
 Refused 9

11. Have you or any member of your household worked for the U.S. Department of Energy or any of its contractors during the past 10 years?

Yes 1
 No 2 ⁴³
 Don't Know. 0
 No Answer 9

13. Respondent was:

Male. 1 ⁴⁵
 Female 2 ⁴⁶

Telephone Number _____

Interviewer Name _____

Date: _____

APPENDIX B

1989 and 1991 Frequency Distributions:

**Trust in Government
Sociodemographic Characteristics**

Table B-1
 Frequency Distributions: Trust in Government
 1991 Nevada State Survey

QUESTION: Now I am going to ask you how you feel about various government agencies and institutions. On a scale of 0 to 10 where 0 means you have NO TRUST AT ALL and 10 means you have COMPLETE TRUST. Please tell me how much you trust each of the following to do what is right with regard to a nuclear waste repository.

Score	President	Congress	EPA	DOE	NRC	Nevada Governor	Nevada Legislature	Nevada Agencies	County Comm	City/Town Officials
	# %	# %	# %	# %	# %	# %	# %	# %	# %	# %
No Trust=0	47 9.4	84 16.8	57 11.4	85 17.0	112 22.4	25 5.0	28 5.6	29 5.8	41 8.2	45 9.0
1	3 0.6	13 2.6	10 2.0	24 4.8	20 4.0	3 0.6	6 1.2	4 0.8	4 0.8	10 2.0
2	10 2.0	32 6.4	27 5.4	42 8.4	35 7.0	15 3.0	11 2.2	18 3.6	19 3.8	21 4.2
3	25 5.0	46 9.2	20 4.0	31 6.2	48 9.6	12 2.4	17 3.4	20 4.0	32 6.4	27 5.4
4	35 7.0	36 7.2	22 4.4	33 6.6	31 6.2	14 2.8	24 4.8	23 4.6	37 7.4	32 6.4
5	120 24.0	109 21.8	92 18.4	113 22.6	105 21.0	76 15.2	95 19.0	128 25.6	119 23.8	105 21.0
6	33 6.6	49 9.8	45 9.0	35 7.0	28 5.6	26 5.2	46 9.2	59 11.8	35 7.0	44 8.8
7	38 7.6	44 8.8	56 11.2	52 10.4	31 6.2	59 11.8	72 14.4	56 11.2	57 11.4	63 12.6
8	77 15.4	50 10.0	74 14.8	38 7.6	33 6.6	88 17.6	102 20.4	80 16.0	78 15.6	68 13.6
9	24 4.8	11 2.2	34 6.8	17 3.4	11 2.2	54 10.8	31 6.2	25 5.0	25 5.0	30 6.0
Complete Trust=10	83 16.6	21 4.2	58 11.6	19 3.8	20 4.0	121 24.2	60 12.0	43 8.6	32 6.4	43 8.6
Don't Know	5 1.0	5 1.0	5 1.0	11 2.2	26 5.2	7 1.4	8 1.6	15 3.0	21 4.2	12 2.4
Mean	6.0	4.5	5.7	4.3	3.9	7.0	6.4	5.9	5.6	5.6
Median	6	5	6	5	4	8	7	6	5	6
Mode	5	5	5	5	0	10	8	5	5	5

Table B-2
 Frequency Distributions: Trust in Government
 1989 Nevada State Survey

QUESTION: Now I am going to ask you how you feel about various government agencies and institutions. On a scale of 0 to 10 where 0 means you have NO TRUST AT ALL and 10 means you have COMPLETE TRUST. Please tell me how much you trust each of the following to do what is right with regard to a nuclear waste repository.

Score	President	Congress	EPA	DOE	NRC	Nevada Governor	Nevada Legislature	Nevada Agencies	County Comm	City/Town Officials
	# %	# %	# %	# %	# %	# %	# %	# %	# %	# %
No Trust=0	83 16.6	81 16.2	54 10.8	70 14.0	83 16.6	28 5.6	35 7.0	32 6.4	41 8.2	40 8.0
1	5 1.0	8 1.6	9 1.8	13 2.6	19 3.8	7 1.4	8 1.6	7 1.4	20 4.0	22 4.4
2	24 4.8	44 8.8	27 5.4	35 7.0	37 7.4	22 4.4	29 5.8	21 4.2	25 5.0	22 4.4
3	29 5.8	51 10.2	38 7.6	46 9.2	54 10.8	22 4.4	26 5.2	32 6.4	38 7.6	33 6.6
4	23 4.6	53 10.6	34 6.8	44 8.8	43 8.6	27 5.4	22 4.4	32 6.4	34 6.8	31 6.2
5	120 24.0	121 24.2	97 19.4	120 24.0	94 18.8	80 16.0	103 20.6	123 24.6	110 22.0	122 24.4
6	31 6.2	32 6.4	46 9.2	37 7.4	48 9.6	45 9.0	56 11.2	63 12.6	48 9.6	35 7.0
7	41 8.2	39 7.8	52 10.4	37 7.4	28 5.6	62 12.4	77 15.4	62 12.4	58 11.6	62 12.4
8	63 12.6	33 6.6	58 11.6	39 7.8	29 5.8	84 16.8	60 12.0	61 12.2	45 9.0	53 10.6
9	26 5.2	11 2.2	30 6.0	18 3.6	22 4.4	37 7.4	28 5.6	21 4.2	27 5.4	25 5.0
Complete Trust=10	50 10.0	23 4.6	48 9.6	29 5.8	25 5.0	74 14.8	44 8.8	29 5.8	26 5.2	34 6.8
Don't Know	5 1.0	4 0.8	7 1.4	12 2.4	18 3.6	12 2.4	12 2.4	17 3.4	28 5.6	21 4.2
Mean	5.1	4.3	5.4	4.6	4.3	6.3	5.7	5.5	5.1	5.3
Median	5	5	5	5	5	7	6	5	5	5
Mode	5	5	5	5	5	8	5	5	5	5

Table B-3
 Frequency Distributions: Education
 1991 and 1989 Nevada State Surveys

QUESTION: What was the highest grade of school or college that you completed?

	1991		1989	
	Number	Percent	Number	Percent
No School	0	0.0	1	0.2
Grade School (1-8)	10	2.0	7	1.4
Some High School	44	8.8	24	4.8
High School Graduate	150	30.0	164	32.8
Some College (13-15)	170	34.0	183	36.6
Professional/Technical	15	3.0	9	1.8
College Graduate	62	12.4	75	15.0
Post Graduate (17+)	46	9.2	33	6.6
Don't Know	3	0.6	4	0.8
Number of Respondents	500		500	

Table B-4
 Frequency Distributions: Age
 1991 and 1989 Nevada State Surveys

QUESTION: Please tell me your age

	1991		1989	
	Number	Percent	Number	Percent
18 to 24	62	12.4	50	10.0
25 to 34	120	24.0	140	28.0
35 to 44	110	22.0	102	20.4
45 to 54	90	18.0	68	13.6
55 to 64	61	12.2	62	12.4
65 and older	55	11.0	74	14.8
No answer	2	0.4	4	0.8
Number of Respondents	500		500	

Table B-5
 Frequency Distributions: Marital Status
 1991 and 1989 Nevada State Surveys

QUESTION: What is your current marital status?

	1991		1989	
	Number	Percent	Number	Percent
Married	307	61.4	278	55.6
Living as Married	4	0.8	7	1.4
Single and never been married	98	19.6	101	20.2
Divorced	57	11.4	57	11.4
Separated	4	0.8	8	1.6
Widowed	26	5.2	46	9.2
Refused/No answer	4	0.8	3	.6
Number of Respondents	500		500	

Table B-6
 Frequency Distributions: County of Residence
 1991 and 1989 Nevada State Surveys

QUESTION: What county do you live in?

	1991		1989	
	Number	Percent	Number	Percent
Churchill	8	1.6	14	2.8
Clark	294	58.8	266	53.2
Douglas	16	3.2	13	2.6
Elko	12	2.4	21	4.2
Esmeralda	3	0.6	0	0.0
Eureka	1	0.2	0	0.0
Humboldt	5	1.0	7	1.4
Lander	2	0.4	0	0.0
Lincoln	2	0.4	1	0.2
Lyon	6	1.2	14	2.8
Mineral	2	0.4	2	0.4
Nye	7	1.4	12	2.4
Pershing	3	0.6	1	0.2
Washoe	119	23.8	127	25.4
White Pine	3	0.6	1	0.2
Carson City	17	3.4	20	4.0
No answer	0	0.0	1	0.2
Number of Respondents	500		500	

Table B-7
 Frequency Distributions: Nevada Tenure
 1991 and 1989 Nevada State Surveys

QUESTION: How long have you lived in Nevada?*

	1991		1989*	
	Number	Percent	Number	Percent
2 years or less	69	13.8	87	17.4
3 to 5 years	71	14.2	83	16.6
6 to 10 years	61	12.2	89	17.8
11 years or more	299	59.8	238	47.6
No answer	0	0.0	3	0.6
Number of Respondents	500		500	

Note: Wording on 1989 survey was: "About how many years have you lived in your present community?"

Table B-8
 Frequency Distributions: Past or Present DOE Employment
 1991 and 1989 Nevada State Surveys

QUESTION: Have you or any member of your household worked for the U.S. Department of Energy or any of its contractors during the past 10 years?*

	1991		1989*	
	Number	Percent	Number	Percent
Yes	33	6.6	39	7.8
No	460	92.0	454	90.8
Don't Know/No Answer	7	1.4	7	1.4
Number of Respondents	500		500	

*Note: The 1989 survey broke this question into four questions; the responses have been aggregated for this table.

Table B-9
Frequency Distributions: Income
1991 Nevada State Survey

QUESTION: I'd like to get some general categories regarding levels of family income. Please include total family income from all sources before taxes during 1990. Stop me when I get to yours.

	Number	Percent
Under \$5,000	9	1.8
\$5,000 to 14,999	37	7.4
\$15,000 to 24,999	73	14.6
\$25,000 to 34,999	97	19.4
\$35,000 to 49,999	112	22.4
\$50,000 to 64,999	54	10.8
\$65,000 to 84,999	28	5.6
\$85,000 and over	27	5.4
Don't Know	19	3.8
Refused	44	8.8
Number of Respondents	500	

Table B-10
 Frequency Distributions: Income
 1991 and 1989 Nevada State Surveys

The 1989 Nevada State telephone survey also asked a question about the respondent's family income; however, the general categories used for income levels were different than those utilized in the 1991 survey. The 1989 categories were much broader than those of the 1991 survey. It was possible to reformat the 1991 data to conform to the 1989 categories and the results are displayed in the table below:

	1991		1989*	
	Number	Percent	Number	Percent
Less than \$25,000	119	23.8	143	28.6
\$25,000 to \$50,000	209	41.8	216	43.2
Over \$50,000	109	21.8	94	18.8
Don't know/refused	63	12.6	47	9.4

*Note: Question on 1989 survey was worded as follows: "Finally I'd like to read some general categories regarding levels of family income. They include total family income from all sources before taxes during 1988. Please tell me to stop when I get to yours."

Table B-11
Frequency Distributions: Sex
1991 and 1989 Nevada State Surveys

QUESTION: Sex of respondent

	1991		1989	
	Number	Percent	Number	Percent
Male	246	49.2	224	44.8
Female	254	50.8	276	55.2
Number of Respondents	500		500	

END

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