

**Maryland Residential Consumer Survey:
Views About Electricity Service and Deregulation**

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Maryland Residential Consumer Survey: Views on Electricity Service and Deregulation

Executive Summary

The results of a telephone survey of 1,035 households in Maryland provide the following insights about the attitudes of Maryland consumers about their electric service:

Satisfaction with Electric Service

- Maryland electricity consumers are mostly satisfied with the current price and reliability of their electricity service.
- If consumers have complaints or problems with their electricity service, they contact their electric companies. If the electric company does not resolve the problem, the majority of people do not know who else to contact. Only 8.3 percent would contact the Public Service Commission.
- Most Maryland residential electricity consumers do not know if Maryland has agencies that regulate electricity rates or advocate for consumers and among those who do, few can name the agencies.

Understanding of Maryland's Electric Choice Program

Consumers do not have a detailed understanding of Maryland's Electric Choice Program. The program specified a period of regulated and capped residential rates for electricity supplied by the utility, but also permits consumers the option of purchasing electricity from a non-utility supplier at an unregulated price. The price caps are scheduled to come off in the next two to four years, depending on the utility.

- Nearly two thirds (63.6 percent) of consumers knew that Maryland law permits consumers a choice among electricity suppliers. However, only 9.9 percent of the consumers knew that the state currently caps electricity rates, and 40.2 percent believed that rates were not capped. Only about one in five of the 9.9 percent who knew about the rate caps were aware that the caps are scheduled to expire.
- More than two-thirds (67.9 percent) of consumers favor choice. Of those who prefer choice, 66.5 percent said it was important or very important to them.
- Consumers were divided over whether they preferred regulation: 44.8 percent preferred regulation of electric companies and 39.4 preferred not to have regulation.
- When choice is combined with deregulation, consumers were divided. A small plurality, 43.5 percent, would be willing to have state regulation of prices eliminated in order to have a choice among electricity suppliers. However, 39.8 percent would not be willing to end regulation to get choice, and 16.7 percent had no opinion or didn't know.

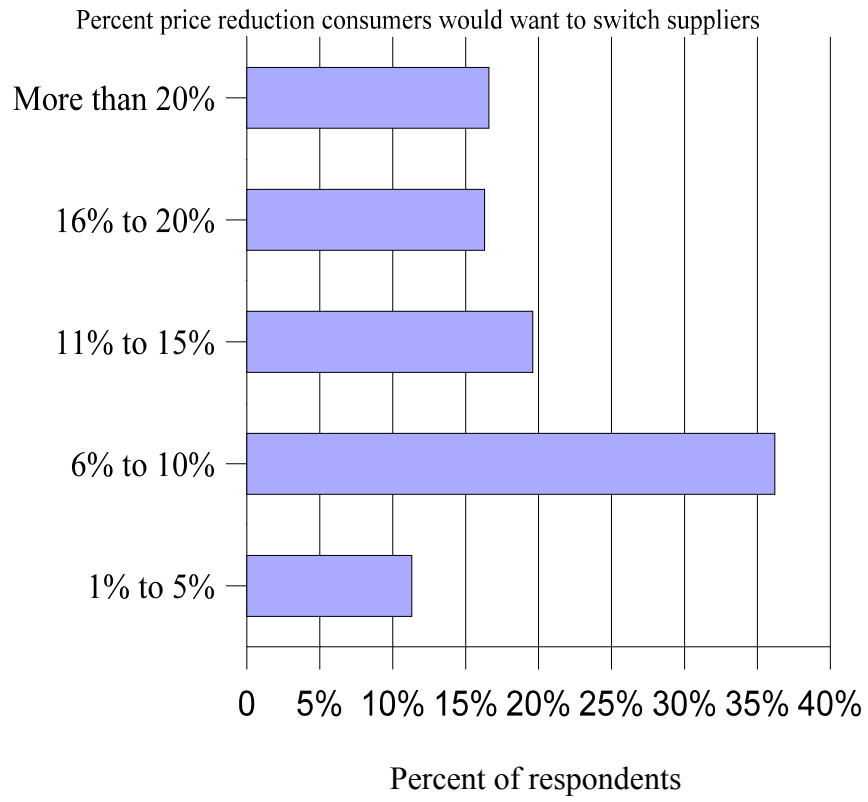
Perceptions of Price Changes with Deregulation

- About half (49.5 percent) of consumers believed that removing price caps alone would increase the price of electricity, and 19.4 percent said it would make no difference. Only 6.7 percent thought it would reduce prices and the remainder (24.4 percent) didn't know.
- About 14.4 percent of consumers said that permitting a choice of an electricity supplier alone would increase the price of electricity. Slightly over one third (34.6 percent) of consumers believed that permitting a choice of an electricity supplier would reduce the price of electricity. Slightly more (35.6 percent) said permitting a choice of suppliers would make no difference in the price.
- Consumers seemed to believe there would be less of an increase in electricity prices if caps were removed and they could choose a supplier. As discussed above, about half of the consumers thought that removing price caps would increase prices. However, the percent of consumers who think prices will increase drops to less than one third (30.1 percent) if they also have a choice of suppliers. The percentage of consumers who think it will make no difference increases from 19.4 percent to 35.4 percent.
- Respondents were also divided on whether they would be willing to give up regulation in order to get choice. About two in five (39.8 percent) of the respondents would not be willing to give up regulation for choice, while 43.5 percent would.

Opinions about Choosing a Supplier

- Few residential electricity consumers (only 51 out of 1,035) have tried to change suppliers and fewer still have actually switched suppliers. Given the relatively high preference for choice, this low number likely reflects the lack of energy suppliers actively marketing to consumers in Maryland.
- Two thirds of consumers said that a supplier would have to offer lower prices to get them to switch from their utility, while 21.8 percent said they would want a more reliable service. When those who specified "lower prices" were asked how much of a price reduction they would want, over half said they would need more than a 10 percent reduction in prices to switch (see Chart 1).

Chart 1



Maryland Residential Consumer Survey: Views About Electricity Service and Deregulation

Traditionally the electric utility provided two functions, a) the production or wholesale purchase of electricity (the supply function) and b) distribution of the electricity to the consumer through local electric power lines (the distribution function). These two functions have been separated in Maryland as of July 1, 2000. Competition for retail consumers is permitted among suppliers under a program called Electric Choice¹, but the natural monopoly of distribution is still recognized and regulated by the state. During a transition period, the regulation of rates has been replaced by negotiated rate caps for investor-owned electricity suppliers. Switching is limited because very little supplier competition currently exists for residential electricity consumers.

Maryland is served by four investor-owned electricity companies, five municipal electricity companies and four consumer cooperatives. The investor-owned companies are: Pepco – Montgomery and Prince George’s counties; Baltimore Gas & Electric (BGE) – Baltimore metropolitan area (Baltimore City and Anne Arundel, Baltimore, Carroll, Harford, Howard and parts of Calvert, Montgomery and Prince George’s counties); Allegheny Power – Western Maryland (Allegany, Frederick, Garrett, Washington and part of Carroll counties); Conectiv – Eastern Shore (Caroline, Cecil, Dorchester, Kent, Queen Anne’s, Somerset, Talbot, Wicomico, and Worcester counties). See Map A.² The municipal companies are: Berlin, Easton, Hagerstown, Thurmont, and Williamsport. The cooperative companies are: Southern Maryland Electric Cooperative (SMECO), A & N, Choptank, and Somerset.

Insert MAP A

¹ Electric Choice participants currently include the four investor-owned utilities, SMECO and Choptank. Municipal electric companies are not participants.

² Source: Maryland Public Service Commission.

In theory, deregulation is intended to lead to consumer choice and possibly lower prices as

alternative electricity suppliers enter the market place. In practice, this is not happening as intended. Only two competing electricity suppliers had entered the Pepco market region and had signed up 57,086 customers (through September 2002), about three percent of residential customers in the state. Also, as of September 2002, only one competing electricity supplier had entered part of the BGE market area. No other region of Maryland has competing electricity suppliers. Additionally, consumers have thus far seen few benefits from this competition.³

The slow development of competition for retail electricity customers could present problems to consumers. For example, if competition among suppliers has not developed by the scheduled ending of rate caps, electricity supply rates will not be constrained by either regulation or competition. Rate caps are scheduled to end in 2004 for Conectiv and Pepco residential customers, 2006 for BGE residential customers, and 2008 for Allegheny residential customers.

The Maryland Office of People's Counsel (OPC) asked the Maryland Institute for Policy Analysis and Research (MIPAR) of the University of Maryland, Baltimore County (UMBC) to conduct a survey on the subject of electricity deregulation in the state. The primary purposes of the survey were to elicit information on consumer views about their electricity service, their understanding of electricity deregulation in Maryland and their opinions about Maryland's policy to permit choice among electricity suppliers and deregulate the price of electricity. OPC undertook this survey to help identify programs to better serve residential electricity consumers in the state.

³This problem is discussed in *Maryland Office of People's Counsel Report on Electric Choice*, OPC 2002. [Http://www.opc.state.md.us/consumer/pdf/EIChoiceReport.pdf](http://www.opc.state.md.us/consumer/pdf/EIChoiceReport.pdf).

The survey, which was conducted during August 2002 among residential electricity customers only, asked questions about a variety of issues, including: customers' opinions about the current reliability and price of electricity; their awareness of and opinion about the state's policy governing electricity rates and the choice of electric suppliers; and whether they had actually changed electricity suppliers. The survey also asked consumers who they would contact if they have a problem or complaint with electric service, and whether they knew of and their opinions about the Maryland Public Service Commission and the Maryland Office of People's Counsel. Finally, the survey collected data about customer and household demographics, electricity usage, and customer status.

The survey included a random, stratified sample of 1,035 adults in households in four regions of Maryland. These regions were Eastern Shore/Southern Maryland, Western Maryland, the Baltimore metropolitan area, and the Washington metropolitan area. The survey over-sampled the Eastern Shore/Southern Maryland and Western Maryland regions in order to ensure adequate numbers of respondents for statistical analysis purposes. The counties encompassed in these regions are shown in Table A-1 found in Appendix A. Trained interviewers from the opinion research firm of Mason-Dixon, Inc. conducted the telephone interviews, which lasted an average of 12 minutes. This report presents data from the survey in tables with written narrative to explain the data.

Data are reported at the state and regional levels, if the differences among the regions are statistically significant at less than the .05 level. This means that there is less than a 5 percent chance that differences among regions seen in the table occurred at random. Put another way, if the survey was repeated with similarly randomly selected residential electricity customers from these regions, one would expect to find similar results among the regions 95 percent of the time.

Regional differences may be statistically significant, but may not be substantively significant. This would be the case, for example, if differences of only a few percentage points were found among regions or if there was no policy or programmatic relevance to the differences. In cases such as this, regional differences are not discussed.

Appendix A discusses the methodology used to conduct the survey, the weighting procedures, the data analysis techniques used, a description of customer electricity usage and billing patterns, and a description of the demographic characteristics of the sample. Appendix B contains the survey.

This report discusses “consumers” or “customers.” These are the respondents to the telephone survey, Maryland’s residential electricity consumers or customers. The survey did not cover industrial, commercial or government electricity users.

As discussed earlier, in order to produce a sufficient sample size to permit us to conduct tests for statistical significance, we over-sampled in the Western Maryland and Eastern Shore/Southern Maryland regions. This means that more customers were interviewed in these regions than their proportion of the state population would suggest. To correct for this disproportionality in our analysis, we weighted responses. We discuss weighting procedures in Appendix A.

The number of respondents reported in each table reflects this weighting and is rounded to the nearest whole number. When respondents are summed across regions, rounding errors accumulate. Because of this, statewide totals are not always fully consistent. In some tables, this may mean that totals of 1,036 or 1,034 respondents are reported, even though 1,035 respondents were interviewed (e.g., Table 10 reports a total of 1,036 responded statewide).

In some of the tables, the total number of respondents corresponds to the number of respondents who gave a specific response to a previous question. However, a rounding error may prevent these numbers from corresponding exactly. For example, Table 3 reports that 87 respondents reported a decrease in their electric bills. Table 5 reports the main reason why respondents said that their bills decreased. This question was asked only of the 87 respondents who reported a “decrease” in Table 3. However, the table shows a total of 88 respondents. This is due to the rounding error. These rounding errors are small, do not affect the findings or conclusions of the report and are a normal consequence of statistical calculations in weighted samples.

Utility Value

In this section, we examine respondents’ satisfaction with various aspects of their current electricity service and their perceptions of changes in electricity prices.

We asked consumers about their satisfaction with the price of electricity. Table 1 shows that 61.6 percent of customers stated that they were satisfied while only 17.2 percent report being dissatisfied with the price they paid for electricity. Customers in the Eastern Shore/Southern Maryland and Western Maryland region were the most satisfied with the price of electricity. Over 70 percent of the customers from these regions were satisfied. By contrast, only 61.2 percent and 55.7 percent of respondents in the Baltimore and Washington metropolitan areas, respectively, reported being satisfied with the price of electricity.

Table 1
Customer satisfaction with price of electricity

	Maryland Statewide		Eastern Shore/ So. Maryland		Western Maryland		Baltimore Metro		Washington Metro	
	#	%	#	%	#	%	#	%	#	%
Satisfied	633	61.6	93	71.5	60	71.4	304	61.2	176	55.7
Neutral	217	21.1	21	16.2	17	20.2	100	20.1	79	25.0
Dissatisfied	177	17.2	16	12.3	7	8.3	93	18.7	61	19.3
Total	1,027	100	130	100	84	100	497	100	316	100

Note: Regional differences were statistically significant at the $p < .01$ level.

We next asked consumers about their satisfaction with the reliability of their electricity services. Table 2 shows that most customers (86.7 percent) were satisfied. Less than 6 percent were dissatisfied. The level of satisfaction across Maryland regions ranged from a low of 80.6 percent in the Washington metropolitan region to a high of 92.4 percent in the Eastern Shore/Southern Maryland region. Overall, satisfaction levels were high across the regions. However, consumers in the Washington metropolitan region were less satisfied with the reliability of electricity.

Table 2
Customer satisfaction with the reliability of electricity

	Maryland Statewide		Eastern Shore/ So. Maryland		Western Maryland		Baltimore Metro		Washington Metro	
	#	%	#	%	#	%	#	%	#	%
Satisfied	897	86.7	121	92.4	73	88.0	445	88.8	258	80.6
Neutral	84	8.1	5	3.8	4	4.8	41	8.2	34	10.6
Dissatisfied	54	5.2	5	3.8	6	7.2	15	3.0	28	8.8
Total	1,035	100	131	100	83	100	501	100	320	100

Note: Regional differences were statistically significant at the $p < .001$ level.

We asked respondents whether their electric bills had increased or decreased in the past year.⁴ Table 3 shows that nearly half of all respondents (47.3 percent) reported that their electric bills have stayed about the same over the past year, when compared to the previous year. However, 43.5 percent said that their electric bills had increased during this time period and only 9.2 percent reported that their bills had decreased during this time period. Consumers in the Washington and Baltimore metropolitan regions were more likely to report that their electric bills had increased during the past year than consumers in other Maryland regions.

Table 3
Increase or decrease in electric bills

	Maryland Statewide		Eastern Shore/ So. Maryland		Western Maryland		Baltimore Metro		Washington Metro	
	#	%	#	%	#	%	#	%	#	%
Increased	411	43.5	45	35.4	30	37.0	191	42.8	145	49.8
Decreased	87	9.2	7	5.5	6	7.4	48	10.8	26	8.9
Stayed the same	447	47.3	75	59.1	45	55.6	207	46.4	120	41.2
Total	945	100	127	100	81	100	446	100	291	100

Note: Regional differences were statistically significant at the $p < 0.001$ level.

We also wanted to know from among the respondents who reported that their electric bills had increased, why they believed that these increases had occurred. Table 4 shows that among those who reported increases in their electric bills, the main reasons given were that electric rates increased (39.6 percent), because they used more electricity (23.8 percent), or because both rates increased and they used more electricity (32.4 percent). Regional differences were not statistically significant.

⁴These answers are based on consumer perceptions and recall. Given the nature of a telephone survey, time did not permit consumers to check their electricity billing records.

Table 4
Main reasons consumers believed electric bills increased

	Maryland Statewide	
	#	%
Used more electricity	97	23.8
Electric rates increased	161	39.6
Both	132	32.4
For some other reason	17	4.2
Total	407	100

Note: Regional differences were not statistically significant.

It is particularly important for policymakers to note that even though electricity rates did not increase because they were capped during this time period, 39.6 percent of respondents who reported that their bills had increased said that it was only because electricity rates had increased. These consumers, however, represent only 17 percent of all respondents. If they are added to those who perceived that bills increased because they both used more electricity and the rates increased, the figure for those who do not understand that their rates did not increase equals 72 percent of respondents who believed their bills increased. This figure represents 31.1 percent of all respondents.

We also wanted to know why respondents felt that their bills had decreased. Table 5 shows that among the respondents who reported that their bills had decreased, the majority reported that it was because they used less electricity (70.5 percent). Less than 4 in 100 (3.4 percent) said that electric rates had decreased, and 19.3 percent reported both their use of electricity and the electric rates

decreased. In combination, just over one in five (22.7 percent) of consumers who thought their bills decreased believed the decrease resulted in part from a decrease in electricity rates.

Table 5
Main reasons consumers believed electric bills decreased

	Maryland Statewide	
	#	%
Used less electricity	62	70.5
Electric rates decreased	3	3.4
Both	17	19.3
For some other reason	6	6.8
Total	88	100

Note: Regional differences were not statistically significant.

The results presented in this section show that the vast majority of Maryland respondents were satisfied with the price and reliability of their electricity service, although respondents from Baltimore and Washington metropolitan regions were less satisfied with the price of electricity than those from other regions. In addition, almost one-third of respondents inaccurately believed that increasing electricity rates had increased their electricity bills during the past year. A far smaller portion of respondents (2.1 percent) inaccurately believed that decreasing electric rates had lowered their electric bills during the past year.

Consumers and Maryland’s Electricity Deregulation Policy

This section examines the extent of consumer awareness of Maryland’s electricity deregulation policy and the implementation of rate caps, choice among electricity suppliers and regulation of electricity rates. It also examines consumer opinions of these policies.

Rate Caps

To ascertain whether consumers were aware of rate caps, the survey asked, “To your knowledge, are electric rates capped in Maryland?”⁵ The results show that very few Maryland electricity consumers knew that rates were capped (9.9 percent). Half (50.0 percent) said they did not know whether electric rates were capped in Maryland, while 40.2 percent incorrectly believed that rates were not capped. Consumers in the Eastern Shore/Southern Maryland and Western Maryland were slightly more well informed than consumers in the Baltimore and Washington metropolitan regions.

Table 6
Are electricity rates capped in Maryland?

	Maryland Statewide		Eastern Shore/ So. Maryland		Western MD		Baltimore Metro		Washington Metro	
	#	%	#	%	#	%	#	%	#	%
Yes	102	9.9	17	13.0	11	13.1	40	8.0	34	10.7
No	416	40.2	42	32.1	24	28.6	205	40.9	145	45.5
Do not know	517	50.0	72	55.0	49	58.3	256	51.1	140	43.9
Total	1035	100	131	100	84	100	501	100	319	100

Note: Regional differences were statistically significant at the $p < 0.05$ level.

We asked the 102 consumers who correctly responded to the question about rate caps if they knew whether caps were scheduled to be removed within the next few years. Table 7 shows that those consumers were largely unaware that the caps would be removed. Only 19.4 percent of those who were aware of rate caps knew that caps would be removed, while 58.3 percent said they did not know, and 22.3 percent said that caps would not be removed. Regional differences were not statistically

⁵Since one goal of the survey was to assess the knowledge or awareness of consumers on issues of regulation, rate caps and choice among electricity suppliers, interviewers did not inform or educate respondents about current or planned implementation of the policies prior to asking questions about the policies.

significant. Logically, those who did not know that rates are capped would not know that they are scheduled to be removed. Consequently, only 20 of 1,035 (1.9 percent) of all respondents knew that rate caps would be removed.

	Maryland Statewide	
	#	%
Yes	20	19.4
No	23	22.3
Do not know	60	58.3
Total	103	100

Note: Regional differences were not statistically significant.

The results from Tables 6 and 7 show that Maryland consumers were either unaware of the existence of rate caps or incorrectly believed that rates were not capped and were not aware that rate caps are scheduled to be removed. These results are consistent with the results in Tables 3-5, where 31 percent of all respondents incorrectly believed that their increased electric bills in the past year were due, at least partially, to an increase in rates, and 2.1 percent believed that their decreased bills were, at least partially, due to a decrease in rates. In the Baltimore and Washington metropolitan areas, a higher percent than in the other regions incorrectly believed that rates were not capped. These are the same regions that expressed higher levels of dissatisfaction with the price of electricity. These data suggest that the public needs more information about the potential for changes in their electricity bills.

Next we asked respondents for their opinions about the impact of removing the rate caps on electricity prices.⁶ Table 8 shows that half (49.5 percent) of consumers believed that removing rate caps would increase rates. Nearly one in five (19.4 percent) believed it would make no difference and 6.7 percent believed rates would decrease. About a quarter (24.4 percent) of respondents did not know what would happen if price caps were removed. If we exclude the “do not knows,” two thirds of respondents believed that removal of caps would result in a price increase. Differences by region were not statistically significant.

Table 8
Impact of removing the rate cap on electricity prices

	Maryland Statewide	
	#	%
Increase	512	49.5
Make no difference	200	19.4
Decrease	70	6.7
Do not know	253	24.4
Total	1,035	100

Note: Regional differences were not statistically significant.

Choice Among Suppliers

Next, we asked whether consumers believed that Maryland law allows consumers to have a choice among electric suppliers. Nearly two-thirds (63.6 percent) believed that choice is permitted (Table 9). Twenty percent believed that there was no choice, while 16.4 percent said that they did not know.

⁶The question was worded generally and did not refer to Maryland specifically: “In your opinion, if electric rates were capped, would removing the cap increase, decrease, or make no difference to electricity prices?”

Table 9
Does Maryland law allow consumers a choice among electricity suppliers?

	Maryland Statewide		Eastern Shore/ So. Maryland		Western Maryland		Baltimore Metro		Washington Metro	
	#	%	#	%	#	%	#	%	#	%
Yes	660	63.6	70	53.4	50	59.5	328	65.3	212	66.3
No	207	20.0	44	33.6	21	25.0	77	15.3	65	20.3
Do not know	170	16.4	17	13.0	13	15.5	97	19.3	43	13.4
Total	1037	100	131	100	84	100	502	100	320	100

Note: Regional differences were statistically significant at the $p < 0.001$ level.

There was greater awareness about choice among consumers in the Baltimore and Washington metropolitan regions than in the Eastern Shore/Southern Maryland and Western Maryland regions. This should not be surprising because there has been marketing activity in the Pepco and BGE service areas, and both the Public Service Commission and the electric utilities have engaged in a public awareness campaign.

We asked consumers for their opinions about the effects of allowing a choice of electricity suppliers on electricity rates. Slightly over one third (35.8 percent) believed permitting choice would make no difference, while a similar and only slightly smaller fraction (34.6 percent) said rates would decrease. Nearly equal proportions believed rates would increase (14.4 percent) or did not know (15.3 percent) (Table 10). Regional differences show that consumers in the Eastern Shore/Southern Maryland and Washington metropolitan regions were somewhat more likely to believe that consumer choice would result in increased rates.

Table 10
How would consumer choice of electricity suppliers affect electricity prices?

	Maryland Statewide		Eastern Shore/ So. Maryland		Western Maryland		Baltimore Metro		Washington Metro	
	#	%	#	%	#	%	#	%	#	%
Increase	149	14.4	23	17.6	12	14.3	53	10.6	61	19.1
Make no difference	371	35.8	46	35.1	31	36.9	189	37.6	105	32.9
Decrease	358	34.6	49	37.4	33	39.3	168	33.5	108	33.9
Do not know	158	15.3	13	9.9	8	9.5	92	18.3	45	14.1
Total	1036	100	131	100	84	100	502	100	319	100

Note: Regional differences were statistically significant at the $p < 0.01$ level.

These data would suggest that only slightly more than one third of consumers believed that there is a price advantage (i.e., prices would decrease) to Marylanders having a choice among electricity suppliers, while over half felt there would be either no advantage or that choice would be financially detrimental.

Caps and Choice

Current Maryland policy has established negotiated electricity rate caps in order to protect consumers during a fixed period of time while new suppliers enter the market. Maryland consumers were divided nearly equally in their opinions about the impact of the combination of removing rate caps and providing consumers a choice of electricity suppliers. Table 11 shows that 30.1 percent of Maryland consumers believed that the combination of these two policies would increase prices, 35.4 percent believed that it would make no difference and 34.5 percent believed that it would decrease prices. Regional differences were not statistically significant.

Table 11
Impact of removing electricity price caps **and** providing consumer choice among electricity suppliers on electricity prices

	Maryland Statewide	
	#	%
Increase	287	30.1
Make no difference	337	35.4
Decrease	329	34.5
Total	953	100

Note: Regional differences were not statistically significant.

Choice

Independent of consumers' awareness of the policy of choice, it might be important to policymakers to know whether consumers prefer choice among electricity suppliers and how important choice is to them. (The importance question was only asked of those who preferred choice.) Table 12 shows that nearly 7 in 10 consumers (67.9 percent) preferred choice. Of those who prefer choice, two thirds (66.5 percent) said that choice was either very important or important. Differences among the regions were not statistically significant.

Table 12
Choice of electricity suppliers

		Maryland Statewide	
		#	%
Prefer to have a choice	Yes	652	67.9
	No	308	32.1
	Total	960	100
Importance of having a choice	Very Important/Important	432	66.5
	Neutral	167	25.7
	Not important/Not important at all	51	7.9
	Total	650	100

Note: Regional differences were not statistically significant.

These data suggest that consumers support the introduction of choice, even though they are divided (Tables 10 and 11) on the impact of this policy on prices.

Regulation of Electric Rates

Additionally, it might be useful for policymakers to know whether consumers preferred regulation of electricity rates. Here, slightly more Maryland electricity consumers (44.8 percent) preferred regulation of electricity rates than did not prefer regulation (39.4 percent). Sixteen percent did not know or had no opinion (Table 13). Of those who preferred regulation, 75.4 percent believed it was important or very important that electric rates be regulated by a state agency. Regional differences show that consumers in Western Maryland and Eastern Shore/Southern Maryland were less likely to prefer regulation. Regional differences were not statistically significant for the importance question. Overall then, Maryland electricity consumers are divided on the desirability of state regulation of electricity rates, with a small preference for state regulation of electricity rates.

Table 13
Regulation of electricity rates by a state agency

A. Prefer regulation										
	Maryland Statewide		Eastern Shore/ So. Maryland		Western Maryland		Baltimore Metro		Washington Metro	
	#	%	#	%	#	%	#	%	#	%
Yes	464	44.8	46	35.1	32	38.1	220	43.8	166	52.0
No	408	39.4	60	45.8	34	40.5	214	42.6	100	31.3
Don't know/ No opinion	164	15.8	25	19.1	18	21.4	68	13.5	53	16.6
Total	1036	100	131	100	84	100	502	100	319	100

Note: Regional differences were statistically significant at the $p < 0.001$ level.

B. Importance of regulation		
	Maryland Statewide	
	#	%
Very Important/Important	349	75.4
Neutral	90	19.4
Important/Not important at all	24	5.2
Total	463	100

Note: Regional differences were not statistically significant.

Choice and Regulation

When we asked consumers their preferences regarding choice and deregulation combined, the results were mixed. A small plurality (43.5 percent) of Maryland consumers said that they would be willing to have state regulation of electric prices eliminated in order to have a choice among electricity suppliers. However, only a slightly smaller fraction (39.8 percent) would not be willing to have regulation end in order to get choice, while 16.7 percent either did not know or had no opinion. Washington metropolitan area consumers, followed by Baltimore metropolitan area consumers, were the least willing to have regulation end in order to gain choice among electricity suppliers.

Table 14
In order to have a choice among electricity suppliers, would consumers be willing to have state regulation of electric prices eliminated?

	Maryland Statewide		Eastern Shore/ So. Maryland		Western Maryland		Baltimore Metro		Washington Metro	
	#	%	#	%	#	%	#	%	#	%
Yes	450	43.5	71	54.6	42	50.0	214	42.7	123	38.4
No	412	39.8	39	30.0	27	32.1	193	38.5	153	47.8
Do not know/ No opinion	173	16.7	20	15.4	15	17.9	94	18.8	44	13.8
Total	1035	100	130	100	84	100	501	100	320	100

Note: Regional differences were statistically significant at the $p = < 0.001$ level.

To summarize, consumers strongly prefer the single policy of consumer choice of electricity suppliers and two thirds of those consumers feel that choice is either important or very important. Consumers have a slight preference for the single policy of electricity rate regulation and three quarters of those feel that regulation is important or very important. However, when the introduction of choice was combined with deregulation, consumers were sharply divided, although they showed a slight preference for the policy of consumer choice and price deregulation.

Local Governments as Group Buyers

One suggested approach that many believe could increase competition and hold down electricity prices following deregulation is for local governments to act as group buyers of electricity. The survey asked consumers whether this should be permitted. Table 15 shows that nearly half (47.7 percent) of consumers did not believe that local governments should be permitted to act as group buyers of electricity. More than one third (36.5 percent) believed that they should, and 15.8 percent did not know or had no opinion. Significantly more Washington metropolitan area consumers supported the idea. Support was lowest in the Baltimore metropolitan area.

Table 15
Should local governments be permitted to act as group buyers of electricity?

	Maryland Statewide		Eastern Shore/ So. Maryland		Western Maryland		Baltimore Metro		Washington Metro	
	#	%	#	%	#	%	#	%	#	%
Yes	378	36.5	48	36.6	30	35.7	137	27.4	163	50.9
No	494	47.7	67	51.1	45	53.6	263	52.6	119	37.2
Do not know / No opinion	163	15.8	16	12.2	9	10.7	100	20.0	38	11.9
Total	1,035	100	131	100	84	100	500	100	320	100

Note: Regional differences were statistically significant at the $p = < 0.001$ level.

Although this question was worded in a straight-forward manner, “Should local governments be permitted to act as group buyers of electricity for consumers?” it is not clear to the researchers whether respondents fully understood the concept of a local government buyers group and how such a group might operate.

These data suggest that while most consumers appeared to understand that Maryland policy permits choice, few (9.9 percent) understood the current situation with rates or what will happen under the state’s deregulation program in the next few years. Indeed, 40.2 percent believed that rates were not capped and fewer still understood that rate caps are scheduled to be eliminated. Evidently, efforts have been quite successful to inform consumers about the policy of providing choice. However, very few consumers are aware of rate caps and their scheduled removal.

Despite the uneven understanding of the policy on caps (9.9 percent said caps exist) and choice (63.6 percent said choice exists), consumers were nearly evenly divided about whether they believed a price advantage would result from a policy where price caps are removed and consumers have a choice of suppliers: 30.1 percent thought it would increase the price of electricity, 35.4 percent felt it would make no difference, and 34.5 percent felt it would decrease the price of electricity. When asked solely about the electric choice portion of the policy, consumers were supportive (67.9 percent preferred choice). However, when asked if they would be willing to give up state rate regulation in order to have choice among suppliers, consumers were sharply divided: 43.5 percent said they would be willing to give up state regulation to get choice versus 39.8 percent who would not (Table 14).

Consumer Behavior as a Result of Policy Change

The next few questions examine consumer behavior as a result of Maryland’s policy permitting choice among electricity suppliers. That is, we asked whether consumers had tried to change suppliers, why they had done so (or why not), and what alternative suppliers would need to offer consumers to get them to switch.

We first asked consumers if they had tried to change electricity suppliers. As shown in Table 16, overall only 4.9 percent (n=51) had tried to switch suppliers. This small number is understandable because of the highly limited choices available at the time of the survey; only the Washington and parts of the Baltimore metropolitan regions have active suppliers. All of the consumers who tried to change were in the Baltimore metropolitan and Washington metropolitan regions. In the Washington metropolitan region, 7.8 percent of consumers had attempted to change suppliers.

Table 16
Consumers who have tried to change electricity suppliers

	Maryland Statewide		Eastern Shore/ So. Maryland		Western Maryland		Baltimore Metro		Washington Metro	
	#	%	#	%	#	%	#	%	#	%
Yes	51	4.9	1	0.8	0	0	25	5.0	25	7.8
No	980	95.1	129	99.2	84	100	473	95.0	294	92.2
Total	1,035	100	130	100	84	100	498	100	319	100

Note: Regional differences were statistically significant at the $p < 0.00$ level.

The survey also inquired why consumers tried to change electricity suppliers. Table 17 shows that 90.2 percent of the consumers who attempted to change suppliers (n=46) did so to get lower prices

for electricity. No other reason was given by more than 4 percent of respondents. Regional differences were not statistically significant.

Table 17
Main reasons why consumers attempted to change suppliers

	Maryland Statewide	
	#	%
Lower prices	46	90.2
More reliable service (Fewer outages)	2	4.0
Reputation of the supplier	1	2.0
Dissatisfied with current supplier	2	3.8
Total	51	100

Note: Regional differences were not statistically significant.

We also asked whether those who had attempted to change suppliers had actually changed. Table 18 shows that only 12 of the 45 Maryland respondents who attempted to change suppliers actually changed them.⁷

Table 18
Did consumers actually change suppliers?

	Maryland Statewide	
	#	%
Yes	12	26.7
No	33	73.3
Total	45	100

⁷The sample in Table 18 (n = 45) is smaller than in Table 17 (n = 51) because five respondents reported changing suppliers in regions where no alternative supplier existed. Therefore, they were removed from Table 18.

Next, the survey asked respondents who had attempted, but did not actually change suppliers, the main reasons why they stayed with their current supplier. Table 19 shows 16 respondents said they did not change because there was no price advantage, 8 respondents said because there was no service advantage, and 8 respondents said because the process was too complicated. Regional differences were not statistically significant.

Readers should note that the number of respondents reported in Table 16 through Table 19 are quite small. Thus, extrapolation of these findings to the behavior of all Maryland electricity consumers would not be warranted.

Table 19
Main reasons consumers remained with their current suppliers

	Maryland Statewide	
	#	%
No other supplier in the area	3	9.4
No price advantage	16	48.5
No service advantage	8	23.5
Satisfied with current supplier	1	3.1
Not interested in changing	1	3.1
Process was too complicated	8	24.2
Do not know	3	9.4

Note: regional differences were not statistically significant.

The survey asked all consumers what a competing electricity supplier would need to offer in order for them to consider switching suppliers (Table 20). Two thirds (68 percent) said lower prices, 21.8

percent said more reliable service, 13.2 percent said nothing could get them to switch, 17.1 percent either did not know or gave other reasons. Regional differences were statistically significant. Consumers in Western Maryland and Eastern/Southern Maryland put greater emphasis on price. Consumers in the Washington metropolitan region were more likely to state that nothing could get them to change suppliers.

Table 20

What would a competing electricity supplier need to offer consumers in order for them to switch?

	Maryland Statewide		Eastern Shore/ So. Maryland		Western Maryland		Baltimore Metro		Washington Metro	
	#	%	#	%	#	%	#	%	#	%
Lower prices*	691	68.0	102	79.1	62	74.7	328	66.0	199	64.8
More reliable service***	222	21.8								
Nothing could make me switch*	134	13.2	9	7.0	7	8.3	64	12.9	54	17.6
Do not know*	128	12.6	17	13.1	12	14.3	78	15.7	21	6.8
Other***	46	4.5								

*Regional differences were statistically significant at the $p < 0.01$ level.

***Regional differences were not statistically significant.

Next, the survey asked Maryland consumers, who answered “lower prices” to the question about what would induce them to change (n=691), how much of a price reduction would be necessary to induce them to change suppliers. Table 21 shows that the majority of these Maryland consumers (52.5 percent) would need more than a 10 percent reduction in prices. One third (36.2 percent) would need a reduction of between 6 and 10 percent. Regional differences were not statistically significant.

Table 21
Percentage price reduction needed for consumers to consider switching suppliers

	Maryland Statewide	
	#	%
1% to 5%	74	11.3
6% to 10%	238	36.2
11% to 15%	129	19.6
16% to 20 %	107	16.3
More than 20%	109	16.6
Total	657	100

Note: Regional differences were not statistically significant.

These data suggest that a price reduction of more than five percent would be needed to induce most consumers to change suppliers, if or when a viable choice became available.

Consumer Rights

This section examines consumers' responses concerning whom they would contact if they had problems or complaints with their electric service and their knowledge about agencies that exist to assist Maryland residents with electricity related issues. We asked consumers whom they would contact if they had a problem or complaint with their electric service. This was an open-ended question (i.e. consumers were not prompted and could provide any answer they desired). More than 9 out of 10 (93.8 percent) of respondents voluntarily reported that they would contact their electricity company or the customer service department of their electricity company (Table 22). No other responses were reported by more than 4.3 percent of consumers. There were no statistically significant differences across the regions.

Table 22
If you had a problem with your electricity service, whom would you contact?

	Maryland Statewide		
	N	#	%
Electric Company	1036	972	93.8
All Others	1035	66	6.4

Note: Regional differences were not statistically significant.

We then asked consumers whom they would contact if they did not get a satisfactory response from their first contact. Over half (55.4 percent) said that they did not know whom they would contact while 15.7 percent reported that they would contact their electric company again (Table 23). Only 8.3 percent reported that they would contact the Maryland Public Service Commission.⁸

Table 23
If no satisfactory response, whom would you contact?

	Maryland Statewide		Eastern Shore/ So. Maryland		Western Maryland		Baltimore Metro		Washington Metro	
	#	%	#	%	#	%	#	%	#	%
Electric company**	163	15.7	29	22.1	16	19.0	80	16.0	38	11.9
Attorney General's office***	32	3.1								
Better Business Bureau***	60	5.8								
Office of People's Counsel***	2	0.2								
Public Service Commission*	86	8.3	11	8.4	6	7.1	24	4.8	45	14.1
Other elected officials***	37	3.6								
Other***	43	4.2								
No one***	47	4.5								
Do not know***	573	55.4								

*Regional differences were statistically significant at the $p < 0.01$ level.

**Regional differences were statistically significant at the $p < 0.05$ level.

***Regional differences were not statistically significant.

⁸The percent of respondents choosing yes for each of the responses in Table 23 does not add up to 100 percent because respondents could choose more than one response.

These results suggest that consumers would first call their electricity companies with problems and complaints and that most consumers did not know to whom they could turn if their electricity company did not resolve their problem or complaint. From these responses, it is also evident that consumers were not aware of various state agencies (e.g., the Attorney General’s Office, the Maryland Public Service Commission or the Office of People’s Counsel) that could assist them with complaints or problems.

The next series of questions examined respondents’ knowledge about agencies in Maryland that either regulate electric companies or advocate for electricity consumers. To begin with, almost half of the respondents (48.5 percent) did not know whether Maryland had an agency that regulated electric companies (see Table 24). Only one third of respondents (34.1) correctly said that Maryland has an agency that regulates electric companies, while 17.3 percent incorrectly reported that Maryland did not have such an agency. Washington metropolitan respondents were much more likely than were respondents of other Maryland regions to correctly state that Maryland has an agency that regulates electric companies.

Table 24
Does Maryland have an agency that regulates electric companies?

	Maryland Statewide		Eastern Shore/ So. Maryland		Western Maryland		Baltimore Metro		Washington Metro	
	#	%	#	%	#	%	#	%	#	%
Yes	353	34.1	36	27.5	20	23.8	166	33.2	131	41.1
No	179	17.3	27	20.6	15	17.9	78	15.6	59	18.5
Do not know	502	48.5	68	51.9	49	58.3	256	51.2	129	40.4
Total	1034	100	131	100	84	100	500	100	319	100

Note: Regional differences were statistically significant at the $p = < 0.01$ level.

Of those respondents who correctly said that Maryland had such an agency (n=353), over two thirds (68.9 percent) did not know the name of the agency (see Table 25). Only about 3 in 10 (29.4 percent) correctly identified the Maryland Public Service Commission as the agency that regulates electric companies. Baltimore metropolitan respondents were much more likely to correctly name this agency than were those of other regions. (This was an open-ended question and the Public Service Commission was not named to respondents.)

Table 25
Which agency regulates electric companies?

	Maryland Statewide		Eastern Shore/ So. Maryland		Western Maryland		Baltimore Metro		Washington Metro	
	#	%	#	%	#	%	#	%	#	%
Public Service Commission	104	29.4	8	22.2	4	20.0	69	41.6	23	17.4
Other	6	1.7	0	0	0	0	1	0.6	5	3.8
Do not know	244	68.9	28	77.8	16	80.0	96	57.8	104	78.8
Total	354	100	36	100	20	100	166	100	132	100

Note: Regional differences were statistically significant at the $p < 0.001$ level.

We also wanted to determine consumers' impressions of this agency. As Table 26 shows, of those who knew that Maryland had an agency that regulated electricity companies, most (65.5 percent) were neutral in terms of their impressions of the agency. About one quarter (25.8 percent) had a mostly positive impression of the agency, and 8.7 percent had a mostly negative impression. No significant differences existed among regions.

Table 26
Impression of the agency that regulates electric companies

	Maryland Statewide	
	#	%
Mostly positive	89	25.8
Neutral	226	65.5
Mostly negative	30	8.7
Total	345	100

Note: Regional differences were statistically not significant.

Next, we asked all respondents whether Maryland had an agency that advocated on behalf of residential electricity consumers. Only 19.1 percent correctly identified that Maryland has such an agency, while a nearly identical fraction (19.2 percent) incorrectly said that Maryland does not have such an agency. The majority of respondents (61.4 percent) did not know whether Maryland had such an agency (Table 27). Washington metropolitan respondents were much more likely than those in either Western Maryland or Eastern Shore/Southern Maryland to say that Maryland has such an agency.

Table 27
Does Maryland have an agency that advocates on behalf of residential electricity consumers?

	Maryland Statewide		Eastern Shore/ So. Maryland		Western Maryland		Baltimore Metro		Washington Metro	
	#	%	#	%	#	%	#	%	#	%
Yes	198	19.1	12	9.2	6	7.1	87	17.4	93	29.1
No	202	19.2	31	23.8	17	20.2	95	19.0	59	18.4
Do not know	635	61.4	87	66.9	61	72.6	319	63.7	168	52.5
Total	1035	100	130	100	84	100	501	100	320	100

Note: Regional differences were statistically significant at the $p = < 0.001$ level.

We also wanted to know whether respondents who knew that Maryland had an advocacy agency for electricity consumers knew the name of this agency. Of these, 87.4 percent could not identify the name of this agency, and only 17 (or 8.6 percent) knew that the name was the Maryland Office of People’s Counsel. This number (17) equates to 1.7 percent of the overall sample. No statistically significant variations existed across regions.

Table 28
Name of the agency that advocates on behalf of
residential electricity consumers

	Maryland Statewide	
	#	%
Office of People’s Counsel	17	8.6
Other	8	4.0
Do not know	173	87.4
Total	198	100

Note: Regional differences were not statistically significant.

The survey then asked those who knew there was an advocacy agency for their impressions of the agency. Because most people who knew that there was an agency did not know its name, it is not surprising that their impressions were mostly neutral (58.4 percent). However, nearly 4 in 10 (38.9 percent) held a mostly positive impression (Table 29). Fewer than 3 percent of respondents said their impressions of the agency were mostly negative. No statistically significant differences existed across the regions.

Table 29
Impression of the agency that advocates on behalf of residential electricity consumers

	Maryland Statewide	
	#	%
Mostly positive	74	38.9
Neutral	111	58.4
Mostly negative	5	2.6
Total	190	100

Note: Regional differences were not statistically significant.

From these results, it seems that both the Maryland Public Service Commission and the Maryland Office of People’s Counsel lack recognition among residential electricity consumers in Maryland. Moreover, of the respondents who knew of these agencies, the majority were mostly neutral in their impressions of them.

Conclusion

The data from this survey of residential electricity consumers in Maryland support at least the following significant conclusions:

- Overall, Maryland electricity consumers are mostly satisfied with the price and reliability of their electricity service.

- If consumers have complaints or problems with their electricity service, they contact their electric companies. If the electric company does not resolve the problem, the majority of people do not know whom else to contact, and only 8.3 percent would contact the Public Service Commission.

- Most Maryland residential electricity consumers do not know if Maryland has agencies that regulate electricity rates or advocate for consumers. Among those consumers who do, few can name the agencies.

- Consumers do not have a full understanding of Maryland's policy of choice among electric suppliers and deregulation of electricity rates and the status of its implementation. Nearly two thirds (63.6 percent) of consumers knew that Maryland law permits consumers a choice among electricity suppliers. However, only 9.9 percent of consumers knew that the state currently caps electricity rates, and 40.2 percent believed that rates were not capped. Of those who knew about the rate caps, 9.9 percent of the sample, fewer than one in five (19.4 percent) were

aware that rates caps are scheduled to be removed. Of all consumers surveyed, only 2 percent knew that price caps will be removed.

- About half (49.5 percent) of consumers believed that removing caps alone would increase the price of electricity, and 19.4 percent said it would make no difference. Slightly over one third (34.6 percent) of consumers believed that permitting a choice of an electricity supplier would reduce the price of electricity; slightly more (35.6 percent) said that it would make no difference in the price, and 14.4 percent said it would increase the price. Consumers were nearly equally divided as to whether they believed there would be a price advantage if they could choose a supplier and did not have rate caps. Nearly one third (30.1 percent) thought it would increase the price of electricity, 35.4 percent felt it would make no difference and 34.5 percent felt it would decrease the price of electricity.
- Consumers seem to prefer choice. Two thirds (67.9 percent) of respondents preferred choice. Of those who preferred choice, almost two thirds (66.5 percent) say it was very important or important. Consumers were divided over whether they preferred regulation: 44.8 percent prefer regulation of electric companies and 39.4 preferred not to have regulation.
- Respondents were also divided on whether they would be willing to give up regulation in order to get choice. About two in five (39.8 percent) of the respondents would not be willing give up regulation for choice, while 43.5 percent would.

- Few residential electricity customers (only 51 out of a sample of 1035) have tried to change suppliers and fewer still have actually switched suppliers. Given the relative preference for choice, this low number likely reflects the limited choice available to consumers.

Appendix A

Methodology

The data presented in this study were gathered through a survey prepared by the Maryland Institute for Policy Analysis and Research (MIPAR) of the University of Maryland, Baltimore County (UMBC) for the Maryland Office of People's Counsel (OPC). The survey was administered by the public opinion research firm, Mason-Dixon, Inc., during August 2002, using a Computer Assisted Telephone Interviewing system and a random digit dialing method.

The survey consisted of both open-ended and close-ended questions and took approximately 12 minutes to complete. We used screening questions to ensure that only adult heads of households in Maryland in which someone living in that household paid the electric bill were included in the survey. Thus, the unit of analysis for this study is the adult head of household.

Sampling

The survey used stratified random sampling to ensure that the appropriate respondents representative of the four geographic regions in Maryland were selected for interviews. The regions were chosen by the OPC and included: Eastern Shore/Southern Maryland, Western Maryland, Baltimore metropolitan, and Washington metropolitan. The counties that compose these regions are shown in Table A-1.

Table A-1
Counties in each Region

Region	County
Eastern Shore / Southern Maryland	Calvert Caroline Cecil Charles Dorchester Kent Queen Anne's St Mary's Somerset Talbot Wicomico Worcester
Western Maryland	Allegany Frederick Garrett Washington
Baltimore Metro	Baltimore City Anne Arundel Baltimore County Carroll Harford Howard
Washington Metro	Montgomery Prince George's

Weighting

The survey was designed to be representative of the State of Maryland and the four selected regions noted earlier. Most of Maryland's population resides in the Baltimore and Washington metropolitan areas. This presented a problem when designing the sample for the survey. To be representative of the state, there should be more respondents from the Baltimore and Washington areas in proportion to their greater population. Yet, in order to undertake statistical analysis of the data by region, we needed to have a minimum of 200 respondents in each region. To have a minimum of 200 in Western Maryland and the Eastern Shore/Southern Maryland and proportionally more respondents in the

Baltimore and Washington area would have required a sample size that would have been prohibitively large and expensive.

To solve this problem, we over-sampled in the Eastern Shore/Southern Maryland and Western Maryland regions and weighted the results to compensate for the disproportionate sampling. Thus, the sample included 200 respondents in the Eastern Shore/Southern Maryland, 200 in Western Maryland, 380 in the Baltimore metropolitan area and 255 in the Washington metropolitan area, for total of 1,035 respondents statewide. This produced a sample that is disproportionate to the population in these regions. The weighting (discussed below) enabled us to return proportionality to the sample.

The Computer Assisted Telephone Interviewing software randomly selects telephone numbers to achieve a sample representative of the population of Maryland and the regions. The sampling frame here is slightly different. It includes Maryland residents 18 years of age or older in households where someone pays the electric bill. This sample is more closely related to Maryland households than to the total population of the state. To account for the discrepancy between households and population, our weights were matched to Bureau of the Census data on Maryland households per county.

Weights were calculated by using information on the ratio of households in each county as a percent of households in the state and the ratio of respondents in each county as a percent of total respondents in the state. The weight for each county is set so that when it is multiplied by the respondent ratio, it equals the Census-based household ratio.

The exact weight for a county is derived as follows:

$$\frac{r_c}{\sum_c r} * w_c = \frac{h_c}{\sum_c h}$$

Where, r_c is the number of respondents from county c , $\sum_c r$ is the sum of respondents across all

counties in the state (or the total number of respondents in the State), h_c is the number of households

(2000 Census) in county c , $\sum_c h$ is the sum of households across all counties in the state, and w_c is

the weight for county c .

Solving for w_c , yields:

$$w_c = \frac{h_c}{\sum_c h} * \frac{\sum_c r}{r_c}$$

Statistical Analysis

The results presented in this report include univariate (simple frequency distributions) and bivariate analyses (cross-tabulations) of the data. Results reported in each table include a cross-tabulation between the responses to questions and the four regions of Maryland. The Chi-square statistic was employed to determine if statistically significant differences existed across the regions. Based upon testing the null hypothesis that no differences existed across regions, if a level of significance of .05 or lower is obtained, it was concluded that statistically significant differences existed across the regions in the question being asked. If significant regional differences existed, the responses by region and the state in each table along with the level of statistical significance were reported. If the differences among regions were not statistically significant, they were not reported.

Do Not Know and No Opinion Categories

This report presents “do not know” or “no opinion” answers only when 10 percent or more respondents responded this way. This choice may produce slight distortions when comparing across tables. For example, Table 10, which reports 15 percent “do not know,” indicates that 36 percent of consumers believe that the introduction of consumer choice would result in a decrease in rates. Table 11, which does **not** report the 8 percent “did not know,” shows that virtually the same percentage (35 percent) believe that the introduction of choice, combined with the termination of rate caps would result in a decrease in rates. One could conclude that consumers do not believe that the ending of caps would make a difference. However, if the 8 percent “do not know” category was included, only 32 percent of respondents would believe that the combined policy would result in decreased prices. This would change the conclusion from “making no difference” to “makes little difference.” However,

because the level of 10 percent “do not know” or “no opinion” is quite small (90 percent of respondents answered the question), the impact on this analysis will be inconsequential.

Sociodemographics of Sample

The following section compares the sociodemographic characteristics of the weighted survey sample to the characteristics of the Maryland population from the 2000 Census. Table A-2 compares the weighted percent of survey respondents to the percent of households from the Census by region. This shows that 48.4 percent of the sample was from the Baltimore metropolitan region, 31.6 percent from the Washington metropolitan region, 12.6 percent from the Eastern Shore/Southern Maryland region, and 8.1 percent from the Western Maryland region. These were nearly identical to the Census figures and showed how closely our weighted sample matched the number of households in Maryland by region.

Table A-2
Number of Households

	Census %	Survey %
Eastern Shore/ Southern Maryland	12.8	12.6
Western Maryland	8.2	8.1
Baltimore Metro	47.4	48.4
Washington Metro	31.6	30.9

Tables A-3 through A-8 disaggregate of the sample by gender, race/ethnicity, age, education, household income and marital status. The weighted response rate by gender, race and ethnicity closely matched the gender, racial and ethnic composition of the Census. See Tables A-3 and A-4.

Table A-3
Gender

	Maryland Statewide		Eastern Shore/ So. Maryland		Western Maryland		Baltimore Metro		Washington Metro	
	Census %	Survey %	Census %	Survey %	Census %	Survey %	Census %	Survey %	Census %	Survey%
Male	48.2	49.6	49.0	49.6	49.9	50.0	48.0	49.9	47.8	49.1
Female	51.8	50.4	51.0	50.4	50.1	50.0	52.0	50.1	52.2	50.9

Table A-4
Race or Ethnicity

	Maryland Statewide		Eastern Shore/ So. Maryland		Western Maryland		Baltimore Metro		Washington Metro	
	Census %	Survey %	Census %	Survey %	Census %	Survey %	Census %	Survey %	Census %	Survey %
White/ Caucasian	62.1	64.0	77.8	81.1	89.9	92.7	66.0	64.9	42.6	47.5
Black/ African American	27.7	28.1	17.5	18.1	6.1	6.1	27.5	27.8	37.5	38.7
Other	10.3	7.9	4.6	0.8	4.0	1.2	6.5	7.3	19.9	13.8

When the age composition of the sample is compared to the age composition of people 20 years and older in the Census, substantial differences were found (Table A-5). For example, 20 to 35 year olds

were under represented by about 10 percent, and 51 to 65 year olds were over represented by about the same amount. Persons over 65 were over represented by about 5 percent. The survey did not screen to ensure age representativeness because the sample was adults in households in which someone living in the household paid the electric bill. Having a sample that is more closely age representative might produce somewhat different results, if only marginally so.

Table A-5
Current Age

	Maryland Statewide		Eastern Shore/ So. Maryland		Western Maryland		Baltimore Metro		Washington Metro	
	Census %	Survey %	Census %	Survey %	Census %	Survey %	Census %	Survey %	Census %	Survey %
20 yrs to 35 yrs old	30.4	20.3	28.2	14.5	29.1	16.5	30.0	22.4	32.2	20.4
36 yrs to 50 yrs old	34.1	37.5	34.1	35.1	33.5	35.3	33.7	40.9	34.9	33.9
51 yrs to 65 yrs old	20.7	30.2	21.9	34.4	20.7	30.6	20.5	27.5	20.4	32.6
Older than 65 yrs	14.8	10.0	15.9	13.0	16.7	16.5	15.7	8.4	12.5	9.7
Refused	N/A	1.9	N/A	3.1	N/A	1.2	N/A	0.8	N/A	3.4

When the educational attainment of the weighted sample is compared to the educational attainment of those in the Census, persons with a high school degree or less were found to be under represented in the survey compared to the Census by about 21 percent and college graduates were over represented by about 16 percent. This was because people with high school or less education are more likely to be in living arrangements where direct payment for electricity is less likely (e.g., living in an apartment, living with their family, etc.). Here again, a sample that is more representative based on education might produce somewhat different results.

Table A-6
Education Attainment

	Maryland Statewide		Eastern Shore/ So. Maryland		Western Maryland		Baltimore Metro		Washington Metro	
	Census %	Survey %	Census %	Survey %	Census %	Survey %	Census %	Survey %	Census %	Survey %
High school or less	42.9	21.4	52.7	26.7	53.6	33.3	45.2	23.0	32.5	13.8
Some college	20.3	18.6	21.6	27.5	18.9	28.6	20.1	19.0	20.5	11.9
College graduate	23.3	39.7	18.3	30.5	19.2	27.4	22.7	39.8	27.4	46.6
Some graduate course or graduate degree	13.4	19.0	7.4	14.5	8.3	9.5	11.9	17.2	19.6	26.3
Refused	N/A	1.2	N/A	0.8	N/A	1.2	N/A	1.0	N/A	1.6

Note: Census is for people over age of 25

When the average household incomes of the weighted sample are compared to the Census, families with incomes under \$25,000 were under represented by about 4 percent. However, those with incomes between \$25,000 and \$50,000 were over represented by around 11 percent. These are probably because lower income people were more likely to be excluded from the sample because of living arrangements (e.g. living in apartments or other arrangements in which they do not pay the electricity bill). Moreover, 22.5 percent of the respondents refused to answer the income question, and it is, thus, not possible to determine the distribution of income of those who refused to answer this question.

Table A-7
Household Income

	Maryland Statewide		Eastern Shore/ So. Maryland		Western MD		Baltimore Metro		Washington Metro	
	Census %	Survey %	Census %	Survey %	Census %	Survey %	Census %	Survey %	Census %	Survey %
Less than \$25,000	20.6	8.6	22.5	10.8	25.8	8.2	23.6	11.4	13.8	3.4
\$25,000 to \$49,999	26.1	15.3	28.0	13.8	28.9	14.1	26.6	18.0	23.9	11.9
\$50,000 to \$74,999	21.6	15.7	22.5	17.7	21.5	21.2	21.2	14.2	21.8	15.9
\$75,000 to \$99,999	13.6	14.8	13.4	13.1	12.0	11.8	12.8	12.4	15.3	20.0
\$100,000 or more	18.1	22.3	13.6	20.0	11.8	17.6	15.9	17.4	25.2	32.2
Do not know	N/A	0.8	N/A	1.5	N/A	2.4	N/A	0.8	N/A	0
Refused	N/A	22.5	N/A	23.1	N/A	24.7	N/A	25.8	N/A	16.6

Note: Census data is from 1999

Finally, the marital status reported in the survey was compared to the Census. The categories were not the same. The survey asked whether respondents were married or in a domestic partnership. The Census does not use the domestic partnership category and treats people in this type of relationship as single. Also, the Census does not include separated individuals with the divorced or widowed. Consequently, this report combined the single and married Census categories and single and married or domestic partnership categories from the survey sample. The results are shown in Table A-8, which shows that the modified marital status from the weighted sample was similar to that of the Census.

Table A-8
Marital Status

	Maryland Statewide		Eastern Shore/ So. Maryland		Western Maryland		Baltimore Metro		Washington Metro	
	Census %	Survey %	Census %	Survey %	Census %	Survey %	Census %	Survey %	Census %	Survey %
Single/ Married/ Domestic Relationship	84.7	84.1	84.5	85.0	84.8	86.4	83.7	81.1	86.3	87.9
Separated/ Divorced/ Widowed	15.3	15.9	15.5	15.0	15.2	13.6	16.3	18.9	13.8	12.1

This analysis of the sociodemographic characteristics of the survey respondents has revealed that the weighted sample of this survey is similar to those in the Census, except that it over represented middle-aged and older respondents, and those with higher levels of education and higher income, when compared with the 2000 U.S. Census figures for Maryland. Given that the current sample included only adult heads of households in Maryland in which someone living in that household paid the electric bill, renters and others who do not pay electricity bills were excluded from the survey. It is likely that renters generally are either significantly younger or older than the respondents in this study. It is also likely that renters have lower incomes and lower educational attainment (due to the close association between education and income).

Consumer Status Characteristics of the Sample

This section addresses the characteristics of consumers in terms of the consumer’s relation to their electric utility. It provides background information about who is paying the electric bills, the type of bills, which electric company they use, and their usage of electricity.

The survey asked respondents who paid the electric bill most of the time in their household. Three fourths (75.0 percent) of respondents reported that they paid their electric bill most of the time in their household (Table A-9). Ninety-eight percent of respondents reported that either they or their spouse/partner paid the electric bill most of the time. This gives a high degree of confidence that the respondents were knowledgeable about their electric bills and household decisions regarding electric service. Although Baltimore metropolitan and Western Maryland residents were more likely to report paying the electric bill themselves most of the time compared to residents in other regions, this statistical difference does not appear to be substantively meaningful.

Table A-9
Person who pays the electric bills

	Maryland Statewide		Eastern Shore/ So. Maryland		Western Maryland		Baltimore Metro		Washington Metro	
	#	%	#	%	#	%	#	%	#	%
Respondent	766	75.0	92	71.3	63	76.8	392	79.5	219	69.1
Spouse/ partner	235	23.0	36	27.9	17	20.7	92	18.7	90	28.4
Other	20	2.0	1	0.8	2	2.4	9	1.8	8	2.5
Total	1,021	100	129	100	82	100	493	100	317	100

Note: Regional differences were statistically significant at the $p < .05$ level.

Respondents were asked whether their electric bills varied each month or whether they were on average payment plans. Table A-10 shows that 71.7 percent of the respondents reported that their electric bill varied each month, while 28.3 percent were on average payment plans. Western Maryland and the Baltimore metropolitan region were more likely to have an average payment plan.

Table A-10
Type of electric bill

	Maryland Statewide		Eastern Shore/ So. Maryland		Western Maryland		Baltimore Metro		Washington Metro	
	#	%	#	%	#	%	#	%	#	%
Varies each month	737	71.7	104	79.4	58	69.9	333	66.9	242	76.6
Average payment plan	291	28.3	27	20.6	25	30.1	165	33.1	74	23.4
Total	1,028	100	131	100	83	100	498	100	316	100

Note: Regional differences were statistically significant at the $p \leq 0.01$ level.

Next, we wanted to know what company provided respondents' electricity service. The highest percentage of respondents were customers of BGE (51.3 percent), followed by Pepco (22.4 percent), and Allegheny Power (7.6 percent). This compares quite favorably to the actual distribution of electricity customers (Table A-11). Nearly 9 percent of the respondents did not know the name of their electric utility company or named a company other than those that provide electricity service in Maryland.

Table A-11
Electric Companies Providing Services:
Sample Respondents and Actual Service Distribution

	Sample Respondents		Actual Proportion of Residential Customers Served ^a
	#	%	
Allegheny Power	78	7.6	10.0
BGE - Baltimore Gas & Electric	531	51.3	53.2
Conectiv Power	55	5.3	8.2
Pepco	232	22.4	22.8
Southern Maryland Electric Coop	47	4.6	5.8
Other and Do not know	92	8.9	NA
Total	1,035	100	100

^aSource: Maryland Public Service Commission and Southern Maryland Electric Cooperative (SMECO), September 2002.

Table A-12
Electric Company

	Eastern Shore/ So. Maryland	Western Maryland	Baltimore Metro	Washington Metro
	#	#	#	#
Allegheny Power	0	175	1	3
BGE	2	0	371	32
Conectiv Power	75	1	4	0
Pepco	5	0	0	183
Southern Maryland Electric Coop	69	0	0	3
Other and Do not know	49	24	4	34
Total	200	200	380	255

Note: Data are not weighted.

Electric company service is geographically constrained within certain regions of the state of Maryland. The data in table A-12 provide the actual, unweighted data from the survey regarding division of electricity service.

Strictly for informational purposes, electric power usage information was asked. Table A-12 shows that 78.4 percent of respondents reported using electricity to provide power for central air conditioning, 21.7 percent for window air conditioning, 33.1 percent for heat pump, and 28.4 percent for other electric heat. These figures do not add up to 100 percent because the respondent could choose more than one response. Washington metropolitan and Eastern Shore/Southern Maryland respondents reported higher levels of use of electricity for central air conditioning, while Western Maryland and Baltimore metropolitan respondents reported higher use of electricity for window air conditioners. The highest levels of use of electricity to provide power for heat pumps were found in the Eastern Shore/Southern Maryland and Western Maryland regions.

Table A-13
Major Appliances Powered by Electricity

		Maryland Statewide		Eastern Shore/ So. Maryland		Western Maryland		Baltimore Metro		Washington Metro	
		#	%	#	%	#	%	#	%	#	%
Central air conditioning*	Yes	810	78.4	105	80.8	58	69.0	347	69.4	300	94.0
	No	223	21.6	25	19.2	26	31.0	153	30.6	19	6.0
	Total	1033	100	130	100	84	100	500	100	319	100
Window air conditioning*	Yes	225	21.7	27	20.6	24	28.6	146	29.1	28	8.8
	No	811	78.3	104	79.4	60	71.4	355	70.9	292	91.3
	Total	1036	100	131	100	84	100	501	100	320	100
Heat pump**	Yes	342	33.1	57	43.5	32	38.1	149	29.8	104	32.8
	No	690	66.9	74	56.5	52	61.9	351	70.2	213	67.2
	Total	1032	100	131	100	84	100	500	100	317	100
Other electric heat***	Yes	293	28.4								
	No	739	71.6								
	Total	1032	100								

*Regional differences were statistically significant at the $p < 0.001$ level.

** Regional differences were statistically significant at the $p < 0.05$ level.

*** Regional differences were not statistically significant.

Table A-13 shows that consumers in the Eastern Shore/Southern Maryland and Western Maryland regions have a greater tendency to heat their homes with electricity.

**Appendix B
Survey Questionnaire**

**Maryland Office of the People's Counsel Survey
August 2002**

Survey Introduction:

Hello. My name is _____. I'm calling from the University of Maryland Baltimore County. We are conducting a survey for the state of Maryland about electric utility services. Would you have a few minutes to participate? Your responses will be confidential and your participation is voluntary.

Screener question:

S1. How familiar are you with your electric utility billing and service for your residence?

- very familiar
- somewhat familiar
- not too
- not at all

S2. Is there someone else in the household who is familiar with the electric utility billing and service for your residence and may I speak with them?

- | | |
|-----|-----------------------------|
| Yes | If yes, go to question 1. |
| No | If no, terminate interview. |

1. Does the amount of your electric bill vary each month or are you on an average payment plan where your bill remains approximately the same each month? These plans are sometimes called Level Billing, Budget Billing, or Average Payment Plans.

- Varies each month
- Average payment plan/budget billing
- Don't know

2. What is the name of your electric utility company? *(Do Not Read Choices)*

- A&N Electric Cooperative
- Allegheny Power
- BGE–Baltimore Gas and Electric Company
- Berlin Municipal Electric Company
- Choptank Electric Cooperative
- Conectiv Power
- Delmarva Power and Light
- Easton Utilities Commission
- Hagerstown Municipal Electric Light Plant
- Pepco
- Pepco Energy Services
- Potomac Edison
- Somerset Rural Electric Cooperative
- Southern Maryland Electric Cooperative
- Thurmont Municipal Light Company
- Washington Gas Energy Services
- Williamsport Municipal Light Company
- Other
- Don't know

Does your household use electricity to provide power for any of the following items in your home?

YES NO DK

- 3. Central air conditioning?
- 4. Window air conditioners?
- 5. Heat pump?
- 6. Other electric heat?

7. Thinking about only your electricity, *not any other utilities like gas or water*, in general, would you say that you are very satisfied, satisfied, neutral, dissatisfied or very dissatisfied with the *price* of electricity provided by your electric utility company?

- Very satisfied
- Satisfied
- Neutral
- Dissatisfied
- Very dissatisfied
- Don't know
- No opinion

8. Thinking about only your electricity, *not any other utilities like gas or water*, in general, would you say that you are very satisfied, satisfied, neutral, dissatisfied or very dissatisfied with the **reliability** of the electric power provided by your utility company?

Very satisfied
Satisfied
Neutral
Dissatisfied
Very dissatisfied
Don't know
No opinion

(If the interviewer is asked what is meant by “reliability”, say that we mean the consistency of electric service without blackouts, power surges, or periods of low power.)

9. Thinking about your average electric bill, *just your electric bill*, during the past 12 months, would you say that it increased, decreased, or stayed about the same compared to the year before?

Increased
Decreased
Stayed about the
Don't know

10. If you had to choose the main reason why your average electric bill has increased over the past year, would you say it is because...? (*Choose Only One.*)

Your household used more electricity
Electric rates increased
Or both
For some other reason
Don't know

11. If you had to choose the main reason why your average electric bill decreased over the past year, would you say it is because...? (*Choose Only One.*)

Your household used less electricity
Electric rates decreased
Or both
For some other reason
Don't know

12. Some states cap electric rates. This means that rates cannot increase because of state regulation. To your knowledge, are electric rates capped in Maryland?
- Yes
No
Don't Know
13. To your knowledge, is the cap on electric rates in Maryland scheduled to be removed any time in the next few years?
- Yes
No
Don't Know
14. In your opinion, if electric rates were capped would removing the cap increase, decrease, or make no difference to electric prices?
- Increase
Make no difference
Decrease
Don't Know
15. In some states, the law permits customers to have a choice among suppliers of electricity. To your knowledge, does Maryland law allow consumers a choice among electricity suppliers?
- Yes
No
Don't Know
16. In your opinion, would allowing consumers a choice of electricity suppliers increase, decrease, or make no difference in electric prices?
- Increase
Make no difference
Decrease
Don't Know
17. If electricity price caps were removed *and* consumers had a choice among electricity suppliers, would you expect overall electric prices to increase, decrease, or stay the same?
- Increase
Make no difference
Decrease
Don't Know

18. Would you prefer to have a choice among electricity suppliers?
- Yes
 - No
 - No opinion
 - Don't know
19. How important is it to you to have a choice among electricity suppliers? Is it:
- Very Important
 - Important
 - Neutral
 - Not very important
 - Not important at all
 - Don't Know
20. In some states, electric rates are regulated. This means the price of electricity is set by a state agency. Would you prefer that electric rates be regulated by a state agency?
- Yes
 - No
 - No opinion
 - Don't know
21. How important is it to you that electric rates be regulated by a state agency? Is it:
- Very Important
 - Important
 - Neutral
 - Not very important
 - Not important at all
 - Don't Know
22. In order to have a choice among electricity suppliers, would you be willing to have state regulation of electric prices be eliminated, thus letting electric prices vary according to market conditions?
- Yes
 - No
 - No opinion
 - Don't know

23. Should local governments be permitted to act as group buyers of electricity for consumers?

- Yes
- No
- No opinion
- Don't know

24. Have you tried to change electricity suppliers?

- Yes
- No
- Don't know

25. What are the main reasons that led you to attempt to change from your electricity supplier? (*Interviewer does not read. Check all that apply.*)

- a) Lower prices
- b) More reliable service (fewer outages)
- c) Incentives for maintaining an energy efficient home
- d) Electricity derived from sources that offer greater protection to the environment
- e) The reputation of the supplier
- f) Dissatisfied with current supplier
- g) Other reason
- h) Don't know

(After respondent finishes, interviewer asks "Were there any other reasons" and records the additional responses.)

26. Did you actually change suppliers?

- Yes
- No
- Don't know

27. What are the main reasons that led you to remain with your current supplier? (*Interviewer does not read. Check all that apply*)

- a) No other electricity supplier in the area
- b) No price advantage in changing
- c) No service advantage in changing
- d) No benefit to the environment / supplier not offering environmentally friendly service
- e) Did not know there was a choice
- f) Did not know who to contact
- g) Was not approached / did not see advertisements by competing suppliers
- h) Am satisfied with my current supplier
- i) Not interested in changing
- j) Process was too complicated
- k) Problems with my credit
- l) Company would not accept my application
- m) Other reasons
- n) Don't know

(After respondent finishes, interviewer asks "Were there any other reasons" and records the additional responses.)

28. What would a competing electricity supplier need to offer to you in order for you to consider switching from your current supplier? (*Interviewer does not read. Check all that apply*)

- a) Lower prices
- b) More reliable service (fewer outages)
- c) Incentives for maintaining an energy efficient home
- d) Electricity derived from sources that offer greater protection to the environment
- e) The reputation of the supplier
- f) Other reasons
- g) Nothing could make me switch from my current supplier
- h) Don't know

29. (If "lower prices" was mentioned, then ask) What percentage reduction in electric price would you need in order to consider switching electricity supplier?

- 1% to 5%
- 6% to 10%
- 11% to 15%
- 16% to 20%
- More than 20%
- Don't know

30. If you had a problem or complaint with your electric service, who would you contact? *(Interviewer does not read. Check all that apply.)*

- a) Customer Service department of your utility
- b) Your electric company / supplier
- c) Your United States Congressman or Senator
- d) Your Maryland State Delegate or Senator
- e) An attorney
- f) The Governor's office
- g) The state Attorney General's office
- h) Other elected officials
- i) Law enforcement
- j) The Better Business Bureau
- k) Chamber of Commerce
- l) The Office of the People's Counsel
- m) The Maryland Public Service Commission
- n) The regulator
- o) MD State Government website
- p) Some other organization
- q) No one
- r) Don't know

31. If you did not get a satisfactory response, then, who would you contact? *(Interviewer does not read. Check all that apply.)*

- a) Customer Service department of your utility
- b) Your electric company / supplier
- c) Your United States Congressman or Senator
- d) Your Maryland State Delegate or Senator)
- e) An attorney
- f) The Governor's office
- g) The state Attorney General's office
- h) Other elected officials
- i) Law enforcement
- j) The Better Business Bureau
- k) Chamber of Commerce
- l) The Office of the People's Counsel
- m) The Maryland Public Service Commission
- n) The regulator
- o) MD State Government website
- p) Some other organization
- q) No one
- r) Don't know

32. Many states have agencies that regulate electric companies. To your knowledge, does Maryland have such an agency?
- Yes
 - No
 - Don't know
33. What is the name of that agency? (*Interviewer - Do Not Read*)
- Maryland Public Service Commission
 - Other
 - Don't know
34. Is your impression of that agency mostly positive, mostly negative, or neutral?
- Mostly positive
 - Neutral
 - Mostly negative
 - Don't know
 - No opinion
35. Many states have agencies that advocate on behalf of residential electricity consumers. To your knowledge, does Maryland have such an agency?
- Yes
 - No
 - Don't know
36. What is the name of that agency? (*Interviewer - Do Not Read*)
- Maryland Office of People's Counsel
 - Other
 - Don't know
37. Is your impression of that agency mostly positive, mostly negative, or neutral?
- Mostly positive
 - Neutral
 - Mostly negative
 - Don't know
 - No opinion

I'd like to ask you a few questions about you and your household.

38. What is your current age? __

39. What is your highest level of education?

- Did not complete high school
- High school graduate/GED
- Some college
- College graduate
- Some graduate or professional courses
- Graduate or professional education or degree
- Refused

40. Note sex:

- Male
- Female

41. What county do you live in?

- Allegany
- Anne Arundel
- Baltimore City
- Baltimore County
- Calvert
- Caroline
- Carroll
- Cecil
- Charles
- Dorchester
- Frederick
- Garrett
- Harford
- Howard
- Kent
- Montgomery
- Prince George's
- Queen Anne's
- St. Mary's
- Somerset
- Talbot
- Washington
- Wicomico
- Worcester

42. How many people, including yourself, currently reside in your residence? _____

43. Do you rent or own your current residence?

Rent

Own

Other

Don't know

Refused

44. What is your race or ethnicity?

White/Caucasian

Black/African American

Hispanic or Latino

Asian or Pacific Islander

Native American or Alaskan Native

Other

Don't know

Refused

45. I'm now going to read you some income categories. Please stop me when I get to the category that includes your household income before taxes in 2001. If not sure, please give your best estimate.

Less than \$25,000

\$25,000 to \$49,999

\$50,000 to \$74,999

\$75,000 to \$99,999

\$100,000 or more

Don't know

Refused

46. Are you:

Single

Married

Separated/Divorced

Widowed

Other/Refused

47. Finally, who pays the electric bill most of the time in your household?

Respondent

Spouse/partner

Parent

Other adult member of household

Other

Don't know

48. Note region:

Eastern Shore/Southern Maryland

Western Maryland

Baltimore Metro

Washington Metro

This concludes our interview. Thank you for participating.

