THE PUBLIC'S BEHAVIOR AND ATTITUDES
DURING THE

FEBRUARY 1977 ENERGY CRISIS

MASTER

Conducted for:
FEDERAL ENERGY ADMINISTRATION

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March 1977

GO 7729

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INTRODUCTION

Objectives of the Survey

The overall objectives of the survey were to investigate the public's behavior and attitudes at the time of the energy emergency. Interviews with a national sample of the adult population took place on February 4, 5 and 6, 1977.

To learn about the public's behavior the survey was designed to answer such questions as:

1. What was the temperature in the home during the day on the day of the interview and for the previous night?
2. Was the temperature lower than at a comparable season last year?
3. Had the temperature in the home been lowered during the two weeks preceeding the interview?
4. How many of those interviewed had, since last Thanksgiving, done such things as adding insulation to their attic or walls, caulked or weatherstripped doors or windows, put up storm windows, closed off heat to unused rooms, had their furnace serviced or washed clothes in cold or warm water rather than hot?
5. Had people reduced their use of fuel as a result of its cost or had they reduced other expenses?

The public's attitudes were explored by finding the answers to such questions as:

1. What is the lowest temperature at which they would be willing to keep their home during the day and at night?
2. What were respondents' reasons for reducing or not reducing the temperature in their home?
3. How comfortable was the home at the time of the interview?
4. How concerned are people about the energy shortages?
5. Do they consider their fuel bills reasonable or too high when taking recent weather into account?

(Continued . .)

6. Would those interviewed be willing to pay more for heating fuel if shortages could be eliminated?
7. Do they expect fuel shortages to continue?
8. Should factories be allowed to burn a polluting coal to conserve natural gas?
9. What does the public think the government should do to help solve the problem of energy shortages?
10. Is the solution to fuel shortages thought to be in the peoples' own hands?

Method

The survey was conducted on February 4, 5 and 6 by telephone with a national sample of 1013 adults, 18 years of age and older, living in telephone households. Interviews were made in areas making up The Gallup Organization's national probability sample of interviewing areas. Additional information about the design and composition of the sample will be found in the Technical Appendices at the end of the report, which also includes tables of sampling tolerances to have in mind when reading the report.

A copy of the questionnaire will be found at the end of the report.

Areas of the Country Analyzed

The country was divided into the following areas for the purposes of this survey.

Emergency Action States -- New York, New Jersey, Pennsylvania, Indiana, Ohio, Michigan, Minnesota, Virginia, West Virginia, North Carolina, South Carolina, and Alabama

(Continued . .)

Natural Gas Problem States -- Delaware, Kentucky, Georgia,
Tennessee, Mississippi, Iowa, Missouri, Wisconsin,
and Illinois

North -- Maine, New Hampshire, Vermont, Massachusetts, Rhode
Island, Connecticut, New York, New Jersey, Pennsylvania,
Maryland, Delaware, West Virginia, District of
Columbia, Virginia, Kentucky, Ohio, Michigan, Indiana,
Illinois, Wisconsin, Minnesota, Iowa, Missouri, North
Dakota, South Dakota, Nebraska, Kansas

South -- North Carolina, South Carolina, Georgia, Florida,
Tennessee, Alabama, Mississippi, Arkansas, Louisiana,
Oklahoma, Texas

West -- Montana, Arizona, Colorado, Idaho, Wyoming, Utah, Nevada
New Mexico, California, Oregon, and Washington

A copy of the questionnaire used in the survey will be found
at the end of the report.

SUMMARY OF PRINCIPAL RESULTS

Behavior

1. The average thermostat setting reported at the time of the survey (February 4,5,6) was 66° during the day and 64° at night in the area East of the Rockies. About one of every four in the area East of the Rockies had thermostat settings of 69° or more during the day.

A search was made to determine significant associations between temperature settings and certain respondent characteristics, behavior, and attitudes. The only highly significant relationships were those between reported thermostat settings and residence in the Emergency or Gas Problem states and expressed willingness to limit settings to 65 degrees or less.

2. About three of every five of those East of the Rockies said their daytime thermostat setting was lower than a year ago, and two of every three in the North reported nighttime settings below those of a year ago.

A search was made to determine significant associations between those who reported having set their thermostat lower this year and the respondent characteristics, behavior, and attitudes used in the analysis cited above. The only highly significant relationships were those between lower settings and residence in the emergency and problem states, expressed willingness to limit settings to 65 degrees or less, and whether residents of homes heated by natural gas.

3. A majority of about two-thirds of those East of the Rockies reported that the temperature inside their home had been reduced during the two weeks preceding the interview.

4. About three of every four people interviewed in the area East of the Rockies said that during the period since Christmas they had made more effort to save fuel than previously.

5. In the Northern part of the country East of the Rockies the following actions were reported to have been taken since Thanksgiving:

Insulation was added in the attic of one of every seven households;

Insulation in walls was increased in one-tenth of the households;

Doors or windows had been caulked or weatherstripped in about half the households;

Storm windows or plastic sheeting over the window had been put up in almost half the households;

Heat for unused rooms had been closed off by about half of those interviewed;

Slightly less than half had their furnace serviced;

Two of every three had washed clothes in warm or cold

rather than hot water;

Three out of four had kept their home at a lower temperature than before.

6. When the cost of fuel goes up, about half of all persons interviewed say they reduce their use of fuel while one-third reduce other expenses and one-sixth do neither. The use of fuel is reduced by more of those in the upper income groups than of those with smaller incomes. There is a tendency for those with smaller incomes to reduce other expenses more than those with larger incomes.

Impact of the Energy Crisis

1. As a result of fuel shortages during the period since Thanksgiving those in the Emergency Action States had been affected in the following ways:

- a. Four of every five had paid higher fuel prices;
- b. Two-thirds had found the stores they use open fewer hours;
- c. One-third had their children's school closed;
- d. One fifth had had a family member work fewer hours than normal;
- e. A family member had lost a job or been laid off in one of every ten households
- f. Very few had difficulty getting fuel.

2. The average fuel bill for the last month for which a bill had been received was \$75 for the entire country, \$91 in the North, \$57 in the South and \$44 in the West.

Attitudes

1. The average of the lowest daytime temperatures which the public would be willing to maintain to save fuel was 64° and the average of the lowest nighttime temperatures they said they would keep was 61°.

2. Those who had not reduced the temperature in their home in the two weeks preceding the survey (one-third of the sample) were asked why they had not done so. The reasons mentioned most often were:

- a. It would be too cold, too uncomfortable
- b. I have reduced all I can
- c. There is sickness or an elderly person in the family
- d. Was reduced before two weeks ago.
- e. Have small children, or a baby

Those who had not reduced the temperature in the previous two weeks were also asked what it would take to get them to reduce the temperature. The most frequent answers were:

- a. Nothing could be done, it's low enough
- b. If there were a real shortage, I would

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3. Those who reduced the temperature in the two weeks preceding the interview (two thirds of the sample) were asked why they had done so. The most frequent answers were:

- a. To save fuel (mentioned by almost half)
- b. Because of cost of fuel (mentioned by about one out of five)
- c. Because of energy crisis (mentioned by one out of six)
- d. Because of request of President or Governor (By one sixth)

4. When asked about the amount of their last bill taking recent weather into account, one-third thought the bill "reasonable," one-fourth said "somewhat too high", and another fourth said "much too high". The remainder had no opinion.

5. About five of every six people interviewed expect the cost of home heating to increase -- half of those interviewed expect the cost to go up "a lot", about one-third think the cost will go up "a little" and only one in twenty do not expect the cost to go up at all.

6. About half of all persons interviewed said they would be willing to pay more for heating fuel if that meant there would be no shortages.

7. About three of every four people interviewed expect at least occasional fuel shortages in the future.

8. The most frequently mentioned (by about eight of every ten respondents) sources of information about the need to conserve fuel were television and newspapers. Newspapers were mentioned by more of those in the upper income groups than by those with smaller incomes.

9. When asked: "What is the main thing you think the government should do to help solve the energy shortages?" the most frequent answers were:

- a. Develop existing resources (about one-fifth gave this answer)
- b. Investigate the oil companies to see if shortages are real (mentioned by one in ten)
- c. Try to get people to conserve energy (one of ten said this)
- d. Develop new technologies (also about one of ten)

10. The removal of price regulations allowing the price of fuels to go up was opposed by seven of every ten persons interviewed.

11. Half of all persons interviewed favor having the government pay part of the cost of installing extra insulation or storm windows in peoples' homes.

12. Seven of every ten oppose taxing fuels to discourage their use.

13. A majority of about three of every five persons interviewed feel that the solution to the fuel shortage is in the peoples' own hands.

14. While three of every five of the population think the fuel shortage is real about one person in five is sceptical about this. These sceptics include more men than women. Fewer of the sceptics than of those who think shortages are real had reduced the temperature in their house in the two weeks preceding the interview. Two of every three of those who think the shortages are real think the solution to the energy problem is in the peoples own hands while less than half of the sceptics think so. Substantially more of the sceptics than of those who consider shortages real favor investigating the oil companies.

SECTION I -- BEHAVIOR

Temperature in the Home During the Day

Those with thermostats (82% of the sample) were asked: "At what temperature was your thermostat set during the day today?"

In the Emergency Action States a small majority (55%) reported a thermostat setting of 65 degrees or less. In the North as a whole less than half (46%) reported temperature settings of 65 degrees or less. Settings for each region were: *

	Emergency Action States %	Natural Gas Problem States %	North %	South %	West %	Entire Country %
69 Degrees or more	18	30	22	27	17	22
66 - 68 Degrees	<u>27</u>	<u>35</u>	<u>31</u>	<u>28</u>	<u>19</u>	<u>29</u>
Total over 65°	45	65	53	55	36	51
65 Degrees	34	20	29	16	27	27
Less than 65 Degrees	<u>21</u>	<u>15</u>	<u>17</u>	<u>28</u>	<u>35</u>	<u>22</u>
Total 65° or Less	55	35	46	44	62	49
Setting Not Known	1	1	1	1	2	1
Average Setting	66	67	66	66	66	66
Number of Interviews	343	145	548	103	198	849

A comparison of temperature settings according to the type of fuel used showed little difference in the proportions with settings of 65 or more for those using oil, gas and electricity. Temperature settings of those with large and small family incomes were about the same. Differences in temperature between those with large and small fuel bills were also not significantly different.

* Totals do not add to precisely 100% due to rounding of percentages.

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A search was made to find significant relationships or associations between "current" temperature settings and a number of other characteristics of survey respondents that one might expect would be related either separately or jointly to whether the household had responded to the emergency by setting thermostats at temperatures of 65 degrees or less. These characteristics were:

1. Respondent lives in (a) Emergency Action States; (b) Gas Problem States; (c) All other states
2. Educational attainment (a) Grade School; (b) High School; (c) College
3. Responses to the following questions, some of which are paraphrased
 - (a) In order to save home heating fuel, what is the lowest temperature at which you would be willing to keep your home during the day?
 - (b) Have you added insulation to your attic?
 - (c) Have you paid higher fuel prices?
 - (d) Do you think the fuel shortage is real or not?
 - (e) What fuel is used to heat your home?
 - (f) Do you pay your own heating bill or not?
 - (g) Would you be willing to pay more for heating fuel if that meant there would be no shortage?
 - (h) Should factories be allowed to burn the kind of coal that causes air pollution if they cannot get natural gas?
 - (i) Should the government remove price regulations and allow the price of fuels to go up?

The only significant relationships obtained were between "current" thermostat settings and whether respondent lived in the Emergency Action States, or the Natural Gas Problem States and whether respondent expressed

a willingness to keep the home at a temperature of 65 degrees or below in order to save fuel.

One would expect that if reaction to the energy crisis were to be translated into the action of setting thermostats at temperatures of 65 degrees or less, it would be related to residence in the critical areas. This was certainly true in the Emergency Action States.

Also one would expect that there would be an association between "current" settings and willingness to keep the thermostat low to save fuel.

What is surprising is the lack of significant associations between "current" temperature settings and the other variables considered. One possible inference is that associations are present and in the expected directions but not measurable at this point with the available data. Another possible inference is that the seriousness of the energy crisis is not clearly apprehended as yet and attitudes are not strongly focused.

Those with thermostats were also asked: *"Was this setting today lower than the setting at this season last year?"*

Two of every three (66%) of those in the Emergency Action States replied that their setting during the day was lower than the setting at this season last year. The results by region were as follows:

	<u>Emergency Action States</u>	<u>Natural Gas Problem States</u>	<u>North</u>	<u>South</u>	<u>West</u>	<u>Entire Country</u>
	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
Yes	66	62	62	61	48	59
No	27	31	32	28	43	33
Don't Know	<u>7</u>	<u>7</u>	<u>6</u>	<u>11</u>	<u>10</u>	<u>8</u>
Totals	100	100	100	100	101*	100
Number of Interviews	343	145	548	103	198	849

In the area East of the Rockies, among those who reported lower thermostat settings during the day than at the same season last year, 54 per cent reported settings of 65 degrees or less while among those who said

* Total exceeds 100% due to rounding of percentages

their thermostat setting was not lower only 31 per cent reported settings of 65 degrees or less.

A search was also made to find significant relationships between responses to the question "Was this (thermostat) setting today lower than the setting at this season last year?", and the same characteristics of survey respondents used as in the analysis for the preceding question.

The only strongly significant relationships obtained were with whether respondent lived in the Emergency Actions States, or the Natural Gas Problem States; whether respondent expressed a willingness to keep the house at a temperature of 65 degrees or below in order to save fuel; and whether respondent lived in a dwelling unit heated by natural gas.

Again one would expect that residence in the critical areas would be related to lower thermostat settings this year as compared with last year. Also one would expect that there would be an association between lower thermostat settings as compared with last year and expressed willingness to keep the thermostat low to save fuel and living in a dwelling unit heated by natural gas.

Significant at a lower level (.05 as compared with .01 for the previous relationships) was the relationship between lower thermostat settings this year as compared with last year and having added attic insulation and level of educational attainment. Those having added attic insulation since last fall were more likely to have set their thermostat lower than was true among others; those in the lower education level (grade school) were more likely to say they had lowered their house thermostat as compared with last year than was the case among those with more education.

Another relationship significant at the .05 level was between those who have lowered their house thermostat setting, who pay their own heating bills, and who have been paying higher fuel prices this winter.

Otherwise the same comments apply to the results of this analysis as were made about the previous one. While there is clear evidence that the public has been taking some action to reduce fuel bills such as lowering the thermostat setting in response to the impact of the fuel shortage, it is not clear what, if any, some of the attitudinal correlates are.

Temperature in the Home at Night

About one of every three (36%) of those interviewed in the Emergency Action States reported a thermostat setting of 60 degrees or less at night. The question asked and regional results are as follows:

"At what temperature was your thermostat set last night when you went to bed" ?

	Emergency Action States	Natural Gas Problem States	North	South	West	Entire Country
	%	%	%	%	%	%
66° or more	29	41	34	39	19	32
61° - 65°	<u>34</u>	<u>35</u>	<u>36</u>	<u>29</u>	<u>33</u>	<u>34</u>
Total 61° or More	63	76	70	68	52	66
56° - 60°	26	13	20	17	21	19
55° or Less	<u>10</u>	<u>10</u>	<u>10</u>	<u>15</u>	<u>26</u>	<u>13</u>
Total 60° or Less	36	23	30	32	47	32
Setting Not Known	1	1	1	-	1	1
Average Setting	63	64	64	64	63	64
Number of Inter- views	343	145	548	103	198	849

Those with the smallest fuel bills (\$50 or less) for the last month had lower thermostat settings at night than those with the largest bills. Settings at night were also somewhat lower for those with family incomes of less than \$10,000 than for those with larger incomes.

The survey included a question which read: *"When the cost of gas, oil, and electricity goes up some people cut down on how much fuel they use while others cut down other expenses like leisure activities, food, or clothing. Which do you do, reduce use of fuel, reduce other expenses, or neither of these?"*. In the area East of the Rockies, among those who said they reduce the use of fuel when the cost goes up, 34 per cent reported night settings of 60 degrees or less while only 24 per cent of those who said they reduce other expenses to save had night settings of 60 degrees or less.

People with thermostats were then asked: *"Was this setting last night lower than the setting you had at night at this season last year?"*

Almost seven of every ten people (69%) in the Emergency Action States reported that their night setting was lower than at the same season last year. Results by region are as follows:

	Emergency Action States %	Natural Gas Problem States %	North %	South %	West %	Entire Country %
Yes	69	59	65	46	40	57
No	25	35	28	43	51	35
Don't Know	<u>6</u>	<u>7</u>	<u>7</u>	<u>11</u>	<u>10</u>	<u>8</u>
Total	100	101*	100	100	101*	100
Number of Inter- views	343	145	548	103	198	849

In the area East of the Rockies, among those who said their night settings were lower than last year, 35 per cent reported settings of 60 degrees or less while only 23 per cent of those who said their setting was not lower than last year reported settings of 60 degrees or less.

Those without thermostats were asked for their best estimates of the temperature in their home during the day on the day of the interview and also at night. The small number of people without thermostats precludes detailed analyses of the results by regions and other groupings. The average temperature estimate during daytime for the country East of the Rockies was 64 degrees and at night was 58 degrees on the average. About half of those living East of the Rockies said the temperature during the day and at night was lower than at the same season last year.

* Total exceeds 100% due to rounding of percentages

A majority of all major groups reported that they had reduced the temperature in their home in the two weeks preceding the interview. The question read as follows:

"Have you reduced the temperature inside your home in the last two weeks?"

Replies by regions divided as follows:

	<u>Emergency Action States</u> %	<u>Natural Gas Problem States</u> %	<u>North</u> %	<u>South</u> %	<u>West</u> %	<u>Entire Country</u> %
Yes	70	59	64	69	54	63
No	28	37	34	27	45	34
Don't Know	<u>2</u>	<u>4</u>	<u>2</u>	<u>5</u>	<u>1</u>	<u>3</u>
Total	100	100	100	101*	100	100
Number of Inter- views	394	177	603	171	239	1013

Of those who use natural gas for fuel, 67 per cent reported having reduced the temperature while 61 per cent of those using oil and 58 per cent of those using electricity did so. Differences by family income were small -- 65 per cent of those with incomes of \$20,000 or more and 61 per cent of those with incomes of less than \$10,000 said they had reduced the temperature. More of those who had been affected by fuel shortages by having had their children's school closed, by having had to pay higher fuel prices, and by having had the stores where they shop close than of other people said they had reduced the temperature in the last two weeks.

In the area East of the Rockies, of those who reported that they had reduced the temperature in their home in the last two weeks, 52 per cent said their daytime setting was 65 degrees or less while among those who said they had not reduced the temperature 33 per cent said their thermostat was at 65 degrees or less. Night settings were also lower. Of those who had reduced the temperature, 35 per cent reported night settings of 60 degrees or less and 19 per cent of those who had not reduced the temperature had night settings of 60 degrees or less.

* Total exceeds 100% due to rounding of percentages

Efforts to Save Fuel Now Compared With The Time Before Christmas

About three of every four people (74%) interviewed in the area East of the Rockies reported that they are now making more effort to save fuel than they did before Christmas.

"Compared to the time before Christmas, are you now making more effort to save fuel than before, the same as before, or less than before?"

	Emergency Action States	Natural Gas Shortage States	North	South	West	Entire Country
	%	%	%	%	%	%
More Effort	77	73	74	74	67	72
Same Effort	20	24	24	22	31	25
Less Effort	1	-	1	2	2	1
Can't Say	<u>2</u>	<u>3</u>	<u>2</u>	<u>2</u>	<u>1</u>	<u>1</u>
Totals	100	100	101*	100	101*	99*
Number of Inter- views	394	177	603	171	239	1013

About as many of those with large fuel bills as of those with smaller fuel bills said they were making "more effort". In households with family incomes of more than \$20,000 a year, 79 per cent said "more effort" while fewer (68%) of those with incomes of under \$10,000 said they were making more effort.

Consistency of response was indicated by the finding that 84 per cent of those who had reported reducing the temperature in their home in the two weeks before the interview answered "more effort" while among those who had not lowered the temperature only 53% answered "more effort". Also both day and night thermostat settings of those who answered "more effort" were lower than for those who did not give this reply.

* Totals do not add to precisely 100% due to rounding of percentages.

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Replies to the following question show that many Americans had taken some steps to conserve fuel.

"Please tell me whether or not you or your family have done any of the following since last Thanksgiving to try to cut down on fuel consumption --

1. *Added insulation to your attic?*
2. *Added insulation to your walls?*
3. *Caulked or weatherstripped your doors or windows?*
4. *Put up storm windows or plastic sheeting over your windows?*
5. *Closed off heat to any unused rooms?*
6. *Had your heating furnace serviced?*
7. *Washed clothes in warm or cold water rather than hot?*
8. *Kept your home or apartment at a lower temperature than before?*
9. *Installed a Kelvatron in your home to help save heat?*

Percentages Who Took Each Action

	<u>Emergency Action States</u>	<u>Natural Gas Problem States</u>	<u>North</u>	<u>South</u>	<u>West</u>	<u>Entire Country</u>
	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
Added Insulation To Attic	16	12	15	8	8	13
Added Insulation To Walls	12	6	11	6	4	9
Caulked or Weather- Proofed Doors Or Windows	47	46	48	38	29	42
Put Up Storm Win- dows or Plastic Sheeting Over Windows	49	31	44	27	16	36
Closed off Heat to Unused Rooms	62	53	55	68	57	58
Had furnace Serviced	43	34	44	28	40	40
Washed Clothes in Warm/Cold Water Rather than Hot	69	70	69	75	71	70
Kept Home/Apart. at Lower Temp.	80	71	75	77	63	73
Number of Inter- views	394	177	603	171	239	1013

Forty-eight per cent of those who heat their home with oil, 42 per cent of those who heat with gas, and 39 per cent of those who use electricity reported that they had put up storm windows or plastic sheeting on windows.

Forty-two per cent of those with incomes of less than \$10,000 and 33 per cent of those with larger incomes reported having put up storm windows or plastic sheeting over their windows. The heat in unused rooms was cut off by more of those with incomes of less than \$10,000 than of those with larger family incomes. However, there was little difference according to income in the proportion who had insulated attics and walls.

In the area East of the Rockies, more (16%) of those whose thermostat settings were lower than they were a year ago than of those whose thermostats were not lower (9%) said that they had insulated their attic since last Thanksgiving.

More of those who said they are now making more effort to save fuel than they did before Christmas than of other people said they had caulked or weatherstripped doors or windows and had closed off heat to unused rooms.

Item 9 (Kelvatron) was included to see how many would claim to have taken an action which they could not, in fact, have done since Kelvatron is a fictitious word. Less than one per cent of all persons interviewed said they had installed a Kelvatron to help save heat.

Reduction in Use of Fuel When Costs Go Up

"When the cost of gas, oil, and electricity goes up some people cut down on how much fuel they use while others cut down other expenses like leisure activities, food, or clothing. Which do you do, reduce use of fuel, reduce other expenses, or neither of these?"

There were no statistically significant differences in replies by regions. Results for the entire country divided as follows:

	<u>Per Cent</u>
Reduce Fuel	54
Reduce Other Expenses	35
Neither Reduced	16
Don't Know	<u>7</u>
Total	112*

Number of Interviews 1013

Differences in replies according to the amount of last month's heating bill were not large.

As shown below the use of fuel is reduced by more of those in the upper income groups than of those with smaller incomes. Those with smaller incomes tend to reduce other expenses more than those with larger incomes.

	<u>Annual Family Income</u>		
	<u>\$20,000— or more</u>	<u>\$10,000— \$19,999</u>	<u>Under \$10,000</u>
	<u>%</u>	<u>%</u>	<u>%</u>
Reduce Fuel	60	56	47
Reduce Other Expenses	31	36	38
Neither Reduced	17	16	16
Don't Know	<u>4</u>	<u>7</u>	<u>9</u>
Total	112*	115*	110*
Number of Interviews	269	396	326

* Total exceeds 100% since some people said they reduce both the use of fuel and other expenses.

SECTION II - IMPACT OF THE ENERGY CRISIS

How People Have Been Affected By Fuel Shortages

The fuel shortage has had its impact on most Americans. To learn how many were affected by various results of the fuel shortages, the following question was asked.

"Since Thanksgiving have you or any members of your family been affected by any of the following as a result of fuel shortages--"

- a. *Has your children's school been closed?*
- b. *Have you had difficulty getting fuel?*
- c. *Have you or anyone in your family lost a job or been laid off?*
- d. *Have you or anyone in your family had to work fewer hours?*
- e. *Have you paid higher fuel prices?*
- f. *Have the stores where you shop been open fewer hours?*

	Per Cent Affected By Each Item					
	Emergency Action States	Natural Gas Problem States	North	South	West	Entire Country
	%	%	%	%	%	%
Children's School Closed	34	45	31	30	2	25
Had Difficulty Getting Fuel	3	4	3	4	1	2
Someone in Family Lost Job or Laid Off	10	6	8	7	2	7
Someone in Family Worked Fewer Hours	19	11	14	15	0	12
Paid Higher Fuel Prices	81	80	81	76	71	78
Stores Open Fewer Hours	63	41	50	30	2	37
Number of Interviews	394	177	603	171	239	1013

Differences in responses to this question by income groups were not large. Somewhat more of those in the small cities and rural areas than of those in large cities were involved by having their children's school closed.

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Cost of Fuel Bill For Last Month

On the basis of replies to the question listed below, the average monthly bill for fuel was \$75 for those who knew the amount of their bill (one person in five didn't know).

The question: "What was the cost of your fuel bill for the last month for which you received a bill?"

The results by regions were as follows:

	<u>Emergency Action States</u> %	<u>Natural Gas Problem States</u> %	<u>North</u> %	<u>South</u> %	<u>West</u> %	<u>Entire Country</u> %
Over \$100	21	17	20	7	4	15
\$76 - \$100	22	15	22	13	6	17
\$51 - \$75	17	29	20	18	14	18
\$50 or Less	15	24	16	45	64	31
Don't Know	<u>25</u>	<u>15</u>	<u>22</u>	<u>17</u>	<u>12</u>	<u>19</u>
Total	100	100	100	100	100	100
Average Cost	\$92	\$79	\$91	\$57	\$44	\$75
Number of Inter-views	394	177	603	171	239	1013

Among respondents with family incomes of \$20,000 or more, 38 per cent had bills of \$76 or more, for those with incomes of \$10,000 to \$19,999, 33 per cent had bills of \$76 or more and for those with incomes of less than \$10,000, 24 per cent had bills of \$76 or more.

There was little difference between the bills of white collar and blue collar workers.

People who heat their homes with oil had higher fuel bills than those who heat with natural gas. In the area East of the Rockies, 46 per cent of those who use oil had bills of \$76 or more while only 31 per cent of those using natural gas had bills of \$76 or more. The reason for this is, of course, influenced by the fact that more of those in the North than of those in the South use oil.

Has Temperature in Place of Work Been Reduced in Last Two Weeks

The questions: "Are you employed outside your home?"

Those who work outside the home were asked:

"Has the temperature in the place where you work been reduced in the last two weeks?"

About half (51%) of all persons interviewed said they are employed outside their home and, of these, 54 per cent said the temperature in their place of work had been reduced. The division of replies by regions is as follows:

	Emergency Action States %	Natural Gas Problem States %	North %	South %	West %	Entire Country %
Yes	59	66	58	57	36	54
No	31	29	33	35	46	35
Don't Know	<u>10</u> 100	<u>5</u> 100	<u>9</u> 100	<u>8</u> 100	<u>18</u> 100	<u>11</u> 100
Number of Interviews	223	94	334	86	124	544

Somewhat more (61%) of the white collar workers than of the blue collar workers (50%) said the temperature in their place of work had been reduced.

SECTION III - ATTITUDES

Lowest Temperature People Are Willing To Maintain During The Day

About two of every three (65%) adults interviewed said they would be willing to keep the temperature in their home at 65 degrees or less during the day. The question asked and regional results are as follows:

"In order to save home heating fuel what is the lowest temperature at which you would be willing to keep your home during the day?"

	<u>Emergency Action States</u> %	<u>Natural Gas Problem States</u> %	<u>North</u> %	<u>South</u> %	<u>West</u> %	<u>Entire Country</u> %
69 Degrees or More	9	15	12	8	8	11
66 - 68 Degrees	<u>15</u>	<u>15</u>	<u>17</u>	<u>12</u>	<u>12</u>	<u>15</u>
Total 66 Degrees or more	24	30	29	20	20	26
65 Degrees	30	33	32	29	35	32
Less Than 65 °	<u>39</u>	<u>29</u>	<u>32</u>	<u>39</u>	<u>32</u>	<u>33</u>
Total 65 Degrees or Less	69	62	64	68	67	65
Don't Know	<u>7</u>	<u>8</u>	<u>8</u>	<u>12</u>	<u>12</u>	<u>9</u>
Total	100	100	101 *	100	99 *	100
Average Temperature	63	64	64	62	63	64
Number of Inter- views	394	177	603	171	239	1013

Differences in replies by type of fuel used, according to the size of the monthly fuel bill and by annual family income were not statistically significantly different.

In order to compare the lowest temperature which people would be willing to maintain during the day with the temperature in the home on the day of the interview, replies to the two questions were cross-tabulated. This analysis

(Continued . . .)

* Does not equal 100% due to rounding of percentages.

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showed in the area East of the Rockies, that of those whose thermostats were set at 69 degrees or higher during the day, 24 per cent were willing to maintain a daytime temperature of 65 degrees or less. Of those with thermostats set at 66 - 68 degrees during the day, 59 per cent said they were willing to maintain a temperature of 65 degrees or less. Almost all of those with settings of 65° or less were willing to keep daytime settings of 65° or less.

More (71%) of the people East of the Rockies who said they were "Very concerned" about energy shortages were willing to maintain daytime temperatures of 65 degrees or less than were those who were less concerned about energy shortages (i.e., less than 60 per cent of those who were "somewhat concerned", "Not too concerned" or "Not at all concerned" were willing to maintain temperatures during the day of 65° or less).

There was little difference between those who considered their last fuel bill reasonable and those who thought it somewhat or much too high in the lowest daytime temperature they were willing to maintain.

Lowest Temperature People Are Willing To Maintain At Night

About half (48%) of all persons interviewed said the lowest temperature they would be willing to keep at night was 60 degrees or less.

"And what is the lowest temperature at which you would be willing to keep it at night?"

	<u>Emergency Action States</u> %	<u>Natural Gas Problem States</u> %	<u>North</u> %	<u>South</u> %	<u>West</u> %	<u>Entire Country</u> %
66 Degrees or More	15	16	18	12	11	16
61° - 65°	<u>23</u>	<u>32</u>	<u>28</u>	<u>20</u>	<u>24</u>	<u>26</u>
Total over 60°	38	48	46	32	35	42
56° - 60°	33	23	30	22	24	27
55° or Less	<u>22</u>	<u>18</u>	<u>18</u>	<u>30</u>	<u>23</u>	<u>21</u>
Total 60° or less	55	41	48	52	47	48
Don't Know	<u>7</u>	<u>11</u>	<u>6</u>	<u>16</u>	<u>18</u>	<u>10</u>
	100	100	100	100	100	100
Average Temperature	60	61	61	59	59	61
Number of Inter-views	394	177	603	171	239	1013

Analysis of this question in relation to the question about how concerned people are about fuel shortages showed that significantly more of those who are "Very Concerned" than of those who are less concerned were willing to keep the nighttime temperature at 60 degrees or less.

Among those whose thermostat setting was over 65° for the night preceding the interview, 19 per cent said they would be willing to reduce the temperature to 60° or less. Of those whose thermostats were 61° - 65° last night, 43 per cent said they were willing to reduce to 60° or less.

Most Important Reason For Not Reducing Temperature in Home

Those who said that they had not reduced the temperature inside their home in the two weeks preceding the interview (34% of the sample) were asked:

"Please give the most important reason why you have not reduced the temperature in your home?"

	<u>Emergency Action States</u>	<u>Natural Gas Problem States</u>	<u>North</u>	<u>South</u>	<u>West</u>	<u>Entire Country</u>
	%	%	%	%	%	%
Too cold, uncomfortable	18	17	20	14	11	17
Have reduced all I can	10	21	17	13	19	17
Sickness in family, elderly	15	15	16	15	7	14
Was lowered before 2 weeks ago	15	6	13	6	12	11
Small children, baby	8	11	10	6	6	9
It's warm here	1	2	1	4	20	6
Use coal, burn wood	8	5	4	13	3	5
Unable to control heat	5	5	5	2	0	3
Usually turn off when out of house	3	2	2	6	6	3
Don't think it's a real crisis	5	2	4	0	1	3
Use other forms of heat than gas	3	2	2	2	2	2
Not necessary in my area	0	0	0	0	6	1
I would if big business and others did	0	2	0	2	0	*
Other Answers	9	15	10	10	1	8
Don't Know	10	9	7	10	8	8
Number of Inter-views	116	66	211	97	108	364

* Less than half of one per cent

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What Would It Take To Get You To Reduce Home Temperature ?

The above question was asked of those who had not reduced the temperature in their home in the two weeks preceding the interview.

	<u>Emergency Action States</u> %	<u>Natural Gas Problem States</u> %	<u>North</u> %	<u>South</u> %	<u>West</u> %	<u>Entire Country</u> %
Nothing would, It's low enough	16	23	21	17	22	21
If there were a real shortage	15	12	15	16	19	16
If fuel curtailed, cut back	9	3	6	8	7	7
If weather warmer	5	5	6	2	7	5
If President, gov't requested	3	10	4	6	8	5
If prices of fuel went up	6	1	5	0	3	4
If we were all healthy	3	6	3	6	3	4
Don't Control heat Can't Reduce	7	2	5	2	1	3
If I had alternate source, fireplace, electric heater	2	2	3	3	5	3
Cold weather, if it got cold	1	0	1	0	2	1
Better insulation	3	0	2	0	1	1
Other Answers	8	10	9	7	3	8
Don't Know	25	28	22	31	26	24
Number of Inter- views	116	66	211	97	108	364

The Main Reason for Reducing the Home Temperature in Last Two Weeks

Those who said they had reduced the temperature in their home during the last two weeks (63% of entire sample) were asked:

"Please give me the main reason you reduced the temperature in your home?"

	<u>Emergency Action States</u> %	<u>Natural Gas Problem States</u> %	<u>North</u> %	<u>South</u> %	<u>West</u> %	<u>Entire Country</u> %
To save fuel	45	50	47	44	35	44
Because of cost of fuel	16	22	17	23	13	18
Because of energy crisis	23	13	18	13	11	16
Because of request Of President or Governor	18	15	17	12	17	16
To save fuel for others so all can benefit	6	10	6	8	10	7
Weather warmer	1	7	2	12	15	6
To keep factories going, save jobs	1	2	1	-	-	1
Got used to cold	1	1	1	2	1	1
Because of what I heard, read in media	1	*	2	1	2	2
Miscellaneous reasons	5	5	6	5	6	6
Don't Know	2	-	3	3	2	3
Number of Inter- Views	269	105	379	128	251	625

* Less than half of one per cent.

Attitudes Toward Most Recent Fuel Bill

Following the question in which those interviewed were asked for the cost of their fuel bill for the last month for which they had received a bill, they were asked:

"Given the recent weather, do you think that bill was reasonable, somewhat too high, or much too high?"

	<u>Amount of Last Fuel Bill</u>					<u>Entire Sample</u>
	<u>\$50 or Less</u>	<u>\$51 - \$75</u>	<u>\$76 - \$100</u>	<u>Over \$100</u>	<u>Don't Know Amount</u>	
	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
Reasonable	52	36	28	24	15	34
Somewhat too High	29	30	30	25	15	26
Much too High	16	33	39	50	6	26
Don't Know	<u>3</u>	<u>1</u>	<u>3</u>	<u>1</u>	<u>65</u>	<u>14</u>
Total	100	100	100	100	101*	100
Number of Interviews	320	183	165	149	196	1013

Among those with annual family incomes of \$20,000 or more, 18 per cent said the bills were "much too high", among those with incomes of \$10,000 to \$19,999, 25 per cent said bills were "much too high", and of those with annual incomes of under \$10,000, 31 per cent said "much too high".

People were also asked if they would be willing to pay more for heating fuel if this meant no more shortages. More (40%) of those who would be willing to pay more to avoid shortages than of those who would not (24%) said their last bill was reasonable.

* Total exceeds 100% due to rounding of percentages.

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Expectations About the Cost of Heating the Home

About half of all people interviewed expect the cost of heating their home to go up "a lot" and almost everyone expects some increase.

"Do you think the cost of heating your home will be going up a lot, a little, or not at all?"

	<u>Emergency Action States</u> %	<u>Natural Gas Problem States</u> %	<u>North</u> %	<u>South</u> %	<u>West</u> %	<u>Entire Country</u> %
A Lot	54	52	53	47	44	50
A Little	33	30	33	33	43	35
Not at All	4	5	5	8	5	5
Don't Know	<u>9</u>	<u>13</u>	<u>10</u>	<u>12</u>	<u>8</u>	<u>10</u>
Total	100	100	101*	100	100	100
Number of Inter- views	394	177	603	171	239	1013

* Total Exceeds 100% due to rounding of percentages

Willingness to Pay More for Heating Fuel If There Are No Shortages

About half (51%) of all persons interviewed said they would be willing to pay more for heating fuel if there would be no shortages. As shown below, those in the Emergency Action States and in the North were less willing to pay more than those in other areas.

"Would you be willing to pay more for heating fuel if that meant there would be no shortages?"

	<u>Emergency Action States</u> %	<u>Natural Gas Problem States</u> %	<u>North</u> %	<u>South</u> %	<u>West</u> %	<u>Entire Country</u> %
Yes	44	58	48	58	57	51
No	41	29	37	31	32	35
Don't Know	<u>14</u>	<u>14</u>	<u>15</u>	<u>11</u>	<u>10</u>	<u>13</u>
Total	99 *	101*	100	100	99 *	99 *
Number of Inter- views	394	177	603	171	239	1013

As might be expected those with small heating bills were more willing to pay for an increase than those with larger bills -- 63 per cent of those with bills of \$50 or less were willing while only 43 per cent of those with bills of over \$100 were willing. Without taking size of bill into account, however, a larger percentage of those with higher incomes are willing to pay more than those with lower incomes. Among those with family incomes of \$20,000 or more 59 per cent said "Yes" while only 47 per cent of those with incomes of under \$10,000 were willing to pay more.

In the area East of the Rockies, among those willing to pay more, 62 per cent think the fuel shortage is real while of those not willing to pay more only 51 per cent think the shortages are real.

* Does not equal 100% due to rounding of percentages

Attitudes Toward The Weather

The question: "In your area, has the weather since Thanksgiving been much colder than usual, somewhat colder than usual, about the same as usual, or somewhat warmer than usual?"

This question, the first one asked, served to begin the interview. Regional results are as follows:

	<u>Emergency Action States</u> %	<u>Natural Gas Problem States</u> %	<u>North</u> %	<u>South</u> %	<u>West</u> %	<u>Entire Country</u> %
Much colder than usual	92	94	90	89	10	75
Somewhat colder than usual	7	4	6	10	15	9
About the same as usual	1	1	2	1	19	5
Somewhat warmer than usual	0	1	1	**	54	10
Don't Know	<u>**</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>1</u>
Total	100	101	100	100	99*	100
Number of Inter-views	394	177	603	171	239	1013

* Total does not add to 100% due to rounding of percentages.

** Less than one half of one percent.

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How Comfortable Was Home At Time Of Interview

A large majority of those interviewed, including those in the Emergency Action States, reported that their home was "Very Comfortable" or "Fairly Comfortable". Only 15 per cent in the Emergency Action States said "Not Comfortable" or "Uncomfortable"

"How comfortable is the temperature in your home at the moment -- very comfortable, fairly comfortable, not comfortable, or uncomfortable?"

	Emergency Action States %	Natural Gas Problem States %	North %	South %	West %	Entire Country %
Very Comfortable	22	33	26	37	57	34
Fairly Comfortable	63	62	62	59	39	57
Not Comfortable	12	2	9	3	3	6
Uncomfortable	3	1	3	1	1	2
Can't Say	*	<u>1</u>	*	*	<u>0</u>	<u>1</u>
Total	100	99**	100	100	100	100
Number of Inter- views	394	177	603	171	239	1013

* Less than one half of one percent.

** Total does not add to 100% due to rounding of percentages

How Concerned Is the Public About Energy Shortages

A majority of those interviewed in all areas of the country said that they are "Very Concerned" about energy shortages. The question asked and regional results follow:

"How concerned are you about the energy shortages -- very concerned, somewhat concerned, not too concerned, or not at all concerned?"

	<u>Emergency Action States</u> %	<u>Natural Gas Problem States</u> %	<u>North</u> %	<u>South</u> %	<u>West</u> %	<u>Entire Country</u> %
Very Concerned	59	63	56	71	67	61
Somewhat Concerned	33	29	35	22	28	31
Not Too Concerned	7	6	6	5	4	6
Not at All Concerned	1	1	2	0	1	2
Can't Say	<u>1</u>	<u>2</u>	<u>1</u>	<u>2</u>	<u>0</u>	<u>1</u>
Total	101*	101*	100	100	100	101*
Number of Interviews	394	177	603	171	239	1013

* Does not add to 100% due to rounding of percentages.

Opinions About The Likelihood of Future Fuel Shortages

About three of every four people interviewed think that there will be at least occasional fuel shortages in the future. The question and national results follow:

"Do you think there will be a fuel shortage like this one every year now, occasionally, or never again?"

	Entire Country %
Every year	28
Occasionally	45
Never Again	8
Don't Know	<u>19</u>
Total	100
Number of Interviews	1013

Replies in the area East of the Rockies were almost the same as the above division of replies.

Almost everyone (97% of all persons interviewed) had heard or read about the need to conserve fuel. Television and newspapers were the most frequently mentioned sources of information. The questions asked were:

"Have you heard or read anything about the need to conserve fuel?"

Those who answered "Yes" were asked:

"From whom or where did you hear about it?"

Among those who had heard or read about the need to conserve, the following table summarizes their sources of information.

	<u>Per Cent</u>
Television	86
Newspapers	74
Radio	45
President	17
Friends	16
Governor	11
Gas or Utility Company	9
Local Official	7
Others	5
Don't Know	*
Number of Interviews	991

Tabulation of this question by income groups showed that television was mentioned as a source by more than eight out of ten of all income groups. Newspapers were named by more (83%) by those in the \$20,000 or above income group, than of those in the \$10,000 - \$19,999 annual income group (74%) or the under \$10,000 group (68%).

* Less than half of one per cent.

What Does The Public Think the Government Should Do to Solve The
Energy Shortage

The question: "What is the main thing you think the government should do to help solve the energy shortage?"

Results for the entire country divided as follows:

	<u>Per Cent</u>
Develop existing resources	18
Investigate the oil companies to see if shortages are real	11
Try to get people to conserve energy	10
Develop new technologies	8
Develop solar energy	7
Lift controls, restrictions on price	6
Get a government energy policy	5
Equate the distribution of fuel	4
Install price controls	4
Research atomic/nuclear energy	3
Curtail use of gas by big business	2
Nationalize the oil companies	2
Cut working hours, have four day week	2
Should have stricter controls	2
Ease environmental restrictions	1
Should institute rationing	1
Government should set an example	1
Other Answers	12
Don't Know	26
Number of Interviews	1013

Among those who do not think the fuel shortage is real, 28 per cent think the government should investigate the oil companies while among those who think it is real only five per cent mentioned investigating the oil companies.

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Attitudes Toward Five Possible Governmental Actions

The question: *"Of the following things that the government can do to get people to save energy, which do you favor and which do you oppose?"*

1. *"Remove price regulations and allow the price of fuels to go up".*

Seven of every ten people interviewed oppose the removal of price regulations allowing the price of fuels to go up. The nationwide division of replies to this possible action was as follows:

	<u>Per Cent</u>
	%
Favor	20
Oppose	70
Neutral	2
Don't Know	<u>9</u>
	101
Number of Inter-views	1013

Among those with family incomes of \$20,000 or more, 26 per cent favor this proposal while 17 per cent of those with incomes of under \$10,000 were in favor of it. Regional differences were not statistically significant. In the area East of the Rockies even among those who had previously said they would be willing to pay more for heating fuel, a majority (61%) oppose the removal of price regulations.

2. *"Send the limited supplies just to where they are most needed."*

Eight out of ten (79%) of those interviewed favor this proposal. Differences by region and family income were not large. Nationwide results are:

	<u>Per Cent</u>
	%
Favor	79
Oppose	14
Neutral	2
Don't Know	<u>5</u>
	100
Number of Interviews	1013
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3. *"Pay part of the cost of installing extra insulation or storm windows in peoples' homes"*

Opinion on this proposal divided as follows for the entire sample:

	<u>Per Cent</u>
Favor	50
Oppose	42
Neutral	3
Don't Know	<u>5</u>
	100

Number of Inter-views 1013

More (49%) of those with annual family incomes of \$20,000 or more than of those with incomes of under \$10,000 (33%) oppose this measure.

4. *"Set conservation standards for new buildings and houses that builders must follow"*

Almost everyone favors this proposal. National results are:

	<u>Per Cent</u>
Favor	86
Oppose	7
Neutral	2
Don't Know	<u>5</u>
	100

Number of Inter-views 1013

Differences in replies by region of the country were not statistically different.

(Continued)

5. "Tax fuels to discourage their use".

Seven of every ten (71%) people interviewed oppose this plan.
 Nationwide results divided as follows:

	<u>Per Cent</u> %
Favor	18
Oppose	71
Neutral	2
Don't Know	<u>9</u>
	100
Number of Inter- views	1013

Opposition to this measure was somewhat greater among those with large fuel bills and in the North (76% oppose) where fuel bills are higher than in the West, where 65 per cent oppose, and in the South, where 61 per cent oppose. Opposition was also greater among those who do not think the fuel shortage is real (84% oppose) than among those who think it is real (69% oppose). In the area East of the Rockies, those who had said they were willing to pay more for fuel if shortages could be avoided were more favorable (22% favor) to the taxation of fuels to discourage use than were those not willing to pay more to avoid shortages (12% favor).

If Natural Gas is Not Available, Should Factories Be Allowed To
Burn Air Polluting Coal

The question: *"Some people have suggested that if factories and power plants cannot get natural gas they should be allowed to burn the kind of coal that causes air pollution. Do you think the factories and power plants should or should not be allowed to burn this kind of coal if they cannot get natural gas?"*

About two of every three (64%) people interviewed favor the use of air polluting coal if factories and power plants cannot get natural gas. Regional results are:

	<u>Emergency</u> <u>Action</u> <u>States</u> %	<u>Natural Gas</u> <u>Problem</u> <u>States</u> %	<u>North</u> %	<u>South</u> %	<u>West</u> %	<u>Entire</u> <u>Country</u> %
Yes, Allow use of such coal	68	62	65	66	57	64
No, do not allow	22	24	25	19	31	25
Don't Know	<u>10</u>	<u>14</u>	<u>10</u>	<u>15</u>	<u>11</u>	<u>11</u>
Total	100	100	100	100	99*	100
Number of Inter- views	394	177	603	171	239	1013

Differences in the division of replies according to family income of those interviewed were not significantly different.

* Does not add to 100% due to rounding of percentages.

Is the Fuel Shortage Thought to Be in The Peoples Own Hands

More than half (58%) of all people interviewed feel that the solution to the fuel shortage is in the peoples own hands. This finding is in response to the following question:

"It has been said that much of the solution to the fuel shortage is in peoples own hands. Do you agree or disagree with this statement?"

As reported below, fewer of the people in the Emergency Action States and in the North than of those in other areas agree with the statement.

	Emergency Action States	Natural Gas Problem States	North	South	West	Entire Country
	%	%	%	%	%	%
Agree	52	63	56	60	63	58
Disagree	39	29	37	32	30	34
Don't Know	<u>9</u>	<u>8</u>	<u>7</u>	<u>8</u>	<u>7</u>	<u>7</u>
Total	100	100	100	100	99*	99
Number of Inter- views	394	177	603	171	239	1013

Among those with family incomes of \$20,000 or more, 64 per cent agree with the statement while among those with incomes of under \$10,000 only 54 per cent agree. In the area East of the Rockies, more (66%) of those who consider their most recent fuel bill "reasonable" than of those who thought their bill was "somewhat too high" (53%), or much too high" (54%) agree with the statement. Of those who would be willing to pay more for fuel if this meant there would be no shortages, 64 per cent agree with the statement while among those who would not be willing to pay more only 50 per cent agree with the statement. Many more (66%) of those who think the fuel shortage is real than of those who do not think it's real (44%) agree with the statement.

* Does not add to 100% due to rounding of percentages.

Is Fuel Shortage Thought To Be Real?

One of every five (20%) people interviewed said that they do not think the fuel shortage is real. As shown in the following table, more of those in the Emergency Action States and in the North than of those in other areas are sceptical about the reality of fuel shortages.

"Do you think the fuel shortage is real or not?"

	Emergency Action States	Natural Gas Problem States	North	South	West	Entire Country
	%	%	%	%	%	%
Yes, Real	51	59	55	62	69	59
No, Not Real	25	14	24	12	16	20
Don't Know	<u>23</u>	<u>27</u>	<u>22</u>	<u>26</u>	<u>15</u>	<u>21</u>
Total	99*	100	101*	100	100	100
Number of Inter- views	394	177	603	171	239	1013

Who are the sceptics who say the fuel shortage is not real, and what are their attitudes toward the energy emergency? The group includes more men than women. Among men, 28 per cent do not think the shortage is real while among women only 14 per cent give this answer. Differences by age and educational attainment in terms of the per cent who are sceptical of the shortage were not statistically significant. Differences by age and education are marginally significant in terms of the percentage who believe the shortage is real, with the youngest group (18 - 29 years) more likely to believe than older people and the college educated more likely to believe the shortages are real than those with less formal education.

Fewer (58%) of those who do not think the shortage is real than of those who think it is real (69%) had reduced the temperature in their home in the two weeks preceding the interview. Of those who think the shortage is real, 78% said that they are now making more effort to save

* Total does not equal 100% due to rounding of percentages

fuel than they did before Christmas while only 65 per cent of those who do not think it is real said they are making more effort. Also, 55 per cent of those who think the shortage is real said they were willing to pay more for heating fuel if this meant that there would be no shortages while only 40 per cent of those who do not think it is real would pay more. Among those who consider the shortage real, 66 per cent agree with the statement "much of the solution to the fuel shortage is in the peoples own hands" with only 44 per cent of the sceptics agreeing with the statement. The sceptics are also more inclined to oppose such measures as removing price regulations and allowing the price of fuel to go up and taxing fuels to discourage their use than are those who think the fuel shortages are real. Among the sceptics 28 per cent favor investigating the oil companies while only 5 per cent of those who believe the shortages are real favor this action.

TECHNICAL APPENDICES

COMPOSITION OF THE SAMPLE

	<u>Per Cent</u>
Total	100.0
<u>Sex of Respondent</u>	
Men	48.2
Women	51.8
	<u>100.0</u>
<u>Education of Respondent</u>	
College (Incomplete and graduate)	30.9
High School (Incomplete and graduate)	54.3
Grade or no Schooling	14.0
Education Undesignated	.8
	<u>100.0</u>
<u>Age of Respondent</u>	
18 - 34 years	34.5
35 - 49 years	24.7
50 years and older	39.8
Age Undesignated	1.0
	<u>100.0</u>
<u>Annual Family Income</u>	
\$20,000 or more	23.8
\$15,000 - \$19,999	17.2
\$10,000 - \$14,999	21.4
\$5,000 - \$9,999	23.0
Under \$5,000	12.5
Undesignated	2.1
	<u>100.0</u>
<u>Size of Community</u>	
1,000,000 and over, including urban fringe	17.1
250,000 - 999,999, including urban fringe	22.0
50,000 - 249,999, including urban fringe	16.3
2,500 - 49,999	16.0
Under 2,500	28.6
	<u>100.0</u>

(Continued . .)

Occupation of Chief Wage-Earner

Professional & Business: Professional, technical and kindred workers (e.g., engineers, accountants, nurses); Executives (managers, officials, proprietors, public administrators)	28.1
Clerical & Sales: Clerical and kindred workers (e.g., mail carriers, telephone operators); Sales and kindred workers (e.g., retail clerks, claims examiners)	6.2
Manual Workers: Foremen, craftsmen and kindred workers, (e.g., railroad engineers, machinists, linesmen, maintenance painters); Operatives and kindred workers (e.g., coal miners, truck drivers, butchers, apprentices); Service workers, Laborers	39.1
Farmers: Farm owners, farm managers, farm foremen, farm laborers	2.7
Non-Labor Force	22.2
Undesignated	<u>1.7</u>
	100.0

Region of the Country

East: Maine, New Hampshire, Rhode Island, Connecticut, Vermont, Massachusetts, New York, New Jersey, Pennsylvania, West Virginia, Delaware, Maryland, District of Columbia	25.5
Midwest: Ohio, Indiana, Illinois, Michigan, Minnesota, Wisconsin, Iowa, North Dakota, South Dakota, Kansas, Nebraska, Missouri	29.2
South: Kentucky, Tennessee, Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Texas, Arkansas, Oklahoma, Louisiana	27.1
West: Arizona, New Mexico, Colorado, Nevada, Montana, Idaho, Wyoming, Utah, California, Washington, Oregon, Alaska, Hawaii	<u>18.2</u>
	100.0

Areas of the Country for Which Results Are Tabulated

Emergency Action States: Indiana, Ohio, New York, New Jersey, Pennsylvania, Virginia, West Virginia, North Carolina, South Carolina, Alabama, Minnesota, Michigan	40.2
Natural Gas Shortage States: Delaware, Kentucky, Georgia, Tennessee, Mississippi, Iowa, Missouri, Wisconsin, Illinois	19.9
West: See list of states above	18.2
North: East and Midwest as above plus Virginia and Kentucky	61.2
South: South as above less Virginia and Kentucky	<u>20.6</u>

Per CentType of Dwelling of Respondent (Q.6)

Single family detached house	81.9
Single family attached house (row or town house)	6.1
Low rise apartment house of 4 stories or less	6.6
High rise apartment house of 5 stories or higher	1.3
Mobile home	2.4
Other	<u>1.7</u>
	100.0

Type of Fuel Used to Heat Home (Q.15)

Oil	22.8
Natural Gas	61.4
Electricity	10.1
Propane	2.1
Kerosene	1.1
Wood	3.6
Something else	<u>1.7</u>
	102.8*

* Total exceeds 100% since a few people use more than one fuel.

DESIGN OF THE SAMPLE

Respondents in this survey were interviewed by telephone. The sample of telephone homes was composed of telephone homes reached in a recent Gallup survey conducted by personal interviews in the home. In effect, then, the sampling frame consisted of telephone homes reached in a personal interview in-home survey.

The method of selecting individuals within the household was systematic. Interviewers were instructed to ask first to speak to the youngest man at home; if no man was at home, they asked to speak to the oldest woman. Up to two calls were made at each household to reach a respondent. The obtained sample was adjusted by geographic regions and by educational attainment to fit estimates of these distributions of the adult population living in telephone households.

The following is a description of the sample design of the personal interview survey which provided the frame of telephone households:

The sampling procedure was designed to produce an approximation of the adult civilian population, eighteen years and older, living in the United States, except for those persons in institutions such as prisons or hospitals. It also provides a sample of households or occupied dwelling units.

The design of the sample is that of a replicated, probability sample down to the block level in the case of urban areas, and to segments of townships in the case of rural areas. Approximately three hundred sampling locations are used in each survey.

The sample design included stratification by these four size-of-community strata, using 1970 Census data: (a) cities of population 1,000,000 and over; (b) 250,000 to 999,999; (c) 50,000 to 249,999;

(d) all other population. Each of these strata was further stratified into seven geographic regions: New England, Middle Atlantic, East Central, West Central, South, Mountain, and Pacific. Within each city size - regional stratum, the population was arrayed in geographic order and zoned into equal sized groups of sampling units. Pairs of localities were selected in each zone, with probability of selection of each locality proportional to its population size in the 1970 Census, producing two replicated samples of localities.

Within localities so selected for which the requisite population data are reported, subdivisions were drawn with the probability of selection proportional to size of population. In all other localities, small definable geographic areas were selected with equal probability.

Separately for each survey, within each subdivision so selected for which block statistics are available, a sample of blocks or block clusters is drawn with probability of selection proportional to the number of dwelling units. In all other subdivisions or areas, blocks or segments are drawn at random or with equal probability.

In each cluster of blocks and each segment so selected, a randomly selected starting point is designated on the interviewer's map of the area. Starting at this point, interviewers are required to follow a given direction in the selection of households until their assignment is completed.

Interviewing is conducted at times when adults, in general, are most likely to be at home, which means on weekends, or if on weekdays, after 4:00 P.M. for women and after 6:00 P.M. for men.

SAMPLING TOLERANCES

In interpreting survey results, it should be borne in mind that all sample surveys are subject to sampling error, that is, the extent to which the results may differ from what would be obtained if the whole population surveyed had been interviewed. The size of such sampling errors depends largely on the number of interviews.

The following tables may be used in estimating the sampling error of any percentage in this report. The computed allowances have taken into account the effect of the sample design upon sampling error. They may be interpreted as indicating the range (plus or minus the figure shown) within which the results of repeated samplings in the same time period could be expected to vary, 95 per cent of the time, assuming the same sampling procedure, the same interviewers, and the same questionnaire.

The first table shows how much allowance should be made for the sampling error of a percentage:

	Recommended Allowance For Sampling Error of a Percentage					
	In Percentage Points (at 95 in 100 confidence level)*					
	-----Sample Size-----					
	<u>1000</u>	<u>750</u>	<u>600</u>	<u>400</u>	<u>200</u>	<u>100</u>
Percentages near 10	2	3	3	4	5	7
Percentages near 20	3	4	4	5	7	9
Percentages near 30	4	4	4	6	8	10
Percentages near 40	4	4	5	6	8	11
Percentages near 50	4	4	5	6	8	11
Percentages near 60	4	4	5	6	8	11
Percentages near 70	4	4	4	6	8	10
Percentages near 80	3	4	4	5	7	9
Percentages near 90	2	3	3	4	5	7

The table would be used in the following manner: Let us say a reported percentage is 33 for a group which includes 1013 respondents. Then we go to row "percentages near 30" in the table and go across to the column headed "1000". The number at this point is 4 which means that the 33 per cent obtained

* The chances are 95 in 100 that the sampling error is not larger than the figures shown.

in the sample is subject to a sampling error of plus or minus 4 points. Another way of saying it is that very probably (95 chances out of 100) the average of repeated samplings would be somewhere between 29 and 37, with the most likely figure the 33 obtained.

In comparing survey results in two samples, such as, for example, men and women, the question arises as to how large must a difference between them be before one can be reasonably sure that it reflects a real difference. In the tables below, the number of points which must be allowed for in such comparisons is indicated.

Two tables are provided. One is for percentages near 20 or 80; the other for percentages near 50. For percentages in between, the error to be allowed for is between those shown in the two tables:

Recommended Allowance for Sampling Error
of the Difference

In Percentage Points
(at 95 in 100 confidence level)*

TABLE A Percentages near 20 or percentages near 80

Size of Sample	<u>750</u>	<u>600</u>	<u>400</u>	<u>200</u>
750	5			
600	5	6		
400	6	6	7	
200	8	8	8	10

TABLE B Percentages near 50

Size of Sample	<u>750</u>	<u>600</u>	<u>400</u>	<u>200</u>
750	6			
600	7	7		
400	7	8	8	
200	10	10	10	12

Here is an example of how the tables would be used: Let us say that 50 per cent of men respond a certain way and 40 per cent of women respond that way also, for a difference of 10 percentage points between them. Can we say with any assurance that the 10-point difference reflects a real difference between men and women on the question? The sample contains approximately 750 men and 750 women.

* The chances are 95 in 100 that the sampling error is not larger than the figures shown.

Since the percentages are near 50, we consult Table B, and since the two samples are about 750 persons each, we look for the number in the column headed "750" which is also in the row designated "750". We find the number 6 here. This means that the allowance for error should be 6 points, and that in concluding that the percentage among men is somewhere between 4 and 16 points higher than the percentage among women we should be wrong only about 5 per cent of the time. In other words, we can conclude with considerable confidence that a difference exists in the direction observed and that it amounts to at least 4 percentage points.

If, in another case, men's responses amount to 22 per cent, say, and women's 24 per cent, we consult Table A because these percentages are near 20. We look in the column headed "750" and see that the number is 5. Obviously, then, the 2-point difference is inconclusive.

OPINION SURVEY

Time Interview
began _____

The Gallup Organization, Inc.
Princeton, New Jersey 08540

GO 7729 R
February 3, 1977
Tel. No. _____

SUGGESTED INTRODUCTION: Hello, I'm (name of interviewer) calling from Princeton, New Jersey. I'm taking a Gallup survey and would like your opinion on topics of interest. I would like to talk to the youngest man who is 18 years of age or older who is at home. (If no men at home ask for) the oldest woman who is 18 years of age or older who is at home. The first question is:

1. In your area, has the weather since Thanksgiving been much colder than usual, somewhat colder than usual, about the same as usual, or somewhat warmer than usual?

1() Much colder than usual

2() Somewhat colder than usual

3() About the same as usual

4() Somewhat warmer than usual

V() Don't Know

- 2a. Do you have a thermostat in your home to control the heat?

1() Yes

2() No

(INTERVIEWER: IF "YES" TO Q. 2a, ASK Q. 2b; OTHERS SKIP TO Q. 3a)

- 2b. At what temperature was your thermostat set during the day today?

_____ Degrees

X() Was turned off

V() Don't Know

- 2c. Was this setting today lower than the setting at this season last year?

1() Yes

2() No

V() Don't Know

- 2d. Was anyone in the house during the day today?

1() Yes

2() No

V() Don't Know

- 2e. At what temperature was your thermostat set last night when you went to bed?

_____ Degrees

X() Was Turned Off

V() Don't Know

- 2f. Was this setting last night lower than the setting you had at night at this season last year?

1() Yes

2() No

V() Don't Know

(INTERVIEWER: IF NO THERMOSTAT IN Q. 2a, ASK Q. 3a - 3e)

- 3a. What is your best estimate of the temperature of your home during the day today?

_____ Degrees

V() Don't Know

(Continued . . .)

3b. Was that temperature lower than it was during the day at this season last year?

1()Yes

2()No

V()Don't Know

3c. Was anyone in your house during the day today?

1()Yes

2()No

V()Don't Know

3d. And what is your best estimate of the temperature in your home last night when you went to bed?

_____Degrees

V()Don't Know

3e. Was that temperature lower than it was at night at this season last year?

1()Yes

2()No

V()Don't Know

ASK EVERYONE:

4a. In order to save home heating fuel what is the lowest temperature at which you would be willing to keep your home during the day?

_____Degrees

V()Don't Know

4b. And what is the lowest temperature at which you would be willing to keep it at night?

_____Degrees

V()Don't Know

ASK EVERYONE:

5a. Have you reduced the temperature inside your home in the last two weeks?

1()Yes

2()No

V()Don't Know

IF "YES" TO Q. 5a, ASK 5b

5b. Please give me the main reason you reduced the temperature in your home?

IF "NO" TO Q. 5a, ASK 5c & 5d

5c. Please give the most important reason why you have not reduced the temperature in your home?

5d. What would it take to get you to reduce your home temperature?

(Continued . . .)

ASK EVERYONE:

6. In which of the following type of structure do you live? (Read Answers)
- 1()Single family detached house
 - 2()Single family attached house (row or town house)
 - 3()Low rise apartment house of 4 stories or less
 - 4()High rise apartment house of 5 stories or higher
 - 5()Mobile home
 - 6()Other
7. Please tell me whether or not you or your family have done any of the following since last Thanksgiving to try to cut down on fuel consumption
1. Added insulation to your attic	1()Yes	2()No	V()Don't know
2. Added insulation to your walls	1()Yes	2()No	V()Don't know
3. Caulked or weatherstripped your doors or windows	1()Yes	2()No	V()Don't know
4. Put up storm windows or plastic sheeting over your windows	1()Yes	2()No	V()Don't know
5. Closed off heat to any unused rooms	1()Yes	2()no	V()Don't know
6. Had your heating furnace serviced	1()Yes	2()No	V()Don't know
7. Washed clothes in warm or cold water rather than hot	1()Yes	2()No	V()Don't know
8. Kept your home or apartment at a lower temperature than before	1()Yes	2()No	V()Don't know
9. Installed a Kelvatron in your home to help save heat	1()Yes	2()No	V()Don't know
8. How comfortable is the temperature in your home at the moment -- very comfortable, fairly comfortable, not comfortable, or uncomfortable?
- 1()Very Comfortable 2()Fairly Comfortable 3()Not Comfortable
4()Uncomfortable V()Can't Say
9. Have you heard or read anything about the need to conserve fuel?
- 1()Yes 2()No
- IF "YES" TO Q. 9 ASK Q. 10
10. From whom or where did you hear about it?
1()President	7()Radio
2()Governor	8()Friends
3()Local Official	X()Other
4()Gas or utility company	V()Don't Know
5()Newspapers	
6()Television	

(Continued . .)

1

-

14. Do you think the fuel shortage is real or not?

- (Continued . .)

- 16c. Do you pay your own heating bill or not?
1()Yes 2()No
17. Do you think the cost of heating your home will be going up a lot, a little, or not at all?
1()A lot 2()A little 3()Not at all V()Don't Know
18. Would you be willing to pay more for heating fuel if that meant there would be no shortages?
1()Yes 2()No V()Don't Know
19. When the cost of gas, oil, and electricity goes up some people cut down on how much fuel they use while others cut down other expenses like leisure activities, food, or clothing. Which do you do, reduce use of fuel, reduce other expenses, or neither of these?
1()Reduce Fuel 2()Reduce other expenses 3()Neither
V()Don't Know
- 20a. Are you employed outside your home?
1()Yes 2()No
IF "YES" TO Q. 20a, ASK 20b
- 20b. Has the temperature in the place where you work been reduced in the last two weeks?
1()Yes 2()No V()Don't know
- ASK EVERYONE:
21. Do you think there will be a fuel shortage like this one every year now, occasionally, or never again?
1()Every year 2()Occasionally 3()Never again
V()Don't know
22. Some people have suggested that if factories and power plants cannot get natural gas they should be allowed to burn the kind of coal that causes air pollution. Do you think the factories and power plants should or should not be allowed to burn this kind of coal if they cannot get natural gas?
1()Yes, should be allowed to burn this kind of coal
2()No, should not be allowed to burn this kind of coal
V()Don't Know
23. What is the main thing you think the government should do to help solve the energy shortage?
-
-

(Continued . .)

24. Of the following things that the government can do to get people to save energy, which do you favor and which do you oppose?

	<u>Favor</u>	<u>Oppose</u>	<u>Neutral</u>	<u>Don't Know</u>
a. Remove price regulations and allow the price of fuels to go up	1()	2()	3()	4()
b. Send the limited supplies just to where they are most needed	1()	2()	3()	4()
c. Pay part of the cost of installing extra insulation or storm windows in peoples homes	1()	2()	3()	4()
d. Set conservation standards for new buildings and houses that builders must follow	1()	2()	3()	4()
e. Tax fuels to discourage their use	1()	2()	3()	4()

25. It has been said that much of the solution to the fuel shortage is in peoples own hands? Do you agree or disagree with this statement?

1() Agree

2() Disagree

3() Don't Know

ASK EVERYONE:

And now just a few questions so that my office will have some information about the background of each respondent.

26. What was the last grade or class you COMPLETED in school?

1() None, or grades 1-4

2() Grades 5,6,7

3() Grade 8

4() High School Inc. Grade 9 -11

5() High School Grad; Grade 12

6() Technical, Trade, or Business

7() College, University Inc.

8() College, University graduate

27. And what is your age?

Age _____

INTERVIEWER: PLEASE CHECK WHETHER YOU HAVE SPOKEN TO A

28. 1() Man

2() Woman

So that my office can check my work in this interview, if it wants to, may I have your name and address please?

NAME _____

ADDRESS _____

I hereby attest that this is a true and honest interview

Interviewer's Signature

DATE _____

TIME INTERVIEW ENDS _____

PLACE
COMPUTER
LABEL HERE