

**CONSUMER UTILITY BENCHMARK SURVEY:
PERCEPTIONS OF ELECTRIC AND NATURAL GAS PRICES**

Scott Potter
Research Specialist
and
Venkata Bujimalla
Graduate Research Assistant

The National Regulatory Research Institute

at The Ohio State University
1080 Carmack Road
Columbus, Ohio 43210-1002
Phone: (614) 292-9404
Fax: (614) 292-7196
www.nrri.ohio-state.edu

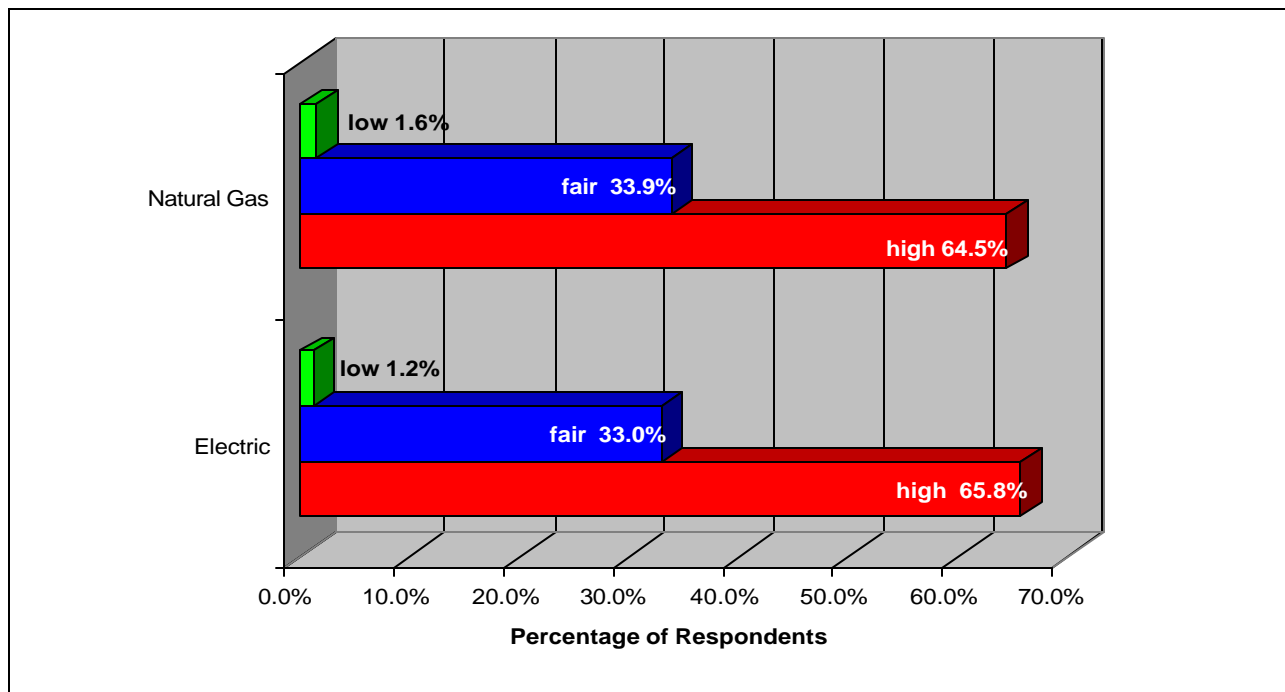
August 2003

This report was prepared by the National Regulatory Research Institute (NRRI) with funding provided by the member commissions of the National Association of Regulatory Utility Commissioners (NARUC). The views and opinions of the authors do not necessarily express or reflect the views, opinions or policies of the NRRI, NARUC or NARUC member commissions.

INTRODUCTION

Most respondents to the NRRI's Consumer Utility Benchmark Survey (CUBS) said the price they paid both for electric and natural gas service was "high" (see Figure 1). Over three-fifths of the consumers who answered the survey chose this response. Nearly 36 percent called prices "fair" and just over one percent of all respondents considered prices to be "low." Interesting distinctions appeared for age groups who said the price was "low," men and women who thought the prices of electricity and gas were "low," and ethnic groups who said the price of natural gas was "fair."

A total of 18,793 consumers offered opinions on their utility service in the survey, conducted over the Internet between Jan. 9, 2003 and Feb. 3, 2003. The survey was conducted by BIGresearch. A description of the methodology is included as an appendix to this report. The survey was intended to provide state public utility commissions, utilities and other stakeholders with insights on consumer perceptions of utility service and price. This report explores the results of the consumers' perceptions of the price of electric and natural gas service.



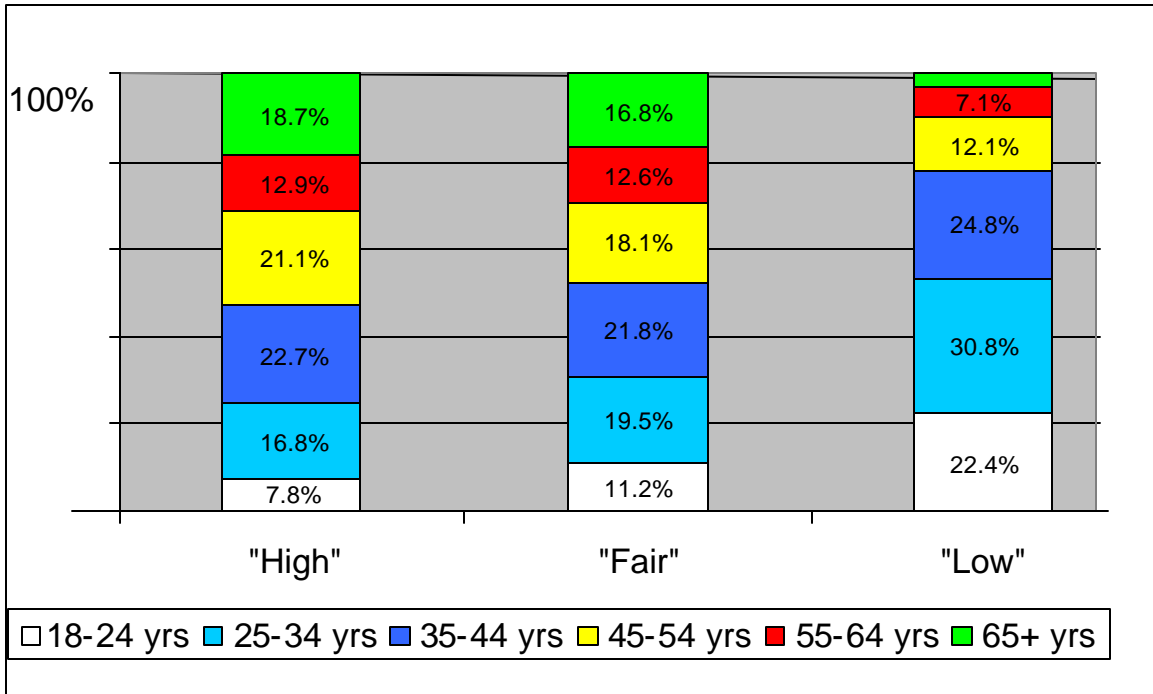
Source: NRRI/BIGresearch, Feb. 2003, n= 8659 for natural gas, 17216 for electric

Fig. 1. Consumer perception of natural gas and electric prices.

Perceptions of Prices by Age

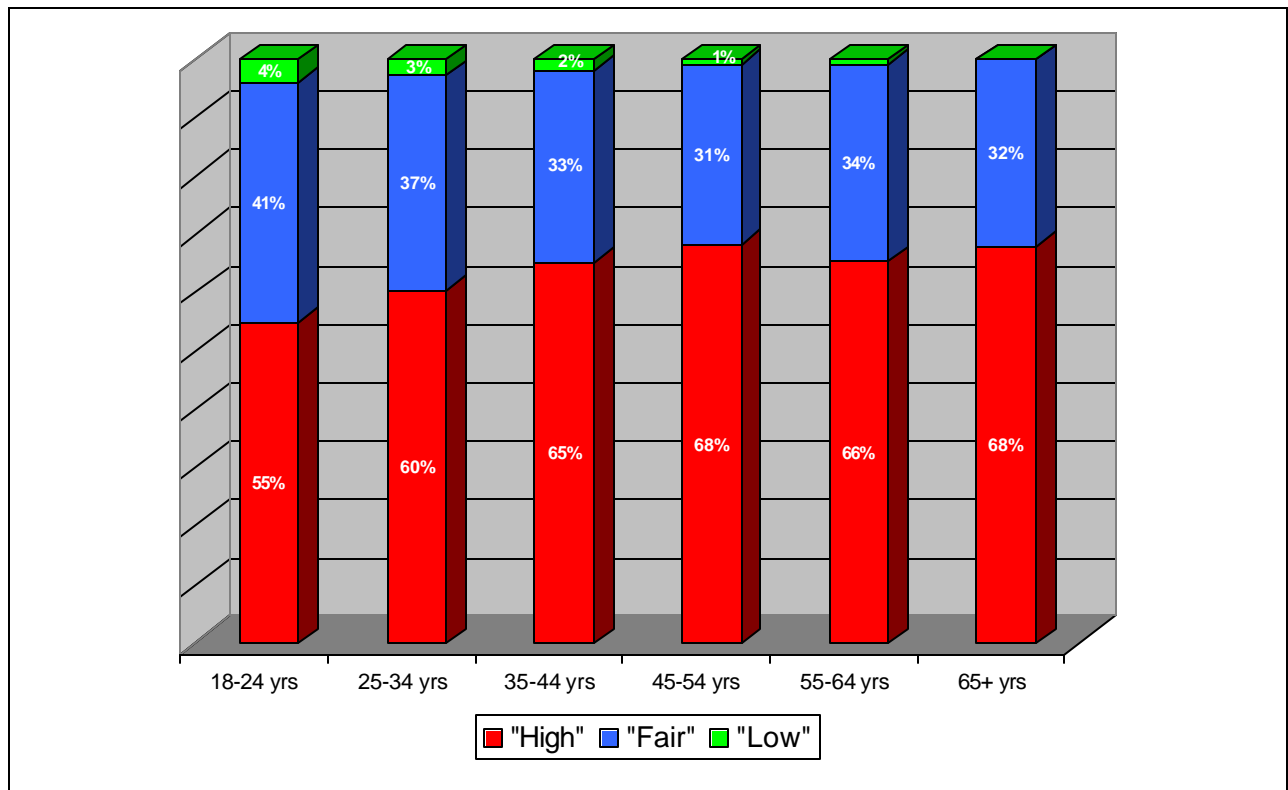
The distribution of perception of price responses showed little significant variation across age categories (see Figures 2-5). Figures 2 and 4 show the percentage of respondents from each age category by response (“High,” “Fair,” or “Low”). Figures 3 and 5 show the percentage of responses (“High,” “Fair,” or “Low”) within each age category. The distribution within each age category largely tracked the distribution of responses across the entire respondent base. The majority of every age category perceived natural gas and electric prices as high. Between 29 percent and 45 percent of each age group perceived prices as “fair.” Finally, between one percent and four percent of each group perceived prices as “low”.

Differences in consumer demographic proportions did show up in the age of those who perceived natural gas and electric prices as “low.” While the majority of respondents in every age category indicated that prices for natural gas and electric service were “high,” younger respondents were more likely to indicate prices were “fair” or “low” than older respondents. Most notable is that consumers aged 18 - 34 were over 13 times more likely to rate the price of natural gas as “low” than respondents in the 65+ category. Further analysis is necessary to confirm any correlations between price perceptions and age, but the younger age groups may be more likely than the older groups to see the prices as low because as a percentage of income their expenditures on electric and natural gas may be smaller. The younger group is also likely to have more apartment dwellers, wherein electric and gas usage may be lower and in some cases included within the price of rent. Also, homeowners in the younger group likely have, on average, smaller houses than those in the 36-65 year categories. Another likely factor is household size. As a family grows and children begin to add significantly to the utility usage, the bill increases (even though rates may have not increased). Consequently, an older respondent with a family may have a significantly higher utility bill and, therefore be more likely to perceive the price as “high.”



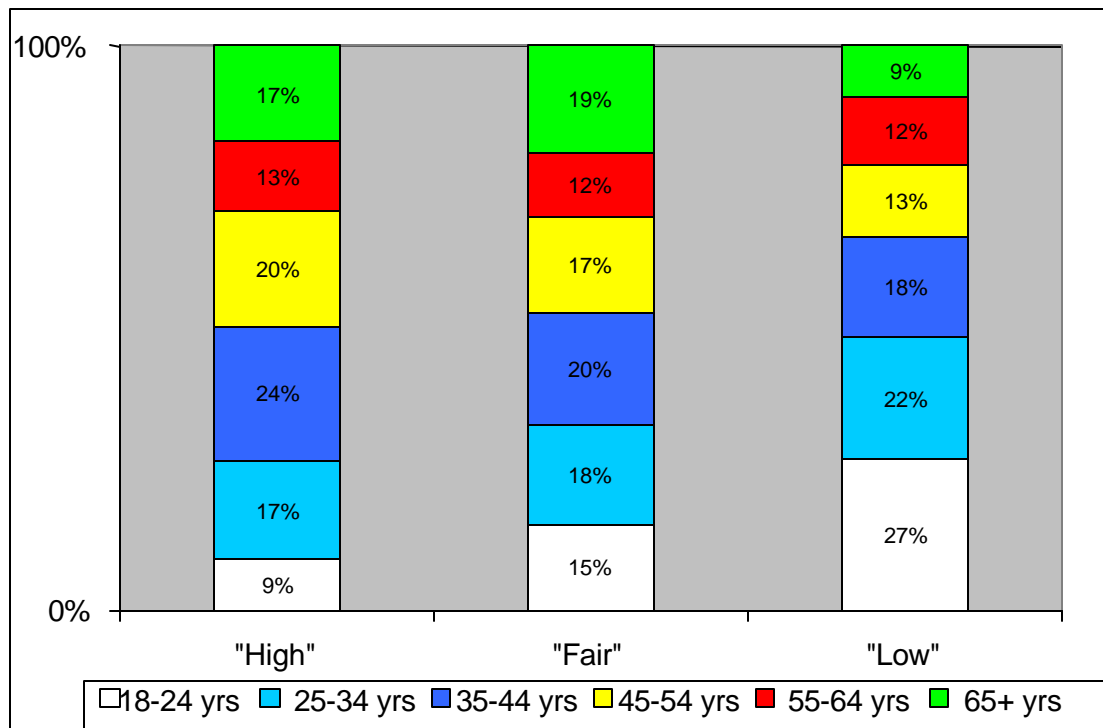
Source: NRR/BIGresearch, Feb. 2003, n= 8659

Fig.2. Breakdown of natural gas price perceptions by age.



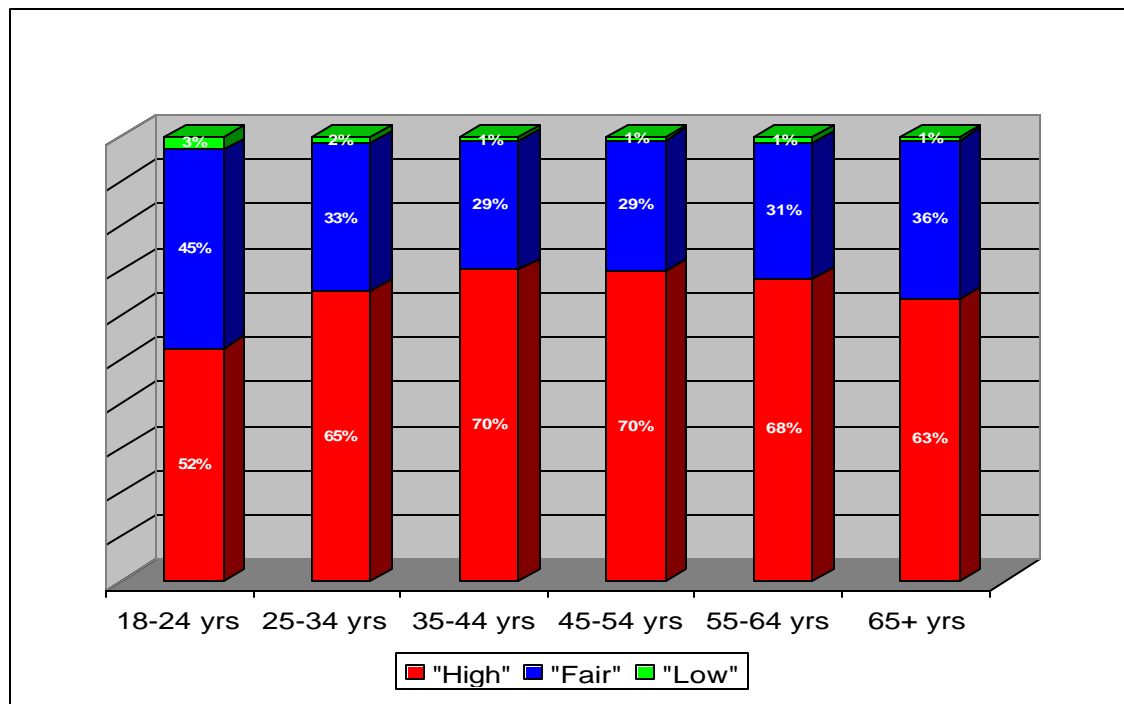
Source: NRR/BIGresearch, Feb. 2003, n= 8659

Fig. 3. Percentage of total respondents in age groups.



Source: NRR/BIGresearch, Feb. 2003, n= 17216

Fig. 4. Breakdown of electric price perceptions by age.

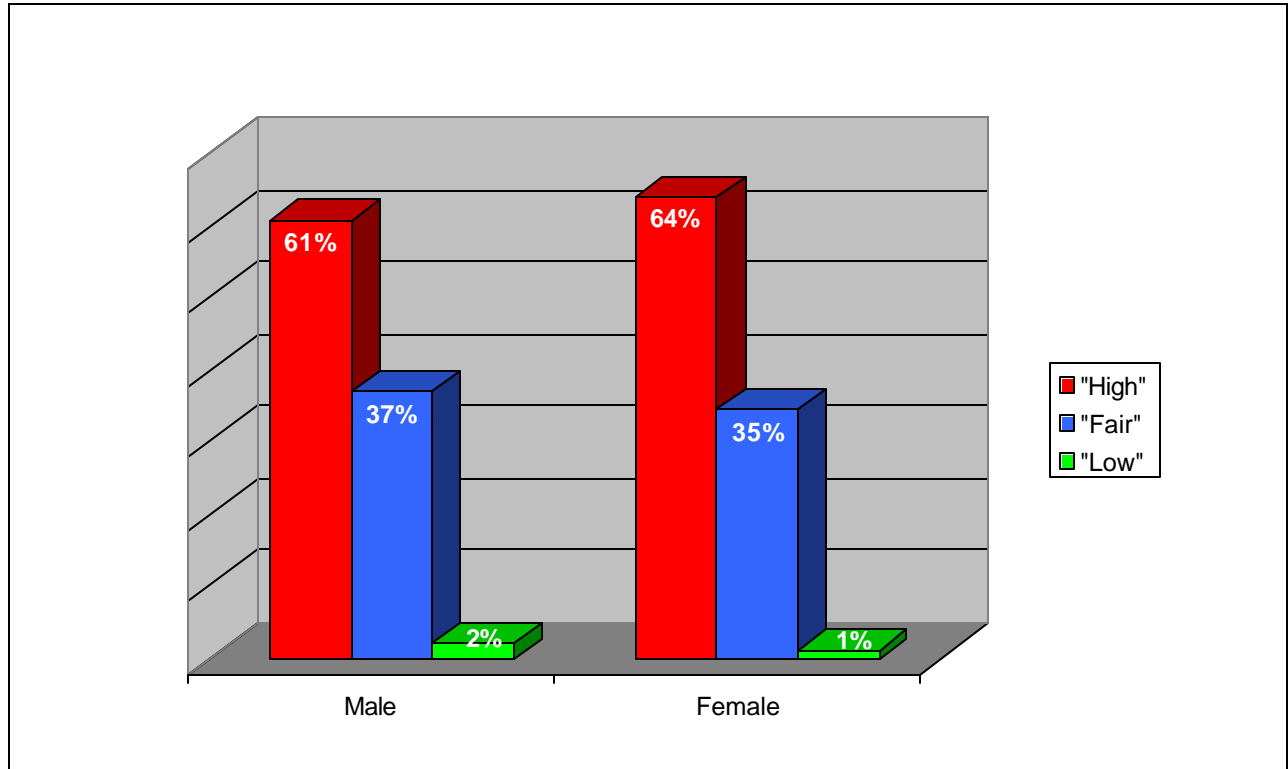


Source: NRR/BIGresearch, Feb. 2003, n= 17216

Fig. 5. Percentage of total respondents in age group.

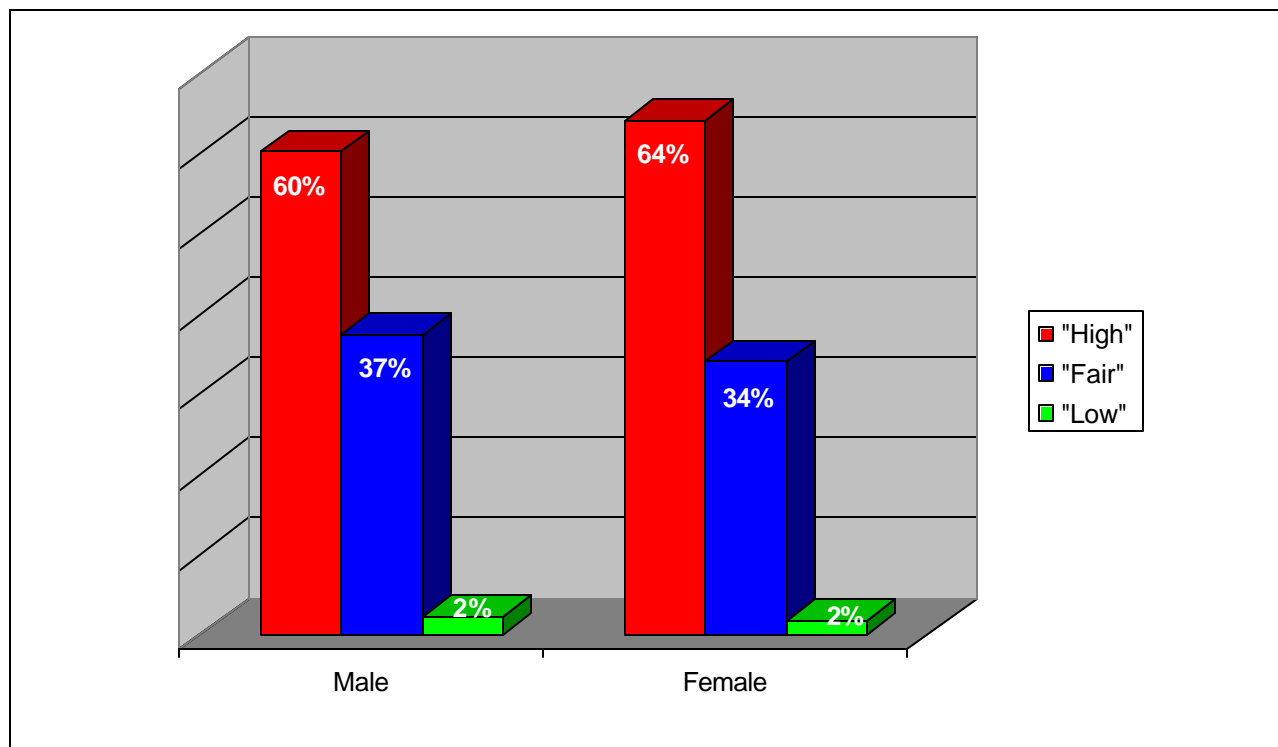
Perceptions of Prices by Gender

The distribution of “high,” “fair” and “low” price perceptions was very similar across both genders as indicated in Figures 6 and 7. Male respondents to the survey were slightly more inclined to perceive electric and natural gas service prices as “low” or “fair” than were females.



Source: NRR/BIGresearch, Feb. 2003, n= 17216

Fig. 6. Perceptions of electric prices by gender.



Source: NRRI/BIGresearch, Feb. 2003, n= 8659

Fig. 7. Perceptions of natural gas prices by gender.

Perceptions of Prices by Ethnicity

Overall the differences across ethnic categories were minor. However, when examined by reported ethnicity, those that reported they were East Indian or Hispanic were more likely to believe that prices for natural gas were “fair” as opposed to “high” or “low” (see Tables 1 and 2). Fifty-three percent of Hispanics respondents and 76 percent of East Indians respondents reported that natural gas prices were “fair.” All other ethnic classes reported natural gas prices were “high” more often than “fair” or “low.” There were no notable distinctions by ethnic category regarding what respondents thought about electric prices.

**TABLE 1
PERCEPTIONS OF GAS PRICES BY ETHNIC GROUP**

Ethnic Group	High	Fair	Low
American Indian	73%	22%	5%
Asian	56%	44%	0%
Black	66%	29%	5%
East Indian	24%	76%	0%
Hispanic	45%	53%	2%
White	65%	34%	1%
Other	76%	21%	3%

Source: NRRRI/BIGresearch, February 2003, n= 8659

**TABLE 2
PERCEPTIONS OF ELECTRIC PRICES BY ETHNIC GROUP**

Ethnic Group	High	Fair	Low
American Indian	75%	24%	1%
Asian	62%	37%	2%
Black	60%	39%	1%
East Indian	100%	0%	0%
Hispanic	59%	39%	2%
White	66%	33%	1%
Other	67%	33%	0%

Source: NRRRI/BIGresearch, February 2003, n= 17216

SUMMARY AND CONCLUSIONS

It is not surprising that many consumers believe that prices are high. Natural gas and electricity have relatively high price inelasticities of demand. Consumers believe these services are largely non-optional necessities. Since consumers have limited ability and/or inclination to respond to prices by reducing demand, they may be more likely to view prices as high. Additionally, specific to natural gas, there have been widespread increases in prices over the past several months to few years. It would, therefore, be expected that consumers would be more likely (than in the past) to report

natural gas prices as “high,” since they are in fact relatively higher than in previous years within consumer recall.

There is a basic majority perception that the prices for natural gas and electric service are high. Overall, females are marginally more likely to perceive prices as “high” than are males. The survey indicates that younger consumers are slightly more inclined to perceive prices as “low” or “fair”: than are older consumers. Finally the survey shows that East Indian and Hispanic consumers are most likely to perceive their natural gas prices as “fair,” whereas the other ethnic groups are most likely to perceive those same prices as “high.”

APPENDIX

METHODOLOGY

BIGresearch collects all responses online from the largest online community of over 60 million people. BIGresearch surveys are anonymous, self administered and free of interviewer bias. Questionnaires are designed to be completed very quickly, usually in less than five minutes. BIGresearch's collection method is an excellent example of the application of human factors engineering principles to eliminate barriers to consumer participation. It's easy and fun to participate.

A computer controlled system tied to market realities ensures more than adequate representation of all consumer groups defined by age, sex, income, ethnic composition and geographic distribution. BIGresearch takes 14 samples simultaneously - seven age groups for males and seven age groups for females. These fourteen large samples are woven together for a huge market sample usually between 5,000 and 10,000. Samples of this size allow for detailed cross-tabulation and for a more accurate measurement of the market. Each cross-tabulation is dynamically balanced, through computer intensive statistical procedures, to known market realities. The benefits of this are:

- The collection of "mega" samples to insure representation of all types of consumer groups.
- The utilization of 14 sampling frames with short age spans, (i.e., males 14-17 yrs., 18-24 yrs, etc.) to insure far greater homogeneity within groups.
- Market balancing with a computer model driven by known, real world, information, which adjusts the samples to the marketplace.
- The short (unannounced) time period over which the data are collected precludes merchants and advertisers from modifying behavior to influence results.
- As an online research company, BIGresearch adheres to a survey standards policy which is based upon a "well posed random sample," and is weighted to reflect the U.S. population. A similar policy has been adopted by others such as American Demographics.

Ongoing technical review process of data collection methodology and BIGresearch's application of computer intensive statistics to analyze and manage the data.

- The gender distribution of online users is identical to that of the general population (as reported by the US Census).
- The marital status along all dimensions is identical to the general populations.
- The age distributions of online individuals is also approaching that of the general population.

CONSUMER UTILITY BENCHMARK STUDIES FROM THE NRRI/BIGResearch

The NRRI was established by the National Association of Regulatory Utility Commissioners in 1976 at the Ohio State University. The NRRI provides client-driven research and services to inform and advance regulatory policy. NRRI programs of regulatory research and service include utility infrastructure; utility markets; consumer affairs and education; and commission organization, process and development.

BIGresearch is a consumer market intelligence firm that provides unique consumer insights that are gathered online utilizing very large sample sizes. BIGresearch's syndicated *Consumer Intentions and Actions* survey monitors the pulse of more than 7,000 consumers each month providing insights for identifying opportunities in today's competitive and changing marketplace.

<http://www.bigresearch.com>