AN ANALYSIS OF THE DEMAND FOR IMPROVED RESIDENTIAL TELEVISION SERVICE IN RURAL CANADA

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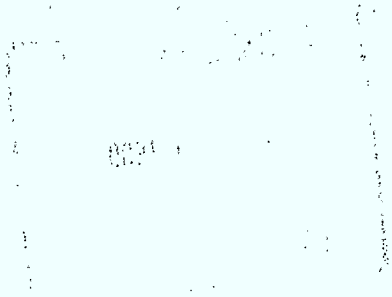

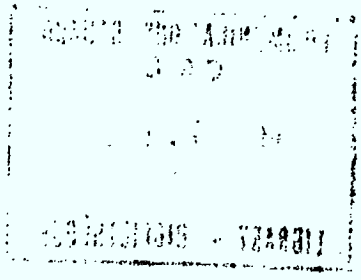

AN ANALYSIS OF THE RESIDENTIAL DEMAND FOR IMPROVED TELEVISION SERVICES IN RURAL CANADA

EXECUTIVE SUMMARY OF FINDINGS

This report is one of three which analyse the results of a survey of 2,667 rural households. These households were selected to represent a statistically valid sample of the more than 1.4 million rural households in Canada. In this volume[1] we analyse a number of aspects of residential television service to determine the underlying concerns of rural households and forecast what service they require in the short and long term.

Results are presented for the five regions of Canada (Atlantic, Quebec, Ontario, Prairie, British Columbia). National results are also shown for households in "small" communities (less than 1000 residents) and "large" communities (1000 - 2499 residents). Some key findings are:

- just over two percent of the rural households in Canada do not own a television set (either colour or black and white).

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1 Companion reports are concerned with rural residential demand for telephone and mobile radio services.

- those respondents in rural Canada who have more than one television set, are more likely to have a higher household income and to have more household members (including more children).

- about half (49.7%) of rural households receive 3 or fewer different television channels, while 26.3% receive 6 or more. However, quality of reception is variable.

- throughout Canada, except in the Prairie Region, as the distance to the nearest city increases, the number of channels received decreases.

- on the average, rural Canadian households receive one American channel, between two and three English channels and between one and two French channels.

- in rural Canada, the majority (69.3%) of households have at least one piece of special reception equipment (i.e. external antenna, tower, rotor, and/or booster).

- over half (53.1%) of the households in Ontario own a tower, and almost half (49.1%) own a rotor, while in the other regions, smaller proportions own these types of equipment.

- respondents who own special equipment tend to receive more television channels and have a higher household income.

- over half (53.6%) of the rural households in Canada which own special equipment, purchased the equipment within the last five years, while the average is seven.

- the average expenditure on special equipment in Canada is $197.68 although over half (52.8%) paid $100 or less.

- the majority (80.8%) of rural households in Canada have not received major improvements with respect to overall television service.

- in Canada, "entertainment" received the highest average score as the basic motivation for watching television. "The news" and "information" ranked second and third respectively.

- a profile of respondents who are motivated to use their television for each of these reasons as well as for child education, to "kill or pass time", for adult education, to "keep them company", or to "keep their children quiet", was developed using various household characteristics (such as age, household size, education, income, tenure, marital status, occupation, etc.). This analysis was undertaken at the national level, as well as for each region and community size.

- the most often mentioned reasons for not using a television were "do not watch TV/not interested", "dislike programs", and that a TV is "too expensive".

- the majority (76.5%) of Canadian rural households are satisfied (i.e. either "satisfied" or "very satisfied") with their overall television service, and with each aspect of service.

- however, in contradiction to the above, according to the average national rating for each of twelve public services most in need of improvement, television ranked second, telephone fourth, and radio broadcasting and CB/mobile radio eleventh and twelth respectively. "Roads and public transportation" was the service which

was most strongly thought to require improvement.

- however, in relative terms, the content of national programming, the number of American channels received, and the amount of local programming are the least satisfactory attributes.

- in B.C., over half of the respondents were dissatisfied with the content of national programming and the amount of local programming. Over half of the Prairie respondents were also dissatisfied with national programming and with the number of American channels received. These were the only cases where the majority of households were not satisfied with any aspect of service.

- at the national level, it was found that as satisfaction with overall television service increases, so does the likelihood that respondents will:

    - be less physically isolated
    - have lived in their home for a longer period of time.
    - not speak English most often at home.
    - receive more television channels.

- with regard to the relative intensity of need for improvement to telecommunication services in Canada,

the four services rank in the same order as when compared to the other services, (ie. TV first, telephone second, radio third, and CB/mobile radio fourth).

- at the national level, as the perceived intensity of need for improvement in television services increases, so does the tendency that respondents will:
    - be dissatisfied with their overall television service.
    - receive fewer television channels
    - be homemakers or skilled labourers.
    - speak English most often at home.

- an investigation of the relative importance of selected television service attributes indicated that, in Canada, price is of primary importance, followed closely by the number of channels received, the quality of reception, and finally programming.

- households in the Quebec region are most sensitive to the price of television services, while households in the Atlantic region are less sensitive to this attribute.

- Ontario and B.C. respondents consider the number of channels received to be more important than do other

regions, particularly when compared to the Prairie and Quebec regions.

- with respect to reception, the Prairie region is more sensitive to this attribute than any other region and, in fact, is the only region to rate reception second to price rather than the number of channels.

- respondents' perception of the importance of programming does not differ significantly between the regions.

- small rural communities attach significantly more importance to price than do large communities, while the reverse is true with respect to reception.

- respondents' sensitivity to "changes" in the levels of price, number of channels, reception and programming was investigated and indicated that, at the national level:

    - respondents would react somewhat more strongly to changes in the lower price range (i.e. $6 or $12).

    - consumer preference is more easily affected by variations in the higher range for the number of channels (i.e. 4 or 6).

  - a significant change in reception quality creates a significant change in consumer preference.
  - a similar change in programming results in relatively small change in consumer preference.

- the relationship which exists between a television service package's preference rank and its accumulated preference share points is presented in a "package elasticity curve". This curve provides information regarding the risk involved with each package and allows one to investigate the construction of a delivery system which "maximizes" or "optimizes" consumer preferences.

- the survey results indicate that there is a demand for improved television service in rural Canada, whether it is offered through CATV type of technology, through a combined telephone and TV service, or through satellite technology.

- in the first case, just over half (55%) of the rural households indicated that they would subscribe to this improved service at a cost of $6 a month and approximately one third (32%) would still subscribe at a monthly rate of $20 in the first year of the service being offered.

- although there are similarities between the national and regional demand estimates, a relatively larger proportion of the respondents in the Atlantic region and, to a lesser degree, B.C., would subscribe to the CATV type of service at each price level.

- the estimates also indicated that there is a short term demand for a combined telephone and TV service. In this case one half of the households in Canada would subscribe to this service for $15 a month in the first year of the service being offered and, if the rate was $35 monthly, 30% would still be interested.

- overall, the demand curve estimates for the combined service in each region and both small and large communities were similar to the national estimates, indicating a fairly homogeneous national market in rural Canada.

- in the case of improved service through satellite technology, less than one third (27%) of the rural population would be interested in purchasing the special reception unit necessary for this service for $400, and only 18% would pay $800 for the unit in the first year of the service being offered.

- in the Quebec region, the demand curves for the special reception unit are quite similar to the national estimates, but smaller proportions of respondents in the Atlantic and Ontario regions would make this purchase at each price and, conversely, larger proportions would buy this unit in the western regions.

- a profile of those respondents who would have a greater tendency to subscribe to any of these three improved services at each of three price levels, was developed by relating the level of demand to a set of potential descriptor variables (at the national level only).

- long term demand forecasts were generated for each of the three proposed service offerings. The forecasts provided the following information:

  a) for CATV type of technology:

     - approximately half (or, for example, 721,100 households if the price is $6 per month) of the "potential adopters" would subscribe within roughly two years.

     - market saturation would occur after approximately 10 years.

  b) for the combined telephone and television service:

     - in this case within three years half of the potential market would have adopted this service (e.g. 702,000 households if the price is $15).

- after twelve years, the market would be saturated.

c) for satellite technology:

- the greatest number of adoptions would occur within the first three years as over half (e.g. 721,100 households at a cost of $400) of the potential adopters will make the purchase in this time period.

- market saturation would occur after eleven years.

I. INTRODUCTION

1.1 Background

The present document is one of a series of four, reporting on an empirical analysis of the need and demand for improved telecommunication services in rural Canada; it focuses on **residential television** services.

The identification of the needs of rural people and the analysis of their demand is one of the many facets of Phase II of the Rural Communications Program[1]; its raison d'être has been expressed by Keith Richardson (DOC) in the following fashion:

> "The Rural Communications Program was established by the Department of Communications as a result of growing concern about the apparently increasing disparity in the level of communications services available in urban and rural Canada ... The basic problems with rural communications are related to cost, i.e. the high cost of providing services from a distribution point to subscribers scattered over a wide geographic area. This fact, coupled with a relatively small market base, results in a high unit cost per subscriber and hence service which is "uneconomic" at affordable rates. Fortunately, at this point in time, several new technologies appear to have the potential for altering the cost equations in a significant way. Briefly, studies have identified the most promising technologies for the delivery of services to rural homes to be:

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1 "Present Status of Rural Communications in Canada", Inter-Branch Working Group on Rural Communications, Department of Communications, Ottawa, (July 1976).

- broadband networks based on fiber optic or coaxial cables
- satellite direct to home broadcasting
- radio telephone distribution systems

> Each technology has its own special capabilities ...; however which technology or technologies should be brought forward is not obvious, partly because the Department does not yet have a clear understanding of the service requirements of the rural subscriber and his ability and willingness to pay for improvement."1

This statement gives the rationale behind the analysis of demand and clarifies the nature of the input required. The purpose of this report is to provide that input with respect to residential television services. Results dealing with residential telephone service, residential mobile radio service and business telephone and mobile radio services can be found in companion reports.2,3,4

Demand analysis and forecasting is a difficult exercise; the validity of the results rests upon:

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1 Richardson, K., "Study of the Demand for Communication Services in Rural Canada - Field Survey". Planning Report, Department of Communications, Ottawa, (May 1980), p.3.

2 Bourgeois, J.C. and Camprieu, R. (de), "An Analysis of the Residential Demand for Improved Telephone Services in Rural Canada", DEMAND Research Consultants Inc., Ottawa, (March, 1982).

3 Bourgeois, J.C. and Camprieu, R. (de), "An Analysis of the Residential Demand for Mobile Radio Services in Rural Canada", DEMAND Research Consultants Inc., Ottawa, (March, 1982).

4 Bourgeois, J.C. and Camprieu, R. (de), "An Analysis of the Business Demand for Improved Telecommunication Services in Rural Canada", DEMAND Research Consultants Inc., Ottawa, (March, 1982).

1) the research objectives that are pursued,
2) the relevance of a series of assumptions and operational definitions,
3) the appropriateness of the methodological apparatus set up to infer needs and demand forecasts.

The research objectives underlying this report are stated in section 1.2, and a summary of the methodology is given in section 1.3. Appendix A provides a more detailed account of the methodology.

1.2 Objectives

The overall objective of this report is to analyse the **needs** of rural households for television service and to **forecast** their **demand** for an improved television service. Specific, actionable objectives have been defined as follows:

1.2.1 Objectives of Need Analysis

Within the context of the present research, the concept of need can be approached from several perspectives.[1] Five specific objectives, each focussing on one aspect of need, have been retained:

- Survey the current usage pattern and cost of television service. The information will indicate how rural people currently attempt to satisfy their need for communication with respect to this medium.

- Identify the motivations underlying the current usage (or non-usage) of television service. This will suggest why rural people use (or do not use) this service.

- Estimate the degree of satisfaction with the various aspects of their current television service. This will indicate how rural people perceive the adequacy of their current service.

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1 Camprieu, R. (de) and Bourgeois, J.C., "Demand for Rural Communication Services in Canada: Focus Groups and Research Instruments", University of Ottawa, Ottawa, (December 1979), pp. 48-50.

- Estimate the strength of the need for improvement in television service relative to:

  a) other public services
  b) other telecommunication services

  This will reveal the relative priority given by rural people to programs aiming at improving television service.

- Identify which aspects of television service are most needed by rural people. If there is a need for improvement in telephone service, this information will indicate what exactly needs to be improved.

1.2.2 Objectives of Demand Forecasting

- Estimate "short-term" (one year time horizon) demand for the following:

  - improved television service via CATV type of technology
  - improved television service via satellite type of technology
  - improved telephone and television services via combined delivery (coaxial/fibre optics type of technology)

- Estimate "long-term" demand[1] for the three options just mentioned.

1.2.3 Extent of Analysis

Need analyses and demand forecasts will be conducted at both the national and regional levels (Atlantic, Quebec, Ontario, Prairies, British Columbia) and will be stratified in terms of community size (less than 1,000 population versus 1,000 to 2,499 population).

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1 No time horizon has been specified for the long-term demand forecasts because one of the objective of this analysis is precisely to estimate the length of time it would take to reach market saturation.

The survey also covers demographic and socio-economic information; it can be used to identify "who needs and demands what". However, this aspect of the analysis will be limited to a few relationships explicitely requested by the Department of Communications, although further analyses are also possible.

1.3 Overview of Methodology

This section gives a brief account of the methodology described in more detail in Appendix A.

The data required to answer the research questions underlying the objectives was collected through 2,667 personal interviews conducted among a sample of rural households representative of the five Canadian regions: Atlantic, Quebec, Ontario, Prairies and British Columbia.

Richardson and Brown's definition of "rural" was used in this research[1]; it is based on census Enumeration Areas (EA). An EA was classified as rural if it had an overall population density between 0.8 and 999 persons/sq. mile (1976 Census) and lay outside the boundary of communities of 2,500 or more people. EA's located on Indian reservations and EA's with no private households were excluded[2].

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1 Richardson, Keith and Steve Brown: "Regional Demographic Studies for the Rural Communications Program - Summary Report and Analysis", Department of Communications, Ottawa, (November 1978).

2 Brown, Steve and Keith Richardson: "Sampling Frame for the Rural Residential and Business Demand Surveys", Department of Communications, Ottawa, (May 1981).

The questionnaire reproduced in Appendix B was administered to either (random selection) the male or female head of the household. Only households which could be identified as **primary residences** were considered. The sampling plan was expected to give estimates at the regional level with an accuracy of ±5% at the 95% level of confidence. When national estimates are involved, the five Canadian regions were weighted by their respective rural population base according to the 1976 Census figures.

The need and forecasting models underlying the development of the questionnaire are discussed in Appendix A.

II. ANALYSIS OF RESULTS

2.1 Service Currently Received

2.1.1 Number of Television Sets[1]

In rural Canada, almost three quarters (72.8%) of all households have one colour television set and less than twenty percent (18.8%) have none. A statistically significant[2] relationship was found to exist between the number of colour television sets owned, and the regional location of the household. For example, in the Atlantic region a relatively larger proportion of households do not own a colour television while the reverse is true in Quebec (see Table 1). On the other hand, the size of community is not significantly related to the number of colour television sets (see Table 2).

In terms of black and white television sets, slightly more than half (55.7%) of rural households in Canada do not own one, while over one third (38.6%) have one set. As was the case for colour TV sets,

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1 Based upon responses to Question 14

2 All measures of association are deemed statistically significant if they reach the 5.0% level of significance or less.

TABLE 1

NUMBER OF COLOUR TELEVISION SETS

	Region					
	Atlantic	Quebec	Ontario	Prairies	B.C.	National
None	28.3% (156)	14.9% (87)	17.8% (90)	16.0% (88)	19.4% (92)	18.8% (385)
One	67.5 (372)	76.2 (446)	74.6 (378)	72.3 (397)	70.5 (335)	72.8 (1489)
Two	3.8 (21)	7.5 (44)	7.5 (38)	10.9 (60)	9.3 (44)	7.7 (158)
Three or more	0.4 (2)	1.4 (8)	0.2 (1)	0.7 (4)	0.8 (4)	0.7 (14)
TOTAL	100.0 (551)	100.0 (585)	100.0 (507)	100.0 (549)	100.0 (475)	100.0 (2047)

ote: The upper figure refers to the percentage of the column total and the lower figure (in parenthesis) to the actual number of households. As the sample was weighted for the national analysis, in order to correct for disproportionate regional sampling, the national and regional analyses are based on different sample sizes (see Section A.5.3 for more details).

TABLE 2

NUMBER OF COLOUR TELEVISION SETS

	Size of Community		
	less than 1,000	1,000 to 2,499	National
None	18.9% (338)	17.6% (47)	18.8% (385)
One	72.9 (1302)	72.2 (195)	72.8 (1489)
Two	7.6 (135)	8.9 (24)	7.7 (158)
Three or more	0.6 (11)	1.3 (4)	0.7 (14)
TOTAL	**100.0** **(1787)**	**100.0** **(270)**	**100.0** **(2047)**

Note: The upper figure refers to the percentage of the column total and the lower figure (in parenthesis) to the actual number of households. As the sample was weighted for the national analysis, in order to correct for disproportionate regional sampling, the national and community size analyses are based on different sample sizes (see Section A.5.3 for more details).

ownership of black and white sets is significantly related to regional location. While just under half of the households in the Atlantic and Ontario regions do not have a black and white TV set, this proportion increases to approximately 62% in western Canada (i.e. the Prairies and BC) (see Table 3). Once again, the ownership of black and white TV sets is not significantly related to the size of community (see Table 4).

Examining the total number of television sets owned by respondents (i.e. regardless of which type), only 2.3% of all rural households in Canada do not own a television while the majority (62.1%) have one set. In this case, as in the two previous cases, ownership of television sets is significantly related to the regional location of the household, but not to the size of community (see Tables 5 and 6). A relatively larger proportion of respondents in BC do not own any television sets while in the Ontario region almost half (42.2%) of rural households have two or more sets (compared to approximately one third of the households in other regions). Although regional differences do exist, the average number of TV sets per household is essentially the same across rural Canada. In fact, the only difference occurs in Ontario where the average is

TABLE 3

NUMBER OF BLACK AND WHITE TELEVISION SETS

	Region					
	Atlantic	Quebec	Ontario	Prairies	B.C.	National
None	49.7% (274)	58.8% (344)	49.5% (251)	61.6% (338)	61.9% (294)	55.7% (1140)
One	42.7 (235)	37.1 (217)	41.8 (212)	35.5 (195)	33.5 (159)	38.6 (791)
Two	6.5 (36)	3.4 (20)	7.9 (40)	2.2 (12)	3.8 (18)	4.9 (99)
Three or more	1.1 (6)	0.7 (4)	0.8 (4)	0.7 (4)	0.8 (4)	0.8 (17)
TOTAL	**100.0 (551)**	**100.0 (585)**	**100.0 (507)**	**100.0 (549)**	**100.0 (475)**	**100.0 (2047)**

Note: The upper figure refers to the percentage of the column total and the lower figure (in parenthesis) to the actual number of households. As the sample was weighted for the national analysis, in order to correct for disproportionate regional sampling, the national and regional analyses are based on different sample sizes (see Section A.5.3 for more details).

TABLE 4

NUMBER OF BLACK AND WHITE TELEVISION SETS

	Size of Community		
	less than 1,000	1,000 to 2,499	National
None	56.3% (1005)	51.9% (140)	55.7% (1140)
One	38.0 (678)	43.1 (117)	38.6 (791)
Two	4.9 (87)	4.9 (13)	4.9 (99)
Three or more	0.9 (17)	0.0 (0)	0.8 (17)
TOTAL	100.0 (1787)	100.0 (270)	100.0 (2047)

ote: The upper figure refers to the percentage of the column total and the lower figure (in parenthesis) to the actual number of households. As the sample was weighted for the national analysis, in order to correct for disproportionate regional sampling, the national and community size analyses are based on different sample sizes (see Section A.5.3 for more details).

TABLE 5

NUMBER OF TELEVISION SETS

	Region					
	Atlantic	Quebec	Ontario	Prairies	B.C.	National
None	2.5% (14)	0.3% (2)	1.8% (9)	3.5% (19)	5.9% (28)	2.3% (47)
One	66.8 (368)	65.5 (383)	56.0 (284)	61.2 (336)	61.3 (291)	62.1 (1271)
Two	24.3 (134)	27.7 (162)	33.5 (170)	30.1 (165)	26.5 (126)	28.9 (591)
Three or more	6.4 (35)	6.5 (38)	8.7 (44)	5.3 (29)	6.3 (30)	6.7 (138)
TOTAL	**100.0 (551)**	**100.0 (585)**	**100.0 (507)**	**100.0 (549)**	**100.0 (475)**	**100.0 (2047)**
Average	1.4	1.4	1.5	1.4	1.4	1.4

Note: The upper figure refers to the percentage of the column total and the lower figure (in parenthesis) to the actual number of households. As the sample was weighted for the national analysis, in order to correct for disproportionate regional sampling, the national and regional analyses are based on different sample sizes (see Section A.5.3 for more details).

TABLE 6

NUMBER OF TELEVISION SETS

	Size of Community		
	less than 1,000	1,000 to 2,499	National
None	2.5% (44)	1.3% (3)	2.3% (47)
One	62.5 (1117)	58.9 (159)	62.1 (1271)
Two	28.6 (510)	31.4 (85)	28.9 (591)
Three or more	6.5 (115)	8.4 (23)	6.7 (138)
TOTAL	**100.0** **(1787)**	**100.0** **(270)**	**100.0** **(2047)**
Average	1.4	1.5	1.4

ote: The upper figure refers to the percentage of the column total and the lower figure (in parenthesis) to the actual number of households. As the sample was weighted for the national analysis, in order to correct for disproportionate regional sampling, the national and community size analyses are based on different sample sizes (see Section A.5.3 for more details).

slightly higher than any other region or the national average (i.e. 1.5 versus 1.4). So, for every two rural households, there are approximately three television sets.

A statistical measure was computed to evaluate the degree of association between the number of television sets in a household and, the household size (i.e. total number of people and the number of children) and income of the household. The results of this analysis for rural Canada indicate that a number of the correlates are significant.[1]

At the **national** level, the results indicate that households which have more than one television set (either colour and/or black and white), are more likely to:

- **have a higher household income.** A larger proportion of those respondents who have two or more TV sets, than of those with one or with none, earn $25,000 a year or more (29.7% vs 17.8% of those with one set, 21.5% of those with none).
- **have more people in their household.** Relatively more households with two or more TV sets, than with only one, have five or more people in the household (31.8% vs 17.8%).

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1 Only those relationships with a Pearson Correlation Coefficient which exceeds $\pm$ 0.10 are reported and further discussed with their associated crosstabulation. This practise will be continued throughout the report.

- **have more children at home.** While the majority (54.1%) of the respondents with two or more TV sets have children at home, this is true for less than half (41.0%) of those with only one set.

In the **Atlantic Region** it was found that respondents with more than one TV set tend to:

- **have a higher household income.** In relative terms, more respondents with more than one set than those with only one, earn $25,000 a year or more (14.9% vs 8.6%).
- **have more people in the household.** Almost half as many respondents with two or more TV sets, as those with only one, have less than three people in the household (20.1% vs 35.9%).

Households in the **Quebec Region** which tend to have more than one television set, are likely to:

- **have more people in their households.** Over twice as many respondents with one TV, as those with more, have only one or two people in their household (37.3% vs 16.0%).
- **have more children at home.** While less than half (43.5%) of those respondents with more than one TV do not have any children, the majority (56.7%) of those with one set have no children.

In the **Ontario Region** the results indicate that those respondents with more than one television set tend to:

- **have a higher household income.** Approxiamtely twice as many respondents who have two or more TV sets, as those with only one, earn $25,000 a year or more (34.1% vs 15.6%).

- **have more people in their household.** A larger proportion of those respondents with more than one TV set, than of those with only one, have five or more people in their home (28.0% vs 16.9%).

Respondents in the **Prairie Region** who have more than one television set, tend to:

- **have a higher household income.** Comparatively more respondents with two or more TV sets, than with only one, earn $25,000 a year or more (40.6% vs 28.2%).

The results of this analysis indicate that in the **British Columbia Region**, respondents with more than one television set tend to:

- **have a higher household income.** Relatively more of these respondents, than those with only one TV set, earn $25,000 a year or more (43.4% vs 28.2%).
- **have more people in their household.** Compared to those households with only one TV, a larger percentage of those with two or more have over four people in the house (14.4% vs 26.9%).
- **have more children in their home.** Relatively fewer of these respondents, than of those with only one TV, have no children at home (50.6% vs 66.3%).

Respondents living in **Small Communities** and who have more than one television set, tend to:

- **have a higher household income.** Relative to those with only one TV, more of these respondents earn $25,000 a year or more (18.3% vs 30.3%).
- **have more people in their household.** A larger proportion of respondents with two or more TV sets, than of those with one, have five or more people in

their house (31.8% vs 18.4%).

In **Large Communities**, the results indicate that respondents with two or more television sets are likely to:

- **have a higher household income.** Relatively more of these respondents, than of those with only one TV, earn $25,000 a year or more (27.2% vs 15.0%).
- **have more people in their household.** Approximately half as many respondents with two or more sets, as those with one set, have only one person in the household (24.2% vs 48.3%).
- **have more children at home.** A smaller proportion of households with two or more TV sets have no children at home (42.4% vs 64.7% of those with only one TV set).

2.1.2 Number of Channels Received[1]

Almost half (49.7%) of rural households in Canada receive three or fewer different television channels. The average is between four and five channels, although approximately one quarter (26.3%) of the households receive six or more channels. There is a significant relationship between the number of channels received by households and the region within which they live. While most of the respondents in the Atlantic and Prairie Regions receive less than four channels,

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1 Based upon responses to Question 18

approximately one third of the households in Quebec and B.C. receive at least six, and this is also the case for over half of the households in Ontario (see Table 7). The average number of channels varies from three in the Atlantic region, to almost seven in Ontario. Evidently this is truly a function of regional location (as was the case for the number of TV sets), as there is no significant relationship between the number of channels received and community size (see Table 8).

The relationship between the distance to the nearest city and the number of channels received was investigated. A statistical measure of the degree of association was computed in order to investigate a hypothesis of a significant relationship between these two variables. This proved to be true, except in the Prairie Region[1], and indicates that as the distance increases the number of channels decreases. For example, a larger proportion of respondents who receive one or two channels, than of those who receive five or more, live at least 30 miles from the nearest city (61.1% vs 32.4% at the National level; 85.5% vs 50.8% in the Atlantic Region; 11.7% vs 7.4% in Quebec; 48.9%

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1 The correlation between these two variables was not significant in the Prairie region.

TABLE 7

TELEVISION CHANNELS RECEIVED

	Region					
	Atlantic	Quebec	Ontario	Prairies	B.C.	National
None	3.0%	0.4%	2.3%	3.8%	6.9%	2.8%
	(14)	(2)	(9)	(19)	(28)	(47)
One	8.9	2.9	2.0	2.0	4.7	3.8
	(42)	(13)	(8)	(10)	(19)	(64)
Two	37.8	19.8	9.4	29.2	30.4	24.2
	(179)	(90)	(37)	(147)	(124)	(412)
Three	20.9	17.4	14.0	26.6	9.6	18.9
	(99)	(79)	(55)	(134)	(39)	(322)
Four	16.2	15.0	9.7	26.0	7.4	16.1
	(77)	(68)	(38)	(131)	(30)	(274)
Five	6.3	9.2	8.1	8.1	6.6	7.9
	(30)	(42)	(32)	(41)	(27)	(134)
Six or more	7.0	35.4	54.5	4.4	34.6	26.3
	(33)	(161)	(214)	(22)	(141)	(447)
TOTAL	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
	(474)	**(455)**	**(393)**	**(504)**	**(408)**	**(1700)**
Average[2]	3.0	5.1	6.7	3.2	4.3	4.5

Note 1: The upper figure refers to the percentage of the column total and the lower figure (in parenthesis) to the actual number of households. As the sample was weighted for the national analysis, in order to correct for disproportionate regional sampling, the national and regional analyses are based on different sample sizes (see Section A.5.3 for more details).

Note 2: "Mean" number of channels.

TABLE 8

TELEVISION CHANNELS RECEIVED

	Size of Community		
	less than 1,000	1,000 to 2,499	National
None	3.0% (44)	1.4% (3)	2.8% (47)
One	3.8 (56)	3.5 (9)	3.8 (64)
Two	25.1 (367)	19.1 (47)	24.2 (412)
Three	18.9 (277)	18.9 (47)	18.9 (322)
Four	15.6 (228)	19.0 (47)	16.1 (274)
Five	7.7 (112)	9.4 (23)	7.9 (134)
Six or more	26.0 (381)	28.7 (71)	26.3 (447)
TOTAL	**100.0** **(1464)**	**100.0** **(247)**	**100.0** **(1700)**
Average[2]	4.5	4.7	4.5

Note 1: The upper figure refers to the percentage of the column total and the lower figure (in parenthesis) to the actual number of households. As the sample was weighted for the national analysis, in order to correct for disproportionate regional sampling, the national and community size analyses are based on different sample sizes (see Section A.5.3 for more details).

Note 2: "Mean" number of channels.

vs 34.3% in Ontario; 38.0% vs 32.7% in B.C.; 62.2% vs 30.7% in small communities; and 53.6% vs 41.2% in large communities).

Examining the breakdown of channels received by category (American channels, Canadian channels with English programs, and Canadian channels with French programs), it was found that, on the average, rural Canadian households receive one American channel, between two and three English channels and between one and two French channels. As would be expected, households in Quebec receive the highest average number of French channels and fewer English channels (see Table 9A). Excluding Quebec, the Ontario region receives the highest average number of channels in each category. The average number of channels received in both small and large communities for each category is very similar to the national results (see Tables 10A and 10B)

With regard to the quality of reception, the results indicate that , on the average, less than one channel in each category has poor reception regardless of the region. On the other hand, for those households which receive English (Canadian) or American channels, the average number with good reception ranges from just over one in the Prairie region, to three in Ontario

TABLE 9A

AVERAGE NUMBER OF TELEVISION CHANNELS

	Region					
	Atlantic	Quebec	Ontario	Prairies	B.C.	National
American	0.3 (16.8%)	0.7 (31.9%)	2.6 (67.3%)	0.2 (8.7%)	1.9 (61.0%)	1.1 (35.4%)
Canadian English	2.0 (96.7%)	1.3 (70.9%)	3.6 (98.2%)	2.6 (96.4%)	2.3 (92.6%)	2.4 (90.9%)
Canadian French	0.6 (45.7%)	3.4 (99.7%)	0.9 (62.7%)	0.4 (40.0%)	0.2 (16.7%)	1.4 (60.5%)
Overall Average Number of Channels	3.0	5.1	6.7	3.2	4.3	4.5

Note: The upper figure is the "mean" number of channels received by all rural households, and the lower figure (in parenthesis) refers to the proportion of all households which receive at least one channel.

TABLE 9B

AVERAGE[1] NUMBER OF TELEVISION CHANNELS
WITH "GOOD" OR "POOR" RECEPTION

	Region					
	Atlantic	Quebec	Ontario	Prairies	B.C.	National
American						
Good Reception	1.6	1.7	2.9	1.3	2.6	2.4
Poor Reception	0.4	0.7	1.0	0.6	0.6	0.8
Canadian English						
Good Reception	1.6	1.5	3.1	2.1	1.9	2.1
Poor Reception	0.5	0.3	0.6	0.6	0.6	0.5
Canadian French						
Good Reception	1.0	2.8	1.1	0.8	0.9	1.9
Poor Reception	0.3	0.6	0.3	0.2	0.1	0.5

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1 The "mean" number of channels with "good" or "poor" reception, for those respondents who receive each type of channel.

TABLE 10A

AVERAGE NUMBER OF TELEVISION CHANNELS

	Size of Community		
	less than 1,000	1,000 to 2,499	National
American	1.1 (34.8%)	1.1 (39.1%)	1.1 (35.4%)
Canadian English	2.4 (91.4%)	2.3 (87.1%)	2.4 (90.9%)
Canadian French	1.4 (59.7%)	1.4 (65.5%)	1.4 (60.5%)
Overall Average Number of Channels	4.5	4.7	4.5

Note: The upper figure is the "mean" number of channels received by all rural households, and the lower figure (in parenthesis) refers to the proportion of all households which receive at least one channel.

TABLE 10B

AVERAGE[1] NUMBER OF TELEVISION CHANNELS
WITH "GOOD" OR "POOR" RECEPTION

	Size of Community		
	less than 1,000	1,000 to 2,499	National
American			
Good Reception	2.5	2.1	2.4
Poor Reception	0.8	0.7	0.8
Canadian English			
Good Reception	2.1	2.1	2.1
Poor Reception	0.5	0.5	0.5
Canadian French			
Good Reception	2.0	1.8	1.9
Poor Reception	0.5	0.5	0.5

1 The "mean" number of channels with "good" or "poor" reception, for those respondents who receive each type of channel.

(see Table 9B). For those who receive French channels, most regions, on the average, receive approximately one with good reception while in Quebec the average is roughly three.

In Canada, while less than ten percent of rural households do not watch American (6.2%) or English (Canadian) channels (5.1%), as would be expected this proportion increases (to almost twenty percent) for French channels. In Quebec, approximately twenty percent of the households do not watch English (American or Canadian) channels, while less than one percent do not watch French channels (see Table 11). In the other regions approximately one to two percent do not watch American channels, and less than one percent do not watch English (Canadian) channels. However, for channels with French programs, the percentage of the population who do not watch them ranges from roughly ten percent in the Atlantic, to almost half (40.2%) in Ontario. The differences between the proportions of respondents who do not watch TV in both small and large communities are generally small, but overall, in small communities, there are more households which do not watch in each of these categories (see Table 12).

TABLE 11

PROPORTION OF HOUSEHOLDS WHO DO NOT WATCH TV

	Region					
	Atlantic	Quebec	Ontario	Prairies	B.C.	National
American Channels	2.4% (13)	19.7% (115)	1.8% (9)	0.9% (5)	1.9% (9)	6.2% (127)
Canadian English Channels	0.7 (4)	19.5 (114)	0.2 (1)	0.0 (0)	0.4 (2)	5.1 (105)
Canadian French Channels	10.5 (58)	0.9 (5)	40.2 (204)	18.0 (99)	12.6 (60)	17.3 (353)

Note: The upper figure refers to the percentage of the sample, and the lower figure (in parenthesis) to the actual number of households. As the sample was weighted for the national analysis, in order to correct for disproportionate regional sampling, the national and regional analyses are based on different sample sizes (see Section A.5.3 for more details).

TABLE 12

PROPORTION OF HOUSEHOLDS WHO DO NOT WATCH TV

	Size of Community		
	less than 1,000	1,000 to 2,499	National
American Channels	6.4% (115)	4.8% (13)	6.2% (127)
Canadian English Channels	5.4 (96)	3.4 (9)	5.1 (105)
Canadian French Channels	17.9 (321)	13.0 (35)	17.3 (353)

Note: The upper figure refers to the percentage of the sample, and the lower figure (in parenthesis) to the actual number of households. As the sample was weighted for the national analysis, in order to correct for disproportionate regional sampling, the national and community size analyses are based on different sample sizes (see Section A.5.3 for more details).

2.1.3 Special Reception Equipment[1]

In rural Canada, the majority (69.3%) of households have at least one piece of special reception equipment (i.e. external antenna, tower, rotor, and/or booster). Whether or not respondents have special reception equipment is significantly related to the region within which they live. While almost half (45.9%) of the households in the Atlantic region have no special equipment, the majority (55.7%) in the Ontario region have at least two pieces of special equipment (see Table 13). There is also a significant relationship between ownership of reception equipment and community size. A relatively larger proportion of respondents who live in large communities, compared to those living in small communities, do not have any special reception equipment (40.4% vs 29.2%) (see Table 14).

The degree of association between the ownership of special reception equipment and, the number of television channels received, distance to the nearest city and household income, was measured. The resulting data indicate that at the **National** level those respondents with special equipment tend to:

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1 Based upon responses to Question 19 (c, d, e).

TABLE 13

OWNERSHIP OF SPECIAL RECEPTION EQUIPMENT

	Region					
	Atlantic	Quebec	Ontario	Prairies	B.C.	National
No Special Equipment	45.9% (253)	30.8% (180)	23.9% (120)	18.9% (103)	47.3% (222)	30.7% (628)
One Piece	43.4 (239)	48.3 (282)	20.5 (103)	51.7 (282)	42.2 (198)	40.9 (836)
Two or More	10.7 (59)	20.9 (122)	55.7 (280)	29.4 (160)	10.4 (49)	28.4 (582)
TOTAL	100.0 **(551)**	100.0 **(584)**	100.0 **(503)**	100.0 **(545)**	100.0 **(469)**	100.0 **(2047)**

Note: The upper figure refers to the percentage of the column total and the lower figure (in parenthesis) to the actual number of households. As the sample was weighted for the national analysis, in order to correct for disproportionate regional sampling, the national and regional analyses are based on different sample sizes (see Section A.5.3 for more details).

TABLE 14

OWNERHSIP OF SPECIAL RECEPTION EQUIPMENT

	Size of Community		
	less than 1,000	1,000 to 2,499	National
No Special Equipment	29.2% (519)	40.4% (109)	30.7% (628)
One Piece	41.3 (733)	37.6 (102)	40.9 (836)
Two or More	29.5 (525)	21.9 (59)	28.4 (582)
TOTAL	100.0 (1777)	100.0 (270)	100.0 (2047)

Note: The upper figure refers to the percentage of the column total and the lower figure (in parenthesis) to the actual number of households. As the sample was weighted for the national analysis, in order to correct for disproportionate regional sampling, the national and community size analyses are based on different sample sizes (see Section A.5.3 for more details).

- **receive more television channels.** While over half (56.0%) of the respondents who have two or more pieces of special equipment receive at least five channels, this is true for only 35.3% of those with no equipment.

- **have a higher household income.** Relatively more respondents with at least two types of special reception equipment, than those with none, earn $25,000 a year or more (27.6% vs 19.8%).

In the **Atlantic Region**, none of these variables were strongly related to ownership of special reception equipment.

Households located in the **Quebec Region** with special reception equipment were found to be more likely to:

- **receive more television channels.** Over twice as many respondents with two or more types of special equipment, as those with none, receive at least five television channels (85.2% vs 39.6%).

- **have a higher household income.**

In the **Ontario Region**, the results indicate that those respondents who own special reception equipment tend to:

- **receive more television channels.** A relatively larger proportion of respondents with at least two pieces of special equipment, as those with none, currently receive five or more television channels (76.0% vs 51.5%).

Respondents living in the **Prairie Region** who own special equipment are more likely to:

- **receive more television channels.** Comparatively more households with at least two pieces of special equipment receive at least five channels (20.7% vs 10.8%).

- **live farther from the nearest city.** Almost all (90.0%) of the respondents with two or more types of special equipment live at least 30 miles from the nearest city, compared to 56.9% of those with no special equipment.

- **have a higher household income.** A relatively larger proportion of the respondents with at least two pieces of equipment earn $25,000 a year or more (43.7% vs 25.8%).

The results of this analysis for the **British Columbia Region** indicate that respondents with special reception equipment tend to:

- **receive fewer television channels.** A larger proportion of the respondents with no special equipment, than of those with one or two to four pieces, receive five or more channels (62.4% vs 16.7% and 29.3% respectively).

In **Small Communities** it was found that households with special TV reception equipment were more likely to:

- **receive more television channels.** Almost twice as many respondents with at least two pieces of special equipment, as those with none, receive five or more channels (56.6% vs 31.2%)

- **have a higher household income.** Relatively more of these respondents earn at least $25,000 a year (28.5% vs 19.1%).

Respondents living in **Large Communities** who have special reception equipment are more likely to:

- **live closer to the nearest city.** A smaller proportion of respondents with at least two pieces of special equipment, than of those with none, live 30 miles or more from the nearest city (47.5% vs 56.1%).

Examining the type of special reception equipment owned by rural Canadian households, it was found that the majority (66.4%) own an external antenna while smaller proportions own each of the three other types of equipment (i.e. tower, rotor and booster). This is also true for each region, although there is a significant relationship between regional location and the type of equipment owned. For example, approximately thirty percent more of the respondents in the Prairie Region than in B.C. or the Atlantic Region own an external antenna (82.4% vs 52.9% and 53.6% respectively) (see Table 15). Additionally, while in most regions a relatively small proportion of respondents own a tower or rotor, roughly half of the households in Ontario own one or both of these types of equipment (53.1% and 49.1%).

With regard to community size, ownership of an external antenna or rotor is significantly related to the size of community while this is not so in the case

TABLE 15

SPECIAL RECEPTION EQUIPMENT TYPE

	Region					
	Atlantic	Quebec	Ontario	Prairies	B.C.	National
External Antenna	53.6% (288)	65.6% (382)	66.9% (330)	82.4% (436)	52.9% (235)	66.4% (1323)
Tower	7.8 (42)	11.0 (64)	53.1 (263)	20.9 (110)	3.9 (17)	22.5 (447)
Rotor	3.9 (21)	18.2 (106)	49.1 (243)	12.4 (65)	5.6 (25)	20.8 (414)
Booster	4.8 (26)	6.5 (38)	15.5 (76)	17.4 (91)	9.3 (41)	11.1 (219)

Note: The upper figure refers to the percentage of respondents and the lower figure (in parenthesis) to the actual number of households. As the sample was weighted for the national analysis, in order to correct for disproportionate regional sampling, the national and regional analyses are based on different sample sizes (see Section A.5.3 for more details).

of towers and boosters (see Table 16). Larger proportions of households located in small communities, than in large ones, own an external antenna and/or a rotor.

Over half (53.6%) of the rural households in Canada which own special reception equipment, purchased this equipment within the last five years, while the average number of years since purchase is seven. There are small, but statistically significant relationships with the regional location of the household. For instance, relatively more households in B.C. purchased equipment within the last year, particularly when compared to the Atlantic region (see Table 17). The average number of years since purchase varies from six years in B.C. to just over eight years in the Prairie region. On the other hand, the size of community is not significantly related to the years since purchase (see Table 18).

In terms of the cost of special equipment, over half (52.8%) of the rural Canadian households paid $100 or less for their equipment, although the average is $197.68. Across the regions it was found that generally the majority of the households paid over $50 for their equipment. However, this was not the case in the Atlantic region, as over half (54.1%) of the respondents indicated a cost of $50 or less (see Table

TABLE 16

SPECIAL RECEPTION EQUIPMENT TYPE

	Size of Community		
	less than 1,000	1,000 to 2,499	National
External Antenna	67.9% (1178)	56.9% (151)	66.4% (1323)
Tower	23.0 (399)	18.9 (50)	22.5 (447)
Rotor	21.9 (380)	13.7 (36)	20.8 (414)
Booster	10.8 (187)	12.6 (33)	11.1 (219)

Note: The upper figure refers to the percentage of respondents and the lower figure (in parenthesis) to the actual number of households. As the sample was weighted for the national analysis, in order to correct for disproportionate regional sampling, the national and community size analyses are based on different sample sizes (see Section A.5.3 for more details).

TABLE 17

YEARS SINCE PURCHASE

	Region					
	Atlantic	Quebec	Ontario	Prairies	B.C.	National
1 Year or Less	8.3% (22)	15.8% (61)	12.8% (42)	14.5% (57)	16.6% (33)	13.6% (171)
2-5 Years	41.7 (110)	46.0 (177)	40.4 (132)	32.2 (127)	40.7 (81)	40.0 (502)
6-10 Years	32.2 (85)	24.7 (95)	30.3 (99)	24.9 (98)	30.7 (61)	27.7 (348)
Over 10 Years	17.8 (47)	13.5 (52)	16.5 (54)	28.4 (112)	12.1 (24)	18.7 (235)
TOTAL	**100.0 (264)**	**100.0 (385)**	**100.0 (327)**	**100.0 (394)**	**100.0 (199)**	**100.0 (1256)**
Average (years)	7.2	6.3	6.7	8.2	6.0	7.0

Note: The upper figure refers to the percentage of the column total and the lower figure (in parenthesis) to the actual number of households. As the sample was weighted for the national analysis, in order to correct for disproportionate regional sampling, the national and regional analyses are based on different sample sizes (see Section A.5.3 for more details).

TABLE 18

YEARS SINCE PURCHASE

	Size of Community		
	less than 1,000	1,000 to 2,499	National
1 Year or Less	13.4% (152)	15.5% (21)	13.6% (171)
2--5 Years	39.4 (446)	44.3 (59)	40.0 (502)
6--10 Years	28.0 (317)	24.2 (32)	27.7 (348)
Over 10 Years	19.1 (216)	16.0 (21)	18.7 (235)
TOTAL	**100.0** **(1130)**	**100.0** **(133)**	**100.0** **(1256)**
Average (years)	7.1	6.4	7.0

Note: The upper figure refers to the percentage of the column total and the lower figure (in parenthesis) to the actual number of households. As the sample was weighted for the national analysis, in order to correct for disproportionate regional sampling, the national and community size analyses are based on different sample sizes (see Section A.5.3 for more details).

19). The average expenditure throughout the regions varies from $106.32 in the Atlantic region, to $318.76 in Ontario. A significant relationship was not found between the price paid by households and whether they lived in a small or large rural community (see Table 20).

2.1.4 Incidence of Improvement in Television Service[1]

The majority (80.8%) of rural households in Canada have not received major improvements with respect to overall television service. However, for those households which have had improvements, these occurred, on the average, within the last three years. There is a significant relationship between regional location and the incidence of improvements as, for example, approximately twice as many respondents in B.C. and the Prairies, as in Ontario, have received improvements (see Table 21). In each region, these improvements occurred, on the average, between approximately two and three years ago. A significant relationship does not exist between community size and the incidence of service improvements (see Table 22).

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1 Based upon responses to Question 19 (a & b).

TABLE 19

COST OF SPECIAL RECEPTION EQUIPMENT

	Region					
	Atlantic	Quebec	Ontario	Prairies	B.C.	National
$1-$50	54.1% (113)	28.5% (96)	12.4% (31)	33.3% (105)	41.6% (67)	30.3% (311)
$51-$100	20.1 (42)	27.3 (92)	14.8 (37)	26.0 (82)	24.8 (40)	22.5 (231)
$101-$250	16.3 (34)	25.8 (87)	23.2 (58)	22.9 (72)	21.1 (34)	22.8 (234)
$251-$500	8.1 (17)	12.5 (42)	34.4 (86)	10.2 (32)	7.5 (12)	16.4 (169)
Over $500	1.4 (3)	5.9 (20)	15.2 (38)	7.6 (24)	5.0 (8)	8.1 (83)
TOTAL	**100.0** **(209)**	**100.0** **(337)**	**100.0** **(250)**	**100.0** **(315)**	**100.0** **(161)**	**100.0** **(1028)**
Average ($)	$106.32	$170.47	$318.76	$177.07	$141.09	$197.68

Note: The upper figure refers to the percentage of the column total and the lower figure (in parenthesis) to the actual number of households. As the sample was weighted for the national analysis, in order to correct for disproportionate regional sampling, the national and regional analyses are based on different sample sizes (see Section A.5.3 for more details).

TABLE 20

COST OF SPECIAL RECEPTION EQUIPMENT

	Size of Community		
	less than 1,000	1,000 to 2,499	National
$1-$50	29.6% (272)	36.6% (37)	30.3% (311)
$51-$100	23.2 (214)	18.6 (19)	22.5 (231)
$101-$250	22.8 (210)	22.6 (23)	22.8 (234)
$251-$500	16.6 (153)	13.8 (14)	16.4 (169)
Over $500	7.9 (72)	8.5 (9)	8.1 (83)
TOTAL	**100.0** **(921)**	**100.0** **(102)**	**100.0** **(1028)**
Average ($)	$199.55	$178.85	$197.68

Note: The upper figure refers to the percentage of the column total and the lower figure (in parenthesis) to the actual number of households. As the sample was weighted for the national analysis, in order to correct for disproportionate regional sampling, the national and community size analyses are based on different sample sizes (see Section A.5.3 for more details).

TABLE 21

INCIDENCE OF SERVICE IMPROVEMENT

	Region					
	Atlantic	Quebec	Ontario	Prairies	B.C.	National
Yes	18.9% (101)	16.4% (95)	12.2% (60)	26.9% (142)	28.6% (127)	19.2% (381)
No	81.1 (434)	83.6 (485)	87.9 (434)	73.1 (386)	71.4 (317)	80.8 (1608)
TOTAL	**100.0 (535)**	**100.0 (580)**	**100.0 (494)**	**100.0 (528)**	**100.0 (444)**	**100.0 (1989)**
Average Number of Months Since Improvement	29.2	34.2	36.8	37.5	30.8	34.2

Note: The upper figure refers to the percentage of the column total and the lower figure (in parenthesis) to the actual number of households. As the sample was weighted for the national analysis, in order to correct for disproportionate regional sampling, the national and regional analyses are based on different sample sizes (see Section A.5.3 for more details).

TABLE 22

INCIDENCE OF SERVICE IMPROVEMENT

	Size of Community		
	less than 1,000	1,000 to 2,499	National
Yes	18.7% (324)	22.3% (59)	19.2% (381)
No	81.3 (1410)	77.7 (205)	80.8 (1608)
TOTAL	**100.0** **(1735)**	**100.0** **(264)**	**100.0** **(1989)**
Average Number of Months Since Improvement	33.3	39.7	34.2

Note: The upper figure refers to the percentage of the column total and the lower figure (in parenthesis) to the actual number of households. As the sample was weighted for the national analysis, in order to correct for disproportionate regional sampling, the national and community size analyses are based on different sample sizes (see Section A.5.3 for more details).

2.2 Motivations

2.2.1 Motivations for Using a Television Set

2.2.1.1 Index for Each Motivation

In Canada, **entertainment** received the highest average score as a motivation for using a television[1]. **The news** and **information** were respectively the second and third most important underlying motives for using a TV. Although in each region, each motivation generally retains the same position as in the national results, the relative importance across the regions fluctuates to some extent (see Table 23). For example, entertainment is relatively more important in Ontario than in the other regions, and less so in Quebec. Households in both small and large rural communities follow the national pattern with essentially no differences between them (see Table 24). It should also be noted that a small proportion of respondents indicated that they use a television because they are handicapped or cannot get out (13 respondents, or 0.6% of the sample), or in order to watch religious programs (8 respondents, or 0.4% of the sample).

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1 The question used to gather this data (question 16) was open, that is, respondents were providing "top-of-mind" awareness.

TABLE 23

INDEX[1] FOR EACH MOTIVATION FOR USING A TELEVISION

	Region					
	Atlantic	Quebec	Ontario	Prairies	B.C.	National
Entertainment	2.1	2.0	2.5	2.4	2.4	2.2
The News	1.6	1.5	1.5	1.7	1.6	1.6
Information	0.7	1.0	0.6	0.8	0.7	0.8
Education (for children)	0.3	0.3	0.3	0.3	0.2	0.3
To Kill/Pass Time	0.3	0.5	0.2	0.1	0.1	0.3
Education (for adults)	0.2	0.3	0.2	0.2	0.2	0.2
To Keep Me Company	0.2	0.1	0.1	0.1	0.1	0.1
Keeps Children Quiet	0.1	0.1	0.1	0.1	0.04	0.1

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1 Mean score for each motivation. The higher the score, the more important the reason. This score was constructed by giving a score of 3 for first mention, 2 for second mention, and 1 for third mention.

TABLE 24

INDEX[1] FOR EACH MOTIVATION FOR USING A TELEVISION

	Size of Community		
	less than 1,000	1,000 to 2,499	National
Entertainment	2.2	2.4	2.2
The News	1.6	1.5	1.6
Information	0.8	0.7	0.8
Education (for children)	0.3	0.3	0.3
To Kill/Pass Time	0.3	0.3	0.3
Education (for adults)	0.2	0.2	0.2
To Keep Me Company	0.1	0.1	0.1
Keeps Children Quiet	0.1	0.1	0.1

1 Mean score for each motivation. The higher the score, the more important the reason. This score was constructed by giving a score of 3 for first mention, 2 for second mention, and 1 for third mention.

2.2.1.2 Correlates

In order to profile those households which use a television for each of the eight major motivations, a statistical measure was computed to measure the degree of association between each motivation and various household characteristics. The results for rural Canada indicate that a number of the correlates were significant, although the strength of the relationships are generally low (as indicated by the Pearson Correlation Coefficient).

From these results, the following observations may be made:

i) respondents who use their television mainly for **entertainment** tend to:

- **have a higher household income.** Relatively more respondents who mentioned entertainment, than those who did not, earn $25,000 a year or more (22.9% vs 15.6%).
- **be younger.** A larger proportion of these respondents are under 45 years of age (50.5% vs 40.3%).
- **speak English most often at home.** Comparatively more respondents who mentioned entertainment speak English most often (71.2% vs 50.3%).

ii) those who indicated using their television in order to watch **the news** were more likely to:

- **have lived in their present home for a longer period.** Relatively more respondents who mentioned the news, than those who did not, have lived in their

home more than ten years (49.5% vs 35.2%).

- have **fewer people in their household.** A larger proportion of these respondents have only one or two people in their home (38.5% vs 26.4%).

- have **fewer children at home.** The majority of these households have no children at home (59.0% vs 41.7%).

- be **older.** More of these respondents, than those who did not mention the news, are over 44 years of age (56.4% vs 36.0%).

- speak **English most often at home.** Comparatively more of these respondents speak English most often (70.4% vs 65.9%).

- be **men.** A larger proportion of those respondents who mentioned the news are men (50.0% vs 43.3%).

- be **farmers or retired.** Relatively more of these respondents are farmers (11.4% vs 8.2%), or retired (14.0% vs 7.3%).

iii) respondents who watch TV for **information** (news, talk shows, documentaries, etc.) tend to:

- **speak French most often at home.** A larger proportion of the respondents who mentioned information, than of those who did not, speak French most often (32.3% vs 26.6%).

- **live in a single, semi-detached or row house.** Almost all (95.6%) of these households are singles, semi-detached or row houses.

iv) the results indicate that those who mentioned using a television for **child education** are more likely to:

- **have lived in their present home for a shorter period.** Relatively more of the

respondents who mentioned child education, than of those who did not, have lived in their present home no more than five years (53.6% vs 34.0%).

- **be younger.** Approximately twice as many of these respondents are under 35 years of age (58.2% vs 24.7%).

- **have more people in their household.** Almost all (96.9%) of these respondents have more than two people in their home, compared to just over half (58.9%) of those who did not mention child education.

- **have more children at home.** Relatively more of these respondents have three or more children at home (26.7% vs 7.0%).

- **have a higher education.** A larger proportion of the respondents who mentioned child education, than those who did not, attended college or university (25.5% vs 15.9%).

- **be a homemaker.** Comparatively more of these respondents are homemakers (46.5% vs 34.9%).

- **not be retired.** Relatively fewer of the respondents who mentioned child education are retired (1.0% vs 14.2%).

- **be married.** Almost all (95.2%) of these respondents are married.

- **be women.** A larger proportion of these respondents are women (60.9% vs 50.2%).

v) respondents who mentioned using their television to **"kill or pass time"** tend to:

- **live closer to the nearest city.** Relatively fewer of these respondents live 30 miles or more from the nearest city (30.8% vs 51.4%).

- **have a lower household income.** A larger proportion of the respondents who

mentioned "passing time", than of those who did not, earn less than $12,500 a year (47.0% vs 33.7%).

- **have less education.** Almost all (91.1%) of these respondents did not go beyond high school.

- **be retired or unskilled labourers.** Relatively more of these respondents are retired (17.3% vs 11.2%), or unskilled labourers (10.8% vs 6.9%).

- **speak French most often at home.** Over twice as many respondents who mentioned this motivation, as those who did not, speak French most often (57.5% vs 24.6%).

vi) those respondents who use their television for **adult education** are more likely to **speak French most often at home.** A larger proportion of these respondents, than of those who did not mention this motive, speak French most often (37.8% vs 27.9%).

vii) this analysis suggests that respondents who use a television to **keep them company** tend to:

- **have fewer people in their household.** Almost twice as many of these respondents, as those who did not mention this reason, have only one or two people in their home (58.4% vs 32.7%).

- **have less education.** Comparatively more of these respondents did not go beyond high school (92.0% vs 82.0%).

- **be homemakers or retired.** Larger proportions of the respondents who are motivated by this reason are homemakers (41.7% vs 36.2%), or retired (20.4% vs 11.2%).

- **not be married.** Proportionately fewer of these respondents are married (63.9% vs 88.4%).

- be **women.** Relatively more of these respondents are women (59.8% vs 51.1%).

viii) of those respondents who indicated that they use their television to **keep their children quiet**, it was found that they are more likely to:

- **have lived in their present home for a shorter period.** Over half (58.2%) of these respondents have been in their home less than six years (versus 36.0% of those who did not mention this reason).
- **be younger.** Twice as many respondents who mentioned keeping children quiet, as those who did not, are under 35 years of age (57.5% vs 28.5%).
- **have more people in their household.** Relatively more these respondents have five or more people in their home (44.2% vs 21.7%).
- **have more children at home.** Approximately three times as many of these respondents have three or four children at home (24.7% vs 8.7%).
- **be homemakers.** Almost half (42.1%) of these respondents are homemakers.
- **live in an apartment or duplex/triplex/quadruplex.** In relative terms, more of these respondents live in apartments (7.4% vs 2.8%).

The same analysis was undertaken at the regional and community size levels. The results are presented in the following pages.

In the **Atlantic Region** it was found that:

i) respondents who use a television for **entertainment** are more likely to:

- have lived in their present home for a shorter period. Comparatively more of those respondents who mentioned entertainment, than those who did not, have lived in their current home less than six years (30.8% vs 17.7%).
- have a higher household income.
- be younger.
- have more education.
- speak English most often at home. A larger proportion of these respondents speak English most often (86.8% vs 65.8%).

ii) those who use their television in order to watch the news tend to:

- live further from the nearest city.
- be older. Relatively more of the respondents who mentioned the news, than those who did not, are over 44 years of age (58.7% vs 41.8%).
- have less special reception equipment.
- have fewer people in their household. A larger proportion of these respondents have only one or two people in their home (34.8% vs 21.4%).
- have fewer children at home. In fact, over half (54.2%) of the respondents who mentioned this motivation (vs 38.4% of those who did not), have no children at home.
- speak English most often at home. Comparatively more of these respondents speak English most often (86.1% vs 78.0%).

iii) respondents who indicated that they use their television for information are more likely to:

- be more physically isolated.

- **have lived in their present home for a longer period.** Over half (57.8%) of these respondents have lived in their home for more than ten years (versus 44.5% of those who did not mention this motivation).

- **live further from the nearest city.**

- **be older.** A larger proportion of these respondents are over 44 years of age (63.5% vs 47.0%).

- **have fewer children at home.** In fact, the majority of these respondents have no children at home (59.2% vs 42.9%).

iv) those households where the television is used for **child education** tend to have respondents who:

- **have lived in their home for a shorter period of time.** Relatively more of the respondents who mentioned child education, than of those who did not, have lived in their home less than six years (40.0% vs 26.6%).

- **are younger.** Approximately twice as many respondents who mentioned this motivation, as those who did not, are under 35 years of age (47.2% vs 23.3%).

- **are more educated.**

- **have more people in their household.** Almost all (98.9%) of these households have at least three people, compared to 63.2% of those who did not mention child education.

- **have more children at home.** While over half (58.4%) of the respondents who did not mention this motive have no children at home, almost all (94.4%) of those who did have at least one child at home.

- **are married.** A larger proportion of these respondents are married (96.7% vs 83.2%).

v) those who use their television to **kill or pass time** are more likely to:

- **be less physically isolated.**
- **live closer to the nearest city.** Relatively more of these respondents live less than 30 miles from the nearest city (47.1% vs 16.1%).
- **have less education.**
- **have more special TV reception equipment.** A larger proportion of these respondents own special equipment (74.3% vs 52.8%).
- **have more colour television sets.** Almost half as many respondents who mentioned this motivation, as those who did not, do not have a colour TV (14.3% vs 27.8%).
- **have fewer black and white television sets.** A larger proportion of these respondents do not have a black and white set (61.4% vs 46.5%).
- **be retired, unemployed, or unskilled labourers.** Relatively more of these respondents are retired (22.9% vs 15.9%), unemployed (11.4% vs 4.8%), or unskilled labourers (15.7% vs 9.0%).
- **speak French most often at home.** Comparatively more of these respondents speak French most often (44.3% vs 12.0%).

vi) respondents who indicated they use their television **for adult education** tend to:

- **receive more television channels.** A larger proportion of these respondents receive at least three channels (69.1% vs 49.8%).
- **speak French most often at home.** Relatively more of the respondents who mentioned adult education, than those who did not, speak French most often (32.8% vs 14.3%).

vii) those who use their television to **keep them company** are more likely to:

- **have lived in their present home for a longer period.**
- **have fewer people in their household.** In relative terms, more of these respondents have only one or two people in their home (49.1% vs 28.5%).
- **have fewer children at home.**

viii) in cases where the television is used in order to **keep children quiet**, respondents tend to:

- **have lived in their present home for a shorter period.** A larger proportion of these respondents have lived in their home less than six years (50.0% vs 27.3%).
- **be younger.** Relatively more of the respondents who mentioned this motivation, than those who did not, are under 35 years of age (41.7% vs 26.3%).
- **have more people in their household.** Over three times as many of these respondents have five or more people in their home (69.4% vs 22.7%).
- **have more children at home.** While over half (53.0%) of those who did not mention this reason have no children, all of those who did have at least one child.

The results of this analysis indicate that in the **Quebec Region:**

i) those respondents who use their television for **entertainment** tend to:

- **have a higher household income.**
- **be younger.** Relatively more of these respondents, than of those who did not

mention entertainment, are under 35 years of age (35.0% vs 25.3%).

- **consider their way of life to be urban.**

- **be men.** A larger proportion of these respondents are men (50.8% vs 38.1%).

ii) respondents who indicated that they use their television in order to watch **the news** are more likely to:

- **have lived in their present home for a longer period.** While approximately half (51.0%) of these respondents have lived in their present home for more than ten years, this is true of only one third (33.2%) of those who did not mention this motivation.

- **be older.** Relatively more of these respondents are over 44 years of age (55.0% vs 30.5%).

- **be less educated.**

- **receive fewer television channels.** A larger proportion of these respondents receive less than five channels (60.9% vs 43.7%).

- **have fewer children at home.** In fact, relatively more of these respondents have no children at home (58.5% vs 38.5%).

- **consider their way of life to be rural.**

- **be retired or unemployed.** A larger proportion of these respondents are retired (13.7% vs 6.4%), or unemployed (5.1% vs 3.2%).

iii) those who use their television in order to gain **information** tend to:

- **be more educated.** A larger proportion of the respondents who mentioned information, than of those who did not, attended

college or university (15.6% vs 8.8%).

- **be living in a single, semi-detached or row house.** Relatively more of these respondents live in these types of dwellings (94.5% vs 88.7%).

iv) respondents whose motivation for using a television is **child education** are more likely to:

- **have lived in their present home for a shorter period.** A larger proportion of the respondents who mentioned this motivation, than of those who did not, have lived in their home less than six years (57.8% vs 37.9%).

- **have more people in their household.** Relatively more of these respondents have five or more people in their home (40.0% vs 24.0%).

- **have more children at home.** While the majority (60.8%) of respondents who did not mention this reason have no children at home, very few (4.4%) of those who did mention this motive have no children.

- **be younger.** Over twice as many of these respondents are under 35 years of age (67.8% vs 27.4%).

- **be more educated.**

- **be women.** A larger proportion of these respondents are women (63.3% vs 48.8%).

- **be homemakers.** Relatively more of these respondents are homemakers (56.7% vs 35.8%).

v) **those respondents who indicated that they use their television in order to pass the time** tend to:

- **have lived in their present home for a longer period of time.** Comparatively more

of these respondents have lived in their current home for more than ten years (52.6% vs 42.6%).

- **have a lower household income.** A larger proportion of these households earn less than $12,500 a year (50.3% vs 37.0%).

- **be older.** Relatively more of the respondents who mentioned this motivation, than those who did not, are over 44 years of age (57.1% vs 43.4%).

- **be less educated.** A larger proportion of these respondents did not go beyond high school (93.5% vs 85.5%).

- **have fewer children at home.** While the majority (61.0%) of these respondents do not have any children at home, this is true for less than half (48.8%) of those who did not mention this reason.

- **be retired or unskilled labourers.** Relatively more of these respondents are retired (16.9% vs 9.4%), or unskilled labourers (11.0% vs 7.5%).

vi) respondents who use their television for **adult education** are more likely to:

- **be more educated.**

- **receive more television channels.** Over half (57.5%) of these respondents receive five or more channels (versus 42.4% of those who did not mention this motive).

- **be professionals.** A relatively larger proportion of these respondents are professionals (9.9% vs 2.9%).

vii) **those who indicated that they use their TV to keep them company** tend to:

- **have fewer people in their household.** Over twice as many of these respondents have only one or two people in their home (58.3% vs 27.5%).
- **have fewer children at home.** In fact, a larger proportion of these respondents have no children at home (72.9% vs 50.2%).
- **be older.**
- **be less educated.**
- **be widowed.** While most (66.7%) of these respondents are married, a relatively larger proportion, than of those who did not mention this motive, are widowed (20.8% vs 4.3%).

viii) respondents who use their television to **keep their children quiet** are more likely to:

- **have lived in their present home for a shorter period.**
- **have more people in their household.** Relatively more of these respondents have five or more people in their home (39.1% vs 25.9%).
- **have more children at home.** While over half (54.2%) of the respondents who did not mention this motive have no children at home, none of those who did mention this reason have no children.
- **be younger.** Over twice as many of these respondents are under 35 years of age (69.6% vs 32.1%).
- **receive more television channels.**

In the **Ontario Region**, the results of this analysis suggest that:

i) those respondents who use their television for **entertainment** tend to:

- **have a higher household income.** Relatively more of these respondents earn $17,500 a year or more (49.6% vs 29.6%).

ii) those who indicated that they use their television in order to watch **the news** were more likely to:

- **have lived in their present home for a longer period of time.** A larger proportion of these respondents have been in their current home for more than ten years (46.1% vs 31.5%).
- be **older.** While over half (53.5%) of these respondents are over 44 years of age, this is only true for one third (33.6%) of those who did not mention this motive.
- **have fewer people in their household.** Relatively more of these respondents have only one or two people in their home (39.9% vs 27.4%).
- **have fewer children at home.** In fact, over half of these respondents have no children at home (62.4% vs 42.5%).

iii) using a television in order to gain **information** was not significantly related to any household characteristics.

iv) respondents who use their television for **child education** tend to:

- **have lived in their present home for a shorter period.** Almost twice as many of these respondents, compared to those who did not mention this reason, have lived in their present home less than six years (59.8% vs 34.5%).

- **be younger.** Over twice as many of these respondents are under 35 years of age (63.5% vs 25.9%).

- **receive more television channels.**

- **have more people in their household.** Relatively more of these respondents have five or more people in their home (40.2% vs 17.4%).

- **have more children at home.** While the majority (66.1%) of those who did not mention this motive do not have any children at home, this is true of only 11.5% of those who did mention this reason.

- **be labourers.** A larger proportion of these respondents are skilled labourers (27.6% vs 18.5%), or unskilled labourers (13.8% vs 7.1%).

- **be married.** Almost all (93.1%) of these respondents are married (vs 82.3% of those who did not mention this reason).

v) those who use their television in order to **pass the time** are more likely:

- **not to speak English most often at home.** A smaller proportion of these respondents speak English most often (81.6% vs 93.9%).

vi) **adult education** as a motivation for using a television was not significantly related to any household characteristics.

vii) respondents who are motivated to use their television to **keep them company** tend to:

- **have fewer people in their household.** Almost twice as many of the respondents who mentioned this reason, as those who did not, have only one or two people in their home (61.2% vs 33.5%).

- **be widowed.** While the majority (61.2%) of these respondents are married, a comparatively larger proportion are widowed (24.5% vs 5.4%).

viii) those who mentioned using the television to **keep their children quiet** are more likely to:

- **have lived in their present home for a shorter period of time.** A relatively larger proportion of the respondents who mentioned this reason, than of those who did not, have lived in their current home less than six years (64.7% vs 37.0%).
- **be younger.** Over twice as many of these respondents (proportionately) are under 35 years of age (67.7% vs 29.8%).
- **have more people in their household.** Relatively more of these households have five or more people (38.2% vs 20.2%).
- **have more children at home.** While the majority (60.2%) of those who did not mention this reason have no children at home, this is true of only 5.9% of those who did mention this reason.
- **rent their home.** A relatively larger proportion of these respondents rent their home (29.4% vs 13.0%).
- **be married.** Comparatively more of these respondents are married (94.1% vs 83.5%).

The results found in the **Prairie Region** indicate that:

i) those respondents who use their television for **entertainment** tend to:

- **have lived in their present home for a shorter period of time.**
- **be younger.**

- **have a larger household size.**
- **have more children at home.**
- **be more educated.**
- **receive fewer television channels.**
- **speak English most often at home.** Relatively more of the respondents who mentioned entertainment, than those who did not, speak English most often (95.4% vs 80.0%).

ii) respondents who indicated that their motivation for using their TV was in order to watch **the news** are more likely to:

- **have lived in their present home for a longer period of time.**
- **have fewer household members.** Relatively more of these respondents have only one or two people in their home (41.0% vs 29.8%).
- **have fewer children at home.** A larger proportion of these households have no children in residence (57.6% vs 44.7%).
- **have a lower household income.** Comparatively more of these respondents earn less than $17,500 a year (48.2% vs 36.0%).
- **be older.** While the majority (58.4%) of these respondents are over 44 years of age, this is true of only 40.4% of those who did not mention the news.
- **be less educated.**
- **own their home.** A larger proportion of these respondents own their home (92.5% vs 85.1%).
- **be retired.** Relatively more of these respondents are retired (11.8% vs 2.6%).

- **not be homemakers.** A comparatively smaller proportion of these respondents are homemakers (34.7% vs 45.6%).

iii) those who use their television in order to gain **information** tend to:

- **have fewer children at home.** While the majority (64.2%) of these respondents have no children at home, this is true for only 45.2% of those who did not mention this reason.

iv) respondents who use their television for child **education** are more likely to:

- **have lived in their present home for a shorter period of time.** Relatively more of these respondents have lived in their current home five year or less (47.5% vs 29.5%).

- **have more children at home.** While most (92.5%) of these respondents have at least one child at home, the majority (63.3%) of those who did not mention this reason have no children at home.

- **be younger.** A larger proportion of these respondents are under 35 years of age (55.0% vs 21.9%).

- **be more educated.** Comparatively more of the respondents who mentioned child education, than those who did not, went beyond high school (38.8% vs 16.9%).

- **have more special reception equipment.** A larger proportion of these respondents have special equipment (93.7% vs 82.3%).

- **be a homemaker.** Relatively more of these respondents are homemakers (48.8% vs 35.0%).

- **be married.** Most (97.5%) of these respondents are married (versus 84.2% of those who did not mention this motive).

- **be women.** A larger proportion of these respondents are women (63.8% vs 48.3%).

v) those who indicated that they use their television in order to **pass the time** are more likely to:

- **be widowed.** While most (84.1%) of these respondents are married, a comparatively larger proportion are widowed (9.1% vs 6.6%).

vi) in the Prairie Region, **adult education** as a motivation for using a TV was not significantly related to any household characteristics.

vii) respondents who use their television to **keep them company** tend to:

- **have fewer people in their household.** The majority (63.3%) of these respondents have only one or two people in their home, whereas this is true for only 36.0% of those who did not mention this motivation.
- **have a lower household income.**
- **be less educated.** A relatively larger proportion of these respondents did not go beyond high school (91.8% vs 78.5%).
- **be retired.** Comparatively more of these respondents are retired (18.4% vs 9.0%).
- **be widowed.** A larger percentage of these respondents are widowed (28.6% vs 4.6%).

viii) those who indicated that they use their television to **keep their children quiet** are more likely to:

- **have lived in their present home for a shorter period of time.** While over half (55.2%) of those who mentioned this reason have lived in their current home less than

six years, this is the case for less than one third (30.9%) of those who did not mention this motive.

- **be younger.** Approximately twice as many of these respondents are under 35 years of age (51.7% vs 25.5%).

- **have more household members.** A larger proportion of these respondents have more than four people in their home (27.6% vs 19.0%).

- **have more children at home.** While over half (57.6%) of those who did not mention this reason have no children at home, almost all (93.1%) of those who did, have at least one child in the house.

In the **British Columbia Region** the results of this analysis suggest that:

i) those respondents who use their television for **entertainment** are more likely to:

- **rent their home.**

ii) respondents who indicated that they use their TV in order to watch **the news** tend to:

- **have lived in their present home for a longer period of time.** A larger proportion of these respondents have lived in their current home for more than ten years (32.1% vs 20.0%).

- **own their home.** Comparatively more of these respondents own their home (89.1% vs 78.5%).

- **be older.** Relatively more of those who mentioned this reason, than of those who did not, are over 44 years of age (57.7% vs 40.3%).

- **have fewer household members.**

- **have fewer children at home.** The majority (65.1%) of these respondents (versus 51.1% of those who did not mention this reason), have no children at home.

- **be married.** Relatively more of these respondents are married (89.7% vs 80.0%).

- **be men.** A larger proportion of the respondents who mentioned the news, are men (53.9% vs 38.5%).

iii) gaining **information** (as a motivation for using a television), was not significantly related to any household characteristics.

iv) those who use their TV for **child education** are more likely to:

- **have lived in their present home for a shorter period of time.** While almost three quarters (72.7%) of the respondents who mentioned this reason have lived in their home less than six years, this is true for less than half (49.0%) of those who did not.

- **be younger.** A larger proportion of these respondents are under 35 years of age (43.6% vs 24.4%).

- **be more educated.**

- **have more people in their household.** Relatively more of these households have five or more members (38.2% vs 16.1%).

- **have more children at home.** Almost all (92.7%) of these respondents have at least one child at home, whereas the majority (68.4%) of those who did not mention this reason have no children.

- **receive more television channels.** A larger proportion of these respondents receive at least five channels (64.4% vs 41.5%).

v) using a television to **pass the time** was not significantly related to any household characteristics.

vi) respondents who indicated that they use their television for **adult education** tend to:

- **live closer to the nearest city.** A smaller proportion of these respondents live 30 miles or more from the nearest city (27.1% vs 42.1%).
- **receive more television channels.** Relatively more of the respondents who mentioned adult education, than of those who did not, receive at least five channels (63.5% vs 41.2%).

vii) those who are motivated to use their TV to **keep them company** are more likely to:

- **not be married.** In relative terms, fewer of these respondents are married (68.0% vs 87.9%).

viii) respondents who use a television in order to **keep their children quiet** tend to:

- be **younger.**
- **have more household members.**
- **have more children at home.**

In **small communities** the following conclusions may be drawn from this analysis:

i) those respondents who indicated that they use their television for **entertainment** are more likely to:

- **have a higher household income.**

- **be younger.** A larger proportion of the respondents who mentioned entertainment, than of those who did not, are under 45 years of age (50.0% vs 41.0%).

- **speak English most often at home.** Relatively more of these respondents speak English most often (72.5% vs 51.4%).

ii) those who use their television in order to watch **the news** tend to:

- **have lived in their present home for a longer period.** A larger proportion of respondents who mentioned this motive, than of those who did not, have lived in their home for more than ten years (50.7% vs 35.6%).

- **be older.** Relatively more of these respondents are over 44 years of age (56.9% vs 36.2%).

- **have fewer children at home.** In fact, the majority (58.3%) of these respondents have no children at home.

- **be retired or farmers.** A larger percentage of these respondents are retired (13.3% vs 7.2%), or farmers (12.7% vs 9.1%).

- **speak English most often at home.** In relative terms, more of these respondents speak English most often (71.5% vs 66.9%).

- **be men.** Comparatively more of these respondents are men (49.5% vs 46.5%).

iii) respondents who watch television so that they may gain **information** are more likely to:

- **speak English most often at home.** Relatively more of the respondents who mentioned information, than those who did not, speak English most often (72.5% vs 51.4%).

- **live in a single, semi-detached, or row house.** A larger proportion of these respondents live in these types of dwellings (95.8% vs 93.7%).

iv) those who are motivated to use their TV for **child education** tend to:

- **have lived in their present home for a shorter period.** Over half (54.1%) of those who mentioned this reason have lived in their current home less than six years, whereas this is true for only one third (33.0%) of those who did not mention this motive.

- **be younger.** Over twice as many of these respondents are under 35 years of age (58.2% vs 24.0%).

- **be more educated.** Relatively more of these respondents went beyond high school (25.3% vs 15.8%).

- **have more household members.** A larger proportion of these households have five or more members (36.4% vs 20.6%).

- **have more children at home.** While the majority (62.6%) of those who did not mention this reason have no children at home, almost all (92.0%) of those who did have at least one child.

- **be homemakers.** A relatively larger proportion of these respondents are homemakers (48.3% vs 35.1%).

- **be married.** In relative terms, more of these respondents are married (95.1% vs 84.8%).

- **be women.** Comparatively more of the respondents who mentioned child education are women (62.4% vs 50.2%).

v) respondents who use their television in order to **pass the time** are more likely to:

- **live closer to the nearest city.** A larger proportion of these respondents live less than 30 miles from the nearest city (69.2% vs 49.1%).

- **have a lower household income.** Relatively more of the respondents who mentioned this reason, than those who did not, earn less than $12,500 a year (45.9% vs 33.3%).

- **be less educated.** A larger percentage of these respondents did not go beyond high school (90.9% vs 81.4%).

- **speak French most often at home.** Over twice as many of these respondents speak French most often (57.0% vs 23.8%).

vi) those who indicated that they use their television for **adult education** tend to:

- **be less likely to speak English most often at home.** A relatively smaller proportion of the respondents who mentioned adult education, than of those who did not, speak Enlgish most often (61.9% vs 71.5%).

vii) respondents who use their television to **keep them company** are more likely to:

- **have fewer people in their home.** A larger proportion of these respondents have only one or two people in their home (58.9% vs 31.9%).

- **be less educated.** Relatively more of these respondents did not go beyond high school (92.0% vs 81.7%).

- **be homemakers or retired.** Comparatively more of these respondents are homemakers (42.3% vs 36.7%), or retired (20.3% vs 10.7%).

- **be widowed or single.** In relative terms, more of these respondents are widowed (23.7% vs 4.6%), or single (7.9% vs 4.6%).

viii) those who indicated that they use their television to **keep their children quiet** tend to:

- **have lived in their present home for a shorter period of time.** A larger proportion of the respondents who mentioned this reason, than those who did not, have lived in their current home less than six years (57.2% vs 35.2%).

- **be younger.** Approximately twice as many of these respondents are under 35 years of age (56.5% vs 27.9%).

- **have more household members.** Relatively more of these respondents have more than four people in their home (46.5% vs 21.9%).

- **have more children at home.** While the majority (56.6%) of those who did not mention this reason have no children at home, almost all (95.6%) of those who did have at least one child in the house.

- **be homemakers or unskilled labourers.** Comparatively more of these respondents are homemakers (40.6% vs 37.0%), or unskilled labourers (12.9% vs 6.7%).

- **not be retired or farmers.** Smaller percentages of those who mentioned this reason are retired (1.5% vs 12.1%), or farmers (7.0% vs 12.0%).

The following observations were noted with regard to **large communities:**

i) those respondents who mentioned **entertainment** were found to be more likely to:

- **have lived in their home for a shorter period of time.**

- **have a higher household income.**

- be **younger.**

ii) respondents who mentioned using their television in order to watch the **news** tend to:

- **be older.** Relatively more of those who mentioned this reason, than those who did not, are over 44 years of age (52.7% vs 35.0%)
- **have fewer household members.** Almost twice as many of these respondents have only one or two people in their home (44.3% vs 24.8%).
- **have fewer children at home.** In fact, the majority of these respondents have no children at home (63.1% vs 37.0%).

iii) those who use their TV to gain **information** are more likely to:

- **have fewer black and white TV sets.** Relatively more of these respondents do not own a black and white TV (61.5% vs 44.4%).

iv) respondents who mentioned **child education** were found to be more likely to:

- **have lived in their present home for a shorter period of time.**
- **have a higher household income.**
- **be more educated.**
- **be younger.** While the majority (58.5%) of the respondents who mentioned child education are under 35 years of age, this is true for less than a third (29.9%) of those who did not mention this reason.
- **have more household members.** Over twice as many of these respondents have five or more people in their home (41.1% vs 17.7%).

- **have more children at home.** Almost all (96.8%) of these respondents have at least one child at home (versus 35.5% of those who did not mention this reason).

v) those who indicated that they use their television to **pass the time** tend to:

- **have lived in their present home for a longer period of time.**
- **be older.**
- **have a lower household income.**
- **be less educated.**
- **have more special TV reception equipment.**
- **live closer to the nearest city.** A larger proportion of these respondents live less than 30 miles from the nearest city (69.0% vs 44.6%).
- **be less physically isolated.** Relatively more of these respondents are less isolated than is the average for large rural communities (69.4% vs 48.3%).
- **speak French most often at home.** Approximately twice as many of these respondents speak French most often (60.1% vs 30.3%).

vi) respondents who mentioned using their television for **adult education** are more likely to:

- **receive more television channels.**
- **live in a duplex or apartment.** In relative terms, more of these respondents live in a duplex or an apartment building (24.7% vs 7.0%).

vii) those who indicated that they use their television to **keep them company** tend to:

- have lived in their present home for a longer period of time.
- be less educated.
- have fewer household members.
- have fewer children in their home.
- not be married. A smaller proportion of these respondents are married (59.6% vs 86.1%).

viii) respondents who mentioned keeping their children quiet are more likely to:

- have lived in their present home for a shorter period of time.
- be younger.
- have more household members.
- have more children at home.
- be more educated.
- have more black and white TV sets.

2.2.2 Reasons for Not Having a Television Set[1]

2.2.2.1 Index for Each Reason

As discussed earlier (refer to Section 2.1.1 Number of Television Sets) very few (2.3%) rural households in Canada do not own a television set. It is therefore not surprising that few reasons for not using a TV were

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1 The question used to gather this data (question 15) was open, that is, respondents were providing "top-of-mind" awareness.

provided. Of those which were provided, the most often mentioned reasons were, in order: **"do not watch TV/not interested"**, **"dislike the programs"**, and that a TV is **"too expensive"**. In view of the small number of responses to this question, it could be misleading to evaluate any apparent regional or community size differences. The data is, however, provided in tabular form for the reader's interest (see Tables 25 and 26).

TABLE 28

SATISFACTION WITH SERVICE ATTRIBUTES[1]

	Size of Community		
	less than 1,000	1,000 to 2,499	National
Picture Quality	76.1%	76.1%	76.1%
Sound Quality	90.4	88.4	90.1
National Programming Content	55.0	52.5	54.7
Amount of Local Programming	59.8	59.3	59.7
Number of French Channels	79.9	69.8	78.4
Number of English Canadian Channels	68.4	71.7	68.9
Number of American Channels	58.6	51.2	57.7
Cost of Equipment	81.5	80.1	81.4
Reliability of Equipment	83.4	79.0	82.9
Service in General	76.6	74.9	76.5

1 Numbers indicate the percent of households "satisfied" or "very satisfied" with the attribute.

2.3.2 Correlates of Overall Satisfaction

A profile of those respondents who are satisfied with their overall television service was developed. This was accomplished by relating the level of satisfaction with service in general to a set of potential descriptor variables.

The results of this analysis at the **national** level indicate that as satisfaction with television service in general increases, so does the likelihood that respondents will:

- **be less physically isolated.** A larger proportion of those respondents who are satisfied, as opposed to those who are not, are less isolated than the national average (64.0% vs 48.9%).
- **have lived in their present home for a longer period of time.** Relatively more of those who are satisfied, than of those who are not, have lived in their home for more than ten years (48.3% vs 37.1%).
- **receive more television channels.** Approximately twice as many of these respondents receive at least five channels (40.4% vs 20.5%).
- **not speak English most often at home.** A smaller proportion of "satisfied" respondents speak English most often (67.1% vs 75.8%).

In the **Atlantic Region** it was found that the more satisfied respondents were with their overall service, the more likely it was that they would:

2.3 Satisfaction with Current Service[1]

2.3.1 Overall Satisfaction, Satisfaction with Attributes

In rural Canada the majority (76.5%) of households are satisfied (i.e. either "very satisfied" or "satisfied") with their television service in general. In fact, this is true for each aspect of service at the national level. However, in relative terms, the content of national programming, the number of American channels received, and the amount of local programming are the least satisfactory service attributes. Generally, these findings were also evident throughout the regions and in both small and large communities (see Tables 27 and 28). In British Columbia, the majority (56.5%) of rural households were dissatisfied (i.e "very dissatisfied" or "dissatisfied") with the content of national programming, and the amount of local programming (50.8%). Additionally, close to two thirds of the respondents in the Prairie region were not satisfied with the number of American channels received (61.3%), or the content of national programming (56.4%). These were, however, the only cases where a majority of households were dissatisfied with a certain aspect of their current television service.

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1 Based upon responses to Question 17.

TABLE 27

SATISFACTION WITH SERVICE ATTRIBUTES[1]

	Region					
	Atlantic	Quebec	Ontario	Prairies	B.C.	National
Picture Quality	68.1%	83.1%	80.1%	74.0%	66.0%	76.1%
Sound Quality	84.0	92.8	92.3	90.7	87.0	90.1
National Programming Content	59.7	58.9	60.1	43.6	43.5	54.7
Amount of Local Programming	51.3	56.7	63.4	69.3	49.2	59.7
Number of French Channels	80.8	65.9	84.6	93.1	88.0	78.4
Number of English Canadian Channels	67.0	78.5	77.0	57.2	61.9	68.9
Number of American Channels	50.8	69.2	64.9	38.7	59.3	57.7
Cost of Equipment	79.3	83.2	80.4	82.3	79.7	81.4
Reliability of Equipment	82.8	83.7	81.5	86.1	75.4	82.9
Service in General	72.1	80.0	82.7	74.4	61.5	76.5

1 Numbers indicate the percent of households "satisfied" or "very satisfied" with the attribute.

TABLE 25

REASONS FOR NOT USING A TELEVISION

	Region					
	Atlantic	Quebec	Ontario	Prairies	B.C.	National
Do not watch TV/Not Interested	10	2	8	6	14	27
Dislike Programs	2	0	0	8	7	10
Too Expensive to buy a TV	5	0	0	3	2	7
No Reception	1	0	0	2	6	4
Cannot watch/ Hear	1	1	1	2	0	5
No Electricity	1	0	0	3	1	4
Religious Beliefs	0	0	0	4	0	3
Poor Reception	0	0	0	1	6	4
Reception Equipment Too Expensive	0	0	0	1	1	1
No Station in Own Language	0	0	0	0	0	0

Note: The numbers presented are the total number of mentions for each reason.

TABLE 26

REASONS FOR NOT USING A TELEVISION

	Size of Community		
	less than 1,000	1,000 to 2,499	National
Do Not Watch TV/ Not Interested	25	2	27
Dislike Programs	10	1	10
Too Expensive to buy a TV	6	1	7
No Reception	4	0	4
Cannot Watch/Hear	4	1	5
No Electricity	4	0	4
Religious Beliefs	4	0	3
Poor Reception	3	0	4
Reception Equipment Too Expensive	1	0	1
No Station in Own Language	0	0	0

Note: The numbers presented are the total number of mentions for each reason.

- **be less physcially isolated.** Relatively more of those respondents who are satisfied, than of those who are not, are less isolated than is the average for the Atlantic region (63.8% vs 50.0%).

- **be older.** A larger proportion of these respondents are over 44 years of age (57.5% vs 43.8%).

- **have fewer children at home.** In fact, the majority (53.6%) of these respondents have no children at home versus 39.5% of those who are dissatisfied).

- **not have mentioned child education as a motivation for using a television.**

- **receive more television channels.** A larger proportion of the "satisfied" respondents receive at least five channels (15.4% vs 10.5%).

- **be homemakers.** Relatively more of these respondents are homemakers (41.9% vs 27.9%).

- **speak French most often at home.** In relative terms, more of these respondents speak French most often (19.1% vs 8.2%).

The results for the **Quebec Region** indicate that as satisfaction with television service in general increases, so does the probability that respondents will:

- **be less physically isolated.** Relatively more of the respondents who are satisfied, than those who are not, are less isolated than is the average for the Quebec region (64.0% vs 52.2%).

- **have lived in their present home for a longer period of time.** A larger proportion of these respondents have lived in their current home more than ten years (48.5% vs 34.8%).

- **have more special TV reception equipment.**
- **not have mentioned "information" as a motivation for using a television.** Relatively more of these respondents did not mention this reason (50.3% vs 33.3%).
- **watch television in order to pass the time.**
- **receive more television channels.** Almost twice as many of the "satisfied" respondents receive at least five channels (50.3% vs 28.0%).

In the **Ontario Region** it was found that the more satisfied respondents were with their service in general, the more likely they were to:

- **have lived in their present home for a longer period of time.** Relatively more of the respondents who are satisfied, than those who are not, have lived in their current home more than ten years (44.1% vs 32.9%).
- **have fewer people in their household.** In relative terms, more of these respondents have only one or two people in their home (38.8% vs 23.5%).
- **have a lower household income.**
- **be older.**
- **be less educated.** A relatively larger proportion of these respondents did not go beyond high school (82.7% vs 71.8%).
- **have fewer colour television sets.** Approximately half as many of these respondents have more than one colour TV set (6.7% vs 14.1% of those who are dissatisfied).
- **receive more television channels.** Almost twice as many of these respondents, than those who are dissatisfied, receive five or more channels (70.5% vs 38.4%).

The results for the **Prairie Region** suggest that as satisfaction with overall television service increases, so does the probability that respondents will:

- **have a lower household income.**
- **own their home.** In relative terms, more of those who are satisfied, than of those who are not, own their home (93.4% vs 84.4%).
- **live in a single, semi-detached or row house.** Relatively more of these respondents live in one of these types of dwellings (97.0% vs 94.8%).
- **have less special TV reception equipment.** A larger proportion of these respondents do not have any special equipment (18.5% vs 9.0%).
- **receive more television channels.**
- **not speak English most often at home.** Relatively a smaller proportion of these respondents speak English most often (92.8% vs 99.3%).

In the **British Columbia Region** the results indicate that the more likely one is to be satisfied with overall television service, the more likely one is to:

- **be less physically isolated.** While almost three quarters (72.6%) of the "satisfied" respondents are less isolated than the average for this region, this is true for less than half (46.4%) of those who are "dissatisfied".
- **have lived in their present home for a longer period of time.** Relatively more of these respondents have lived in their present home more than ten years (33.7% vs 20.7%).
- **have less special TV reception equipment.** In fact, approximately half (50.6%) of these respondents have no special equipment (as

compared to 33.9% of those who are "dissatisfied").

- **have received major service improvements.** Almost twice as many of these respondents have had their service improved (35.1% vs 18.5%).
- **receive more television channels.** Over twice as many of the "satisfied" respondents receive more than four channels (58.0% vs 23.1%).
- **consider their way of life to be urban.**
- **not be motivated to use their television to pass the time.**

In **small communities** it was found that the more satisfied respondents were with their overall service, the more likely they were to:

- **be less physically isolated.** A larger proportion of respondents who are satisfied, compared to those who are not, are less isolated than is the average for small communities (62.2% vs 47.8%).
- **have lived in the present home for a longer period of time.** In relative terms, more of these respondents have lived in their home more than ten years (49.5% vs 37.4%).
- **receive more television channels.** Over twice as many of these respondents receive at least five channels (40.4% vs 18.1%).
- **not speak English most often at home.** Relatively fewer of these respondents speak English most often (68.3% vs 77.1%).

In **large communities** the results indicate that the more likely one is to be satisfied with overall television service, the more likely one is to:

- be less physically isolated.
- have a lower household income.
- have fewer household members.
- have fewer children at home.
- not be motivated to use their television to keep their children quiet.
- receive more television channels.

2.4 Perceived Need for Improvement in Service

2.4.1 Priority Against Other Services[1]

In rural Canada, "roads and public transportation" was the service which was most strongly felt to require improvement (i.e. with the highest average score among 12 services). According to the average rating for each service, television services rank second, telephone fourth and radio broadcasting and CB/mobile radio eleventh and twelfth respectively (see Table 29).

Although the rankings are generally similar across the regions, some differences are apparent. In Quebec health/medical services ranked first, followed by roads and public transportation, and telephone service, while in the Prairies television service was first, roads second and mail service third. Finally, in British Columbia, mail service ranked the highest, with telephone service second.

Evidently the need to improve television and telephone services enjoys a high priority with the rural population. The relatively low ranking of CB/mobile radio services is due, in part, to the small user population for this service.

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1. Based upon responses to Question 1.

TABLE 29

INDEX OF PERCEIVED NEED FOR IMPROVEMENT

FOR EACH SERVICE[1]

	REGION					
	Atlantic	Quebec	Ontario	Prairies	B.C.	NATIONAL
Roads and Public Transportation	1.62	1.51	1.25	1.37	1.25	1.42
Television	1.43	0.94	0.98	1.41	1.25	1.17
Health/Medical	1.27	1.83	0.98	0.69	0.56	1.16
Telephone	0.87	1.33	1.00	0.93	1.36	1.09
Mail	0.65	0.62	0.99	1.29	1.50	0.94
Recreation and Sports Facilities	1.01	0.65	0.90	0.63	0.81	0.78
Security	0.63	0.88	0.69	0.69	0.64	0.72
Education	0.54	0.72	0.62	0.51	0.49	0.59
Electricity, Hydro	0.79	0.54	0.48	0.29	0.42	0.51
Newspaper	0.31	0.21	0.30	0.18	0.31	0.25
Radio Broadcasting	0.17	0.20	0.34	0.15	0.43	0.24
CB, Mobile Radio	0.12	0.11	0.15	0.29	0.06	0.16

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1 Mean score for each service. The higher the score, the more necessary improvements are. Since respondents were given a maximum selection of 6 services needing improvement, the score was constructed by giving a score of 6 for the first mention, 5 for second, etc., and 0 for no mention.

Households in "small" rural communities follow the national pattern with one exception; telephone service ranked third rather than fourth relative to all other services (see Table 30). In "large" communities, health/medical services, and recreation and sports facilities, received relatively higher average scores than was the case in the results for small communities.

2.4.2 Intensity of Need Relative to Telecommunication Services[1]

Examining the relative intensity of need for improvement to telecommunication services in Canada, it is apparent that the services rank in the same order as when compared to the other services (as discussed in the previous section), that is, television ranks first, telephone second, radio third and CB/mobile radio fourth (see Table 31). Across the regions, each service maintains the same rank with one exception; in the Prairies, CB/mobile radio was ranked slightly higher than radio broadcasting. Although television services rank first in each region, in the Atlantic region this service rated relatively higher than in the

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1 Based upon responses to Question 2.

TABLE 30

INDEX OF PERCEIVED NEED FOR IMPROVEMENT

FOR EACH SERVICE[1]

	SIZE OF COMMUNITY		
	Less than 1000	1000 - 2499	National
Roads and Public Transportation	1.41	1.48	1.42
Television	1.15	1.30	1.17
Health/Medical	1.11	1.49	1.16
Telephone	1.15	0.65	1.09
Mail	0.96	0.85	0.94
Recreation and Sports Facilities	0.76	0.92	0.78
Security	0.74	0.62	0.72
Education	0.59	0.61	0.59
Electricity, Hydro	0.51	0.48	0.51
Newspaper	0.24	0.34	0.25
Radio Broadcasting	0.23	0.28	0.24
CB, Mobile Radio	0.16	0.10	0.16

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1 Mean score for each service. The higher the score, the more necessary improvements are. Since respondents were given a maximum selection of 6 services needing improvement, the score was constructed by giving a score of 6 for the first mention, 5 for second, etc., and 0 for no mention.

TABLE 31

RELATIVE NEED FOR IMPROVEMENT IN TELECOMMUNICATION SERVICES[1]

	REGION					
	Atlantic	Quebec	Ontario	Prairies	B.C.	NATIONAL
Television	5.74	4.23	4.14	5.19	4.10	4.71
Telephone	2.66	4.21	3.61	3.04	3.99	3.50
Radio Broadcasting	1.16	1.48	1.66	0.87	1.65	1.34
CB, Mobile Radio	0.43	0.50	0.59	0.91	0.25	0.57

[1] Mean score for each service. The higher the score, the more necessary improvements, are relative to the other services. These scores were derived from a 10 point allocation task dealing with only these four services.

other regions while in British Columbia the reverse is true. In addition, in Quebec, television was rated at essentially the same level as telephone in terms of need for improvement.

In both small and large communities, the telecommunications services each ranked in the same order as was the case at the national level (see Table 32). However, in large communities, television services were rated slightly higher than in small communities with respect to the need for improvement in this service. This is not surprising if one recalls that households in large communities were relatively less satisfied with their overall television service (as seen in section 2.3.1).

2.4.3 Correlates of Intensity of Need for Improvement in Television Service

The association between the intensity of need for improvement in television service and various household characteristics was investigated. This was carried out in order to profile those respondents who felt this service required improvement.

The national results indicate that as the intensity of need for improvement in television services increases, so does the likelihood that respondents will:

TABLE 32

RELATIVE NEED FOR IMPROVEMENT IN TELECOMMUNICATION SERVICES[1]

	SIZE OF COMMUNITY		
	Less than 1000	1000 - 2499	National
Television	4.59	5.52	4.71
Telephone	3.61	2.68	3.50
Radio Broadcasting	1.33	1.39	1.34
CB, Mobile Radio	0.60	0.41	0.57

1 Mean score for each service. The higher the score, the more necessary improvements are, relative to the other services. These scores were derived from a 10 point allocation task dealing with only these four services.

- **be dissatisfied with television service in general.** Approximately five times as many respondents who feel television services most need improvement[1] (in relation to other communication services), than those who feel it needs no improvement, are presently dissatisfied with their service (41.8% vs 8.6%).

- **receive fewer television channels.** A relatively smaller proportion of the respondents who feel this service requires the most improvement receive five or more channels (22.4% vs 42.4%).

- **be homemakers or skilled labourers.** Relatively more of these respondents are homemakers (39.0% vs 37.0%), or skilled labourers (18.1% vs 13.6%).

- **speak English most often at home.** Comparatively, a larger proportion of those who feel this service needs the most improvement, than of those who feel it needs none, speak English most often (77.4% vs 70.3%).

In the **Atlantic Region**, it was found that as the relative importance of the need for improvement in television service increases, so does the likelihood that respondents will:

- **be dissatisfied with their overall television service.** While almost half (43.9%) of the respondents who feel this service most needs improvement are dissatisfied with their present service, this is true for less than one tenth (7.1%) of those who feel no improvement is needed.

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1 The respondents who felt television service requires improvement the most (i.e. more than the other three services), are defined to be those who allocated 8 to 10 points (from a maximum of 10) to television service.

- **have more people in their household.**
- **be labourers.** Relatively more of these respondents are skilled labourers (19.3% vs 8.7%), or unskilled labourers (10.8% vs 8.7%).
- **not be retired.** In relative terms, fewer of these respondents are retired (15.7% vs 23.0%).
- **be married.** Comparatively more of the respondents who feel this service needs the most improvement, than those who feel it needs none, are married (87.4% vs 81.1%).
- **speak English most often at home.** A larger proportion of these respondents speak English most often (89.8% vs 81.5%).

Those respondents who feel that television service in the **Quebec Region** requires the most improvement, were more likely to:

- **be dissatisfied with their television service in general.** A relatively larger proportion of the respondents who indicated that television service requires the most improvement, compared to those who indicated no improvements were necessary, are presently dissatisfied with their service (39.8% vs 6.2%).
- **receive fewer television channels.**
- **have less special TV reception equipment.**

In the **Ontario Region** the results indicate that as the need for improvement in television service increases, so does the likelihood that respondents will:

- **have lived in their present home for a shorter period of time.** While over half (53.9%) of

those who feel this service most needs improvement have lived in their current home less than six years, this is true for only 34.5% of those who feel no improvement is needed.

- **consider their way of life to be urban.**

- **be dissatisfied with television service in general.** Almost four times as many of these respondents are dissatisfied with their current service (31.6% vs 8.3%).

- **have more colour television sets.** A larger proportion of the respondents who indicated that this service needs the most improvement, than of those who feel it needs none, have two or more colour TV sets (14.1% vs 4.2%).

- **receive fewer television channels.** Relatively more of these respondents receive less than five television channels (52.9% vs 29.9%).

- **speak English most often at home.** In relative terms, more of these respondents speak English most often (96.2% vs 90.1%).

As the intensity of need for improvement in television service increases, so does the likelihood that respondents in the **Prairie Region** will:

- **be dissatisfied with their overall television service.** Approximately four times as many of the respondents who feel this service most needs improvement, as those who feel it needs no improvement, are dissatisfied with their current service (43.1% vs 11.2%).

- **have a greater number of colour television sets.**

In the **British Columbia Region**, it was found that as the relative importance of the need for improvement

in television service increases, so does the likelihood that respondents will:

- **consider their way of life to be rural.** In relative terms, more of those who indicated that the service which most needs improvement is television, than those who did not, consider their way of life rural (81.4% vs 68.0%).
- **be older.** A larger proportion of these respondents are over 44 years of age (73.5% vs 51.7%).
- **have fewer children at home.**
- **not be motivated to use their television for child education.**
- **be motivated to use their television to pass the time.**
- **receive fewer television channels.** Relatively more of these respondents receive less than five television channels (71.4% vs 43.1%).
- **be dissatisfied with television service in general.** While the majority (66.7%) of those who feel this service most needs improvement are dissatisfied with their current service, this is true for only 13.7% of those who feel no improvement is necessary.

The results for **small communities** indicate that as the intensity of need for improvement in television services increases, so does the tendency for respondents to:

- **be dissatisfied with their overall television service.** Approximately five times as many of the respondents who consider this service needs the most improvement, as those who do not, are dissatisfied with their current service (43.1% vs 8.6%).

- **receive fewer television channels.** Relatively more of these respondents receive less than five channels (80.0% vs 58.9%).

- **be homemakers.** A larger proportion of the respondents who indicated that this service most requires improvement are homemakers (40.3% vs 36.7%).

- **speak English most often at home.** In relative terms, more of these respondents speak English most often (79.0% vs 72.5%).

In **large communities** it was found that as the relative importance of the need for improvement in television services increases, respondents were more likely to:

- **be more physically isolated.**

- **own their home.**

- **have more black and white television sets.**

- **be dissatisfied with television service in general.** Comparatively more of the respondents who feel this service requires the most improvement, than those who feel it needs none, are dissatisfied with their current service (36.1% vs 8.7%).

- **receive fewer television channels.** While the majority (66.1%) of these respondents receive less than five channels, this is true for less than half (48.3%) of those who feel no improvements are necessary.

2.5 Attribute Importance and Sensitivity[1]

2.5.1 Relative Importance of Attributes

The investigation of the relative importance of selected[2] television service attributes used an assymmetrical orthogonal factorial design to allocate the levels to each attribute. This approach assures us that there would be no interaction effects between the four service attributes. In this fashion the separate and independent effects of each of four television attributes deemed most relevant can be investigated.

One finds some significant differences, although small, in the relative importance of price, number of channels, reception and programming across Canada's five regions and between its small and large communities. However, regardless of these differences, the relative importance of each attribute remains the same throughout the regions and community sizes. That is, **price** is always of primary importance, followed closely by the **number of channels**, the **quality of reception** and finally the **type of programming.** There

---

1 Based upon responses to Question 20.

2 The selection of the four service attributes (i.e. price, number of channels, reception and programming) to concentrate on and the levels within each one was determined jointly with the DOC.

is only one exception to this pattern, and that occurs in the Prairie region where the number of channels received and quality of reception reverse positions.

For comparative purposes, figure 1 illustrates the relative importance of each service attribute for Canada and for each of its five regions. The numbers in parentheses can be used to gauge each attribute's relative importance. Thus, at the national level, **price** is more than twice (i.e. 0.529/0.220 = 2.40) as important as the **quality of programming**, is more important, by 56%, than **reception** and is also rated over the **number of channels** (by 30%).

Although these findings are basically stable across the five regions, there are regional differences in the relative influence of each attribute. Thus, we find the Atlantic Region's overall **price** sensitivity to be significantly lower than that of all the other regions except the Ontario region. Conversely, price sensitivity in the Quebec region is significantly higher than in the other regions, with the exception of the Prairies. While there are other differences between the regions, they are not significant.

Examining the relative importance of the **number of channels** in each region, the results are somewhat different. In this case, sensitivity to the number of

FIGURE 1

RELATIVE IMPORTANCE
OF
TELEVISION SERVICE ATTRIBUTES
BY
REGION

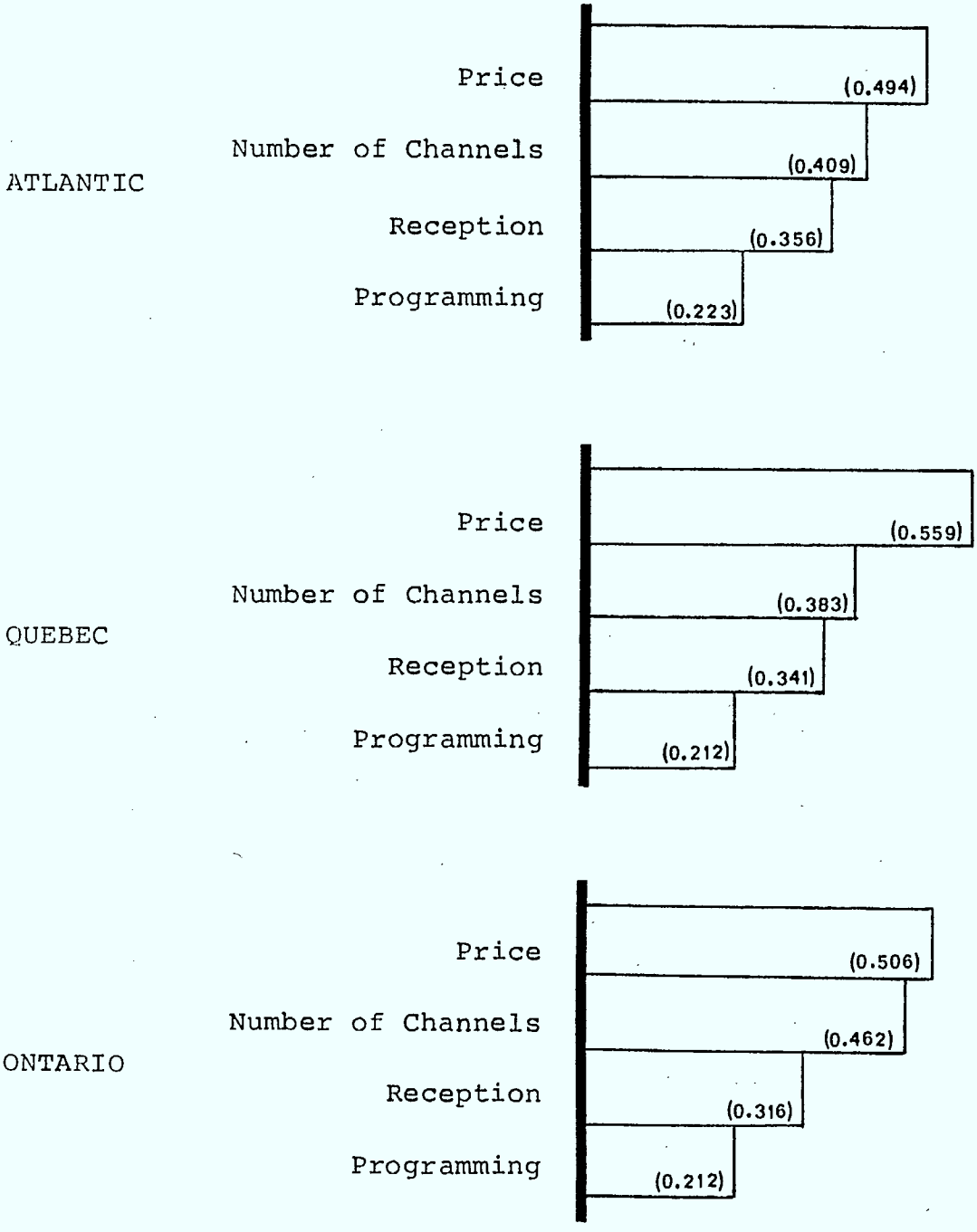
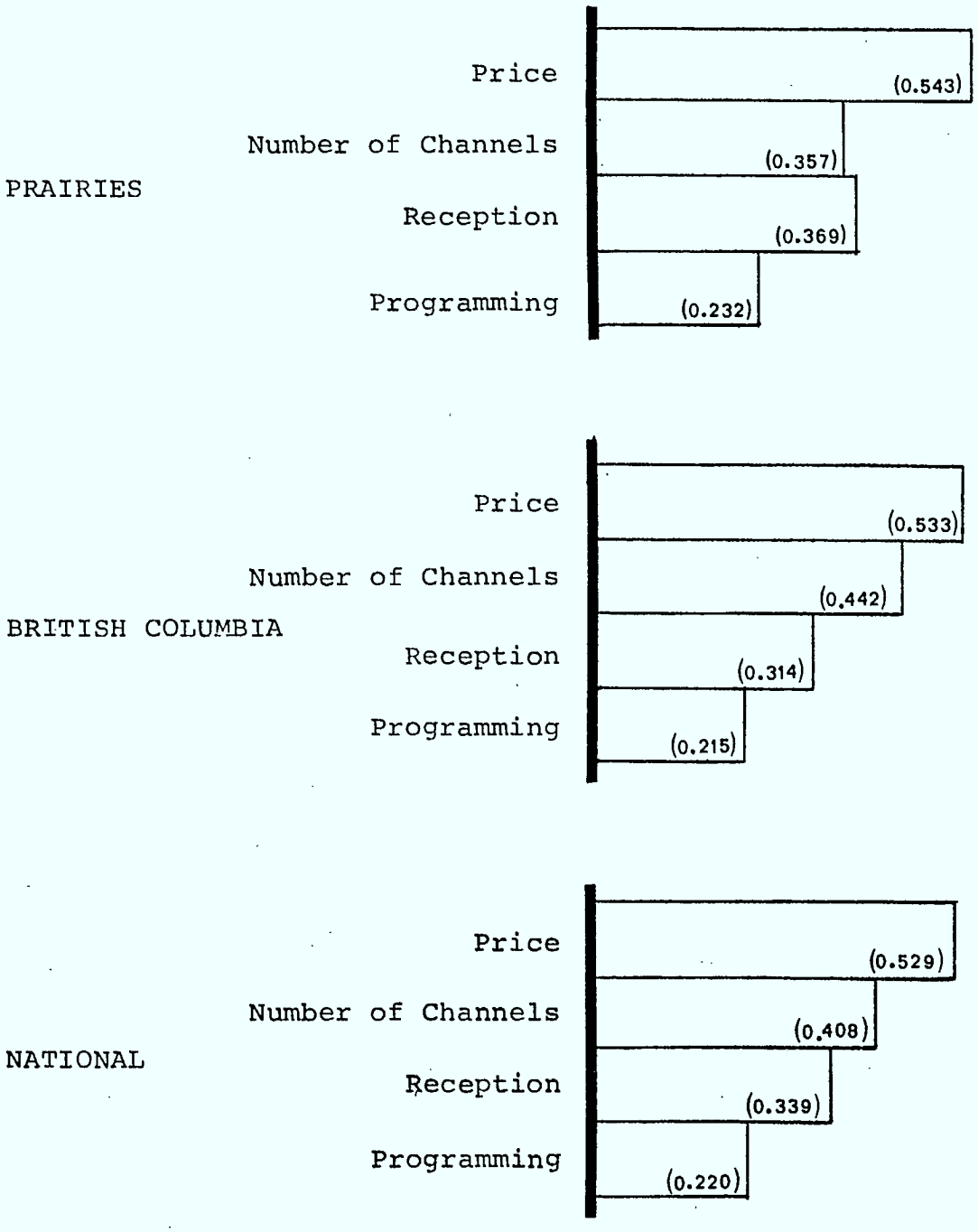


FIGURE 1 (cont'd)

RELATIVE IMPORTANCE
OF
TELEVISION SERVICE ATTRIBUTES
BY
REGION



channels varies significantly across the regions except in three cases. The importance of the number of channels in the Quebec region does not significantly differ from that in the Atlantic and Prairie regions, nor is there a significant difference between the Ontario and British Columbia regions. However, Ontario and B.C. are significantly more sensitive to the number of channels, while the Prairie and Quebec regions experience just the opposite. In fact, the Prairie region does not consider the number of channels to be the second most important attribute, as do the other regions, but places this attribute in third position, with the quality of reception being the second most important.

With respect to **reception**, we find that only the Prairie region is significantly different from any other region. The Prairies are significantly more sensitive to the quality of reception than are respondents in the Ontario and British Columbia regions. This finding is not surprising in view of the fact that the Prairie region is the only region which considers reception to be the second most important attribute.

Respondents' perception of the importance of **programming** does not significantly differ between the

five regions in Canada.

In addition to finding some significant variations throughout the regions, certain differences also exist between small and large communities. Small rural communities attach significantly more importance to price than do large communities, while the reverse is true with respect to reception (see figure 2). On the other hand, there are no significant differences between the relative importance of the number of channels or programming, to small and large communities.

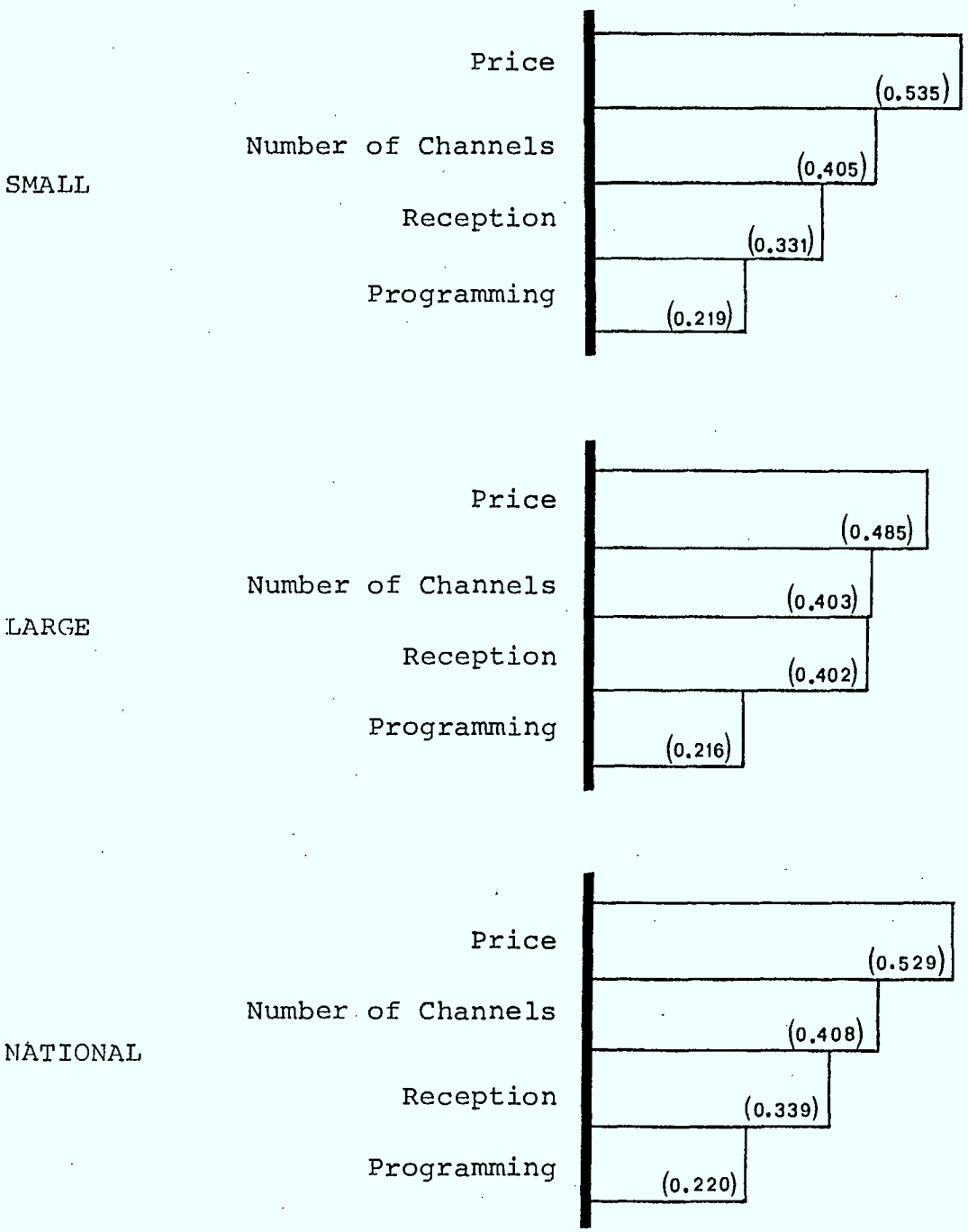
2.5.2 Sensitivity to Changes in Attributes

In this section we investigate respondents' sensitivity to "changes" in levels of price, number of channels, quality of reception, and programming.

Although the previous discussion pointed to several regional and community size differences in the perceived importance of each attribute, such differences do not generally exist in the comparisons

FIGURE 2

RELATIVE IMPORTANCE
OF
TELEVISION SERVICE ATTRIBUTES
BY
COMMUNITY SIZE



of preference share scores for each attribute[1,2]. Thus, only the national results are discussed, although the data for all five regions and both community sizes are presented.

The graphs presented in figures 3 and 4 describe the preference level for each stated level for all four attributes. Examining figure 3, at the national level, it is evident that a $6.00 price generates 60.5 preference share points (PSP's) while a price of $12.00 produces 44.4 PSP's, and $20.00 generates 23.9 PSP's. This indicates that, assuming all other factors remain constant, a 50% decrease in a $12.00 charge would translate into a 36.3% increase in consumer preference

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1 Preference Share Scores or Points are a measure of consumer preference derived from any given level of a particular attribute. PSP's are derived as a function of the proportion of times a package is selected over any other for a given level of each service attribute. Refer to Section A.2.1 Conjoint Measurement for further information.

2 While in almost all of the cases the preference share points (PSP's) were not significantly different, there were a few exceptions:

- PSP's in the Atlantic region were different from Quebec for the $6.00 price level.
- the Atlantic region differed from the four other regions for the $20.00 price level.
- Ontario region was different from all the other regions with regard to 2 channels.
- small and large communities differed for the $20.00 price level and excellent reception.

FIGURE 3

SENSITIVITY OF TELEVISION SERVICE ATTRIBUTES
BY REGION

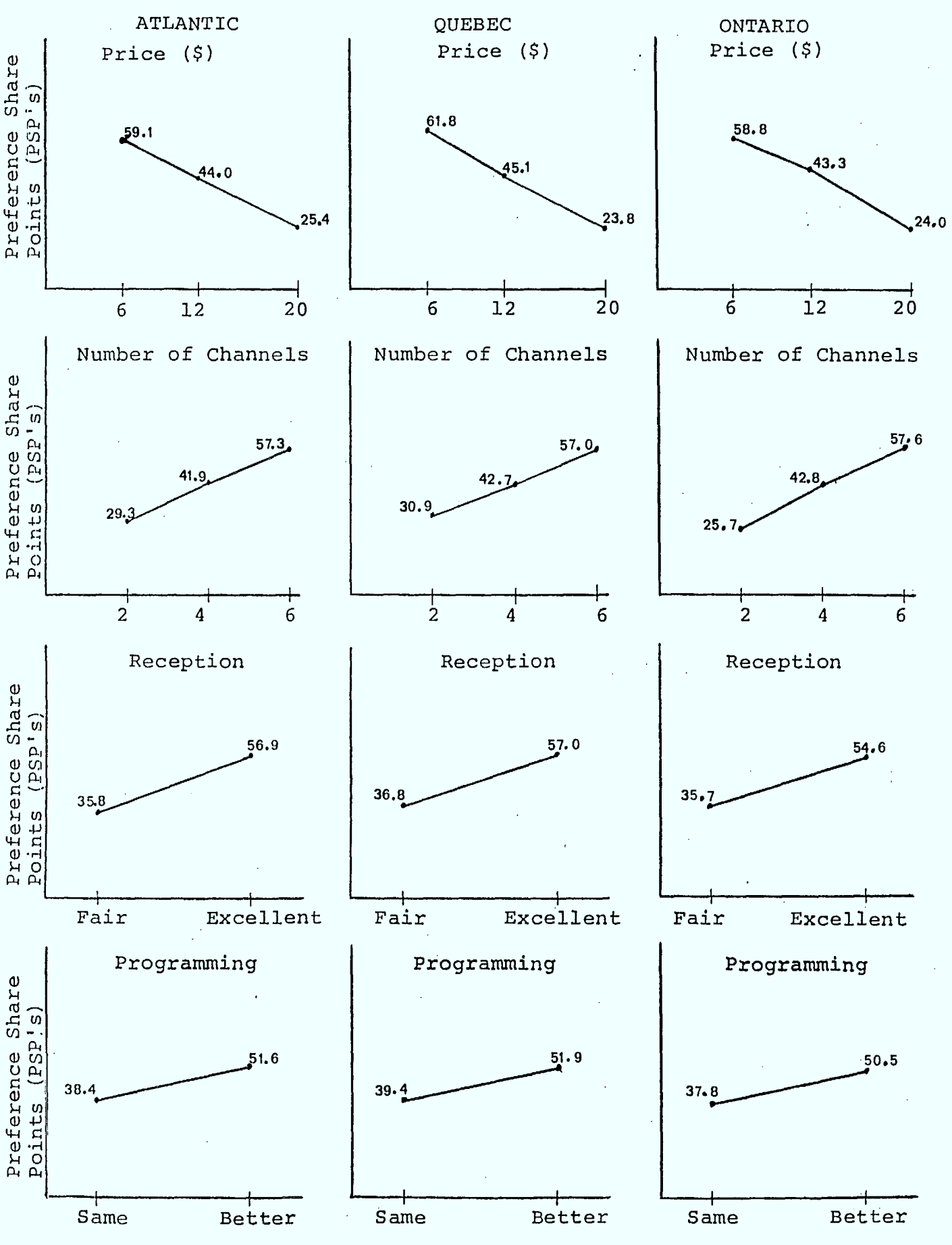


FIGURE 3 (cont'd)

SENSITIVITY OF TELEVISION SERVICE ATTRIBUTES
BY REGION

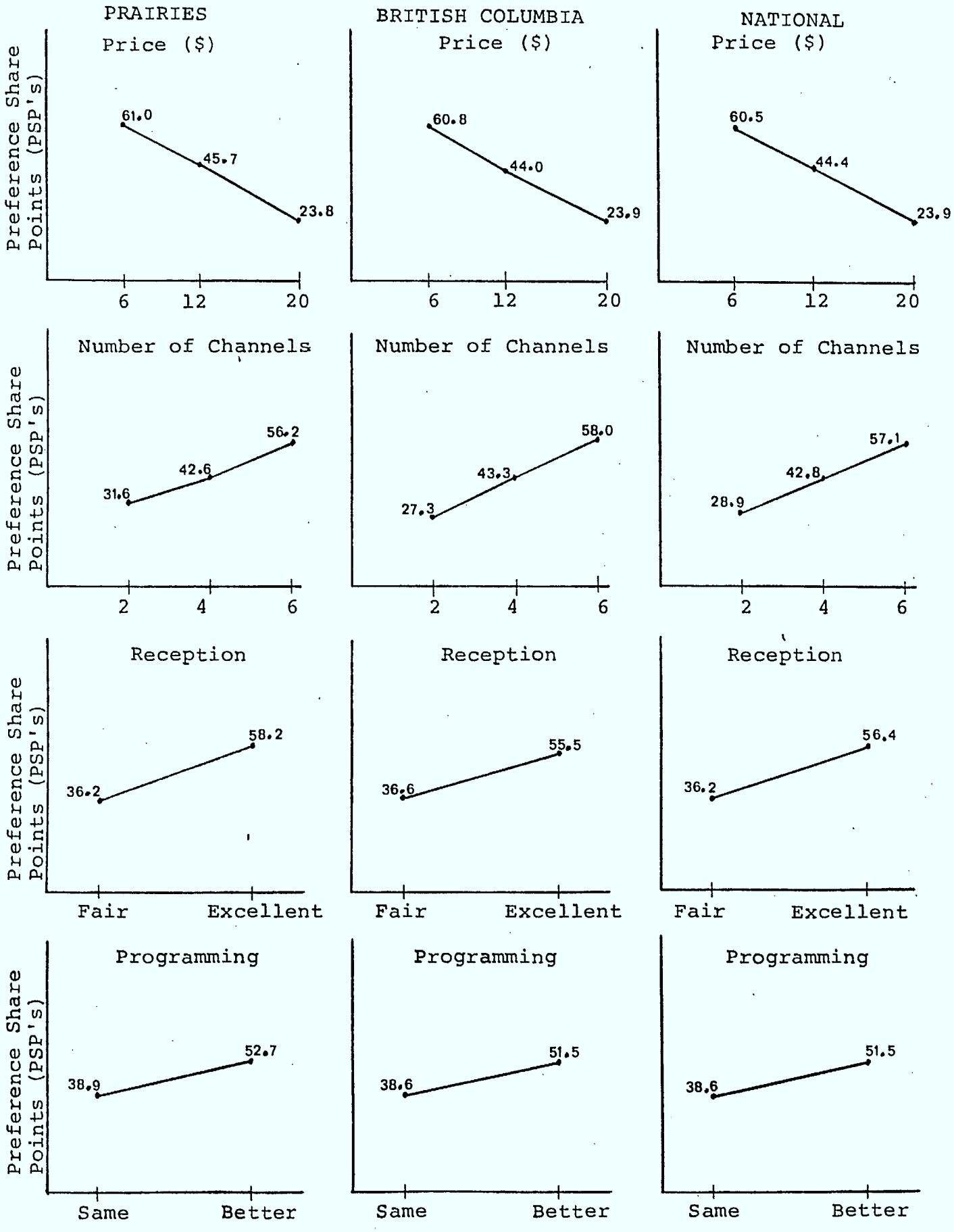
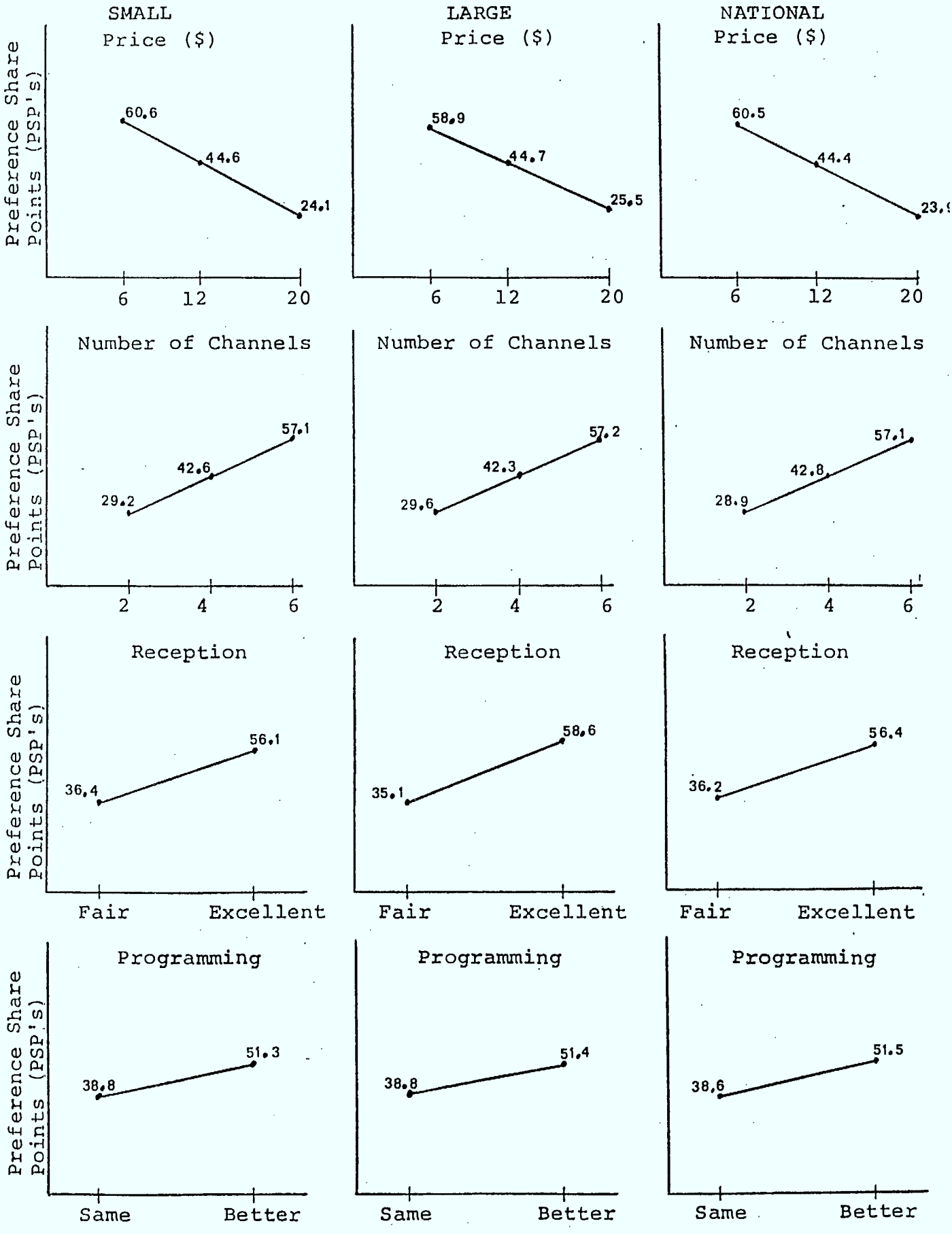


FIGURE 4

SENSITIVITY OF TELEVISION SERVICE ATTRIBUTES
BY COMMUNITY SIZE



(as reflected by the change in the PSP). Conversely, a 66.7% increase in cost from $12.00 would result in a decrease of 46.2% in the PSP. These data suggest that, in relative terms, consumers would react somewhat more strongly to changes in the lower price range.

The data for the **number of channels** may be investigated in the same manner. In this case a 50% increase in the number of channels (i.e. from 4 to 6), results in a 33.4% increase in PSP, while the same percentage decrease in channels leads to a 32.5% decrease in the PSP. Thus, contrary to the price-PSP relationship, consumers react relatively more strongly to changes in the higher range for the number of channels.

The results from a change in the quality of **reception** from fair to excellent creates an equally dramatic change in consumer preference (i.e. 55.8% or 20.2 PSP's). However, a similar change to the **programming** content (i.e. from the "same" to "better") results in only a 33.4% increase in PSP's (12.9 PSP's). These data support the earlier findings that programming is "relatively" unimportant. In addition, the indication is that significant changes in less important service attributes result in relatively smaller impacts on consumer preference.

Given that our experimental design was constructed in such a manner as to obtain completely independent (i.e. orthogonal) service attributes, then the **total** consumer preference can be obtained by simply summing consumer preference share points resulting from the combination of any one level of each of the four attributes. In this fashion, for the given levels, one can examine a host of permutations in order to form various potential alternative offerings. Given our selection of the number of attributes and levels within each, it is possible to construct 36 different alternative offerings (i.e. 36 = 3 price levels X 3 channel offerings X 2 qualities of reception X 2 types of programing). In so doing, one may select an "optimum" solution. It is obvious that the most preferred solution is the one with the most to offer at the lowest price, but this is also obviously not always possible. An interesting reason for carrying out such an exercise is to uncover consumers' relative preference for various packages. The exercise often reveals one or more alternatives to be in very "unexpected" favourable (or unfavourable) positions.

The various potential alternatives in this study and associated PSP's are presented in Table 33. The table reveals several interesting, but not so obvious,

TABLE 33

PREFERENCE SHARE POINTS
FOR
ALL POSSIBLE ALTERNATIVES

Package Number	Package Mix				Preference Share Points	Rank
	Channels	Reception	Programming	Price		
1	2	Fair	Same	6	164.2	25
2	2	Fair	Same	12	148.1	32
3	2	Fair	Same	20	127.6	36
4	2	Fair	Better	6	177.1	18
5	2	Fair	Better	12	161.0	28
6	2	Fair	Better	20	140.5	35
7	2	Excellent	Same	6	184.4	14
8	2	Excellent	Same	12	168.3	24
9	2	Excellent	Same	20	147.8	33
10	2	Excellent	Better	6	197.3	7
11	2	Excellent	Better	12	181.2	16
12	2	Excellent	Better	20	160.7	29
13	4	Fair	Same	6	178.1	17
14	4	Fair	Same	12	162.0	26
15	4	Fair	Same	20	141.5	34
16	4	Fair	Better	6	191.0	11
17	4	Fair	Better	12	174.9	21
18	4	Fair	Better	20	154.4	31
19	4	Excellent	Same	6	198.3	6
20	4	Excellent	Same	12	182.2	15
21	4	Excellent	Same	20	161.7	27
22	4	Excellent	Better	6	211.2	3
23	4	Excellent	Better	12	195.1	9
24	4	Excellent	Better	20	174.6	22
25	6	Fair	Same	6	192.4	10
26	6	Fair	Same	12	176.3	19
27	6	Fair	Same	20	155.8	30
28	6	Fair	Better	6	205.3	5
29	6	Fair	Better	12	189.2	12
30	6	Fair	Better	20	168.7	23
31	6	Excellent	Same	6	212.6	2
32	6	Excellent	Same	12	196.5	8
33	6	Excellent	Same	20	176.0	20
34	6	Excellent	Better	6	225.5	1
35	6	Excellent	Better	12	209.4	4
36	6	Excellent	Better	20	188.9	13

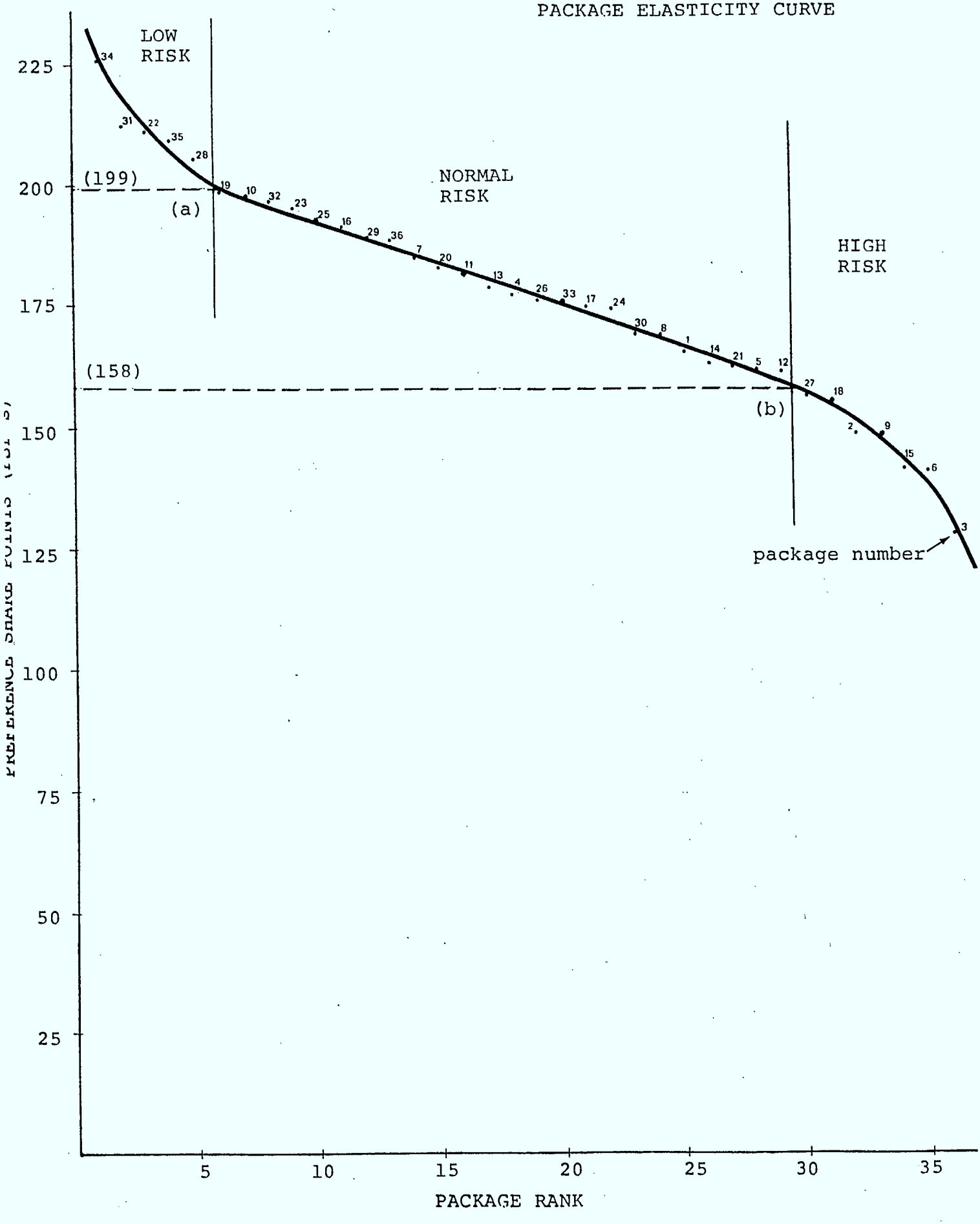
findings. For instance, consumers would typically prefer a cost of $6.00 with fair reception, better programming, and only 4 channels (package 16) to a $20.00 charge and six channels (package 30). They would even give up 2 more channels for this preferred mix (package 4), in fact, they would almost give up the better programming as well in order to maintain the $6.00 price (package 1). When the attributes employed are measured on an interval (or even ordinal) type scale (e.g. price and number of channels), the generation of other alternatives which do not necessarily only use the pre-selected levels within each attribute is possible. Although such an exercise would require further modelling of consumer preferences, this was not a purpose of the present report.

Another very interesting finding is the relationship which exists between the package's preference rank and its accumulated preference share points. This relationship is termed the "package elasticity curve". For our purposes, it is presented in figure 5. This curve has two important characteristics. One, is its two inflection points and second, its straight line portion.

The inflection points are indicative of turning

FIGURE 5

PACKAGE ELASTICITY CURVE



points, but each one for a different reason. The region to the left of inflection point "a" reflects a relatively "low upside risk" for any alternative which can produce at least 199 PSP's. This lower risk position is attributable to an "increasing rate of increase" beyond the 199 point. On the other hand, the region to the right of inflection point "b" suggests a relatively "high downside risk" for any package which cannot produce at least 158 PSP's. Conversely to the previous explanation, this higher risk position is due to an "increasing rate of decrease" beyond the 158 point.

The straight line portion of the curve suggests a relatively stable and constant change in preference for any alternative being considered in this region. Thus, packages located in this flat region would hold an average or normal amount of risk.

The implications which one could draw from this is that the slope of the curve at which point an alternative is located reflects the risk involved with the package. Generally we would say that:

- if PSP is within the straight line portion (i.e. between "a" and "b"), then the alternative has a normal amount of risk.
- if PSP is in the low upside risk area of the curve (i.e. to the left of "a"), then the alternatives have a lower than average risk content.

- if PSP is in the high downside risk area of the curve (i.e. to the right of "b"), then the alternatives have a higher than average risk content.

The high and low risk regions simply reflect consumers' much greater sensitivity and susceptibility to changing their preferences given certain changes in the package design. It is interesting to observe that the five most preferred alternatives (i.e. 34, 31, 22, 35 and 28 in the low risk area), all contain a cost of $6.00 while the six least preferred alternatives (i.e. 3, 6, 15, 9, 2 and 18 in the high risk area) are all packages worth more than $6.00. This would seem to suggest that in order to be in the low risk area, the package would definitely need to possess a very favourable level of the most important attribute (i.e. price) while the remaining attributes would serve to differentially increase the preference for the package. On the other hand, packages which possess the least favourable level of the most important attribute should be examined with care.

In concluding, although the data have generated several interesting observations with respect to "maximizing" consumer preferences, it should be noted that the ultimate package design is also a function of production and financial constraints. Thus, in fact the final package composition will rely on a trade-off

process involving on the one side (i.e. demand), the level of consumer preference for the alternative, and on the other side (i.e. supply), the production and financial viability and return of the alternative as determined by its attribute mix.

2.6 Short Term Demand Forecasts

2.6.1 Improved Service Through CATV Type of Technology[1]

2.6.1.1 Forecasts

Respondents in rural households were offered an improved television service through the use of CATV type of technology, which would provide the following features:

- reception of at least six different channels in their own language (English or French).
- excellent reception on each channel.
- same type of programming currently received.
- monthly charge.

Respondents were offered this service at one of three different monthly charges (i.e. $6, $12, or $20) and asked if they would subscribe to this new service within the next twelve months. Just over half (55%) of the rural households indicated that they would subscribe to this service at a cost of $6 a month. As expected, the proportion of respondents who would purchase this improved service decreases as the price increases. Less than half (44%) would subscribe for $12 a month and approximately one third (32%) would be interested at a monthly rate of $20. These results are

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1 Based upon responses to Question 21.

presented as the "maximum likelihood" estimate of demand in Graph 1. Additionally, a conservative estimate of the demand curve is presented and, while the conservative estimates are somewhat lower, the results are similar as is indicated by the fact that half (50%) of the respondents would still subscribe to the new service at $6 a month.

Although there are general similarities between the national and regional demand curve estimates, the maximum likelihood curves for each region are almost always significantly different from each of the other four regions[1] (see Graphs 2 to 6). It is evident that, when compared to the national results, a relatively greater proportion of the respondents in the Atlantic region and, to a lesser degree, in British Columbia would subscribe to this service at each price level. Conversely, generally smaller proportions of those who live in the other three regions would subscribe within twelve months. These results are not surprising if one recalls (from Section 2.3.1) that respondents in both the Atlantic and British Columbia regions were relatively less satisfied with their television service

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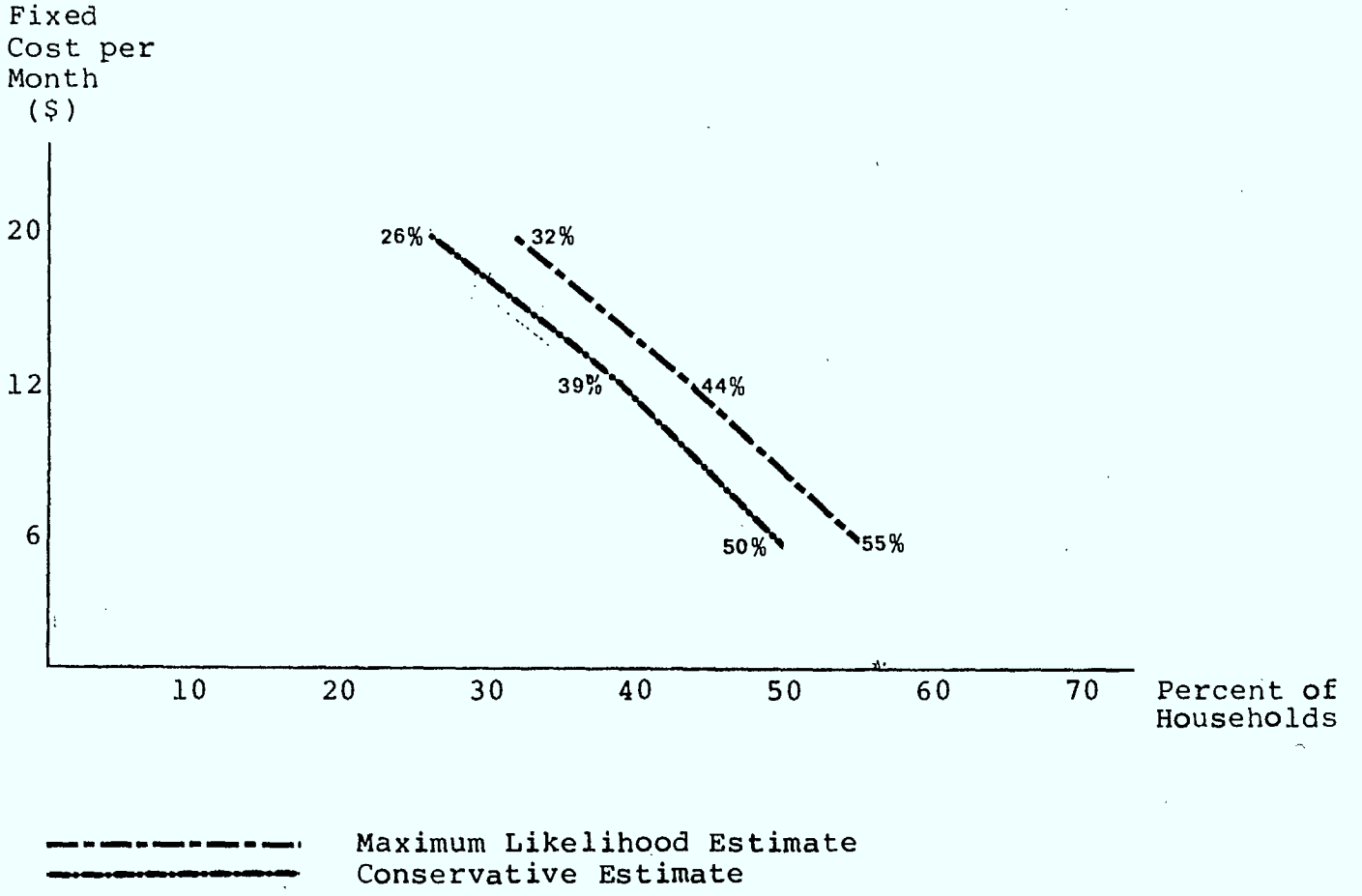
1 There is one exception as the Quebec region is not significantly different from the Prairie region at the $20 price level.

GRAPH 1

PRICE-DEMAND RELATIONSHIP
FOR
IMPROVED TELEVISION SERVICE
(CATV Technology)

(NATIONAL)

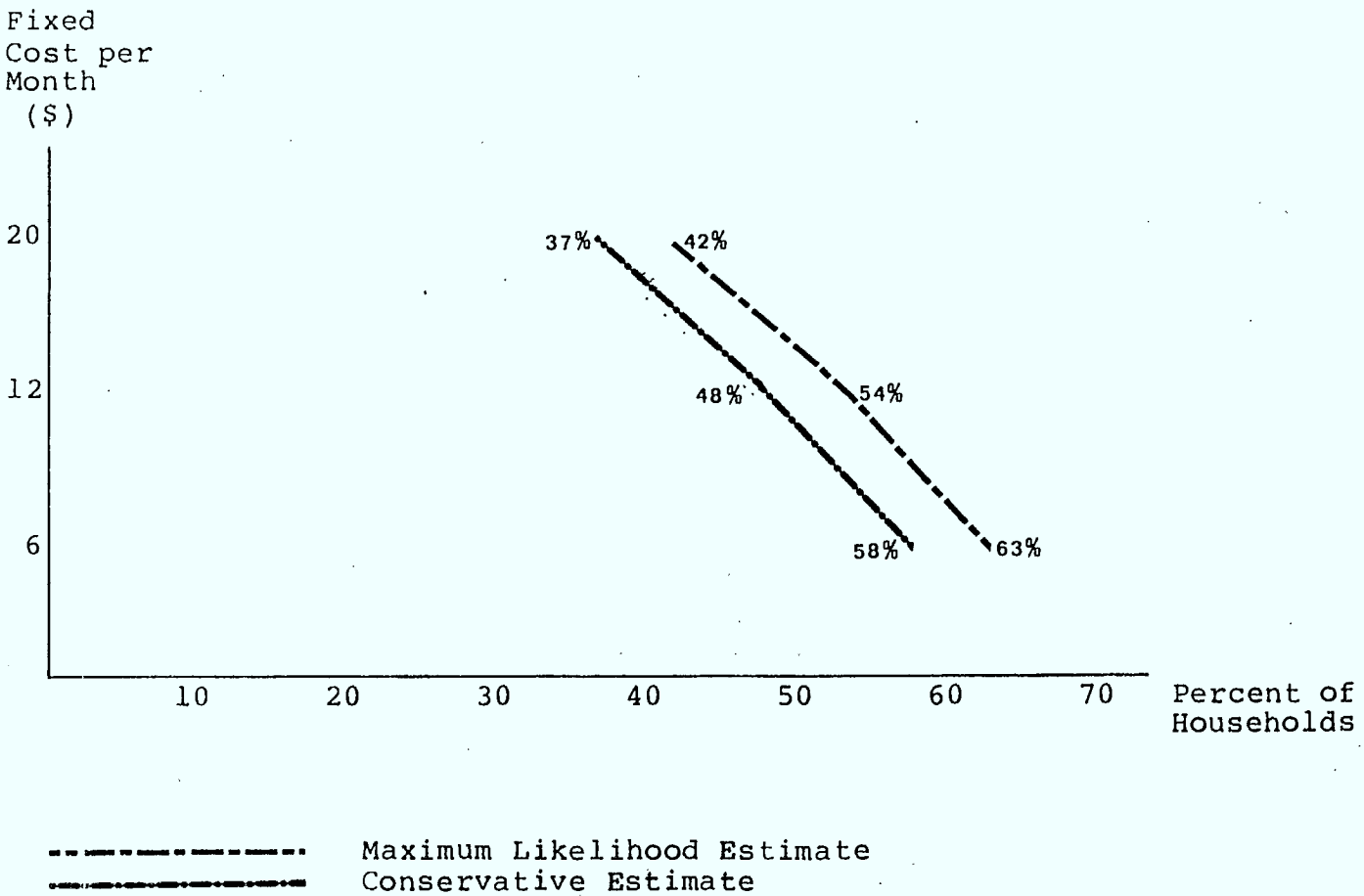


The estimated level of demand (i.e. the maximum likelihood estimate) is not expected to vary, in 68% of the cases, by more than ± 1.9% from the indicated levels.

GRAPH 2

PRICE-DEMAND RELATIONSHIP
FOR
IMPROVED TELEVISION SERVICE
(CATV Technology)

(ATLANTIC REGION)

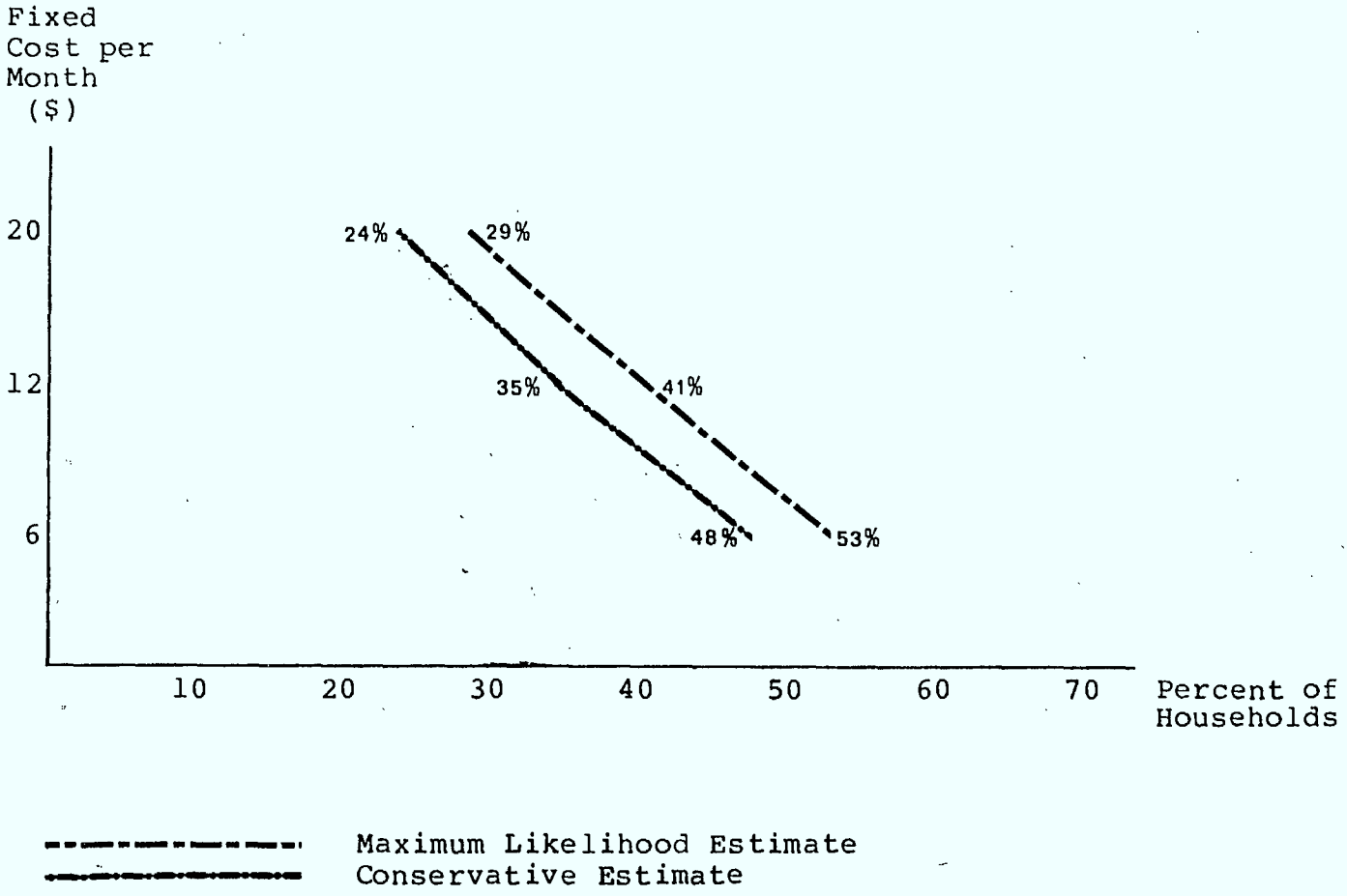


The estimated level of demand (i.e. the maximum likelihood estimate) is not expected to vary, in 68% of the cases, by more than ± 3.7% from the indicated levels.

GRAPH 3

PRICE-DEMAND RELATIONSHIP
FOR
IMPROVED TELEVISION SERVICE
(CATV Technology)

(QUEBEC REGION)

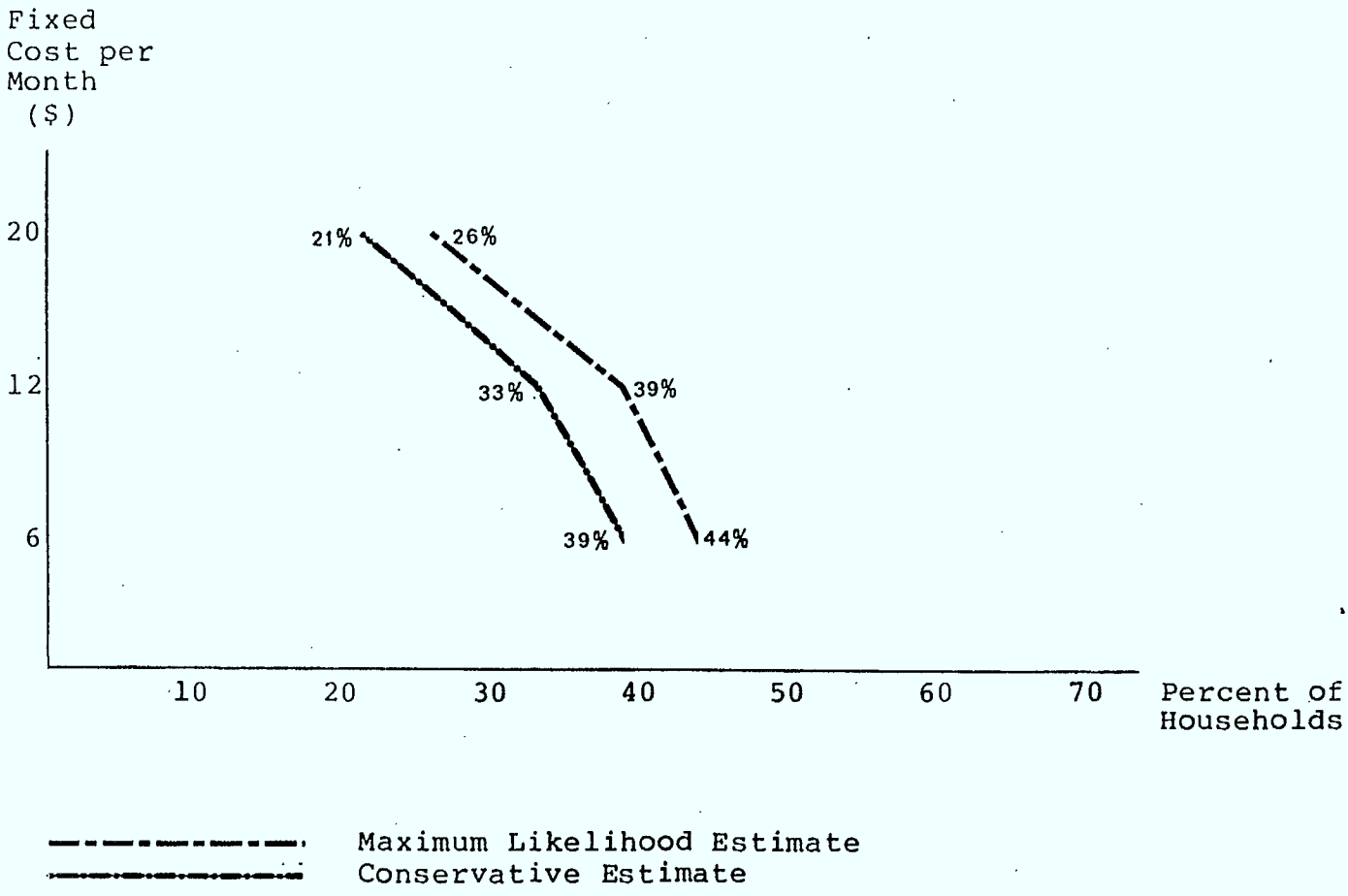


The estimated level of demand (i.e. the maximum likelihood estimate) is not expected to vary, in 68% of the cases, by more than ± 3.6% from the indicated levels.

GRAPH 4

PRICE-DEMAND RELATIONSHIP
FOR
IMPROVED TELEVISION SERVICE
(CATV Technology)

(ONTARIO REGION)

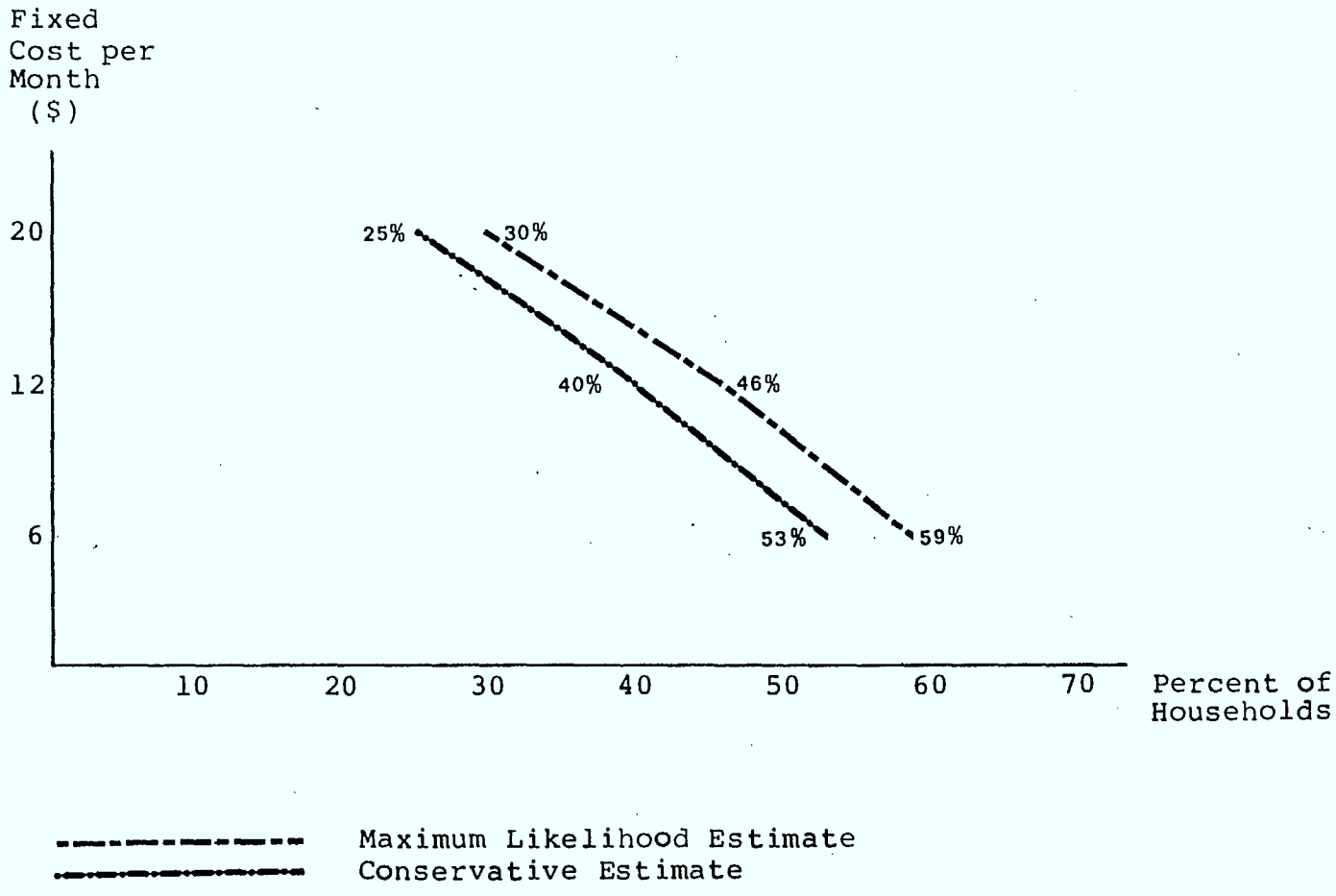


The estimated level of demand (i.e. the maximum likelihood estimate) is not expected to vary, in 68% of the cases, by more than ± 3.8% from the indicated levels.

GRAPH 5

PRICE-DEMAND RELATIONSHIP FOR IMPROVED TELEVISION SERVICE (CATV Technology)

(PRAIRIES REGION)

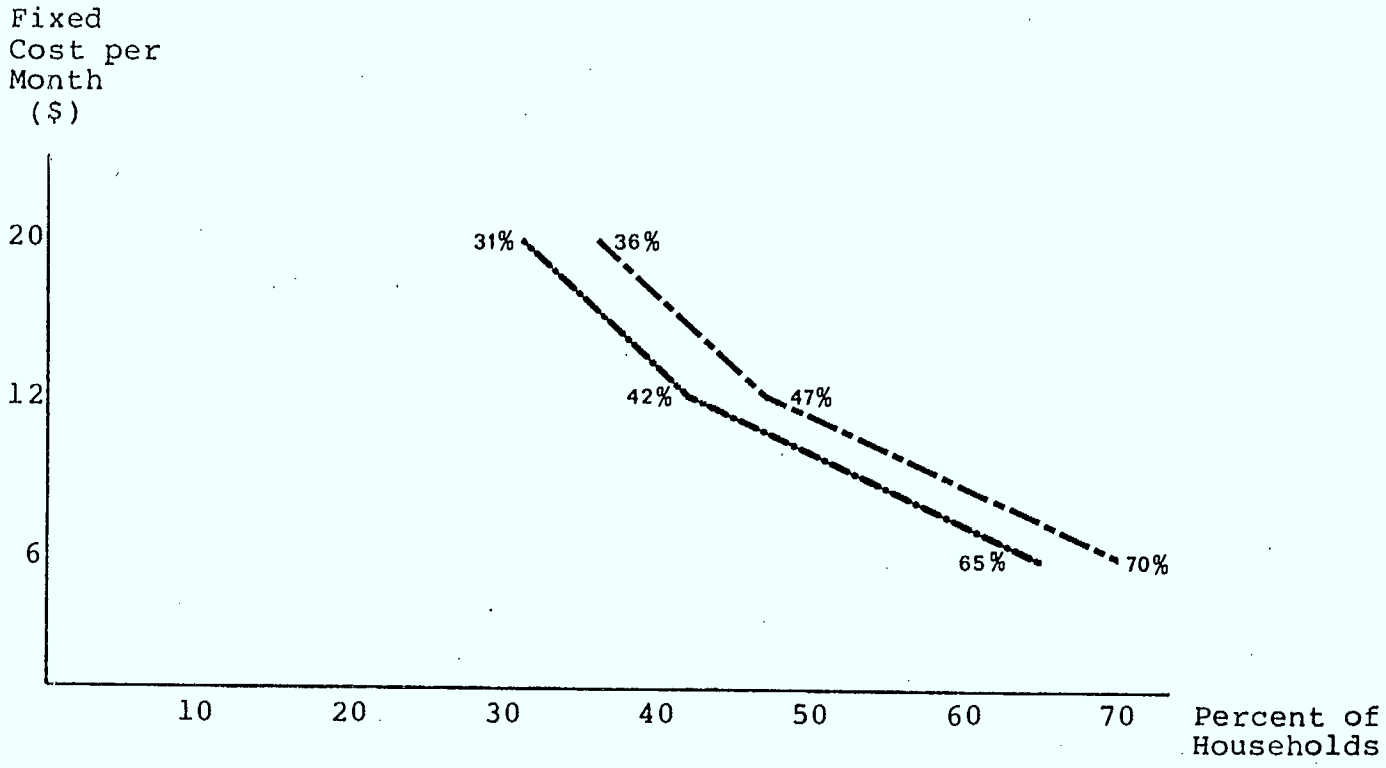


The estimated level of demand (i.e. the maximum likelihood estimate) is not expected to vary, in 68% of the cases, by more than ± 3.7% from the indicated levels.

GRAPH 6

PRICE-DEMAND RELATIONSHIP
FOR
IMPROVED TELEVISION SERVICE
(CATV Technology)

(BRITISH COLUMBIA REGION)



Maximum Likelihood Estimate
Conservative Estimate

The estimated level of demand (i.e. the maximum likelihood estimate) is not expected to vary, in 68% of the cases, by more than ± 3.9% from the indicated levels.

in general. In addition, households in the Atlantic region placed more emphasis on the need for improvement in television services than did the other regions (refer to Section 2.4.2).

Examining the demand curve estimates for small and large communities, it is evident that these results are also similar to those seen at the national level (see Graphs 7 and 8). However, a significantly larger proportion of those respondents who live in large communities would subscribe to this improved service at each price level. These results are understandable in view of the fact that respondents in large communities are relatively less satisfied with their overall television service than those in small communities (as seen in Section 2.3.1). Further to this, while respondents in both small and large communities felt television services required the most improvement, those in large communities attached a greater importance to this need (refer to Section 2.4.2).

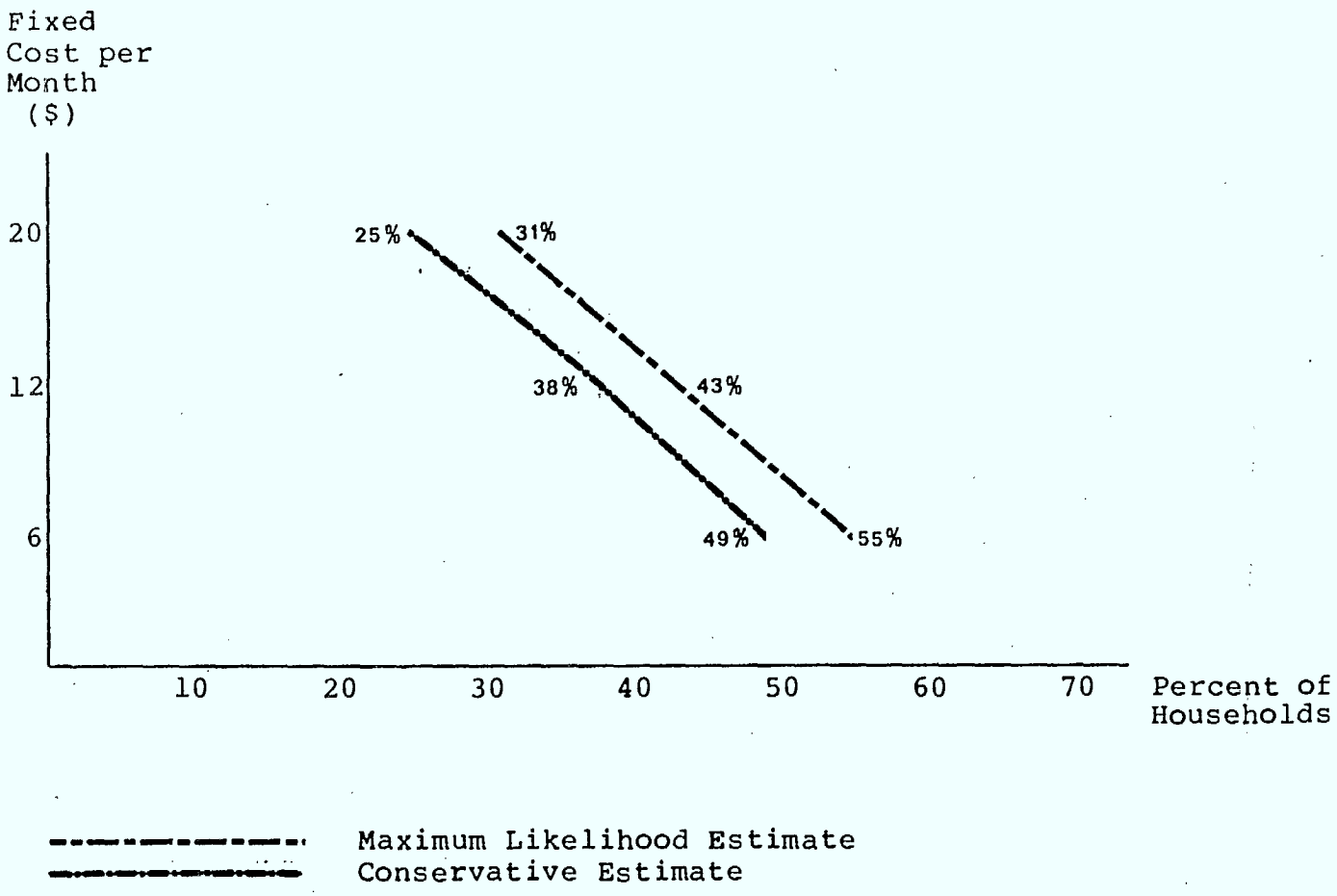
The demand curve estimates presented in Graphs 1 to 8 indicate that there is a demand for improved television service in rural Canada and that the demand curves are inelastic.[1] Although we have found that

[1] A given percentage change in price results in a smaller percentage change in demand, suggesting a relatively lower sensitivity to price.

GRAPH 7

PRICE-DEMAND RELATIONSHIP
FOR
IMPROVED TELEVISION SERVICE
(CATV Technology)

(SMALL COMMUNITIES)

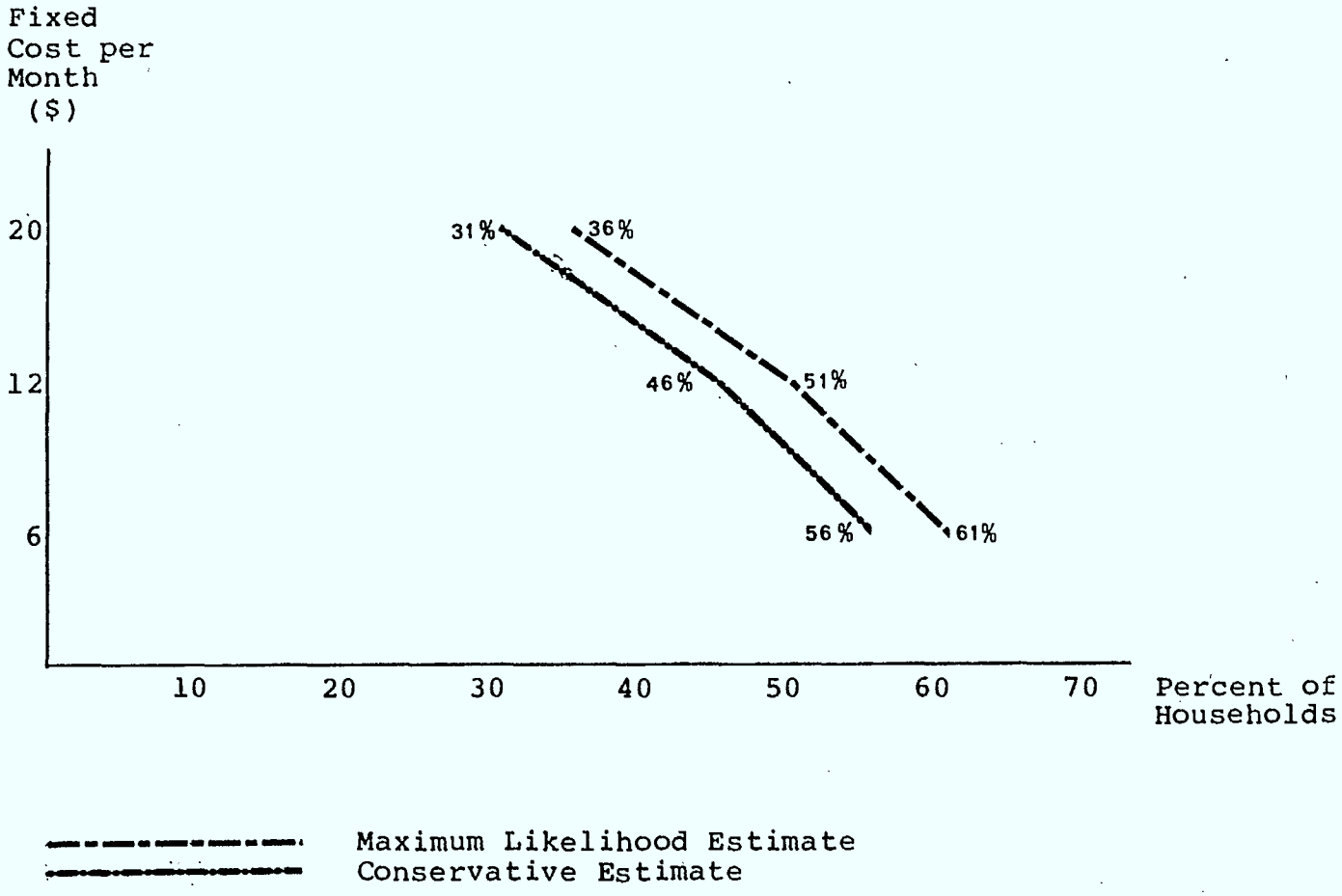


The estimated level of demand (i.e. the maximum likelihood estimate) is not expected to vary, in 68% of the cases, by more than ± 2.0% from the indicated levels.

GRAPH 8

PRICE-DEMAND RELATIONSHIP
FOR
IMPROVED TELEVISION SERVICE
(CATV Technology)

(LARGE COMMUNITIES)



The estimated level of demand (i.e. the maximum likelihood estimate) is not expected to vary, in 68% of the cases, by more than ± 5.4% from the indicated levels.

price is the most important attribute of television service, relative to three other attributes, (refer to Section 2.5.1), it is evident from these findings that the demand for improved service is such that respondents are relatively more concerned with obtaining the service than the price of an improved service.

2.6.1.2 Correlates

A profile of those respondents who would have a greater tendency to subscribe to this improved television service at each of the three different prices was developed. This was accomplished by relating the level of demand for the new service to a set of potential descriptor variables. This profiling exercise would provide us with a better understanding of the "different" consumers existing at each price. The analysis was only carried out at the national level.

As the likelihood that respondents will purchase the improved television service at a monthly cost of $6.00 increases, so does the likelihood that respondents will:

- **have lived in their present home for a shorter period of time.** A larger proportion of the respondents who indicated that they were certain they would subscribe to this service, than those

who said there was "no chance", have lived in their homes less than six years (44.7% vs 32.6%).

- **have more household members.** Relatively more of these respondents have more than two people in their home (72.7% vs 50.9%).

- **have more children at home.** While over half (53.7%) of the respondents who would definitely subscribe have children at home, this is true for only one third (34.7%) of those who would definitely not subscribe.

- **be younger.** A larger proportion of these respondents are under 35 years of age (36.4% vs 22.3%).

- **have a higher household income.** Approximately twice as many of these respondents earn $25,000 a year or more (28.4% vs 12.8%).

- **be skilled labourers or work in a clerical position.** A larger proportion of these respondents are skilled labourers (17.8% vs 9.4%), or in clerical jobs (6.1% vs 1.9%).

- **not be retired.** Relatively fewer of these respondents are retired (8.3% vs 21.5%).

- **be more educated.**

- **be dissatisfied with their television service in general.** Roughly six times as many respondents who would definitely subscribe to the new service, as those who certainly would not, are currently dissatisfied with their service (34.6% vs 5.7%).

- **feel strongly that television services require the most improvement.** A larger proportion of these respondents indicated that this service is the one most in need of improvement, relative to three other communication services (23.8% vs 11.8%).

- **have more colour television sets.** Relatively more of these respondents have two or more colour sets (11.9% vs 5.1%).

- **receive fewer television channels.** A smaller proportion of those who are certain to subscribe to this service, as those who said "no chance",

receive five or more channels (23.1% vs 45.8%).

- **receive fewer American channels with good reception.** In fact, relatively more of these respondents do not get good reception on any American channel (36.4% vs 26.6%).

- **have good reception on fewer Canadian (English) channels.** In relative terms, more of these respondents receive good reception on less than three channels (81.5% vs 57.7%).

- **speak English most often at home.** In fact, approximately three quarters (73.6%) of these respondents speak English most often, while this is true for only 63.8% of those who said there was a possibility that they would adopt this service.

- it is interesting to note that the cost of special reception equipment already purchased was not significantly related to the likelihood of purchasing an improved television service (at any price level).

The more likely respondents are to subscribe to the improved television service when the proposed cost is $12.00 a month, the more these respondents tend to:

- **have lived in their current home for a shorter period of time.** In relative terms, more of the respondents who indicated that they would certainly subscribe to this service at this price, than those who definitely would not, have lived in their present home less than six years (47.4% vs 31.1%).

- **rent their home.** Relatively more of these respondents rent their home (16.4% vs 7.6%).

- **have more children in their home.** A larger proportion of these respondents have one or two children at home (42.3% vs 27.0%).

- **be younger.** Over twice as many of these respondents, as those who indicated there was "no chance" that they would subscribe, are under 35 years of age (44.9% vs 20.2%).

- **have a higher household income.**

- **be a labourer or in a clerical position.** Relatively more of these respondents are skilled labourers (21.0% vs 13.0%), unskilled labourers (13.0% vs 6.1%), or in clerical jobs (8.1% vs 2.7%).

- **be more educated.**

- **be dissatisfied with their overall television service.** More than twice as many of the respondents who would definitely subscribe to this service, than those who would definitely not, are dissatisfied (41.7% vs 16.5%).

- **place more emphasis on the need for improvement in this service.** A larger proportion of these respondents felt that this service, more than three other communication services, requires improvement (26.0% vs 14.1%).

- **own a greater number of colour television sets.** More of the respondents who were most interested in this service, relative to those who were not at all interested, own two or more colour sets (9.9% vs 5.6%).

- **receive fewer television channels.** In relative terms, more of these respondents receive only one television channel (33.9% vs 18.8%).

- **obtain good reception on fewer American channels.** In fact, almost half (45.7%) of those who would definitely subscribe to this service receive no American channels with good reception, compared to one third (33.5%) of those who are not interested in this service.

- **receive fewer Canadian-English channels with good reception.** Relatively more of these respondents obtain good reception on less than two English channels (81.1% vs 59.9%).

- **speak English most often at home.** In fact, three quarters (76.8%) of these respondents speak English most often, compared to 60.4% of those who indicated there was a possibility that they would subscribe to this service.

When the monthly cost of this improved service is $20.00, it was observed that as the likelihood that respondents would subscribe increases, so does the likelihood that respondents will:

- **have lived in their present home for a shorter period of time.** Relatively more of the respondents who would definitely subscribe to this service, than those who are not at all interested, have lived in their present home less than six years (41.5% vs 29.8%).

- **not live in a single, semi-detached or row house.** Comparatively fewer of these respondents live in these types of dwelling (93.6% vs 96.1%).

- **be younger.** More than twice as many of these respondents are under 35 years of age (46.3% vs 19.6%).

- **be single.** While the majority (82.8%) of these respondents are married, a relatively larger proportion are single (9.8% vs 3.4%).

- **have a higher household income.** A larger proportion of the respondents who would subscribe at this price level, than of those who are not interested, earn $25,000 a year or more (31.0% vs 19.4%).

- **be labourers.** Relatively more of these respondents are skilled labourers (26.9% vs 12.9%), or unskilled labourers (9.1% vs 6.2%).

- **not be retired.** Proportionately fewer of these respondents are retired (5.9% vs 16.5%).

- **be more educated.**

- **be dissatisfied with the television service in general.** Over twice as many of the respondents who would definitely subscribe, than those who definitely would not, are dissatisfied with their service (39.7% vs 15.5%).

- **feel that television service (relative to three other communication services) requires more**

improvement. A larger proportion of these respondents feel that this service needs the most improvement (29.6% vs 14.2%).

- **receive fewer television channels.** Relatively more of these respondents, than those who would definitely not subscribe, currently receive only one or two channels (38.4% vs 21.2%).

- **obtain good reception on fewer American channels.** A larger proportion of these respondents receive good reception on less than three American channels (86.1% vs 55.7%).

- **receive fewer Canadian (English) channels with good reception.** In relative terms, more of the respondents who are very interested in this improved service, than those who definitely would not subscribe, obtain good reception on less than three Canadian (English) channels (80.6% vs 65.7%).

- **speak English most often at home.** Approximately three quarters (78.9%) of the respondents who would definitely subscribe speak English most often, compared to 69.7% of those who definitely would not.

In conclusion, it is evident that generally, the three groups of respondents who would subscribe to this service are similar. In overall terms, they tend to be younger, better educated, have higher household incomes, be more dissatisfied with current service and receive fewer television channels.

2.6.2 Combined Telephone-TV[1]

2.6.2.1 Forecasts

Respondents in rural households were offered a combined television and telephone service which would provide the following features:

- reception of at least six different television channels in their own language (English or French)
- excellent reception on each television channel
- same type of programming they currently receive
- private telephone line
- a larger free calling area

Respondents were offered this service at one of three different monthly charges (i.e. $15, $25, or $35) and asked if they would subscribe to this new service within the next twelve months. One half of the rural households indicated that they would subscribe to this service for $15 a month. As expected, the proportion of respondents who would purchase this improved service decreases as the price increases: 37% would subscribe for $25 per month and 30% would if the price was $35 a month. These results are presented as the "maximum likelihood" estimate of demand in Graph 9. In addition, a conservative estimate of the demand curve

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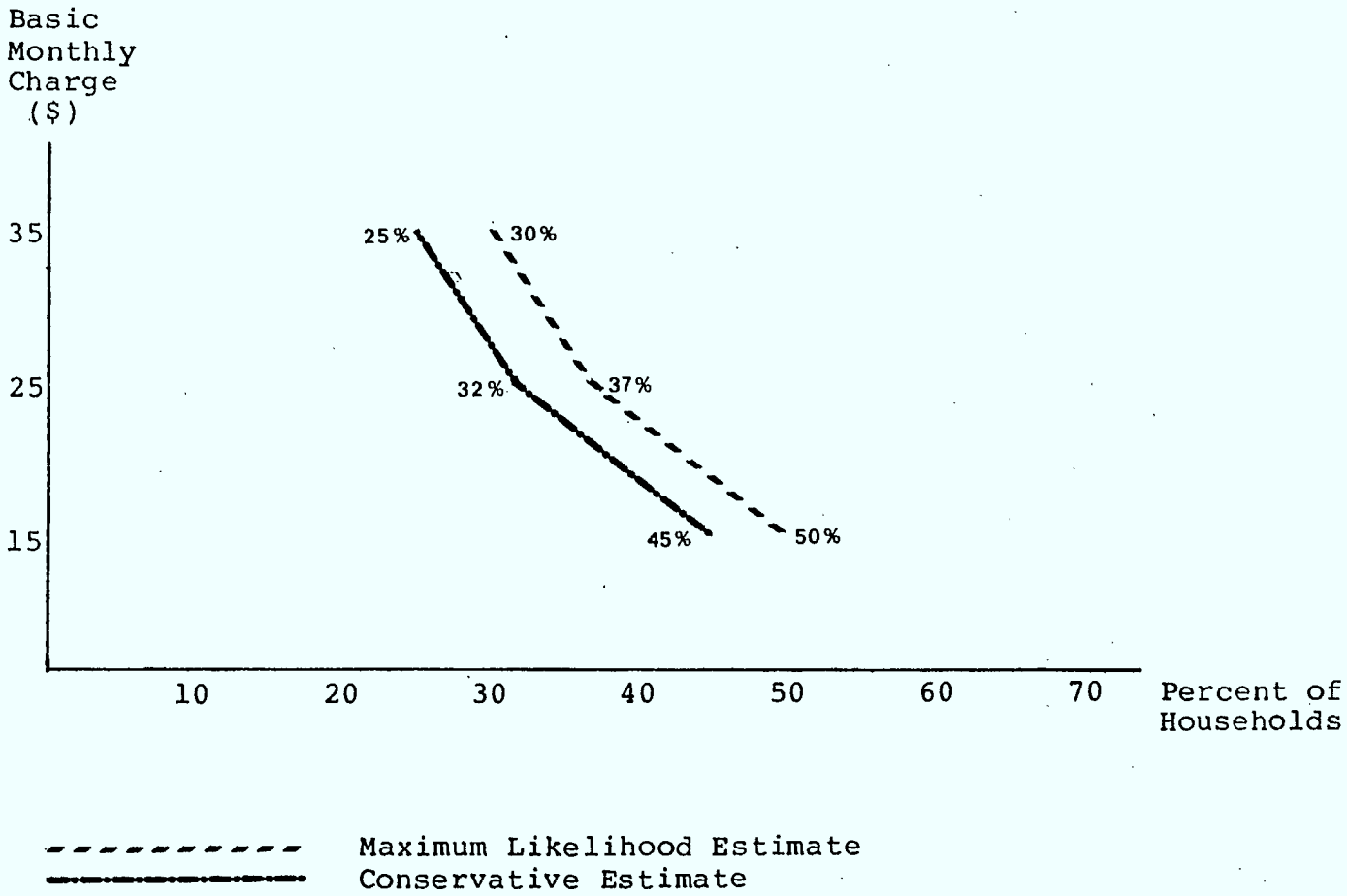
1 Based upon responses to Question 23.

GRAPH 9

PRICE-DEMAND RELATIONSHIP FOR COMBINED TELEPHONE/TELEVISION SERVICE

(NATIONAL)



The estimated level of demand (i.e. the maximum likelihood estimate) is not expected to vary, in 68% of the cases, by more than ± 1.9% from the indicated levels.

is presented and, although the conservative estimates are somewhat lower, the curve is similar to the maximum likelihood estimate.

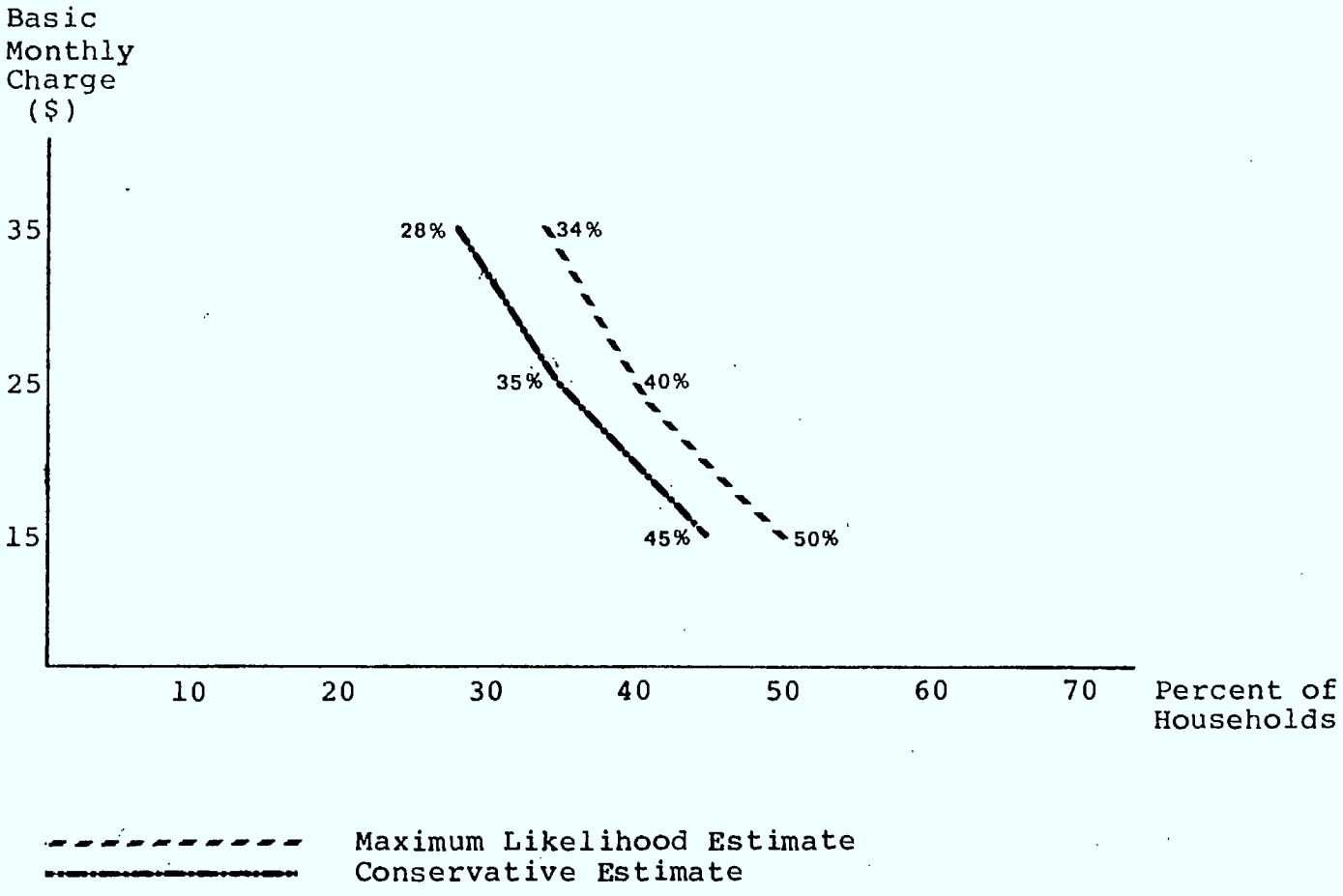
In general, the demand curve estimates for each region are similar to the national estimates (see Graphs 10 to 14), with the exception of British Columbia where a higher proportion of respondents would subscribe to this service for $15 or $25 a month. In fact, despite the similarities between the regional curves, the maximum likelihood estimate for each region is significantly different from the other four regions. For example, in Ontario only 32% of the respondents would subscribe to the improved service for $25 a month, and only 44% would subscribe at $15 a month, while in British Columbia, 47% would subscribe at $25 per month and 60% would at $15 per month.

The demand curve estimates for small and large communities are also similar to the national estimates (see Graphs 15 and 16). However, while the curves for both community sizes appear similar, the estimates for small communities are significantly different from those for large communities for all price levels. A relatively larger proportion of households in large communities would subscribe to a combined telephone and television service at each of the three price levels.

GRAPH 10

PRICE-DEMAND RELATIONSHIP
FOR
COMBINED TELEPHONE/TELEVISION SERVICE

(ATLANTIC REGION)

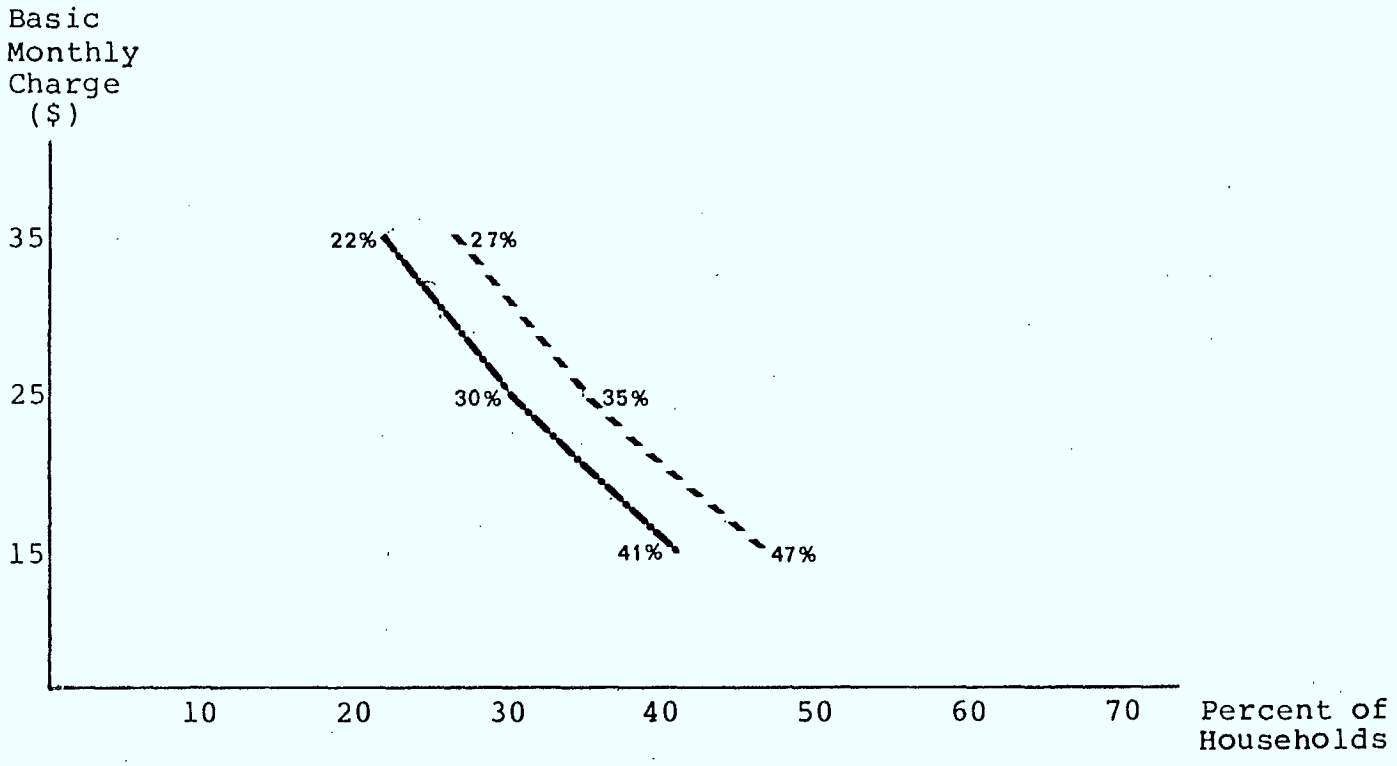


The estimated level of demand (i.e. the maximum likelihood estimate) is not expected to vary, in 68% of the cases, by more than ± 3.7% from the indicated levels.

GRAPH 11

PRICE-DEMAND RELATIONSHIP FOR COMBINED TELEPHONE/TELEVISION SERVICE

(QUEBEC REGION)

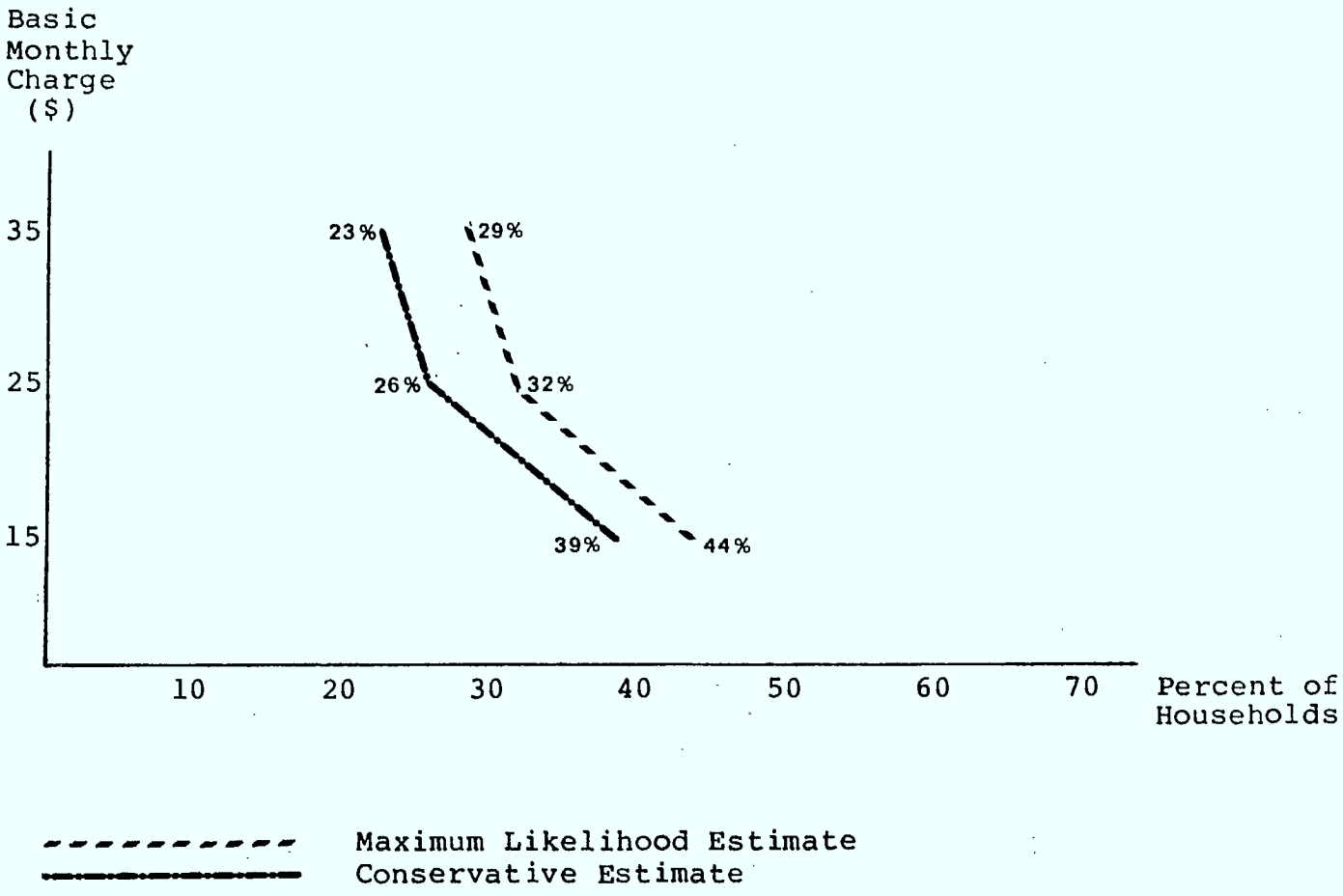


The estimated level of demand (i.e. the maximum likelihood estimate) is not expected to vary, in 68% of the cases, by more than ± 3.5% from the indicated levels.

GRAPH 12

PRICE-DEMAND RELATIONSHIP
FOR
COMBINED TELEPHONE/TELEVISION SERVICE

(ONTARIO REGION)

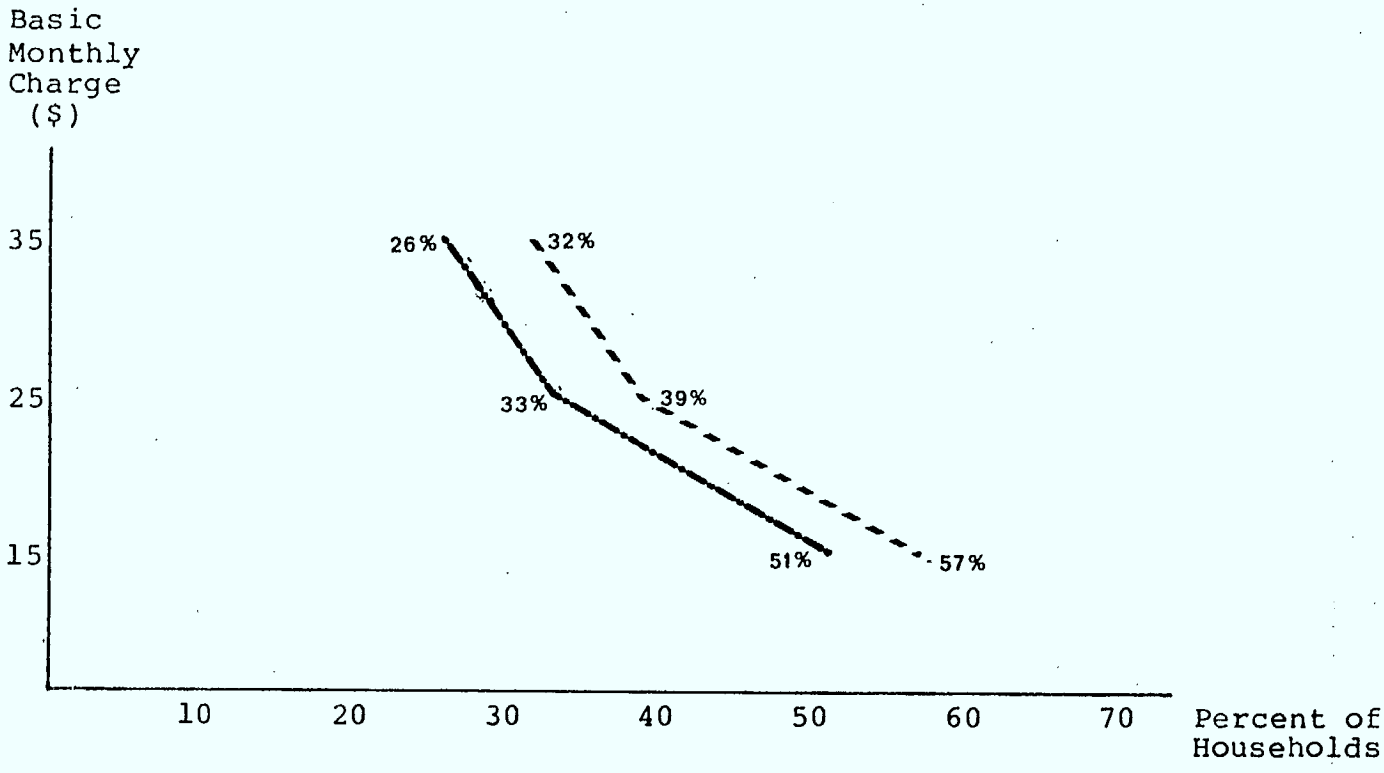


The estimated level of demand (i.e. the maximum likelihood estimate) is not expected to vary, in 68% of the cases, by more than $\pm$ 3.8% from the indicated levels.

GRAPH 13

PRICE-DEMAND RELATIONSHIP
FOR
COMBINED TELEPHONE/TELEVISION SERVICE

(PRAIRIES REGION)

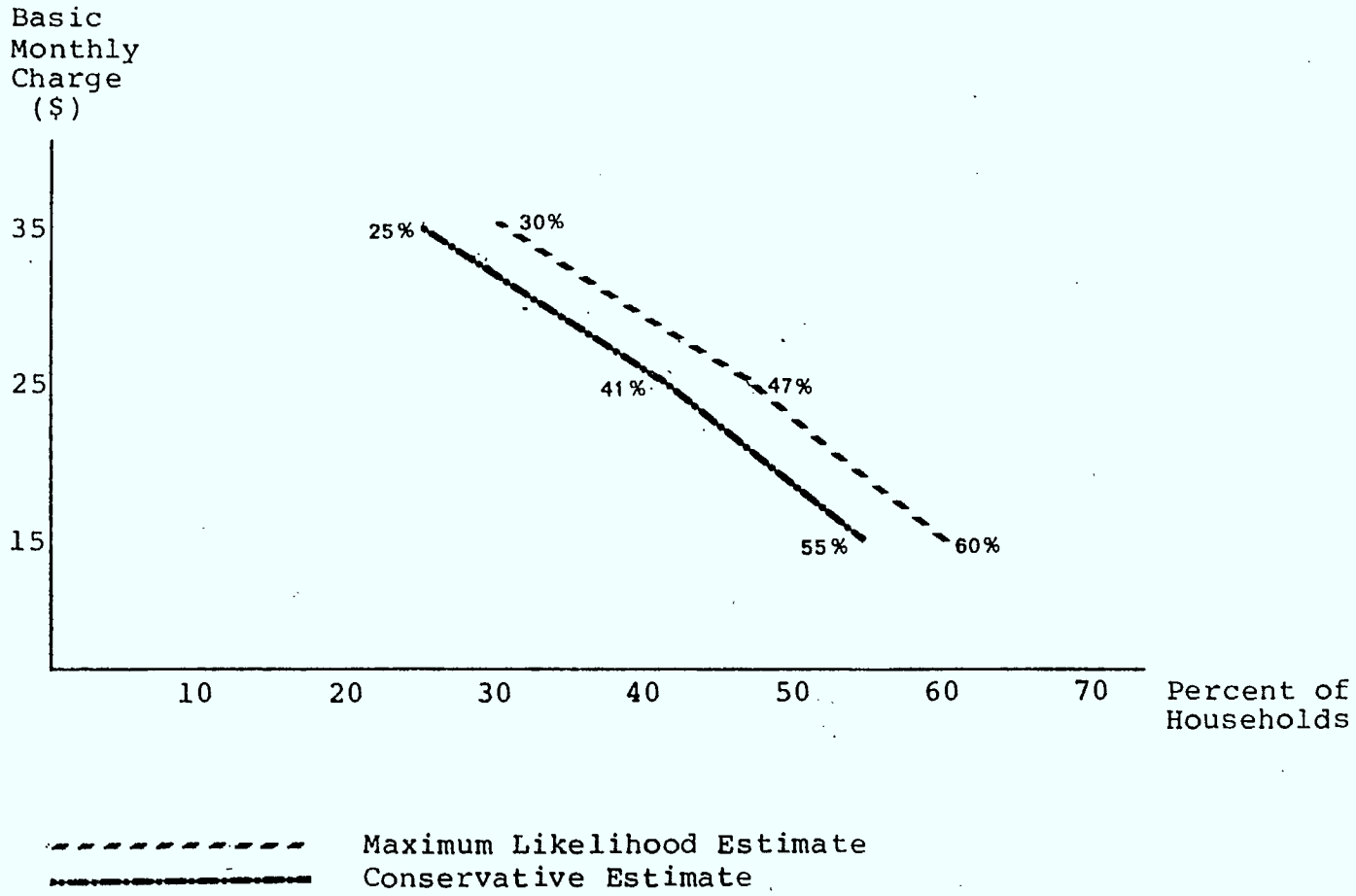


The estimated level of demand (i.e. the maximum likelihood estimate) is not expected to vary, in 68% of the cases, by more than ± 3.7% from the indicated levels.

GRAPH 14

PRICE-DEMAND RELATIONSHIP
FOR
COMBINED TELEPHONE/TELEVISION SERVICE

(BRITISH COLUMBIA REGION)

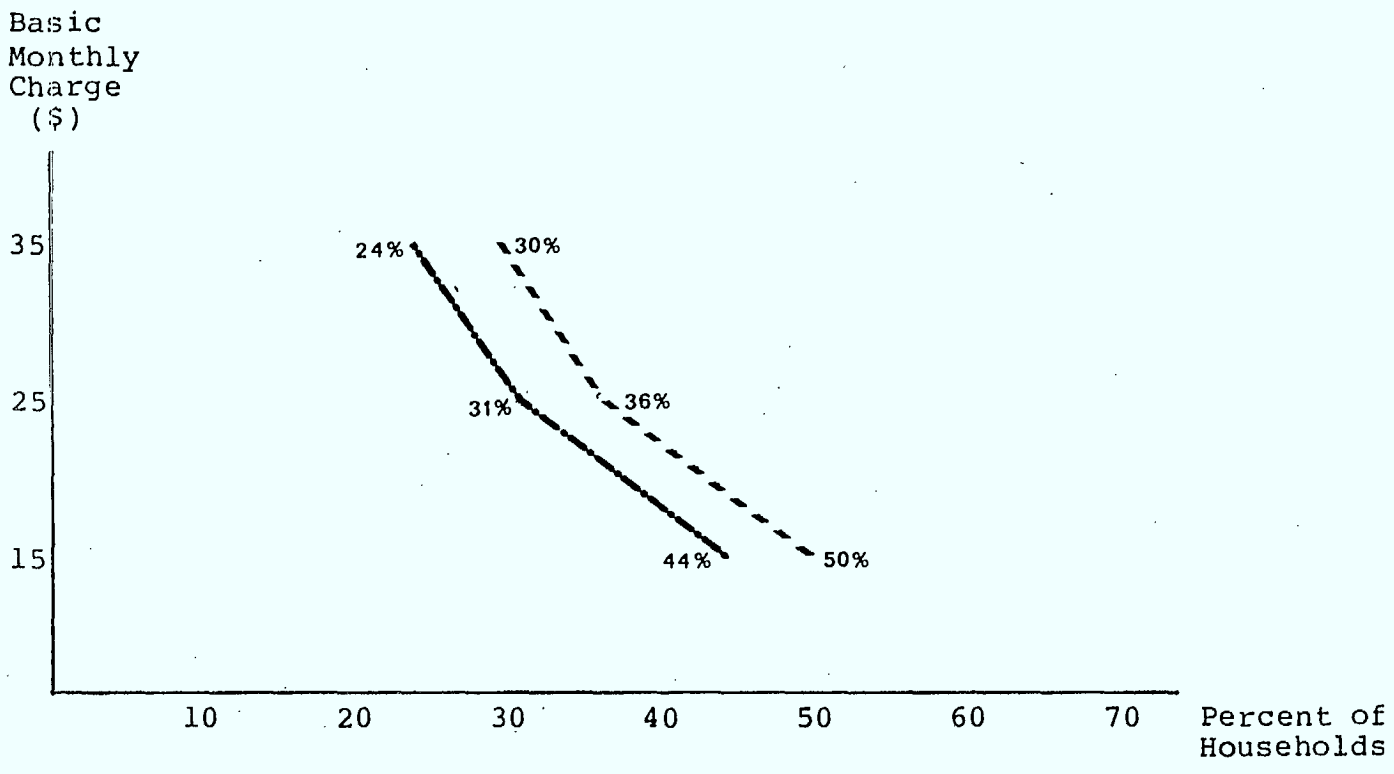


The estimated level of demand (i.e. the maximum likelihood estimate) is not expected to vary, in 68% of the cases, by more than ± 3.9% from the indicated levels.

GRAPH 15

PRICE-DEMAND RELATIONSHIP FOR COMBINED TELEPHONE/TELEVISION SERVICE

(SMALL COMMUNITIES)

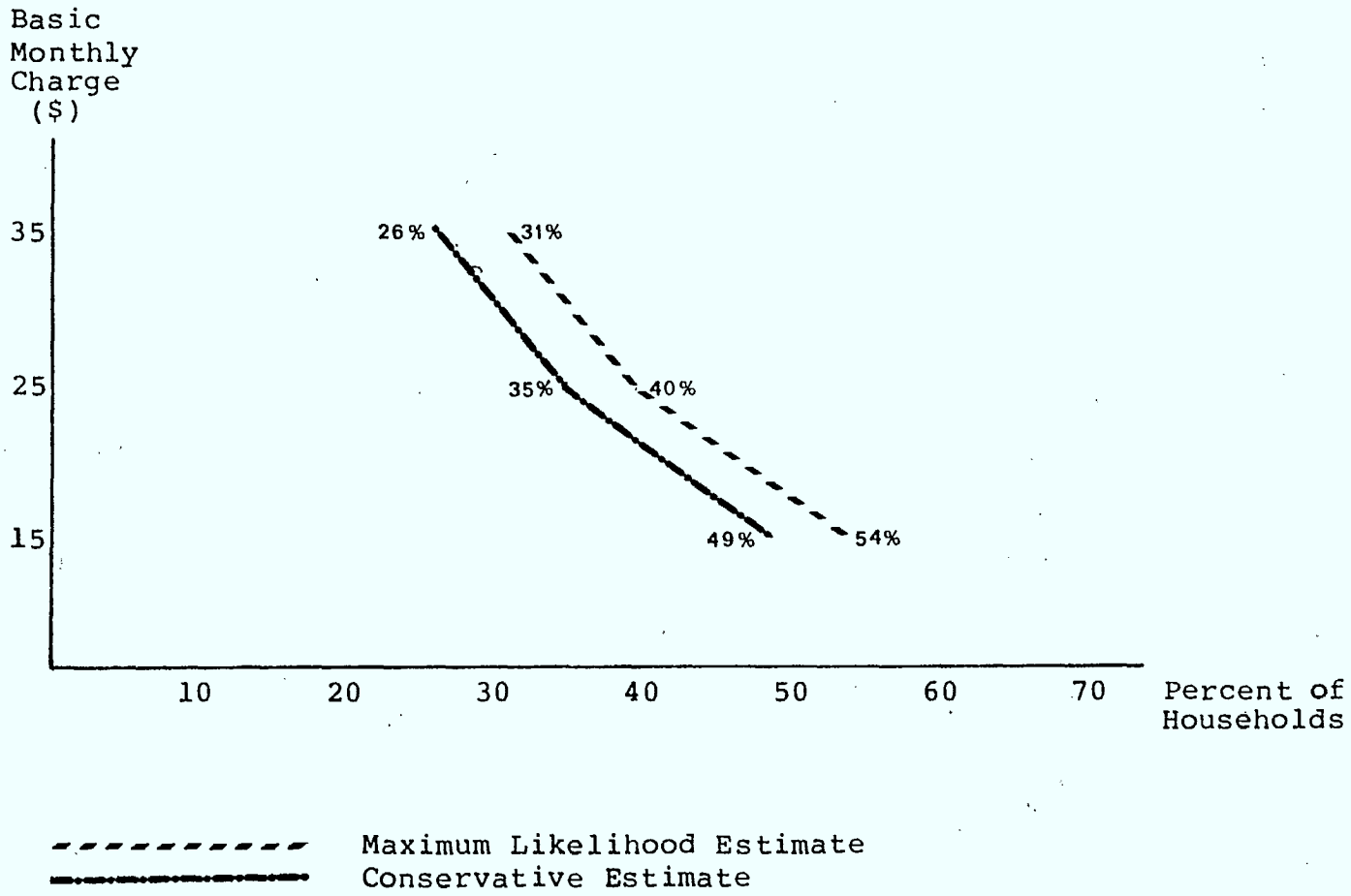


The estimated level of demand (i.e. the maximum likelihood estimate) is not expected to vary, in 68% of the cases, by more than ± 2.0% from the indicated levels.

GRAPH 16

PRICE-DEMAND RELATIONSHIP
FOR
COMBINED TELEPHONE/TELEVISION SERVICE

(LARGE COMMUNITIES)



The estimated level of demand (i.e. the maximum likelihood estimate) is not expected to vary, in 68% of the cases, by more than ± 5.2% from the indicated levels.

Generally, the demand curve estimates presented in Graphs 9 to 16 indicate that there is a demand for a combined telephone and television service in rural Canada, and that the demand curves are inelastic[1].

2.6.2.2 Correlates

As was the case for an improved television service through CATV technology, we will now develop a profile of three distinct groups of consumers. Each group represents those who are more likely to purchase the new telephone-TV service at each of three basic monthly charges (i.e. $15, $25, $35). The conclusions are drawn at the national level only. Thus, we find that as the likelihood that respondents will subscribe to the combined television and telephone service at a cost of $15.00 per month increases, so does the likelihood that respondents will:

- be more isolated in terms of communications.
- be more physically isolated.
- be more dissatisfied with their overall telephone service.

---

1 A given percentage change in price results in a smaller percentage change in demand. This suggests a relatively lower sensitivity to price.

- **feel more strongly that their telephone service needs improvement.** Comparatively more of the respondents who were very interested in this service, than those who were not at all, feel that their telephone service needs the greatest improvement relative to three other communication services (13.6% vs 11.3%).

- **be more dissatisfied with their television service in general.**

- **feel that their television service needs more improvement.** Relatively more of these respondents feel their television service needs more improvement than three other communication services (25.9% vs 14.5%).

- **presently pay more for their total monthly phone bill.**
- **have a higher household income.**

- **have more people in their household.** A relatively larger proportion of the respondents who would buy this service, than of those who would not, have five or more people in their home (29.0% versus 18.6%).

- **have more children.** Relatively more of these respondents have two or more children (34.0% versus 20.1%).

- **have colour televisions.**

- **have lived in their present home for a shorter period of time.** Almost half (42.7%) of these respondents (versus 24.9% of those who would not buy this service) have lived in their present home for less than six years.

- **have more education.** A relatively larger proportion of these respondents have attended college (13.5% versus 7.8%), or university (9.1% versus 2.7%).

- **be younger.** Over twice as many respondents who would buy this service, as those who would not, are under 45 years of age (65.2% versus 29.4%).

- **use their phone mainly for business reasons.** A relatively larger percentage of these respondents mentioned business first (30.5% versus 12.9%).

- **be less likely to use their phone because of health problems.**

- **be less likely to use their phone for security.** Proportionately more of these respondents did not mention security (81.6% versus 69.9%).

- **not be a homemaker or retired.** In relative terms, fewer of the respondents who would definitely buy this service, than of those who would not, are homemakers (29.2% versus 44.3%), or retired (5.9% versus 21.2%).

The more likely respondents were to purchase the combined television and telephone service when the monthly cost was **$25.00**, the more these respondents tended to:

- **be more physically isolated.** Over half (52.5%) of these respondents, compared to 37.0% of those who would definitely not buy the service, are more isolated than the national average.

- **be less satisfied with their present overall telephone service.**

- **feel that their telephone service requires more improvement than do other communication services.** A smaller proportion of the respondents who were definitely interested in this service, than those who were not at all, indicated that no improvements in telephone service were necessary (42.6% vs 64.1%).

- **be less satisfied with the television service in general.**

- **feel more strongly that their television services need improvement.** Relatively more of these respondents feel that television services need the most improvement (20.6% vs 15.9%).

- **presently pay more for their total monthly phone bill.** A larger proportion of these respondents, than of those who would not buy this service, paid over $25.00 for their total bill (60.1% versus 39.6%).

- **have more colour television sets.** Relatively more respondents who would certainly buy this service, than those who would not, have two colour television sets (13.3% versus 5.4%).

- **receive fewer television channels.** More than twice as many of these respondents as those who were not interested in this service, receive only one or two television channels (46.6% vs 22.1%).

- **have lived in their present home for a shorter period of time.** Over half (53.4%) of these respondents, versus 29.9% of those who would not buy this service, have lived in their present home for less than six years.

- **rent their home.** Relatively more of these respondents rent their home (17.6% versus 8.0%).

- **have a higher household income.** A larger percentage of the respondents who would definitely buy this service, than of those who would not, earn more than $17,499 a year (56.3% versus 35.7%).

- **have more people in their household.** Comparatively more of these respondents have four or more people in their home (55.8% versus 39.5%).

- **have more children.** A larger proportion of these respondents who most certainly would subscribe to this service, than of those who would not, have two children (25.6% versus 14.7%), or three children (8.8% versus 5.4%).

- **have a higher education.**

- **be younger.** Relatively more of these respondents are under 45 years of age (69.5% versus 37.5%).

- **speak english most often at home.** The majority (73.3%) of these respondents speak english most often.

- **not be homemakers or retired.** A relatively smaller proportion of these respondents are homemakers (31.2% versus 40.2%), or retired (5.4% versus 19.6%).

- **be labourers or executives.** Comparatively more of the respondents who would definitely subscribe to this service, than those who would not, are skilled labourers (21.8% versus 12.1%), unskilled labourers (9.1% versus 5.0%), or executives (8.5% versus 3.4%).

When the monthly cost of this new service offering was **$35.00**, the results of this analysis indicated that as the likelihood that respondents would purchase it increases, so does the likelihood that respondents will:

- **be dissatisfied with their overall telephone service.**

- **feel that their telephone service requires more improvement than do other communication services.** While the majority (59.5%) of those who would definitely not buy this service feel it needs no improvement, this is true for only one third (33.9%) of those who certainly would buy it.

- **be more dissatisfied with their television service in general.**

- **feel strongly that television services need the most improvement.** Relatively more of these respondents indicated that television service needs more improvement than any other communication service (24.4% vs 17.1%).

- **presently pay more for their basic phone service.** A relatively larger proportion of the respondents who would definitely buy this service, than of those who would not, presently pay over $10.00 a month for their basic phone service (45.5% versus 31.2%).

- **pay a higher total phone bill.** Comparatively more of these respondents paid over $25.00 for their total bill (65.5% versus 38.7%).

- **paid more for special TV reception equipment.**

- **perceive themselves to be isolated.** In relative terms, more of the respondents who would buy this service, versus those who would not, consider themselves isolated (28.8% versus 13.8%).

- **have lived in their present home for a shorter period of time.**

- **have a higher household income.** A relatively larger proportion of these respondents, earn $25,000 a year or more (24.1% versus 15.7%).

- **have more people in their household.** Proportionately more of the respondents who would certainly buy this service, than of those who would not, have five or more people in their home (22.7% versus 17.9%).

- **have more children at home.** Relatively, a larger proportion of these respondents have two (21.6% versus 12.5%), or three (6.5% versus 4.7%) children.

- **have more education.** Twice as many of the respondents who would definitely buy this service, as those who would not, have more than a high school education (25.1% versus 12.1%).

- **be younger.** While over half (67.3%) of these respondents are under 45 years of age, this is true of only 36.2% of those who would not buy this service.

- **use their phone mainly for business reasons.**

- **not be homemakers or retired.** A relatively smaller proportion of the respondents who would definitely buy this service, than of those who would not, are homemakers (21.4% versus 36.6%), or retired (5.5% versus 15.6%).

- **be skilled labourers, executives or professionals.** Relatively more of these respondents are skilled labourers (23.1% versus 13.7%), executives (9.8%

versus 2.8%), or professionals (8.8% versus 3.1%).

- **be married.** The majority (86.3%) of these respondents are married.
- **speak english most often at home.** A relatively larger percentage of these respondents speak english most often (72.0% versus 68.3%).

Although there are some differences between the groups who would subscribe to this service at each price level, in general the three groups are very similar. For example, each group tends to be relatively more isolated, less satisfied with their present telephone and television services, has a higher household income, more education and is younger.

2.6.3 Improved Service Through Satellite Type of Technology[1]

2.6.3.1 Forecasts

Respondents living in rural households were offered improved television service which would be made available through a different technology requiring the purchase of a special reception unit. This service would include the following features:

- reception of at least six different channels in their own language (English or French).

---

1 Based on responses to Question 22.

- excellent reception on each channel.
- same type of programming currently received.
- the new unit would replace all existing reception equipment, including antenna, booster, rotor, etc.

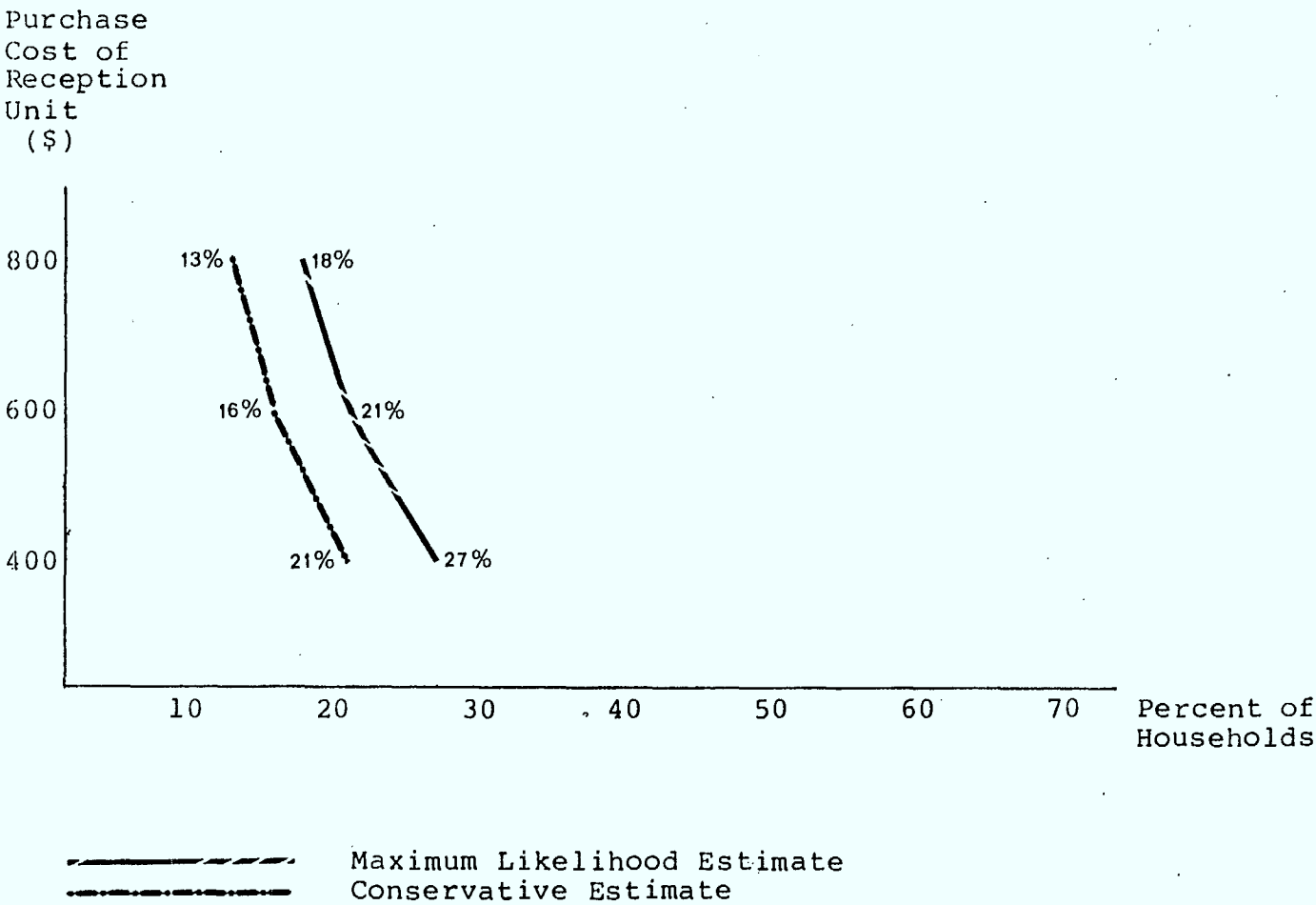
Respondents were offered this equipment at one of three different prices (i.e. $400, $600, or $800) and were asked if they would purchase the equipment within the next 12 months. Somewhat less than one third (27%) of the rural households indicated that they would purchase the equipment for $400, and this proportion dropped to 18% at the $800 price level. These results are illustrated by the maximum likelihood estimate of demand in Graph 17. A conservative estimate of the demand curve is also presented in Graph 17 and, although the conservative estimates are somewhat lower, the curve is similar to the maximum likelihood estimate.

Although the demand curve estimates for each region are generally around the same level as the national (i.e. 20% to 30%), the maximum likelihood estimates for each region are almost always significantly different

GRAPH 17

PRICE-DEMAND RELATIONSHIP FOR IMPROVED TELEVISION SERVICE (Satellite Technology)

(NATIONAL)



The estimated level of demand (i.e. the maximum likelihood estimate) is not expected to vary, in 68% of the cases, by more than ± 1.7% from the indicated levels.

from each of the other four regions[1] (see Graphs 18 to 22). While in Quebec, the demand curves are quite similar to the national estimates, smaller proportions of rural households would purchase the equipment at each price level in the Atlantic and Ontario regions and, conversely, larger proportions would make this purchase in the western regions.

Examining the demand curve estimates for small and large communities, it is evident that the results are extremely similar to the national results. However, despite the apparently minor differences between the community sizes, the maximum likelihood results are significantly different at both the low and medium price levels (see Graphs 23 and 24).

2.6.3.2 Correlates

As was the case in the previous two new service scenarios, those respondents who are more likely to buy the new equipment necessary for improved television

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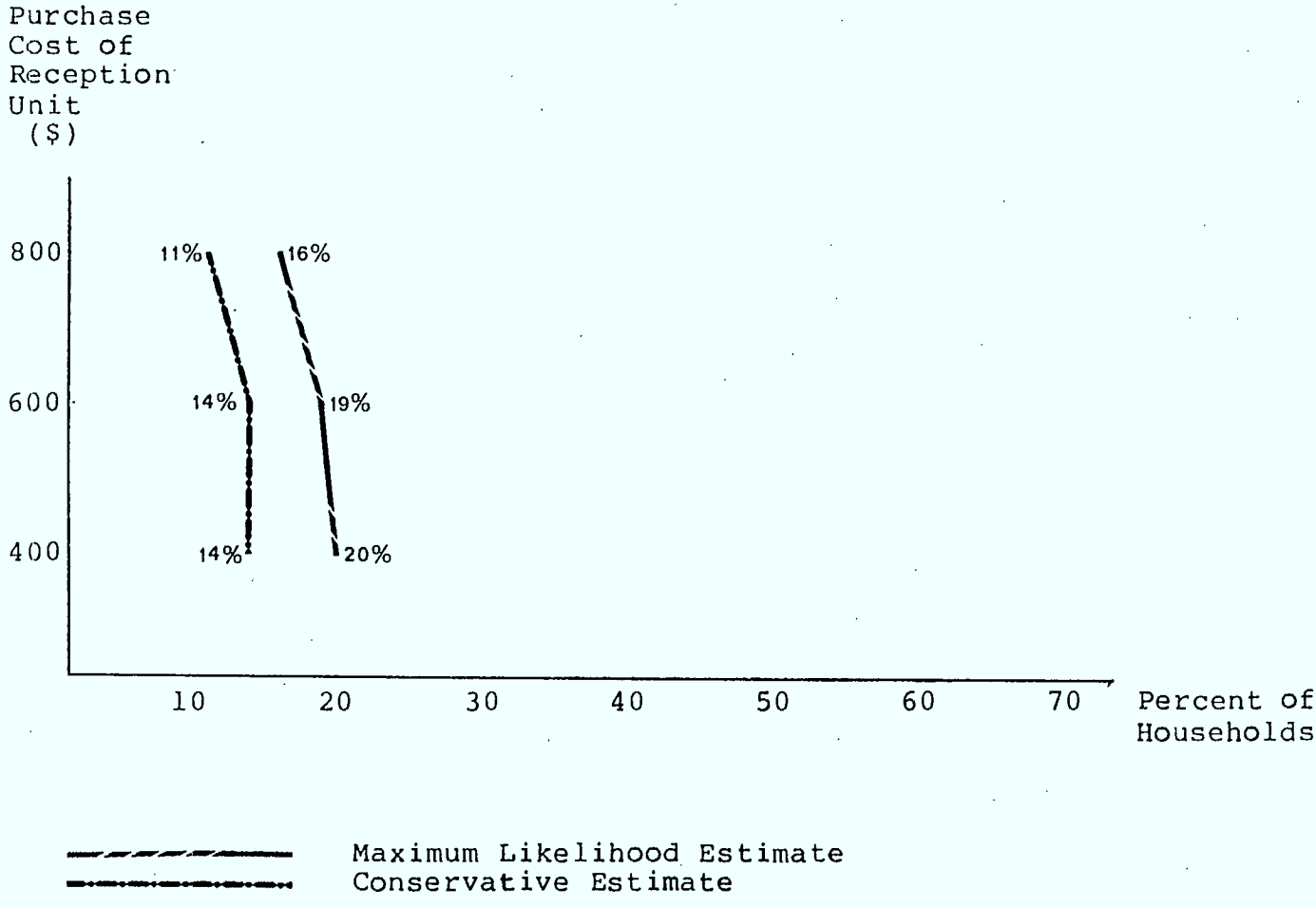
1 There are two exceptions:

- the Atlantic region is not significantly different from the Quebec region at the $600 price level.
- the Prairie region is not significantly different from B.C. at the $600 price level.

GRAPH 18

PRICE-DEMAND RELATIONSHIP FOR IMPROVED TELEVISION SERVICE (Satellite Technology)

(ATLANTIC REGION)

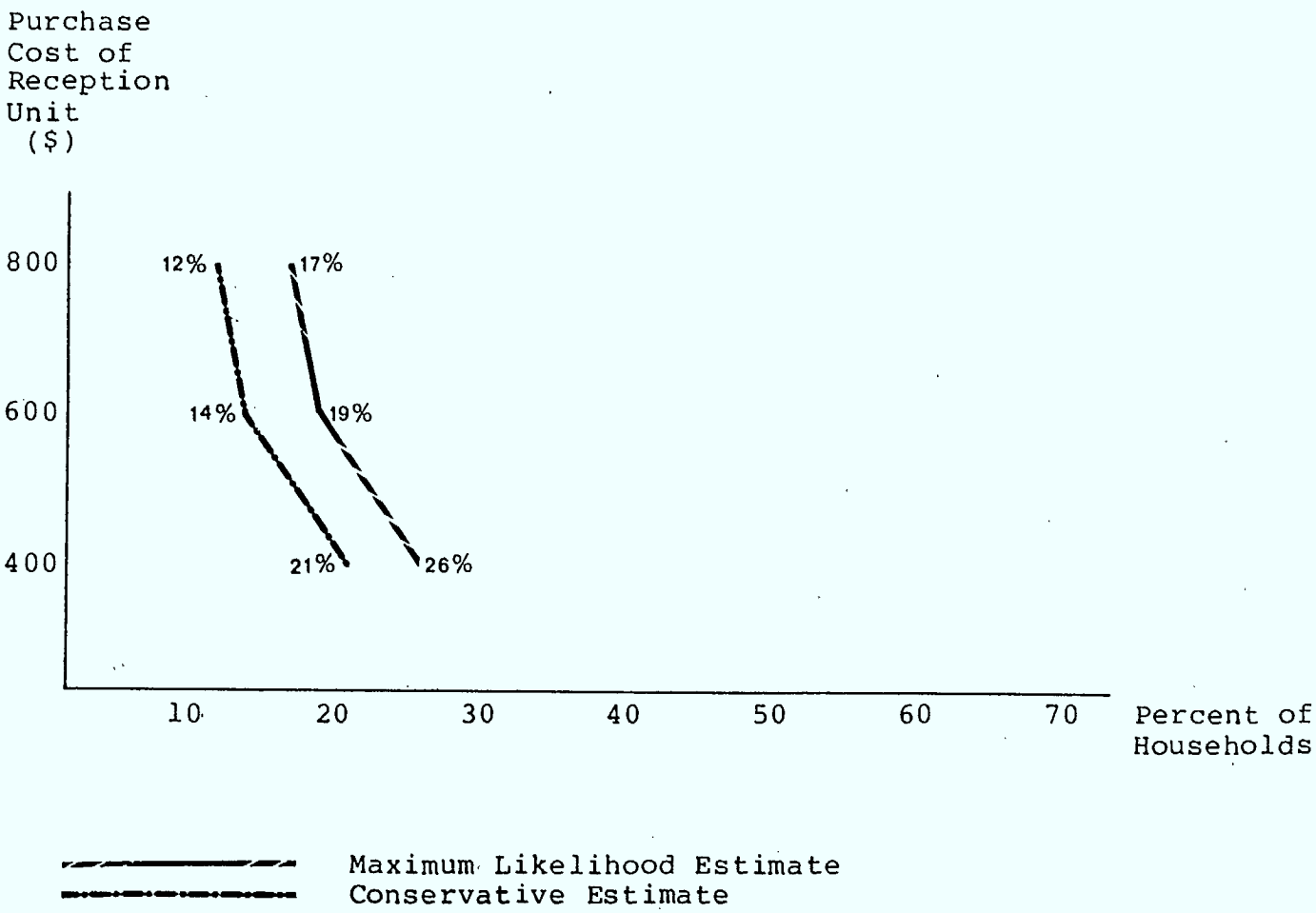


The estimated level of demand (i.e. the maximum likelihood estimate) is not expected to vary, in 68% of the cases, by more than ± 3.0% from the indicated levels.

GRAPH 19

PRICE-DEMAND RELATIONSHIP
FOR
IMPROVED TELEVISION SERVICE
(Satellite Technology)

(QUEBEC REGION)

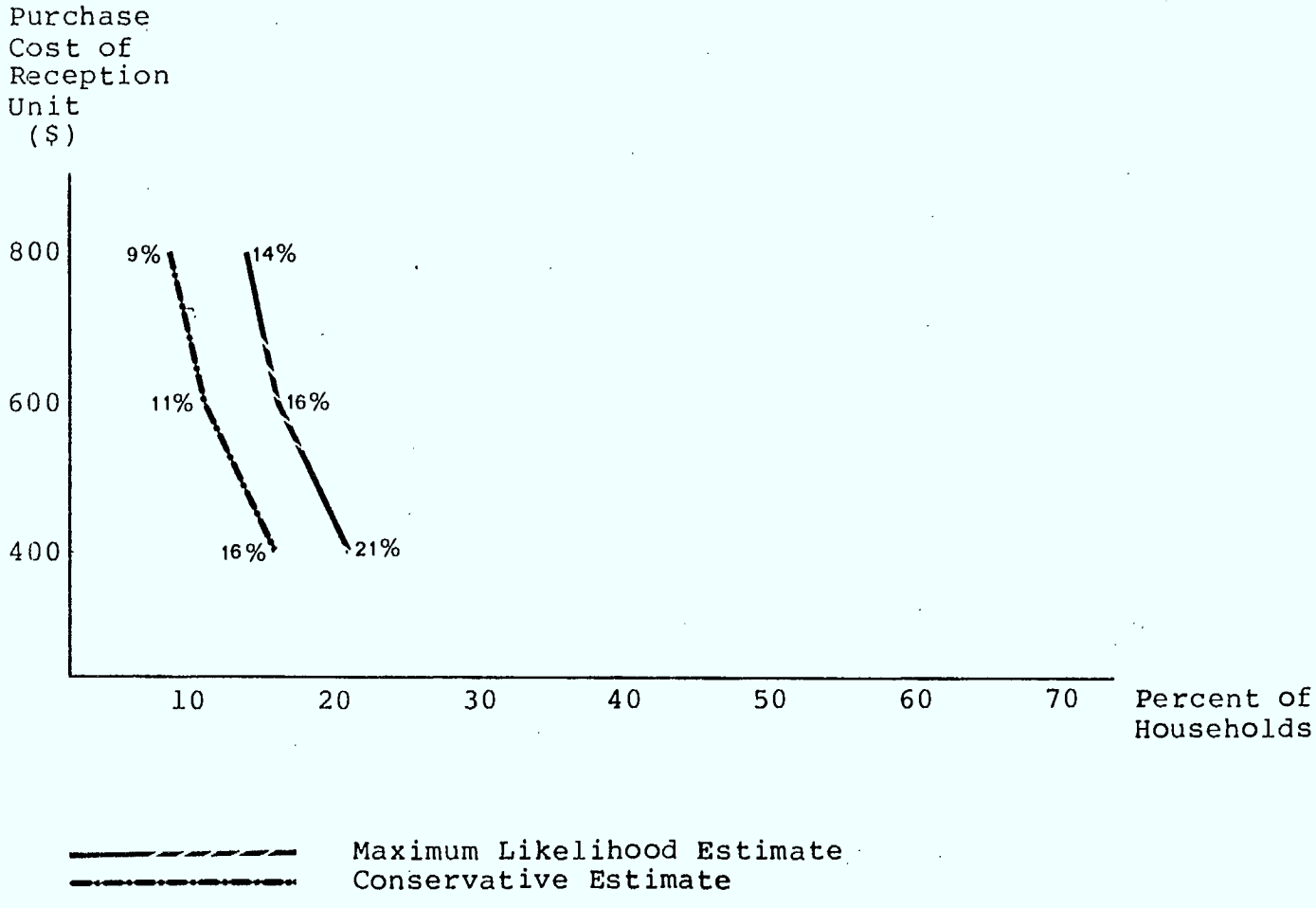


The estimated level of demand (i.e. the maximum likelihood estimate) is not expected to vary, in 68% of the cases, by more than ± 3.1% from the indicated levels.

GRAPH 20

PRICE-DEMAND RELATIONSHIP
FOR
IMPROVED TELEVISION SERVICE
(Satellite Technology)

(ONTARIO REGION)

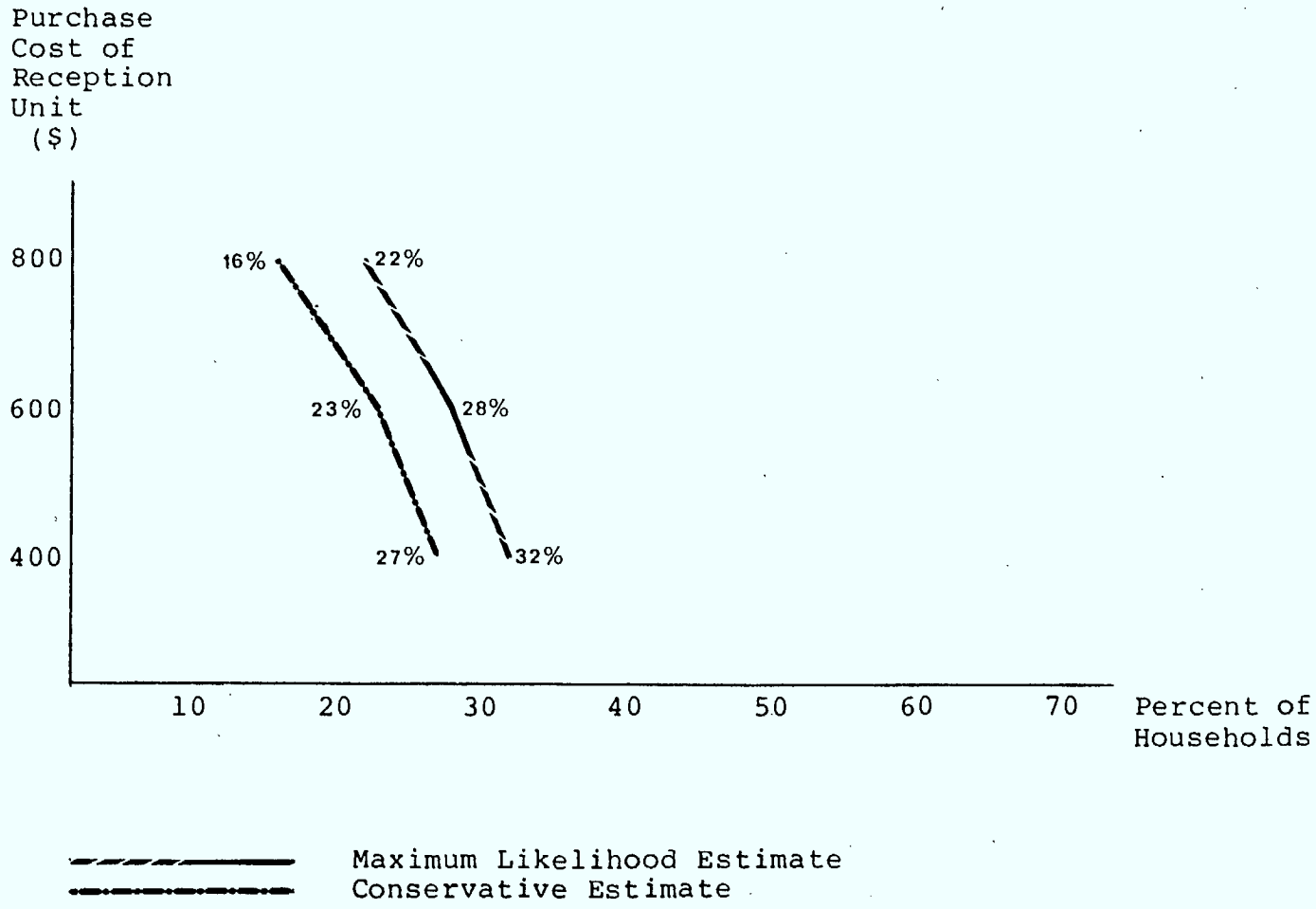


The estimated level of demand (i.e. the maximum likelihood estimate) is not expected to vary, in 68% of the cases, by more than ± 3.2% from the indicated levels.

GRAPH 21

PRICE-DEMAND RELATIONSHIP
FOR
IMPROVED TELEVISION SERVICE
(Satellite Technology)

(PRAIRIES REGION)

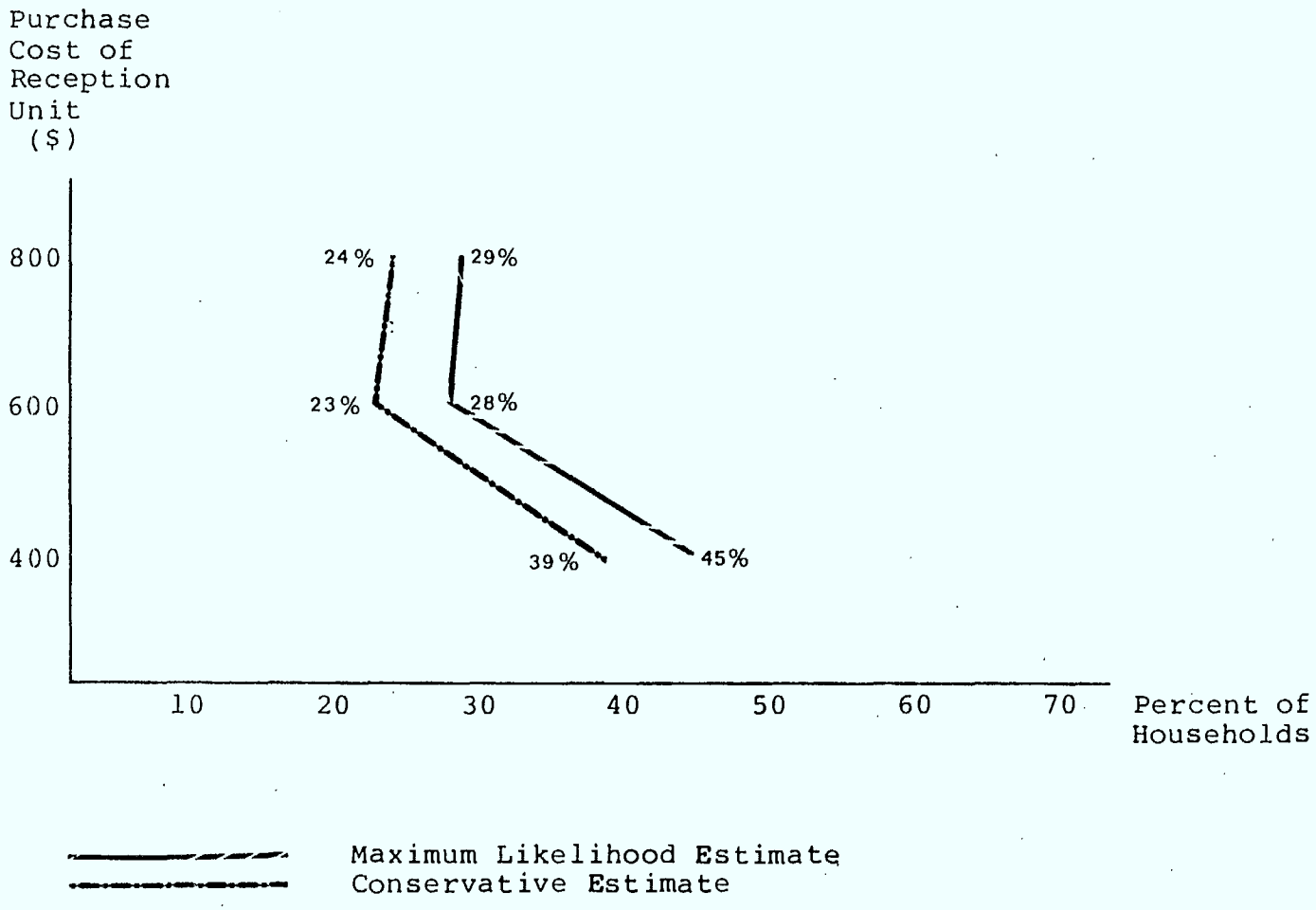


The estimated level of demand (i.e. the maximum likelihood estimate) is not expected to vary, in 68% of the cases, by more than ± 3.5% from the indicated levels.

GRAPH 22

PRICE-DEMAND RELATIONSHIP
FOR
IMPROVED TELEVISION SERVICE
(Satellite Technology)

(BRITISH COLUMBIA REGION)

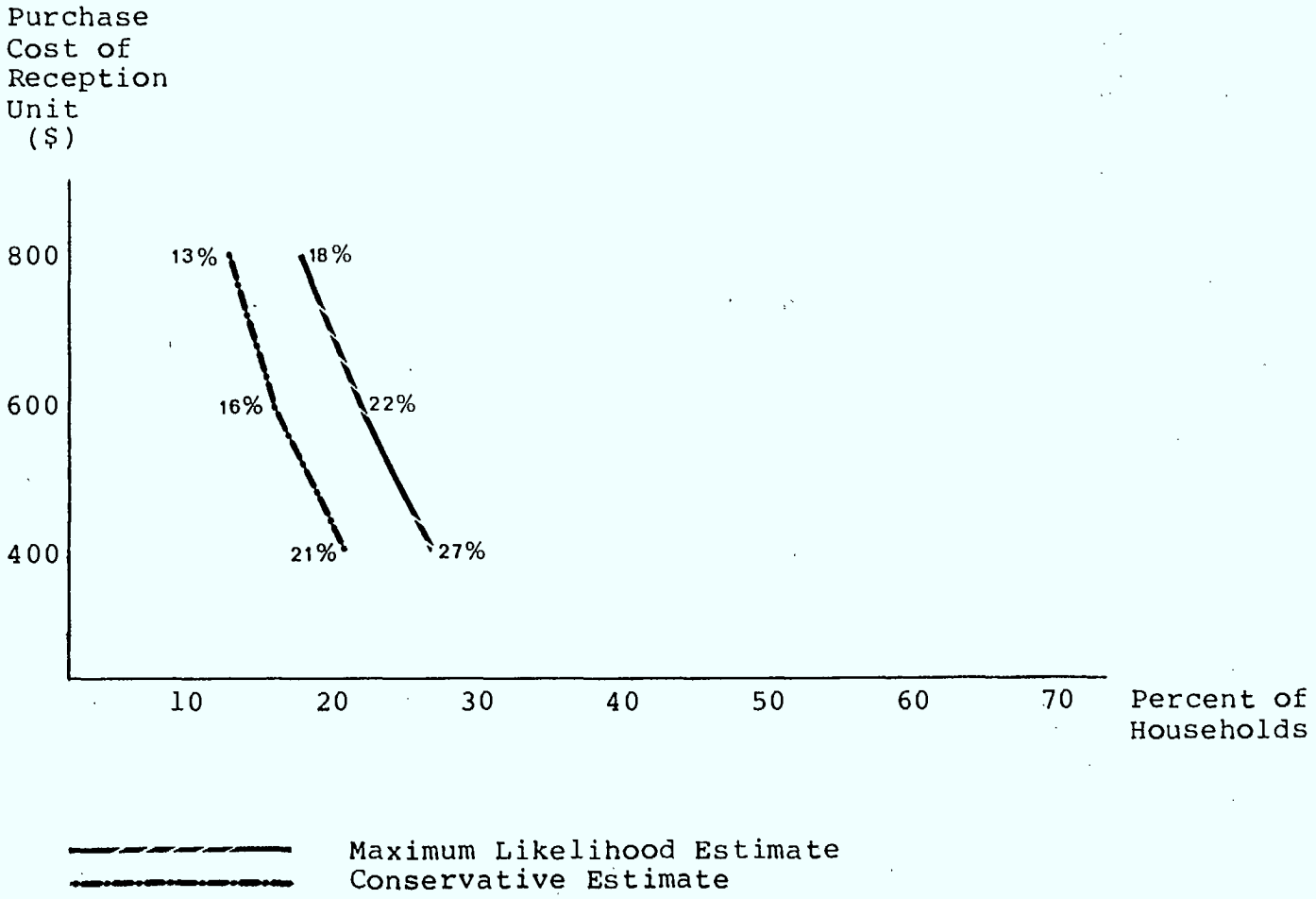


The estimated level of demand (i.e. the maximum likelihood estimate) is not expected to vary, in 68% of the cases, by more than ± 4.0% from the indicated levels.

GRAPH 23

PRICE-DEMAND RELATIONSHIP
FOR
IMPROVED TELEVISION SERVICE
(Satellite Technology)

(SMALL COMMUNITIES)

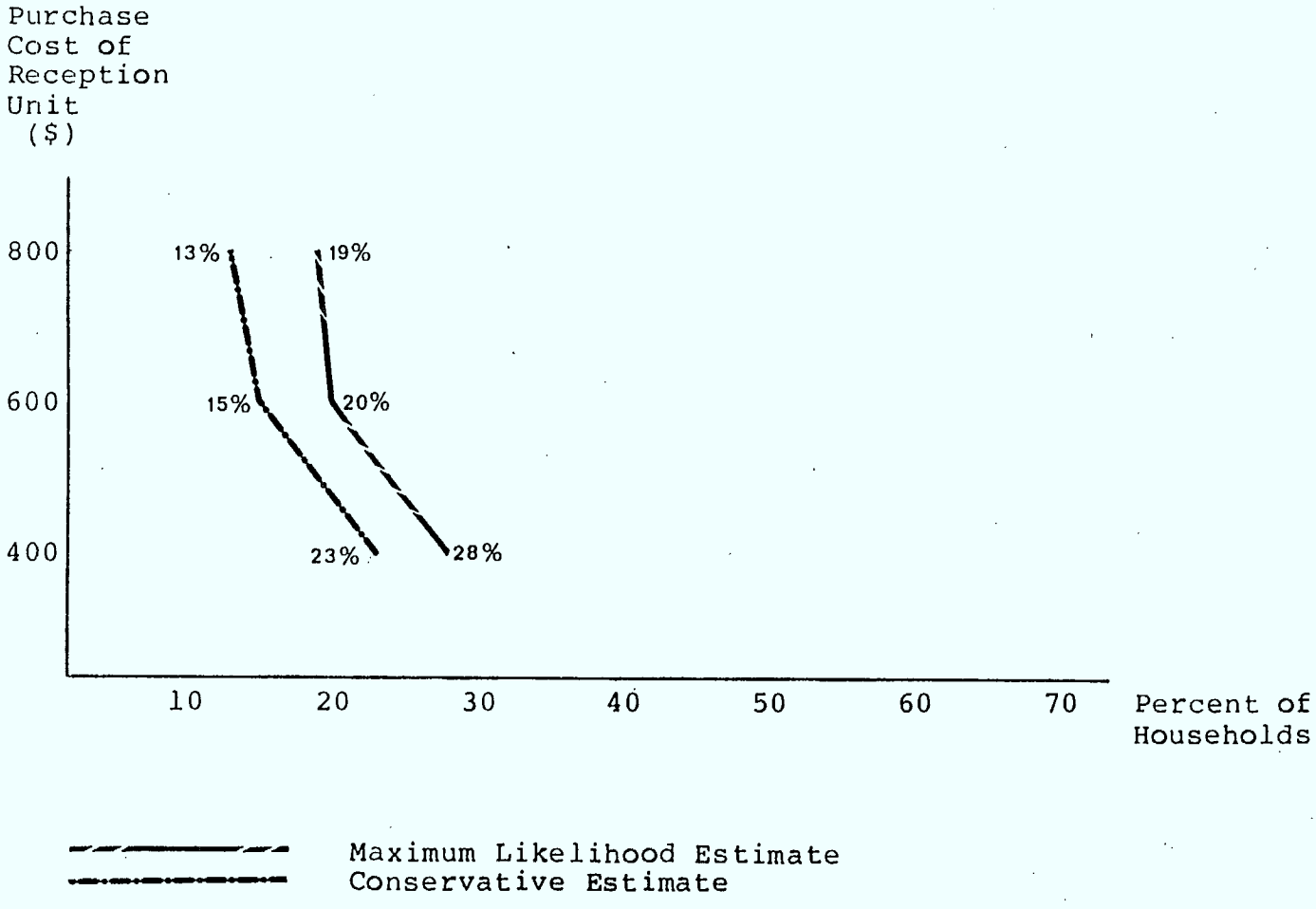


The estimated level of demand (i.e. the maximum likelihood estimate) is not expected to vary, in 68% of the cases, by more than ± 1.8% from the indicated levels.

GRAPH 24

PRICE-DEMAND RELATIONSHIP FOR IMPROVED TELEVISION SERVICE (Satellite Technology)

(LARGE COMMUNITIES)



The estimated level of demand (i.e. the maximum likelihood estimate) is not expected to vary, in 68% of the cases, by more than ± 4.8% from the indicated levels.

service at each of the three different prices, are profiled in terms of various household characteristics. This analysis was carried out at the national level only.

As the likelihood that respondents will buy the special reception unit for **$400** increases, so does the likelihood that respondents will:

- **be more physically isolated.**
- **have lived in their present home for a shorter period of time.**
- **be younger.** In relative terms, more of the respondents who would buy this reception unit, than those who definitely would not, are under 35 years of age (36.8% vs 23.2%).
- **have more children at home.** A larger proportion of these respondents have one or two children at home (38.0% vs 25.6%).
- **have a higher household income.** While over one third (36.7%) of the respondents who would definitely buy this unit earn $25,000 a year or more, this is true of only 18.7% of those who have no intention of buying the unit.
- **be skilled labourers or farmers.** Relatively more of these respondents are skilled labourers (23.0% vs 13.0%), or farmers (19.4% vs 7.3%).
- **be dissatisfied with their overall television service.** A larger proportion of these respondents are presently dissatisfied with their general service (41.4% vs 16.7%).
- **place more emphasis on the need for improvement in television services, relative to other communication services.** Comparatively more of the respondents who were very interested in this service, than those who would not make this purchase, feel television service requires the most improvement (28.2% vs 15.7%).

- **have paid more for any special TV reception equipment they presently own.**

- **receive fewer television channels.** A larger proportion of these respondents receive only one or two channels (40.0% vs 28.0%).

- **obtain good reception on fewer American or Canadian (English) channels.** Relatively more of the respondents who would definitely buy this reception unit, than those who indicated "no chance", receive only one or two American or English channels with good reception (49.4% vs 24.4% and 71.0% vs 59.4% respectively).

- **be men.** While the majority (62.4%) of the respondents who would buy the unit are men, less than half (47.0%) of those who were not interested are men.

- **speak English most often at home.** Almost three quarters (72.1%) of these respondents speak English most often, compared to 60.9% of those who indicated there was only a possibility that they would buy this equipment.

The more likely respondents are to purchase the new reception unit when the price is **$600**, the more these respondents tend to:

- **have a higher household income.** A relatively larger proportion of the respondents who would buy this unit for $600, than of those who definitely would not, earn at least $25,000 a year (32.0% vs 18.4%).

- **be dissatisfied with their present overall television service.** While half (50.1%) of these respondents are dissatisfied, only 19.3% of those who are not interested in this purchase are not satisfied.

- **feel more strongly that this service requires improvement over other communication services.** Approximately twice as many of these respondents consider television service to need the most improvement (34.1% vs 16.3%).

- **own more special TV reception equipment.** A larger proportion of these respondents presently own special equipment (80.0% vs 65.9%).

- **own a greater number of colour television sets.** While the majority of both those respondents who would definitely buy this equipment and those who would not have one colour TV set (82.7% and 72.3% respectively) relatively more of the first group own two or more sets (13.9% vs 7.2%).

- **receive fewer American channels with good reception.**

- **be men.** Relatively more of these respondents are men (67.6% vs 46.5%).

At a price of **$800** for this special reception unit, the results of this analysis indicate that as the likelihood that respondents would buy the equipment increases, so does the likelihood that the respondents will:

- **have a higher household income.** A larger proportion of the respondents who indicated that they would certainly buy the reception unit at $800, than of those who definitely would not, earn at least $25,000 a year (38.0% vs 18.5%).

- **be dissatisfied with their general television service.** While almost half (41.2%) of these respondents are dissatisfied with their service, less than one fifth (18.0%) of those who would not make this purchase are not satisfied.

- **own a greater number of colour TV sets.** Relatively more of those who would definitely buy the reception unit, than of those who would not, own two or more colour sets (14.6% vs 7.8%).

- **speak English most often at home.** A larger

proportion of these respondents speak English most often (81.5% vs 71.2%).

In summary, it is apparent that the only real difference between the three groups of purchasers is that as the price of the equipment increases, the descriptions of those respondents who would make the purchase narrows. Common to each group is the fact that respondents who would definitely buy the reception unit tend to have higher household incomes and are more dissatisfied with their overall television service.

2.7 Long Term Demand Forecasts

2.7.1 Improved Television Service through CATV Type of Technology

The model chosen for the long term demand forecasts is that typically adopted when modelling the adoption and diffusion of innovations. The model[1] describes the life cycle of an innovation, including the number of individuals adopting the innovation in a given year, the number of years required for the adoption to peak, and the number of years required for all potential adopters to make their decision to adopt. In order to use this model, it was necessary to identify three factors:[2]

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1 This model was earlier presented in greater detail. Refer to "Demand for Rural Communication Services in Canada - Focus Groups and Research Instruments." Final Report, Phase I, DOC (May 1979).

2 The "contagion factor", which is directly proportional to the rate of adoption, was estimated from historical data for rural cable television companies (the contagion factor "P" used was 0.8). The potential market is a function of the number of rural households which presently have a television (i.e. 97.7%), the price level, and the level of first year sales. The first year sales were derived directly from the short term demand forecasts (see Section 2.6). For further information on the derivation of these data, refer to "Study of the Demand for Communication Services in Rural Canada: Analysis of the Pilot Survey Results", DEMAND Research Consultants, (May 5, 1981).

1) the "contagion factor" which is directly related to the rate at which an innovation in communication is adopted,

2) the number of potential adopters, and

3) the number of adoptions which will occur during the first year.

Having derived these data, the long term forecasts were generated for each price level (i.e. $6, $12, and $20), and the results are presented in Table 34 and Graph 25.

While examining the results of this forecast, and others included in this section, it should be noted that historical data for rural cable companies was used to estimate parameters of all models. Therefore, the resulting forecasts are more likely to be more realistic for services using CATV type of technology than, for example, satellite technology.

Examining the forecasts in Graph 25, it is evident that the greatest number of adoptions of the improved television service[1] would occur within the first few years, regardless of the price level. In fact, one half of the potential market will have subscribed to this service within two years at the low or medium price, and just after two years for the high price

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1 That is, a service comparable to that available in large cities. It would provide at least six different channels, and the reception on each channel would be excellent.

TABLE 34

LONG TERM DEMAND FORECASTS

FOR

IMPROVED TELEVISION SERVICE

THROUGH CATV TECHNOLOGY

(National)

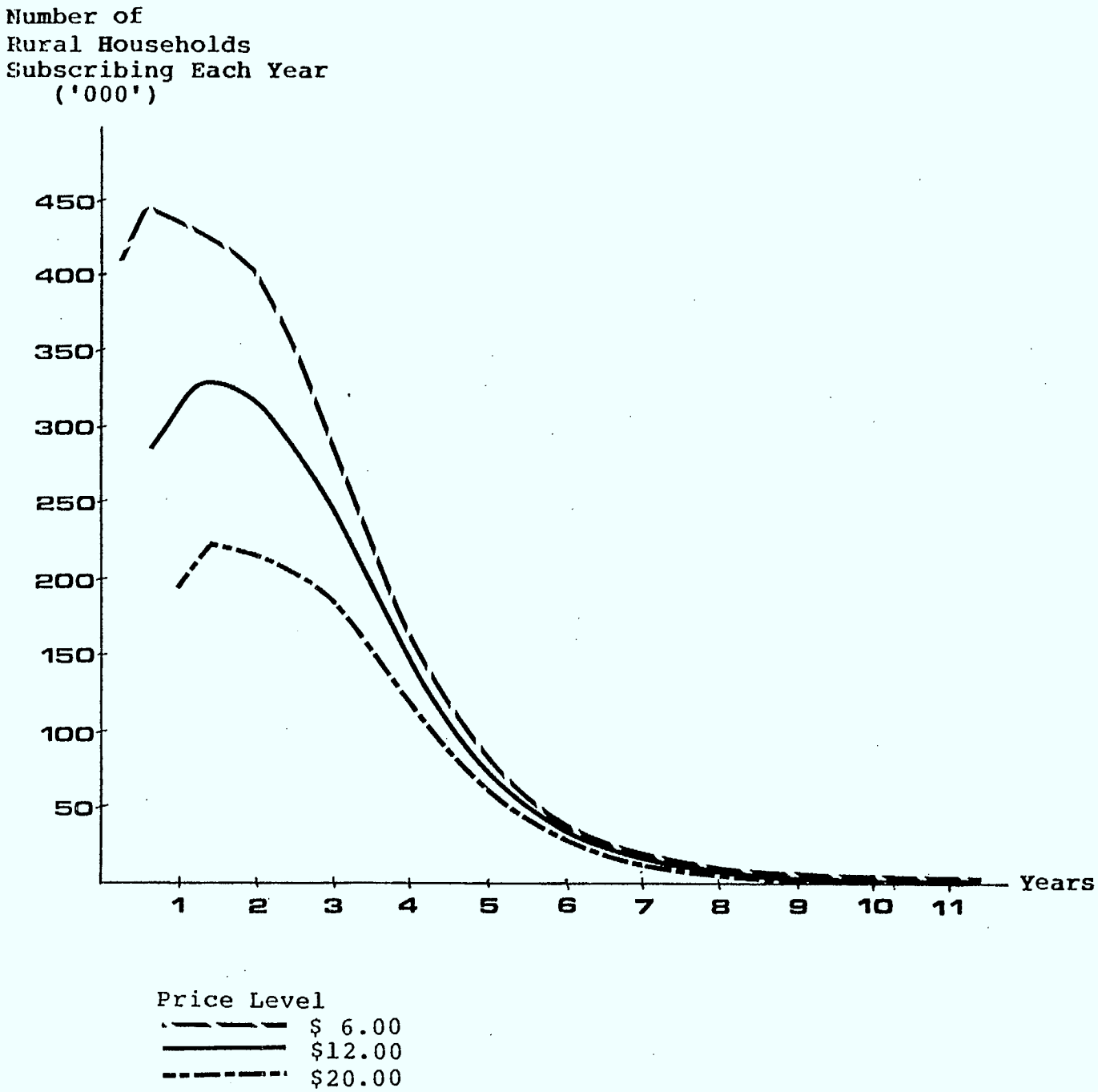
	Number of Rural Households Subscribing (in Thousands)		
Year	$6.00	$12.00	$20.00
1	437.1	314.3	192.2
2	404.9	316.9	218.4
3	283.7	238.6	183.8
4	162.3	143.1	119.5
5	82.2	74.5	65.2
6	39.1	35.9	32.2
7	18.0	16.7	15.1
8	8.2	7.6	6.9
9	3.7	3.4	3.1
10	1.7	1.5	1.4
11	0.8	0.7	0.6
Total Households Adopting After 10 Years:	1,440.9	1,152.5	837.8
Potential Market:	1,442.2	1153.8	839.1
Peak Sales:	447.1	332.3	221.5
Years to Peak Sales:	0.7	1.1	1.4

GRAPH 25

NATIONAL LONG TERM DEMAND FORECASTS

FOR

IMPROVED TELEVISION SERVICE
(CATV Technology)



scenario. Peak sales occur after approximately eight months when the monthly cost is $6.00, after thirteen months when the price is $12.00, and after seventeen months with a rate set at $20.00.

In the discussion of the short term forecasts, (refer to Section 2.6.1) it was noted that approximately half (i.e. 55%) of the respondents indicated that they would probably adopt this service at a monthly rate of $6.00, within twelve months. These households would then act as information providers to other potential, though somewhat more reluctant, adopters. It is important to note that while these information providers indicated they would probably subscribe, it does not mean that they "definitely" would, but that they are "predisposed" towards this new service. As a result, these respondents are considered to be "carriers" which implies that while most would probably make this purchase, not all would. Therefore, the first year sales according to the long term forecast are not as high as those in the short term demand estimates. This explains the sharp decrease in the number of adoptions between the second and sixth year, as there are continually fewer potential adopters left. During the remaining years, only the "laggards" are left to

subscribe to the service.

The same process occurs with each of the other price levels, although the potential market size decreases proportionately as the price increases (this also assumes that the high price would increase and remain "relatively" high over time). Additionally, as the price increases, the potential adopters become more reluctant to subscribe, hence the peak sales occur later, and the slopes of the respective curves become less extreme.

Regardless of the price level, market saturation occurs after approximately ten years[1]. However, in view of the smaller potential markets for the higher price levels, the cumulative sales are different. At a cost of $6 per month, 1,440,760 households, or 99.9% of the potential market, are estimated to have adopted this service after ten years. This adoption level represents 97.6% of all present rural households (i.e. 1,476,154). Within the same time period at a price of $12, 1,152,500 households should have subscribed from a

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1 It is important to note that while these models generate relatively high saturation levels, the current saturation level in urban areas is much lower (i.e. 65%). Additionally, the model used to generate these forecasts does not take into account the fact that certain households in rural areas are too isolated to receive CATV type of services.

potential of 1,153,800. That is, a price increase of 100% represents a decrease of only 20% in the number of subscribers. Additionally, after ten years, essentially all potential households (i.e. 99.8% or 837,800 households) will have subscribed at a price of $20 a month. In this case, a price increase of 233% (i.e. over the $6 level) diminishes the number of subscribers by 42%.

In conclusion, more than half of the "potential adopters" of the improved television service, will subscribe to this new service within three years regardless of the price and, within ten years, the market would essentially be saturated.

2.7.2 Combined Telephone and Television Service

Employing the same procedure described in the previous section (2.7.1), long term forecasts were derived for a combined telephone and television service[1] at three different price levels (i.e. $15, $25, and $35). The forecasts are presented in Table 35 and Graph 26.

---

1 This service would provide the following features:
- reception of at least six different TV channels in their own language,
- excellent reception on each station,
- same type of programming they currently receive,
- private telephone line, and
- a larger free calling area.

TABLE 35

LONG TERM DEMAND FORECASTS
FOR
COMBINED TELEPHONE/TELEVISION SERVICE

(National)

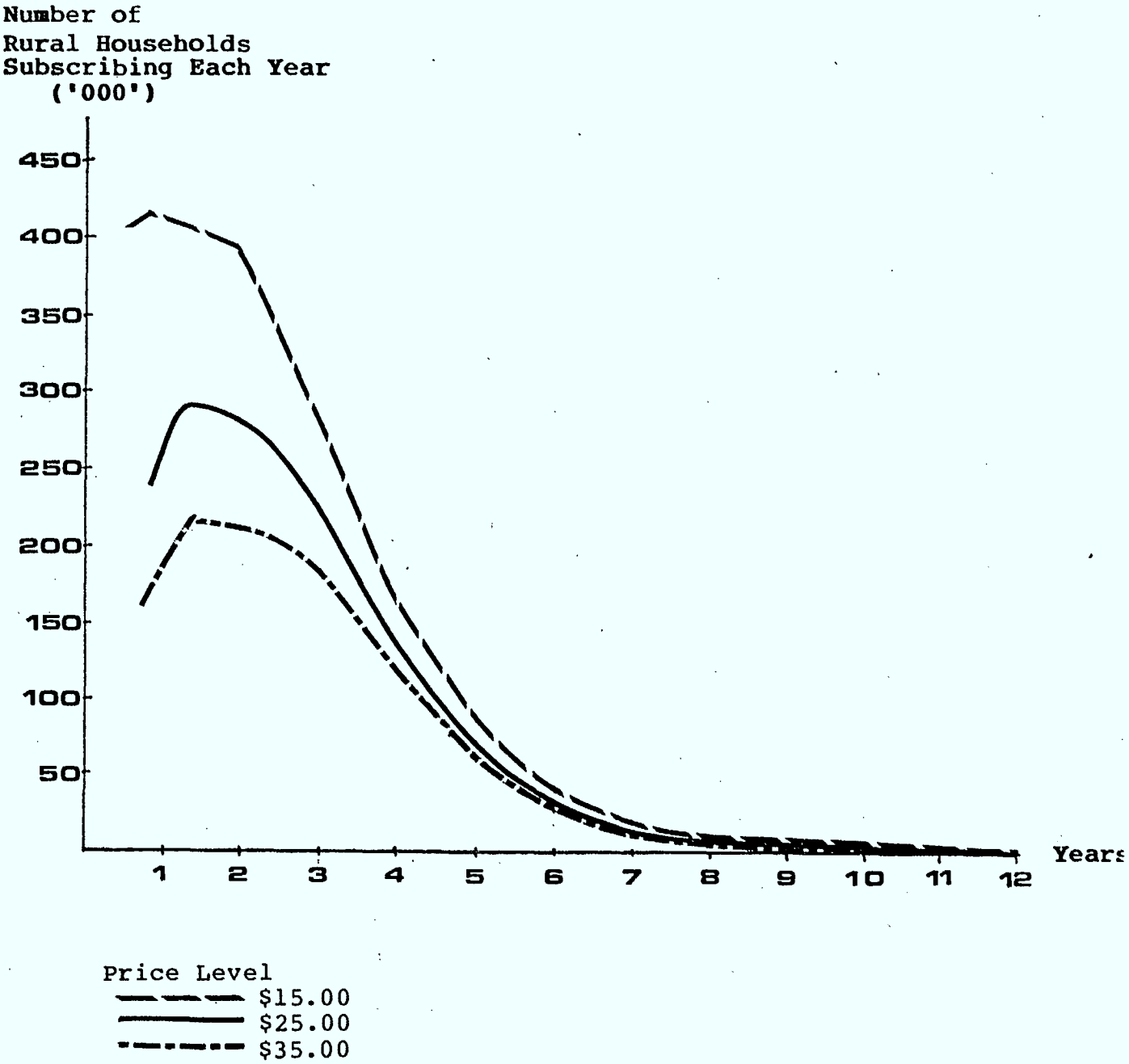
Year	Number of Rural Households Subscribing (in Thousands) $15.00	$25.00	$35.00
1	407.2	258.3	185.7
2	391.0	278.1	216.1
3	282.3	222.2	186.2
4	164.7	139.0	123.3
5	84.3	74.1	68.0
6	40.3	36.2	33.8
7	18.6	16.9	15.9
8	8.5	7.7	7.3
9	3.8	3.5	3.3
10	1.7	1.6	1.5
11	0.8	0.7	0.7
12	0.3	0.3	0.3
Total Households Adopting after 12 years:	1,403.5	1,038.6	842.0
Potential Market:	1,403.8	1,038.8	842.3
Peak Sales:	421.1	284.6	219.0
Years to Peak Sales:	0.9	1.2	1.5

GRAPH 26

NATIONAL LONG TERM DEMAND FORECASTS

FOR

COMBINED TELEPHONE/TELEVISION SERVICE



The forecasts indicate that the majority of the sales would occur within the first few years for each price level. More specifically, 50% of the potential adopters[1] will have subscribed to this service within two years for the low and medium prices, and within three years at the high price level. When the monthly charge is $15, the peak sales would occur at approximately eleven months, at a price of $25 a month, the peak sales are delayed until fourteen months, and at a monthly rate of $35 a month, the peak occurs at eighteen months.

When the short term demand was presented (refer to Section 2.6.2), it was found that half of the respondents would subscribe to the combined telephone and television service, at the monthly rate of $15, within twelve months. Once these households did so, they would then become "carriers", in that they would act as information providers and trend setters to other, more reluctant, potential subscribers. This has a multiplying effect and, in view of the large

---

1 As was the case for improved television service, the potential market is a function of the proportion of rural households which currently have a TV and a telephone (i.e. 95.1% of the rural population), the price level, and the level of first year sales.

percentage who indicated they would subscribe within a short time period, it explains the rapid adoption by most households. The sharp decrease in sales from the third year to the sixth is a function of the rapidly diminishing number of potential adopters during this period. The relatively small number of adoptions during the last few years represents the period when the "laggards" or most reluctant households finally subscribe.

Although the size of the potential market diminishes as the price increases, the same trends occur for each of the other price levels. The main difference is the length of time before peak sales occur as it appears that households are somewhat more reluctant to subscribe at the higher price levels.

Market saturation for this service occurs after approximately twelve years for each price level, although the cumulative sales differ. With a $15 monthly rate, 1,403,537 households, (or approximately 100% of the potential market), will have adopted this service after twelve years. This figure represents 95.1% of all the present rural households (i.e. 1,476,154). At the monthly rate of $25, essentially all of the potential households (i.e. 1,038,568 households) will have subscribed after 12 years. Or,

in other words, a price increase of 66.7% causes a decrease in subscribers of only 26.0%. After twelve years, 842,046 households (from a potential 842,293) will have subscribed if the price is $35. a month. In this case, an increase in the price of 233% (over the $15 price level) leads to a loss of 40.0% of the subscribers.

To summarize, over half of the "potential adopters" of the combined telephone and television service will subscribe within three years, regardless of the price, and within twelve years the market will be essentially saturated.

2.7.3 Improved Television Service Through Satellite Technology

Long term demand forecasts were developed for a third improved television service which involves satellite technology[1] by following the same process described in Section 2.7.1. One forecast was derived for each price level (i.e. $400, $600, and $800) and the results are presented in Table 36 and Graph 27.

---

1 This service, which requires the purchase of new reception equipment, would provide the following features:
- reception of at least six different channels in their own language (English or French);
- excellent reception on each channel; and,
- same type of programming currently received.

TABLE 36

LONG TERM DEMAND FORECASTS
FOR
IMPROVED TELEVISION SERVICE
THROUGH SATELLITE TECHNOLOGY

(National)

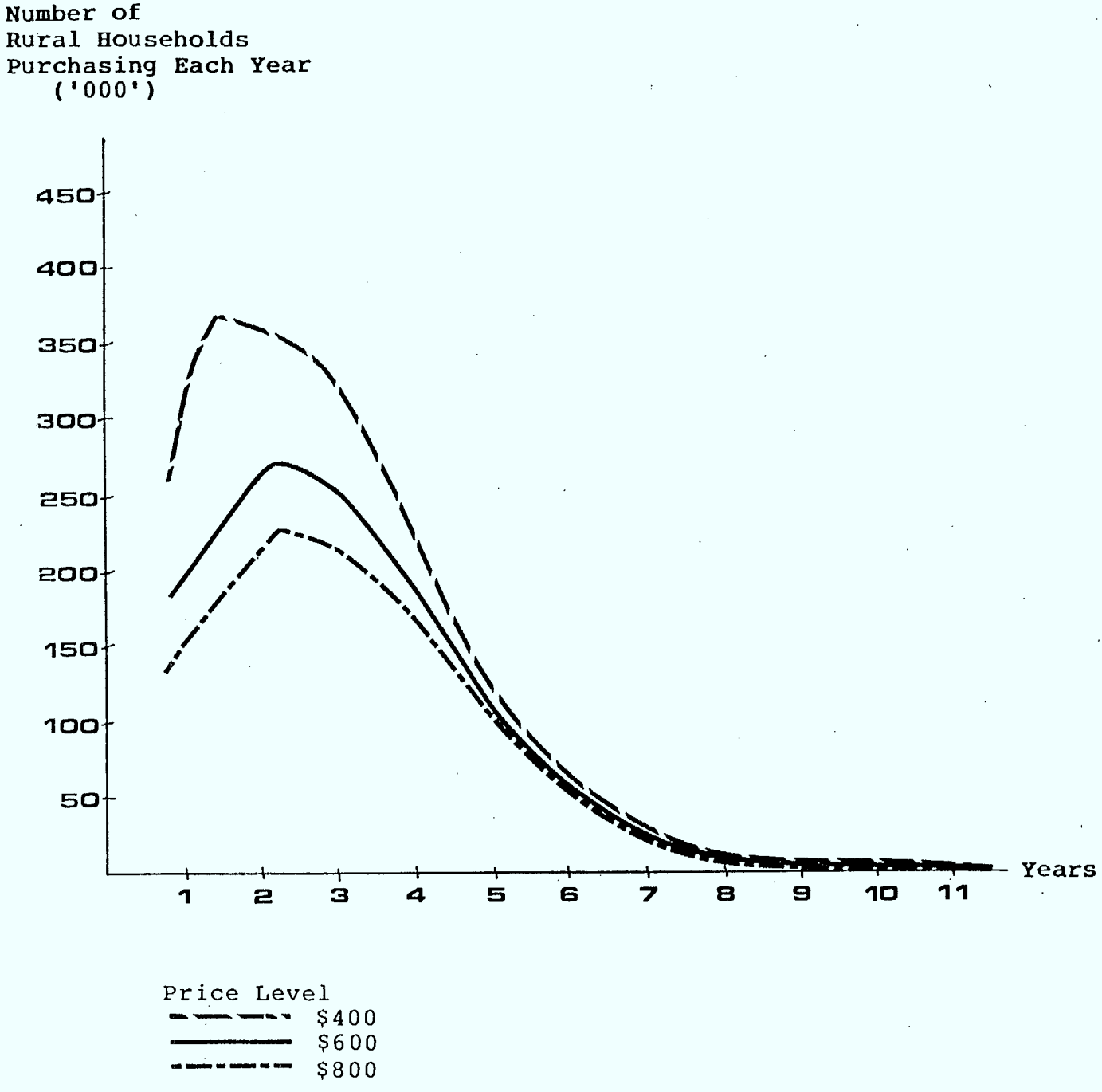
	Number of Rural Households Purchasing (in Thousands)		
Year	$400	$600	$800
1	298.1	196.7	151.4
2	360.5	259.7	210.2
3	323.0	255.8	219.6
4	220.4	188.8	170.7
5	123.9	111.7	104.7
6	62.2	57.7	55.2
7	29.4	27.7	26.8
8	13.5	12.8	12.5
9	6.2	5.8	5.7
10	2.8	2.6	2.6
11	1.3	1.2	1.2
12	0.6	0.5	0.5
Total Households Purchasing after 11 years	1,441.3	1,120.5	960.6
Potential Market:	1,442.2	1,121.7	961.5
Peak Sales:	366.3	271.5	226.9
Years to Peak Sales:	1.6	2.1	2.2

GRAPH 27

NATIONAL LONG TERM DEMAND FORECASTS

FOR

IMPROVED TELEVISION SERVICE
(Satellite Technology)



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Examining the forecasts in Graph 27, it is evident that the greatest number of adoptions of this service would occur within the first few years, regardless of the price level. In fact, the majority (i.e. over 50%), of the potential adopters[1] will have purchased the necessary equipment within three years. The peak sales would occur after approximately 19 months when the cost is $400, and after 25 and 26 months for the $600 and $800 price scenarios respectively.

In the previous discussion of the short term demand forecast (refer to Section 2.6.3), it was noted that a relatively small percentage (i.e. 27%) of the respondents would purchase the equipment required for this service, at a cost of $400, within twelve months. These initial "adopters" would then become information providers to other potential adopters who are more reluctant. In this manner, most potential purchasers are exposed to the service within a few years. Hence, there is a sharp decline in the number of adoptions between the third and sixth years, as fewer members of the potential market remain. During the later years, only the "laggards" remain to purchase the equipment.

---

1 The potential market is a function of the proportion of rural households which currently have a television (i.e. 97.7% of the respondents) the price level, and the level of first year sales.

With respect to the other price levels, the same process occurs, but the potential market size decreases. Additionally, as the price increases, the potential adopters become somewhat more reluctant to make the purchase, so the peak sales occur later, and the slopes of the respective curves become less extreme.

Regardless of the price level, market saturation occurs after approximately eleven years, although the cumulative sales differ. At a price of $400, essentially all potential adopters (i.e. 99.9% or 1,441,300 households) will have purchased this equipment after eleven years. This adoption level represents 97.6% of all present rural households (i.e. 1,476,154). Within the same time frame, at a cost of $600, 1,120,500 households (99.9% of the potential market) will have purchased the equipment. That is, a price increase of 50.0% represents a decrease of only 22.3% in the number of adopters. Additionally, after eleven years, only 0.1% (or 900 households) of the potential market remain when the cost is $800. In this case, a price increase of 100% (over the $400 price level), diminishes the number of subscribers by only 33.4%.

To conclude, more than half of the "potential

adopters" of this service would purchase the necessary equipment within three years, despite the price, and within eleven years the market would essentially be saturated.

With respect to the other new services (refer to sections 2.7.1 and 2.7.2), it is interesting to note the similarity in the adoption process for all three services. In fact, only two differences may be noted. First, the peak sales occur at somewhat different times. Although the television service similar to CATV and the combined telephone/TV service (at the low price scenarios) both peak in sales before one year, for the third service, peak sales occur after approximately one and a half years. Secondly, market saturation occurs at different periods, ranging from ten to twelve years.

III. CONCLUSIONS

While examining the results of this study, it is important to bear in mind that there have been no previous studies of this nature to which these results may be compared. In view of this fact, it is generally difficult to qualify these findings. Yet, a number of interesting conclusions may be derived and are as follows:

1. The Canadian rural television market includes almost every rural household, as only 2.3% of the respondents do not own a television. In terms of regional differences it was found that in Quebec only 0.3% of the rural households have no TV, while this proportion increases to 5.9% in B.C.. Only 18.8% of the rural households do not own a colour TV, and this percentage ranges from 14.9% in Quebec to 28.3% in the Atlantic region. A larger proportion of respondents (i.e. 55.7%) do not own a black and white television set, and this varies from almost one half (49.5%) of Ontario households, to almost two-thirds (61.9%) of those in B.C..

2. The television market in rural Canada is consistent across the regions in that households with more than

one television set tend to have higher household incomes and more household members. In addition, households with special reception equipment were also found to have higher incomes and to receive more television channels (with the exception of B.C.).

3. Households in the Ontario region appear to be more interested in television than are households in any other region of Canada. They have more television sets (almost half of these households have two or more TV's while this is true for roughly one third of the households in other regions); have more special reception equipment (over half of these respondents have two or more pieces of special equipment, compared to roughly half of the respondents in the other regions who have only one piece); paid more for their special equipment ($319 on the average, compared to the Prairies which is the next highest with an average expenditure of $177); and receive more television channels (an average of 6.7 channels which may be compared to 5.1, the next highest, in the Quebec region).

4. The survey results provided data from which one could estimate the value of the rural market for special

television reception equipment[1]. Purchases of TV reception equipment (i.e. a one-time purchase) have generated approximately $202 million in revenue.

5. The presence of very distinct groups of television users was found. This is evidenced by the significant differences which exist between households holding differing motives for using a television. the two most important motivations for owning a TV were "entertainment", and "the news".

6. Generally, rural households in Canada are satisfied with their overall television service. However, in relative terms, more respondents in the coastal regions (i.e. the Atlantic and B.C. regions) are dissatisfied, while proportionately more in Ontario tend to be satisfied.

7. While one would expect that the presence or absence of service improvements would affect respondents' satisfaction with television service, this does not

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1 These estimates are based on national average household expenditures for reception equipment, and ownership of special equipment as provided by the survey. In addition, aggregate rural population data were obtained from the sampling frame (see Table A-2).

appear to have been the case. Only in B.C. is there a significant relationship between these factors which indicates that respondents who are satisfied with their service are more likely to have received major improvements.

8. It is evident from the results of this survey, that there is a perceived need for improvement in rural television services, despite the respondents' apparent satisfaction with overall service. In fact, television service ranked second in importance, relative to eleven other "community services", and first when compared to three other "communication services". The results also indicated that respondents who felt television service needed improvement tended to be dissatisfied with their service.

9. An investigation of the relative importance of selected television service attributes indicated that, in Canada, **price** is the most important attribute. The **number of channels received** is second, with **quality of reception** and **programming** third and fourth respectively. Further to this, it was found that consumers would react more strongly to changes in the lower price range and to changes in the higher range

for the number of channels. While consumers would react strongly to changes in the quality of reception, this was not as true for programming.

10. It would appear that there is a general demand for better television service among a certain group of rural households, regardless of the cost. For example, respondents who would be likely to subscribe to CATV type of service at each price level tend to:

- be younger
- have a higher household income
- be more educated
- be less satisfied with their current service
- place more emphasis on the need for improvement in TV service
- receive fewer television channels
- have been in their current home for a shorter period

Similarly, respondents who would subscribe to a combined telephone and TV service regardless of the price level are more likely to:

- have a higher household income
- be younger
- have a higher education
- have more household members and more children at home
- have lived in their present home for a shorter period of time
- presently pay more for their telephone service
- be dissatisfied with their present telephone and/or television services
- place more importance on improvements to these services

Finally, respondents who would be interested in purchasing a special reception unit for improved

service through satellite technology at each price level, tend to:

- have higher household incomes
- be dissatisfied with their current television service

Obviously the one characteristic common to all potential customers regardless of price level and service is a higher household income. However, there are a number of other characteristics common to prospective subscribers for the first two services (i.e. CATV technology and combined telephone and TV service).

11. Generally, a new telecommunication innovation is adopted relatively quickly. Long term demand forecasts, developed for each of three "improved television service" offerings, indicated that at least 50% of households in the potential markets would adopt these services within a short time period (i.e. two or three years).

12. In rural Canada, a demand was derived for an improved television service. An estimate from the survey data reveals that an improved service through CATV type of

technology could generate **$151 million**[1,2,3] for service in the first year. Over the expected adoption period (i.e. 10 years), a total revenue of between **$880 million** and **$1.64 billion** could be generated depending on whether the service is offered at $6 a month or $20 a month respectively.

13. Similarly, the combined telephone-television service could generate an expected **$252 million** in its first year of introduction. Over a period of twelve years, a market of between **$2.6 and $3.6 billion** in total revenue is anticipated for this new service, depending on whether a low (i.e. $15.00 a month) or high ($35.00 a month) price scenario is contemplated.

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1 This and all following estimates are expressed in today's dollar value. That is, the "present value" of money over the period of time of interest has not been accounted for.

2 These and all following estimates are provided through a projection of the level of demand presented in section 2.6 (short term demand) and section 2.7 (long term demand) to the population data presented in Table A-2.

3 It should be remembered that the long term forecasts can be affected by several factors: the adoption rate, level of first year sales or number of opinion leaders, and the total potential market. Sensitivity analysis involving a manipulation of some or all of these variables was not conducted. The estimates provided are maximum likelihood estimates, that is, "most likely" estimates.

14. In the case of improved television service through satellite technology, it may be concluded that a particular segment of the population would be interested in this service. Potential sales for the special reception unit during the first year could amount to approximately $275 million. In this instance, total potential sales following an eleven year period could amount to an estimated $577 million for equipment offered at a $400 purchase cost, or $768 million if the acquisition price is $800.

APPENDIX A

METHODOLOGY

A.1 Genesis

Within the context of Phase II of the Rural Demand Study, the overall objective of the demand project is: "to survey the needs of rural domestic suscribers for existing and proposed communication services and to forecast short term and long term demand for these services". To this end, this project was staged in three steps:

- **Selection of a measurement strategy.** The present authors, under the auspices of the University of Ottawa, were commissioned to develop a strategy for the measurement of the needs and demand of rural people with respect to telecommunication services. A review of the literature was carried[1] out and focus group interviews were subsequently conducted across Canada in order to provide basic information required for the design of the survey questionnaire[2].

- **Development and test of the survey design.** DEMAND Research Consultants was commissioned to design the final questionnaire and to carry out the analysis required to test the questionnaires and the survey design; Canadian Facts was commissioned to develop the sampling design and to conduct the pretest and pilot field work. These activities culminated in a

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1 Camprieu, R. (de) and Bourgeois, J.C., "Demand for Rural Communication Services in Canada: Literature Review", University of Ottawa, Ottawa, (January 1979).

2 Camprieu, R. (de) and Bourgeois, J.C., "Demand for Rural Communication Services in Canada: Focus Groups and Research Instruments", University of Ottawa, Ottawa, (December 1979).

pilot survey whose results have been analyzed in two reports[1,2].

- **Full scale survey and analysis.** Canadian Facts was commissioned to conduct the field work and DEMAND Research Consultants was commissioned to undertake the analysis.

This part of the report deals with the methodological aspects relevant to the whole residential survey (covering three communication services: telephone, television, mobile radio service). The purpose is to give the reader the basic information necessary to assess the validity and the reliability of the need analysis and demand forecasts which have been presented.

Section A.2 discusses the need and forecasting models underlying the analysis. Section A.3 outlines the survey method used to actually make the measurements. Section A.4 provides an operational definition of "rural" and of "residential subscriber" and summarizes the procedure implemented to draw a representative sample of that population. Finally, section A.5 illustrates some basic population dispersion characteristics and compares the sample to the sampling frame along five demographic characteristics in order to present its representativeness. In addition, the weighing scheme used in the analysis conducted at the national level is explained.

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1 Bourgeois, J.C., and Camprieu, R. (de), "Study of the Demand for Communication Services in Rural Canada: Analysis of the Pilot Survey Results", DEMAND Research Consultants, Ottawa, (May 1981).

2 O'Hara, S. "Study of the Demand for Communication Services in Rural Canada: Pilot Survey Field Report", Canadian Facts, Ottawa, (October 1980).

A.2 Need and Forecasting Models

Some of the concepts implied by the objectives do not lend themselves to straightforward measurement, because they involve subjective, non-observable notions (e.g. needs, motivations, satisfaction, demand). In such situations, the desired information must be inferred, that is obtained indirectly from other pieces of related information more easily measured. To do this, the analyst must rely on some technique, model or theory which has been proven valid. The rationale for selecting the techniques, models and theories involved in the present study has already been discussed in a previous report[1]. Two techniques and one model will be briefly presented here.

A.2.1 Conjoint Measurement

One of the objectives of this study is to "identify which aspects of telephone (and television) service are most needed." Telephone service, for instance, comprises several attributes (e.g. number of parties on the line, basic monthly charge, size of free call area). Respondents could have been asked to indicate "how important to them" each of these attributes was. But, on the basis of information gathered during the focus groups, there was a serious doubt as to whether repondents could actually provide reliable answers to this type of question. Therefore, it was decided to rely on conjoint measurement, a different approach[2] at measuring respondents' preferences for the various aspects of a multiattribute object (i.e. service).

Conjoint measurement is a technique developed by psychometricians to measure people's perceptions and preferences. As the name suggests, conjoint measurement is concerned with the joint effect of two or more independent variables on the ordering of a

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1 "Demand for Rural Communication Services in Canada: Focus Groups and Research Instruments", op. cit., pp. 48-74.

2 That is, different from the "how important to them" approach just mentioned.

dependent variable. For example, one's preference for various types of telephone services may depend on the joint influence of such variables as the number of parties sharing a line, the size of the free calling area, or the basic monthly charge.

The conjoint measurement technique starts with the respondent rank-ordering (a measure of preference) various telephone service "packages". For example, one package could include: a private line, a large free calling area and an $18.00 basic monthly charge; another package could include: a two-party line, a small free calling area and a $6.00 basic monthly charge. With this rank-ordering as input, conjoint measurement performs the rather remarkable job of decomposing the original preferences into separate and compatible utility scales by which the original preferences can be reconstituted. Two valuable pieces of information can be obtained from this decomposition:

1) an accurate estimate of the relative importance of the various components of telephone service (number of parties on line, size of free call area, basic monthly charge), and

2) an indication of how sensitive respondents would be to a change in the level of the various attributes (for example, how respondents would react to an increase (decrease) in monthly charge from, say, $6 to $12, or $6 to $20, etc.).

Together these two pieces of information will indicate what respondents **want** in the way of telephone service.

The main drawback of the conjoint measurement task rests with the rather large number of choices the respondent has to make, which can result in fatique and ultimately low reliability. This eventuality was investigated at both the pretest and the pilot stages of the survey. The results of the conjoint measurements were found both internally and externally consistent.[1]

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1 Bourgeois, J.C. and Camprieu, R. (de), "Study of the Demand for Communication Services in Rural Canada: Analysis of Pilot Survey Results", DEMAND Research Consultants Inc., Ottawa, (May 1981), pp. 26-31, 50-55.

A.2.2 Simulated Choice Scenarios

Following a review of the available sources of secondary information[1] and after consultations with authorities from the Department of Communications, a survey of buying intentions emerged as the best approach to forecast "short term" demand in the specific context of this study.[2] Buying intentions provide reliable estimates of demand if properly measured. A "simulated choice scenario" approach was used to that effect. It consists in having respondents make a choice decision in the context of a simulated, but realistic, purchase situation; one of three scenarios (high price, medium price, low price) was administered to each respondent for each new service investigated. The information obtained with the technique can be used to infer short term (one year time horizon) demand curves. Demand curves derived from the scenarios administered in the course of the pilot survey were found internally and externally consistent[3]. Furthermore, during a meeting where the results of the pilot survey were presented, attendees from the Department of Communications reported evidence (i.e. information which they had a knowledge of or had on hand) congruent with the short term demand forecasts[4].

A.2.3 Diffusion Model

The Lawton and Lawton model, chosen for the long term demand forecasts, is grounded in the diffusion theory tradition[5]; its roots are in the mathematical

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1 "Demand for Rural Communication Services: Literature Review", op. cit.

2 "Demand for Rural Communication Services: Focus Groups and Research Instrument" op. cit., 50-54, 69-71.

3 "Study of the Demand for Communication Services in Rural Canada: Analysis of Pilot Survey Results", op. cit., 32-40, 55-74.

4 May 19, 1981, Department of Communications, Ottawa.

5 The model is presented in detail in "Demand for Rural Communication Services in Canada: Focus Group and Research Instruments" op. cit., 55-63.

models of epidemologists studying the spread of diseases and of chemists investigating the nature of chemical reactions. The model has been used to successfully forecast the diffusion of cable TV services as well as a host of products and services.

The model describes the entire life cycle of an innovation: number of individuals adopting the innovation in a given year, the number of years required for the adoption to peak, and the number of years required for all potential adopters to make their decision to adopt.

It requires only three input parameters:

1) a measure of contagion which can be derived from analyses of selected time series;

2) the number of first year adopters, provided by the short term forecast;

3) the number of potential adopters which will be defined as a percentage of the total number of rural households in Canada.

The model was tested for its appropriateness to the present study with several data sets[1] and was deemed suitable to long term demand forecasting.

A.3 Survey Method and Instrument

The data for the survey was collected through personal interviews. The choice of this method was justified by the nature of some of the questions (e.g. conjoint measurement) and the length of the questionnaire. The overall measurement strategy was designed to minimize the incidence of two sources of errors:

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1 "Study of the Demand for Communications Services in Rural Canada: Analysis of Pilot Survey Results", op. cit., 100-118.

1) errors due to the non-representativeness of the sample; and

2) errors occuring during the measurement process.

The first source of error will be considered in the next two sections dealing with sampling issues. This section focuses on the measurement process itself. Several actions were taken to insure that the survey would provide valid information:

- Rural people's knowledge of various telecommunication related concepts was assessed during the focus group phase.

- The questionnaire items were arranged in a sequence allowing respondents to gain familiarity with the subject matter before the most crucial questions were asked (buying intentions with respect to new service).

- Care was taken to minimize potential biases for some questions requiring respondents to process information (e.g. conjoint measurement, simulated choice scenarios). For example, visual aids were designed for several questions to assist both the interviewee and the interviewer (a sample of these are reproduced as Figures A-1 and A-2). Skip patterns were carefully designed to minimize the length of the interview.

- Scales that have been found reliable in previous research were retained (e.g. "constant sum scale" used to measure the relative strength of the need for improvement in communication services).

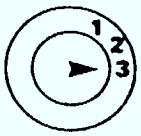
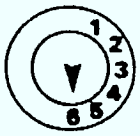
- The order of items for multi-item questions was systematically rotated. A rotational pattern necessitating nine questionnaire versions was designed (see Table A-1).

- Prior to the pilot survey, the English and the French questionnaires had been pre-tested for respondent and interviewer understanding of instructions and questions.

FIGURE A-1

SAMPLE OF VISUAL AIDS USED IN THE CONJOINT TASKS

CARD TV16 (recto)

NO. OF CHANNELS	RECEPTION	NO. OF CHANNELS	RECEPTION
	VERY GOOD		VERY GOOD
PROGRAMMING	**COST**	**PROGRAMMING**	**COST**
BETTER	$6	SAME	$18
P4		P9	

CARD TV16 (verso)

-Three channels in your own language -with very good quality of reception -with better programming than that currently available -at a $6 monthly charge.	-Six channels in your own language -with very good quality of reception -with the same programming as that currently available -at an $18 monthly charge.
P4	P9

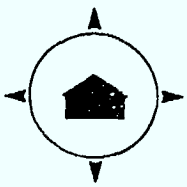
FIGURE A-2

SAMPLE OF VISUAL AIDS USED IN THE CONJOINT TASK

CARD T9 (recto)

LINE	COST	CALLING AREA
	$20	
PRIVATE		SAME

P3

LINE	COST	CALLING AREA
	$6	
TWO PARTY		LARGER

P4

CARD T9 (verso)

-A private line
-with a $20 basic monthly charge
-and the same free calling area you have now?

P3

-A two party line
-with a $6 basic monthly charge
-and a larger free calling area than the one you have now?

P4

TABLE A-1

DEFINITION OF THE VERSION FOR EACH QUESTION RESIDENTIAL SURVEY

Constant Sum Scale Q 2	Telephone Satisfaction Scale Q 6	Telephone Scenario Q 13	TV Satisfaction Scale Q 17	TV Scenario (cable) Q 21	TV Scenario (satellite) Q 22	Telephone/TV Scenario Q 23	Mobile/Telephone Scenario Q 28
A Telephone, CB, Radio, TV	a b c d e f g h i j k l m n	Low Price ($10)	a b c d e f g h i j	Low Price ($6)	Low Price ($400)	Low Price ($15)	Low Price ($300)
B TV, Radio, CB, Telephone	g h i j k l m a b c d e f n	Medium Price ($18)	e f g h i a b c d j	Medium Price ($12)	Medium Price ($600)	Medium Price ($25)	Medium Price ($500)
C Radio, TV, Telephone, CB	m l k j i h g f e d c b a n	High Price ($25)	i h g f e d c b a j	High Price ($20)	High Price ($800)	High Price ($35)	High Price ($700)

- Finally, a pilot study was conducted to verify that possible sources of measurement errors had been effectively controlled.[1] Several changes, including price levels in the simulated choice scenarios, were subsequently made.

At the outset of this process the questionnaire, appearing in Appendix B, was deemed to be a valid instrument to gather the pieces of information required by the project. The content of the questionnaire is briefly presented below:

- Section A was designed to position the need for improvement in telecommunication services in rural areas relative to other services. Section B relates to telephone service, Section C to television service, Section D to mobile radio service and Section E to general information.

- Questions 6 and 17 are aimed at discovering to what extent respondents are satisfied with various aspects of the telephone and TV service they currently receive.

- Questions 12 and 20 were used to provide the minimum data required to perform a conjoint measurement analysis.

- Questions 13, 21, 22, 23, 28 correspond to the various simulated choice scenarios designed to measure rural respondents' buying intentions with respect to improved services (i.e. comparable to that available in urban areas). Three price levels (high, medium, low) were used for each scenario (see Table A-1).

- The other questions are self-explanatory.

Administration procedures have also been carefully specified to minimize respondent errors, interviewer

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1 "Study of the Demand for Communication Services in Rural Canada: Analysis of Pilot Survey Results", op. cit.

errors and to handle the "not at home" problem. A detailed account is given in the field report.[1]

A.4 Sampling

Three steps are involved in probability sampling:

1) define the population and set up a list of population units (sampling frame);

2) determine the number of units to be selected (sample size) so that accuracy and reliability requirements are satisfied;

3) establish a procedure for actually drawing sample units from the sampling frame. Each step will be discussed in this section.

A.4.1 Sampling Frame

Before developing a sampling frame, it is necessary to precisely define the population to be surveyed. Rural households are involved in this project; it is therefore necessary to have an operational definition of "rural" and to establish a procedure for developing the frame. This aspect of the survey was conducted by Steve Brown and Keith Richardson and is reported in detail in a companion report[2].

The sampling frame that was developed was composed of census Enumeration Areas (EA's). The EA's retained in the sampling frame had a population density of greater than 0.8 persons per square mile and were located outside the boundaries of:

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1 O'Hara, S., "Study of the Demand for Communication Services in Rural Canada - Residential Survey", Canadian Facts, Ottawa, (1981).

2 Brown, Steve and Richardson, Keith, "Sampling Frames for the Rural Residential and Business Demand Surveys", Department of Communications, Ottawa, (May 1981).

a) Census Metropolitan Areas (CMA's);

b) Cities, towns and villages (CSD's) and Census Agglomerations (CA's) with population size over 2,499 and global density greater than 999 persons/sq. mile.

EA's with no private households and EA's that correspond to Indian Reserves were excluded.

Of the 35,154 EA's that were defined for the 1976 census, 11,785 met the criteria implied by the definition of rural and were retained to compose the sampling frame. A total of 1,476,154 households were living in these rural EA's. Table A-2 provides a provincial breakdown of the number of households in rural Canada and Table A-3 provides a regional breakdown of the number of households in rural Canada by community size.[1]

The frame was stratified by subprovincial region (smaller area within the provinces), and community size (that is, communities with a population of less than 1000, and communities of 1000 to 2499). The frame was stratified in this manner to provide even coverage of the rural portions of each of the five regions (Atlantic, Quebec, Ontario, Prairies, and B.C.). Within each region two replicated samples of EAs were selected based on probability proportionate to size, i.e. the number of households per EA. This design was used in order to provide a basis for obtaining close estimates of the standard error applicable to statistics derived from the survey[2].

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1 Rural households were identified by computer selection from the 1976 national census data which resulted in the creation of five files SG 1, 2, 4, 5 and 6. Households in file SG6 were not included in the field survey although the characteristics of households in this file are sufficiently close to the aggregate that the survey results can be considered representative of this group also.

2 O'Hara, S., "Study of the Demand for Communication Services in Rural Canada - Residential Survey", Canadian Facts, Ottawa, (1981), p.10.

TABLE A-2

RESIDENTIAL SAMPLING FRAME

RURAL HOUSEHOLDS[1]

ATLANTIC		**244,561**
Newfoundland	52,546	
Prince Edward Island	21,336	
Nova Scotia	86,107	
New Brunswick	84,572	
QUEBEC		**327,684**
ONTARIO		**362,754**
PRAIRIES		**337,310**
Manitoba	81,339	
Saskatchewan	129,666	
Alberta	126,305	
BRITISH COLUMBIA		**134,448**
RURAL CANADA		**1,406,757**

Source: Brown, S. and Richardson, K., "Sampling Frames for the Rural Residential and Business Demand Surveys", Department of Communications, Ottawa, (May 1981), p. 18

1 These figures exclude those households in EA's which were included in the SG6 file.

TABLE A-3

RESIDENTIAL SAMPLING FRAME

HOUSEHOLDS (1976)[1]

Region	Community Size	
	Large	Small
Atlantic	28,834	215,727
Quebec	51,634	276,050
Ontario	46,462	316,292
Prairies	47,535	289,775
British Columbia	19,545	114,903
TOTAL	**194,010**	**1,212,747**
	1,406,757	

1 These figures exclude those households in EA's which were included in the SG6 file.

A.4.2 Sample Size

An accuracy of ±5% at 95% level of confidence was required for estimates at the regional level. This implies a sample size of 400 completed interviews per region, or a national sample of 2,000 completed interviews.

A.4.3 Sampling Procedure

Two replicated samples of EAs were selected proportionately to the number of households per EA. Then, within each of the 729 EAs so selected, a location was selected at random. Interviewers were instructed to select households at this location according to a pre-specified procedure[1]. Only households which could be identified as **primary residences** were selected; interviews were conducted with the **male** or **female head of household**, on an alternate basis.

A.5 Sample Characteristics and Representativeness

A.5.1 Population Dispersion Characteristics

Population dispersion is a key factor in the provision of communications services. In this section a set of graphs illustrate characteristics derived from the sample. Figures A-3 to A-18 illustrate the distribution of the sample with respect to distance to the nearest city and nearest neighbour as derived from the answers to Question 34 a) and g) (nationally and by region and community size; distribution and cumulative). In addition, Figures A-19 and A-20 present the percentage of the sample which are satisfied and dissatisfied with television service versus household density and population density.

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1 The procedure is described in more detail in O'Hara, S. "Study of the Demand for Communication Services in Rural Canada - Residential Survey", Canadian Facts, Ottawa, (1981).

FIGURE A-3

SAMPLE DISTRIBUTION

OF

DISTANCE TO NEAREST CITY

(National)

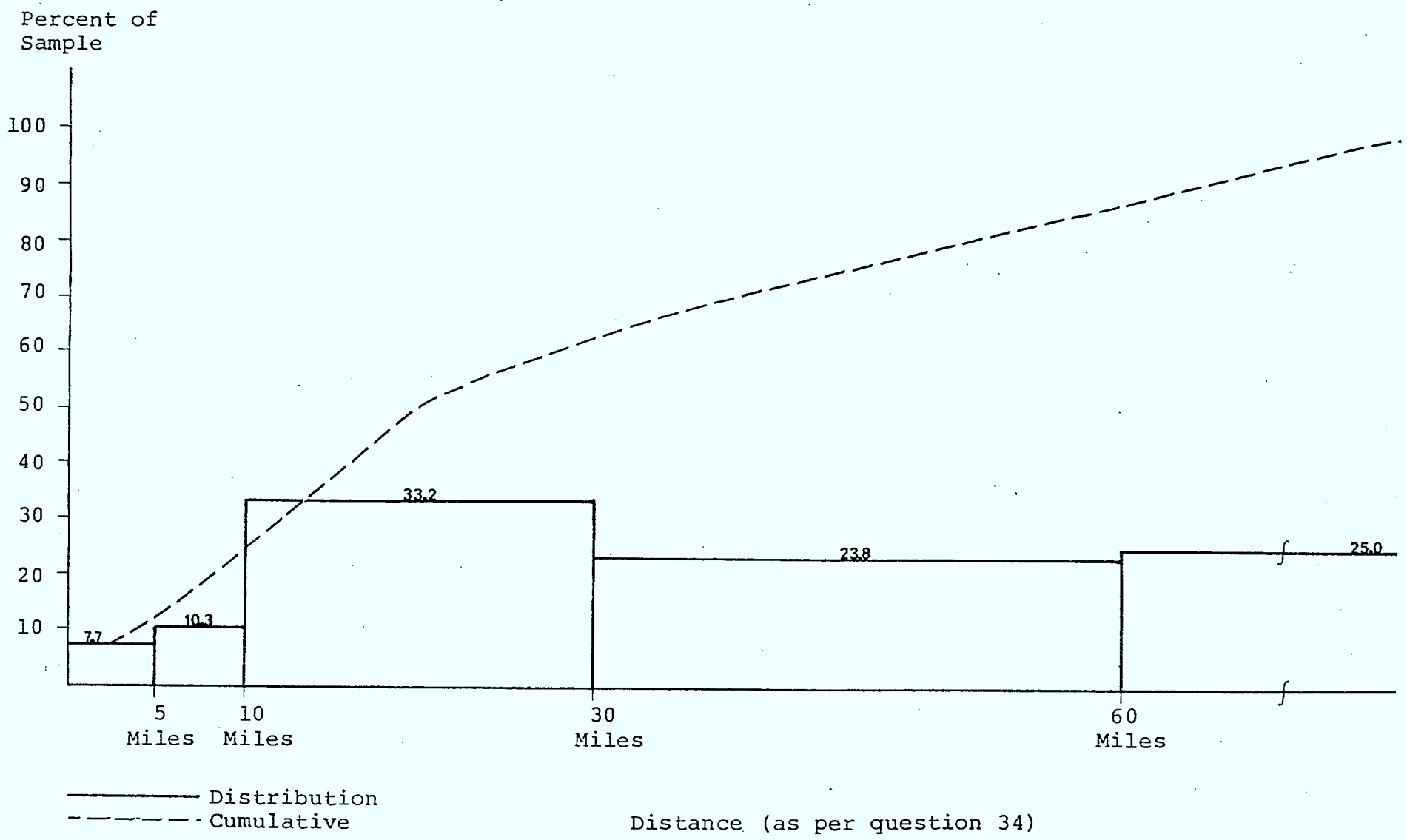


FIGURE A-4

SAMPLE DISTRIBUTION

OF

DISTANCE TO NEAREST NEIGHBOUR

(National)

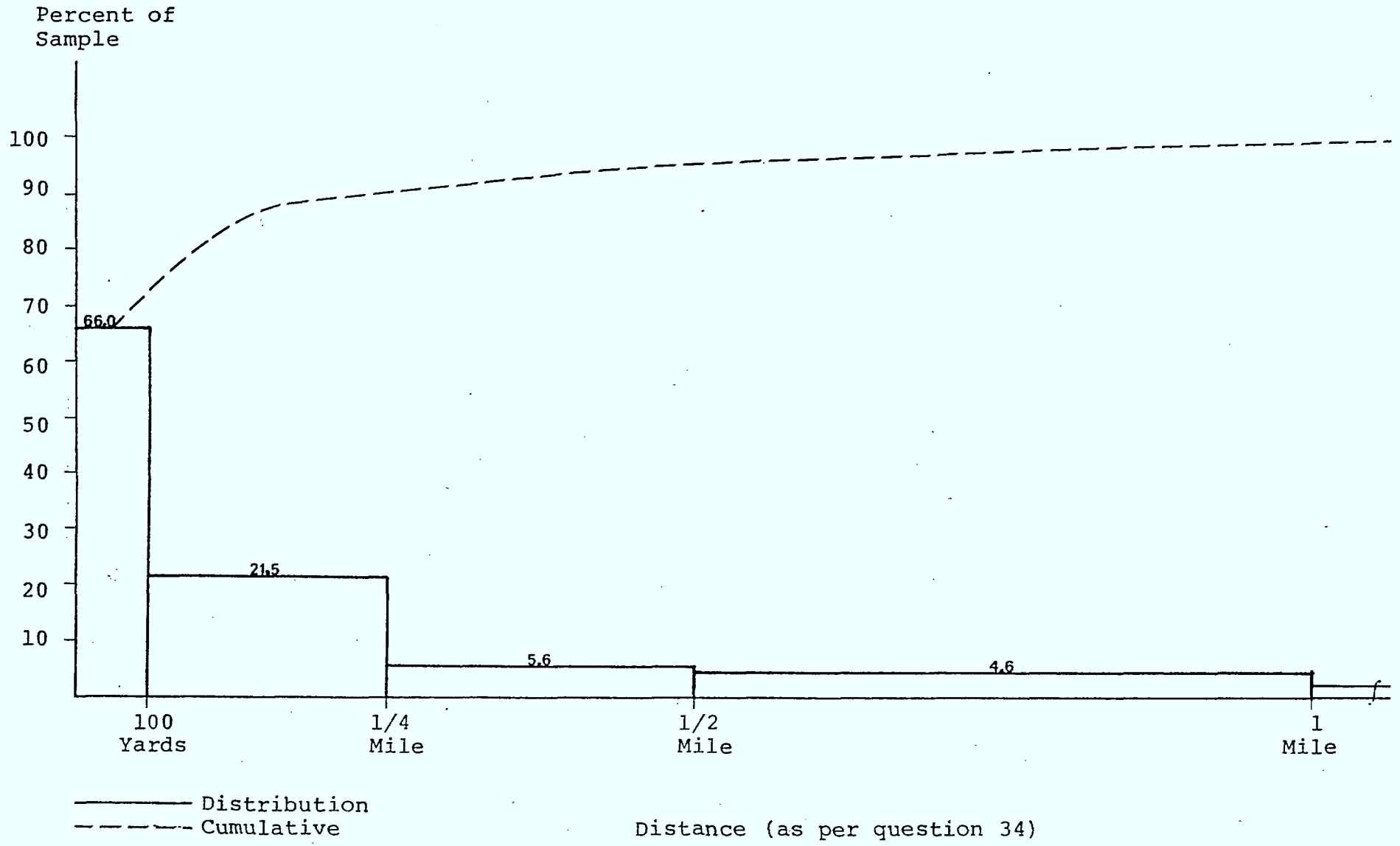


FIGURE A-5

SAMPLE DISTRIBUTION
OF
DISTANCE TO NEAREST CITY
(Atlantic Region)

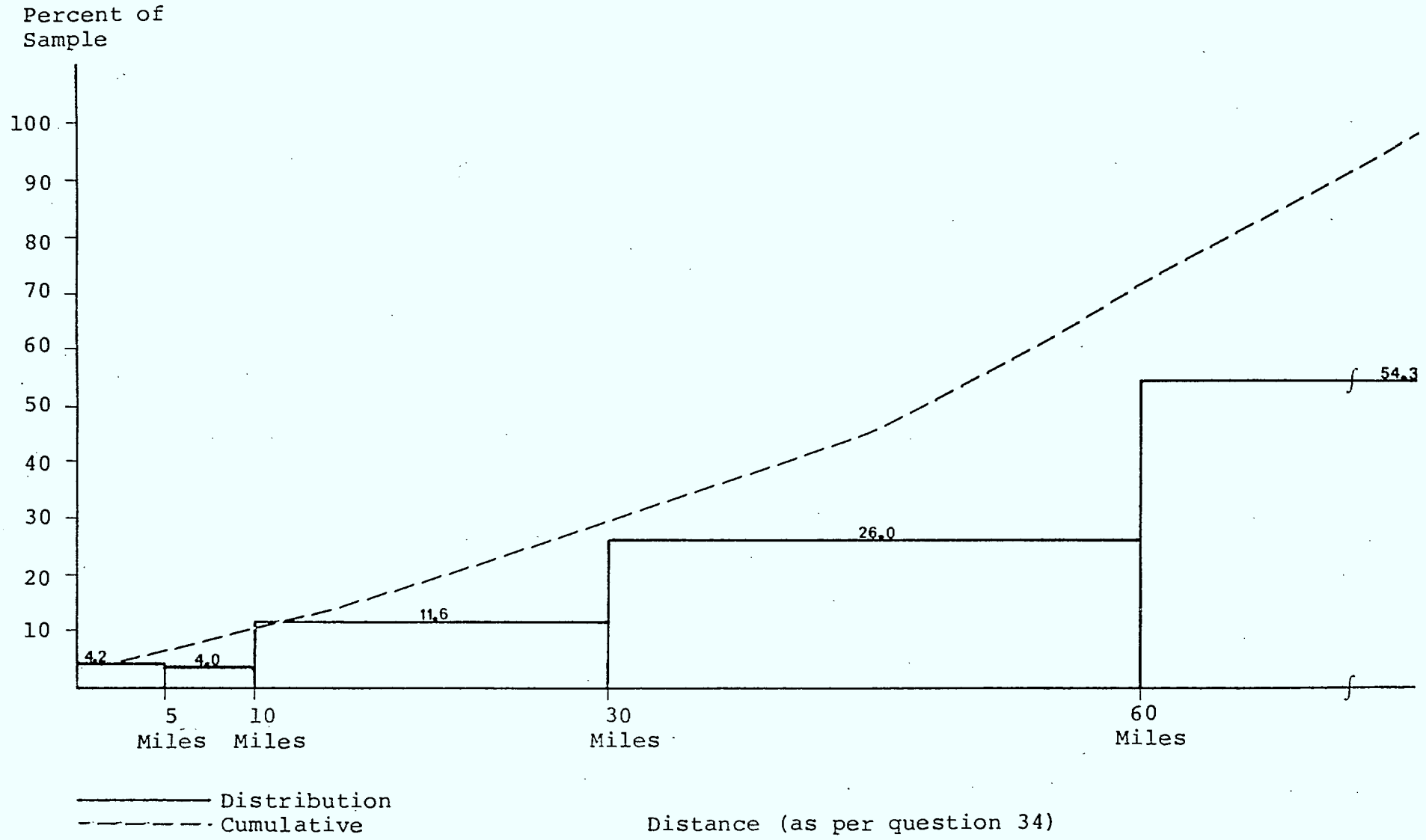


FIGURE A-6

SAMPLE DISTRIBUTION

OF

DISTANCE TO NEAREST NEIGHBOUR

(Atlantic Region)

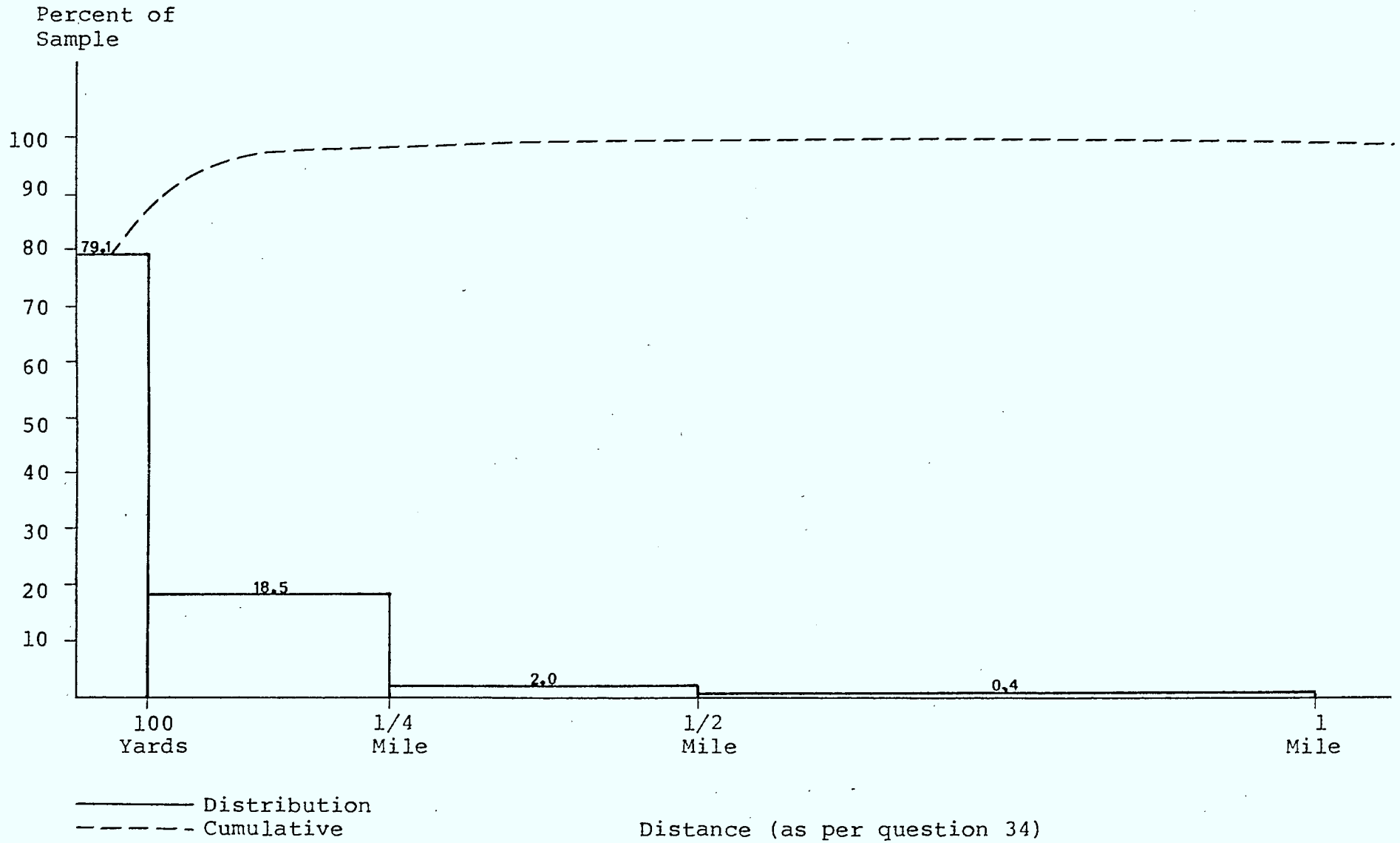


FIGURE A-7

SAMPLE DISTRIBUTION

OF

DISTANCE TO NEAREST CITY

(Quebec Region)

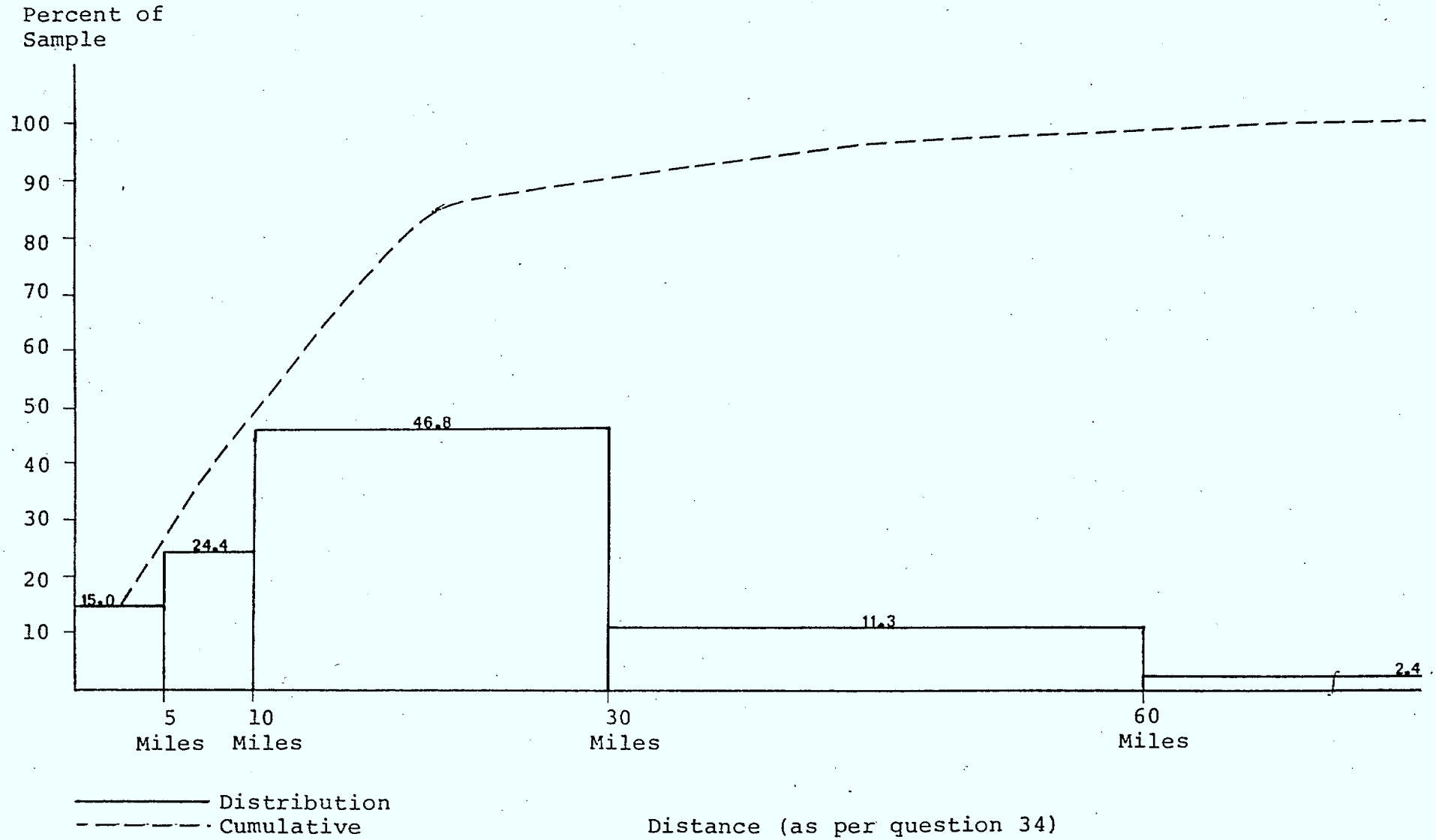


FIGURE A-8

SAMPLE DISTRIBUTION
OF
DISTANCE TO NEAREST NEIGHBOUR
(Quebec Region)

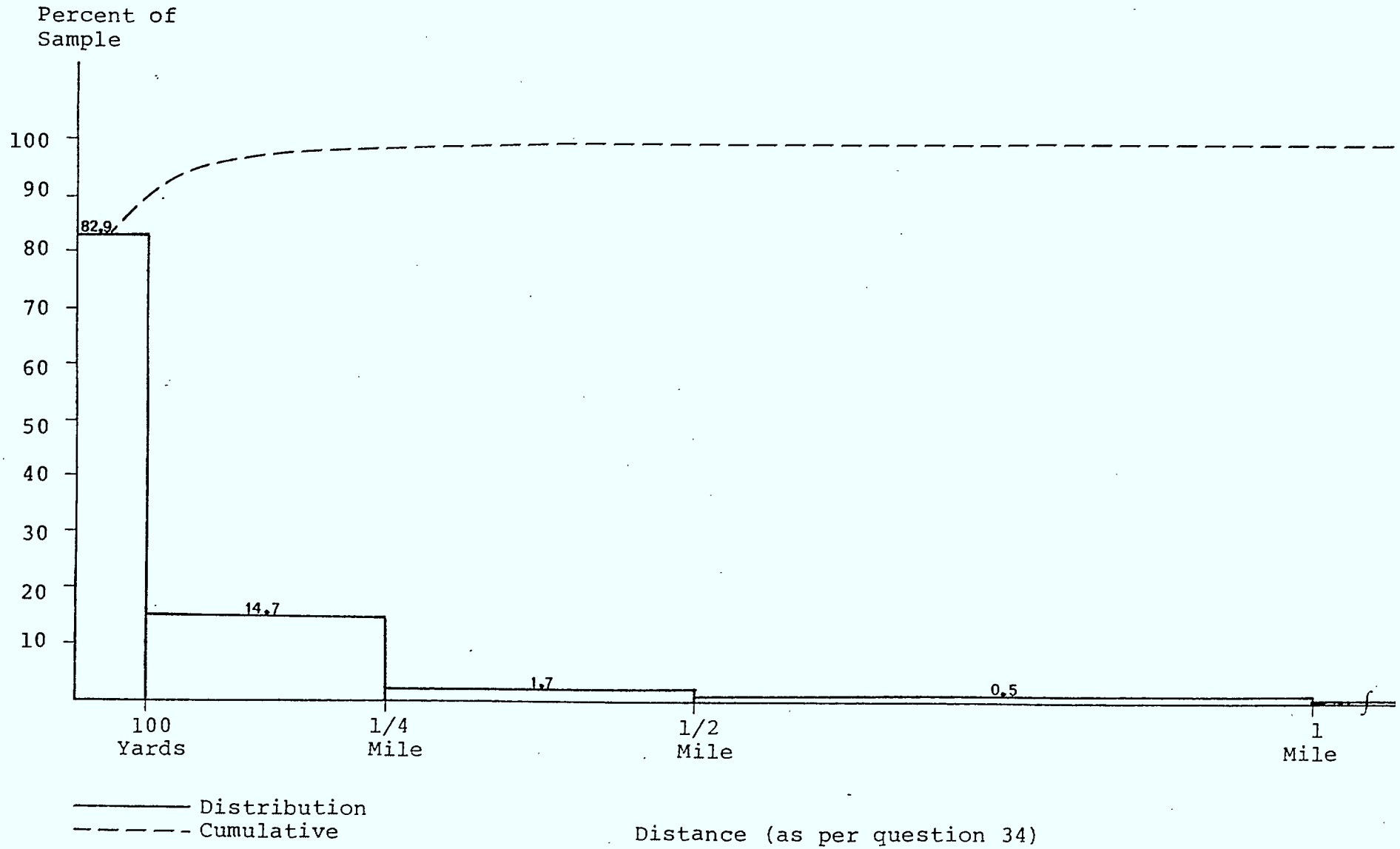


FIGURE A-9

SAMPLE DISTRIBUTION

OF

DISTANCE TO NEAREST CITY

(Ontario Region)

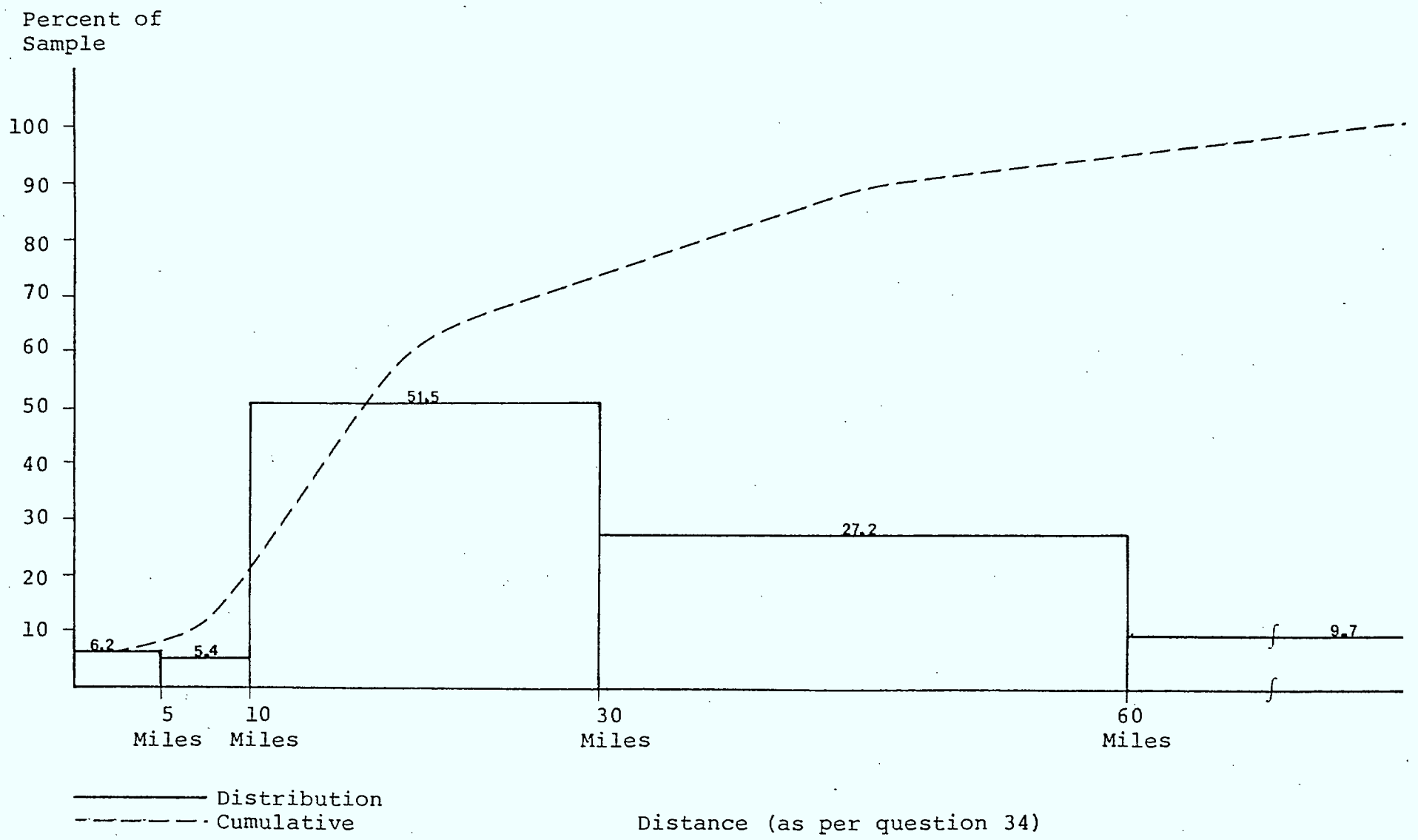


FIGURE A-10

SAMPLE DISTRIBUTION

OF

DISTANCE TO NEAREST NEIGHBOUR

(Ontario Region)

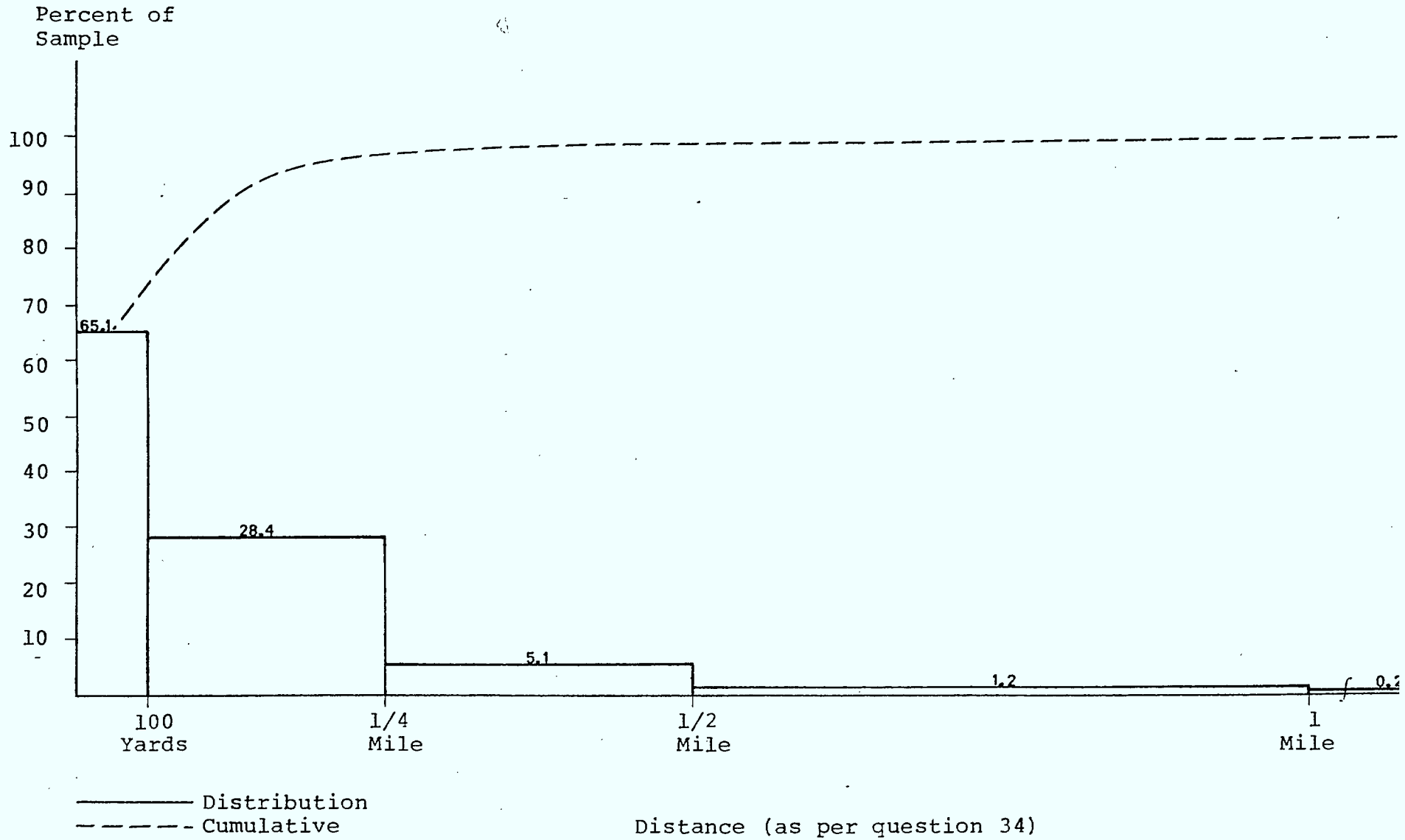


FIGURE A-11

SAMPLE DISTRIBUTION

OF

DISTANCE TO NEAREST CITY

(Prairie Region)

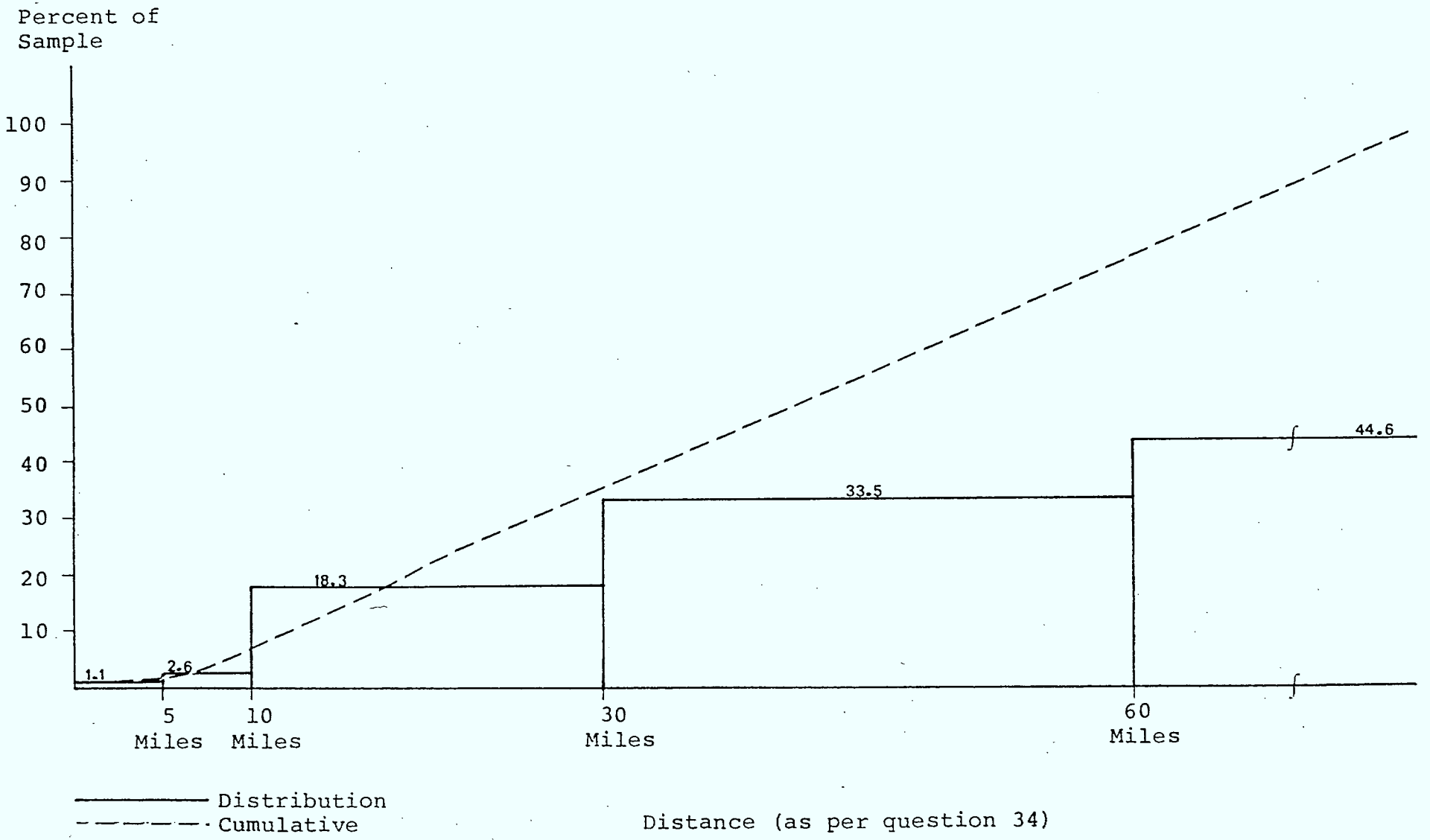


FIGURE A-12

SAMPLE DISTRIBUTION

OF

DISTANCE TO NEAREST NEIGHBOUR

(Prairie Region)

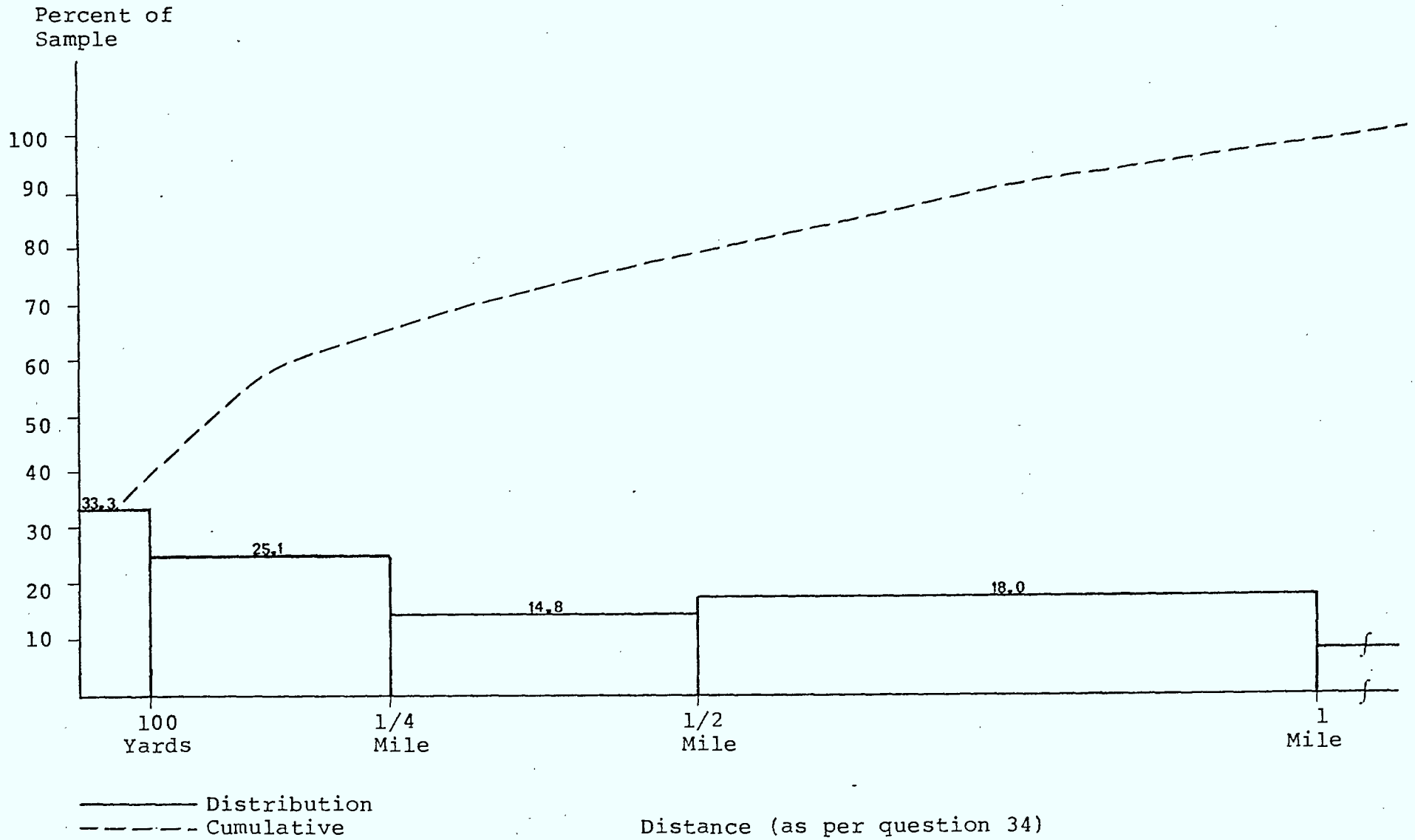


FIGURE A-13

SAMPLE DISTRIBUTION

OF

DISTANCE TO NEAREST CITY

(British Columbia Region)

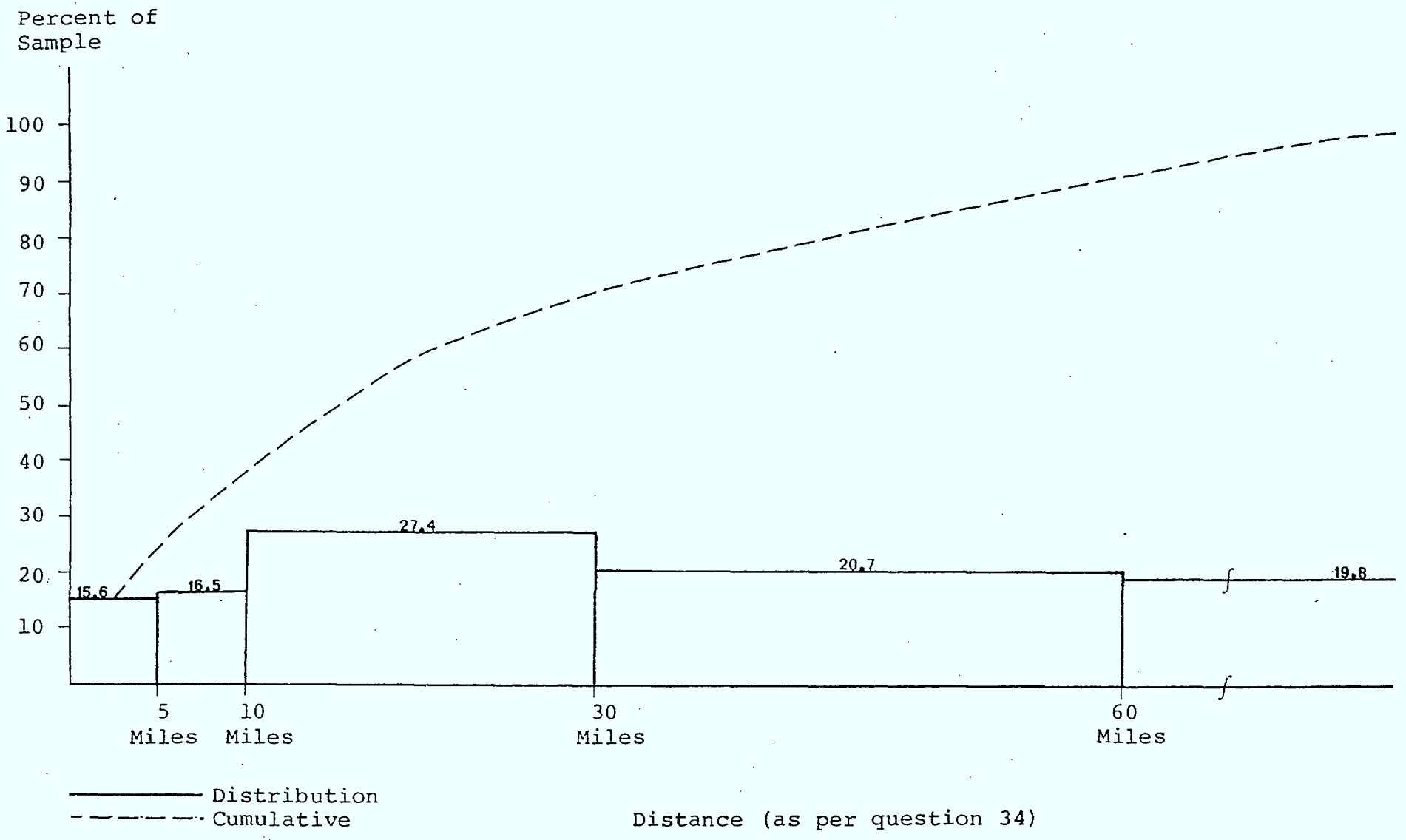


FIGURE A-14

SAMPLE DISTRIBUTION

OF

DISTANCE TO NEAREST NEIGHBOUR

(British Columbia Region)

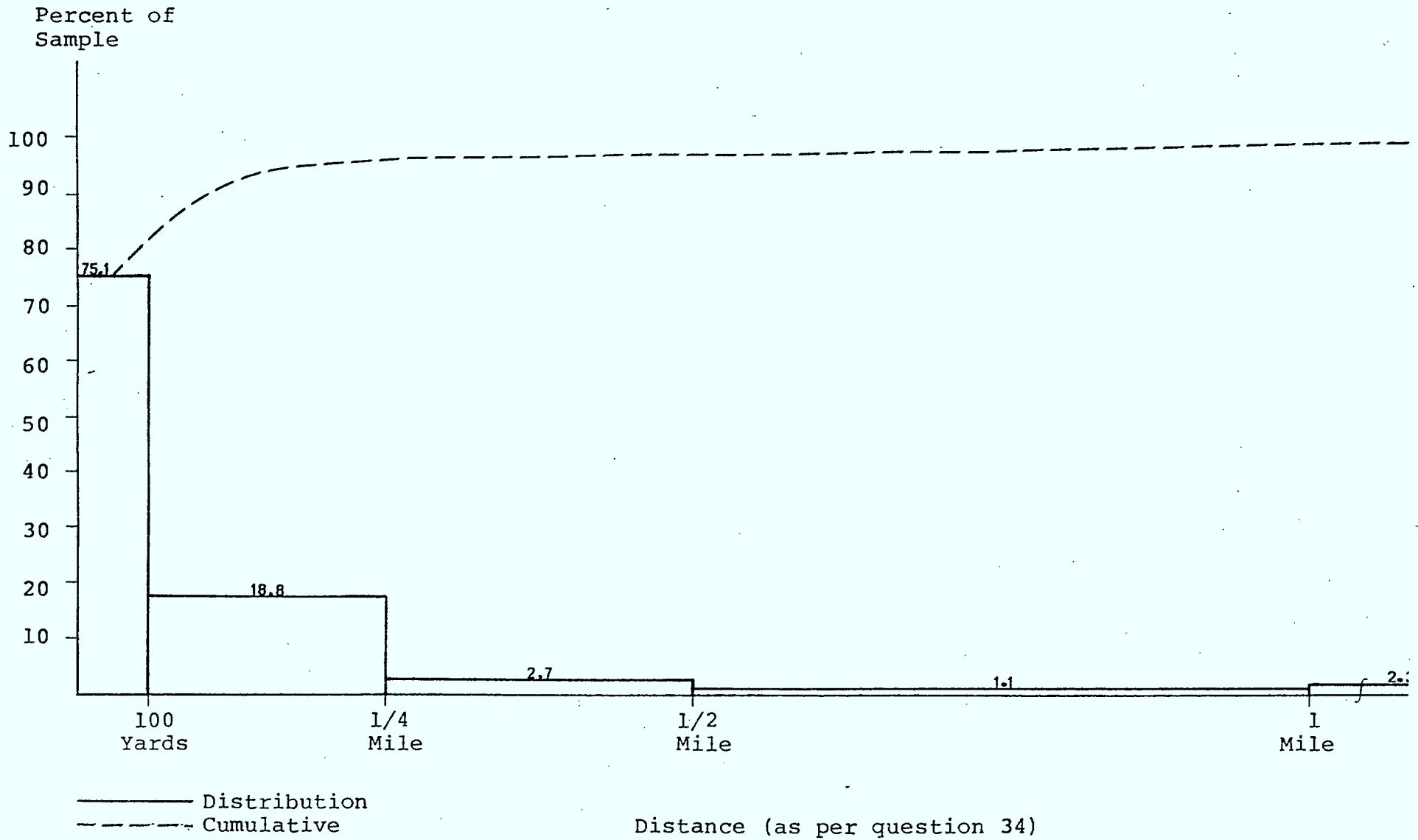


FIGURE A-15

SAMPLE DISTRIBUTION
OF
DISTANCE TO NEAREST CITY
(SMALL COMMUNITIES)

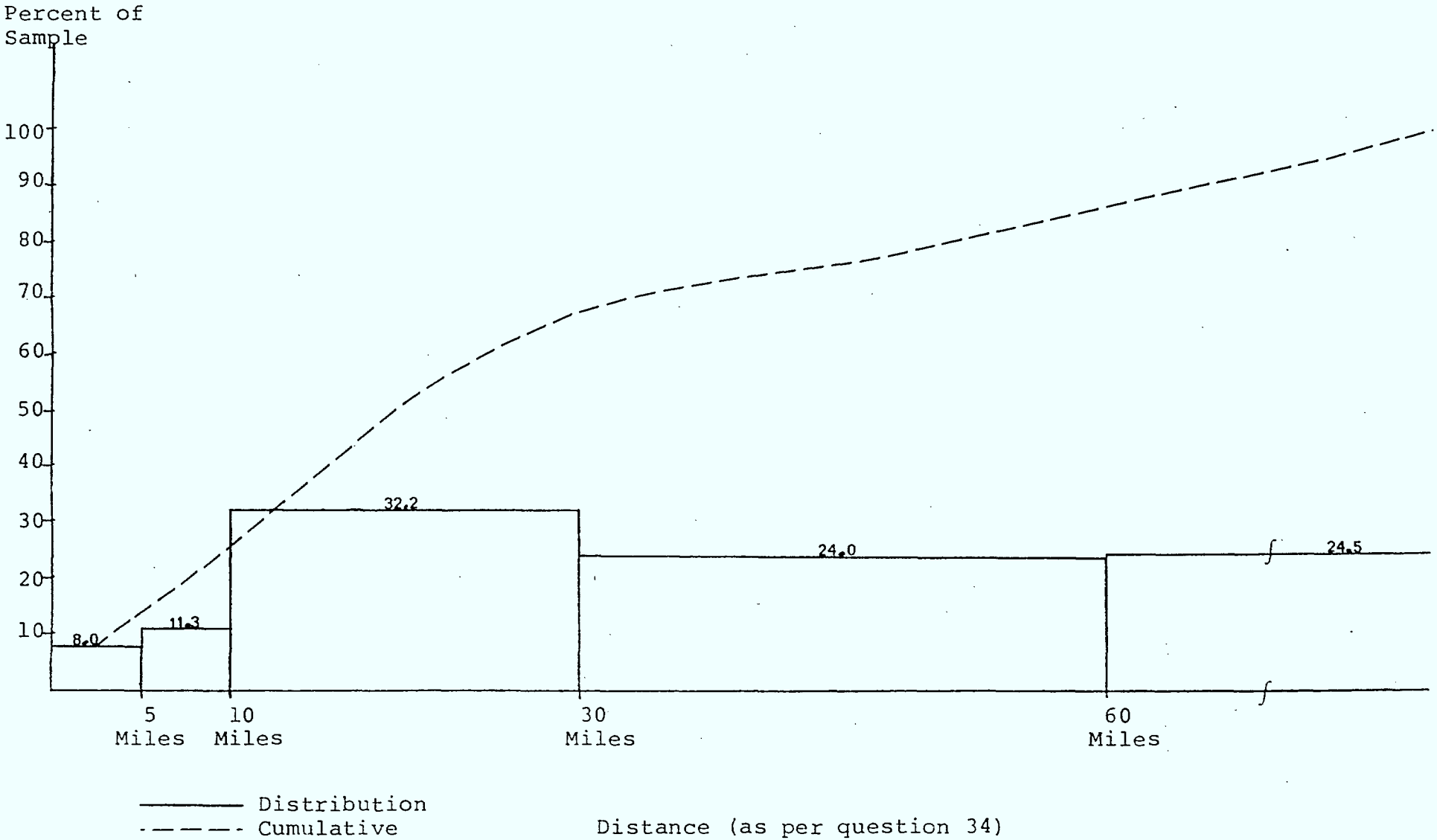


FIGURE A-16

SAMPLE DISTRIBUTION

OF

DISTANCE TO NEAREST NEIGHBOUR

(SMALL COMMUNITIES)

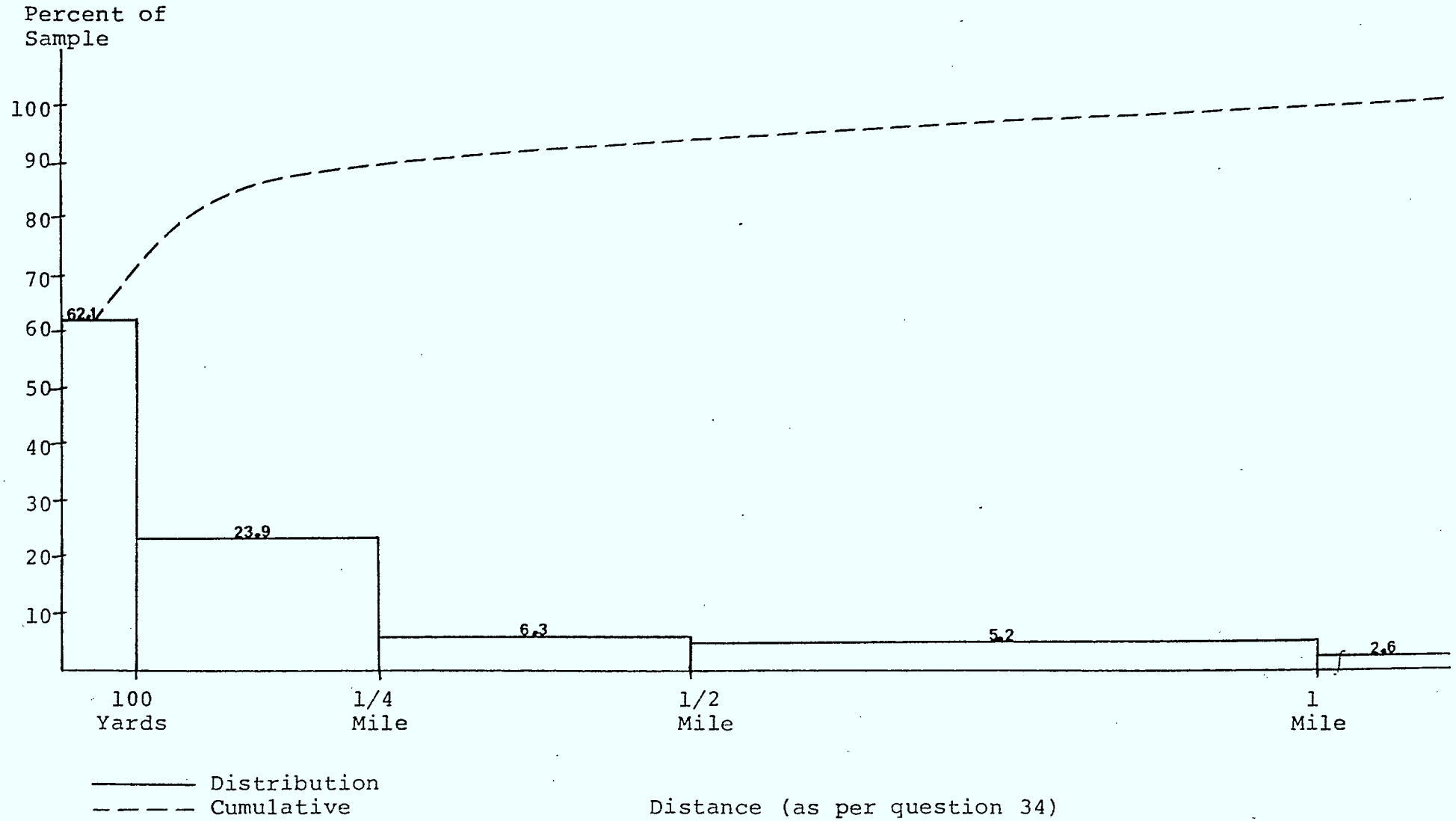


FIGURE A-17

SAMPLE DISTRIBUTION

OF

DISTANCE TO NEAREST CITY

(LARGE COMMUNITIES)

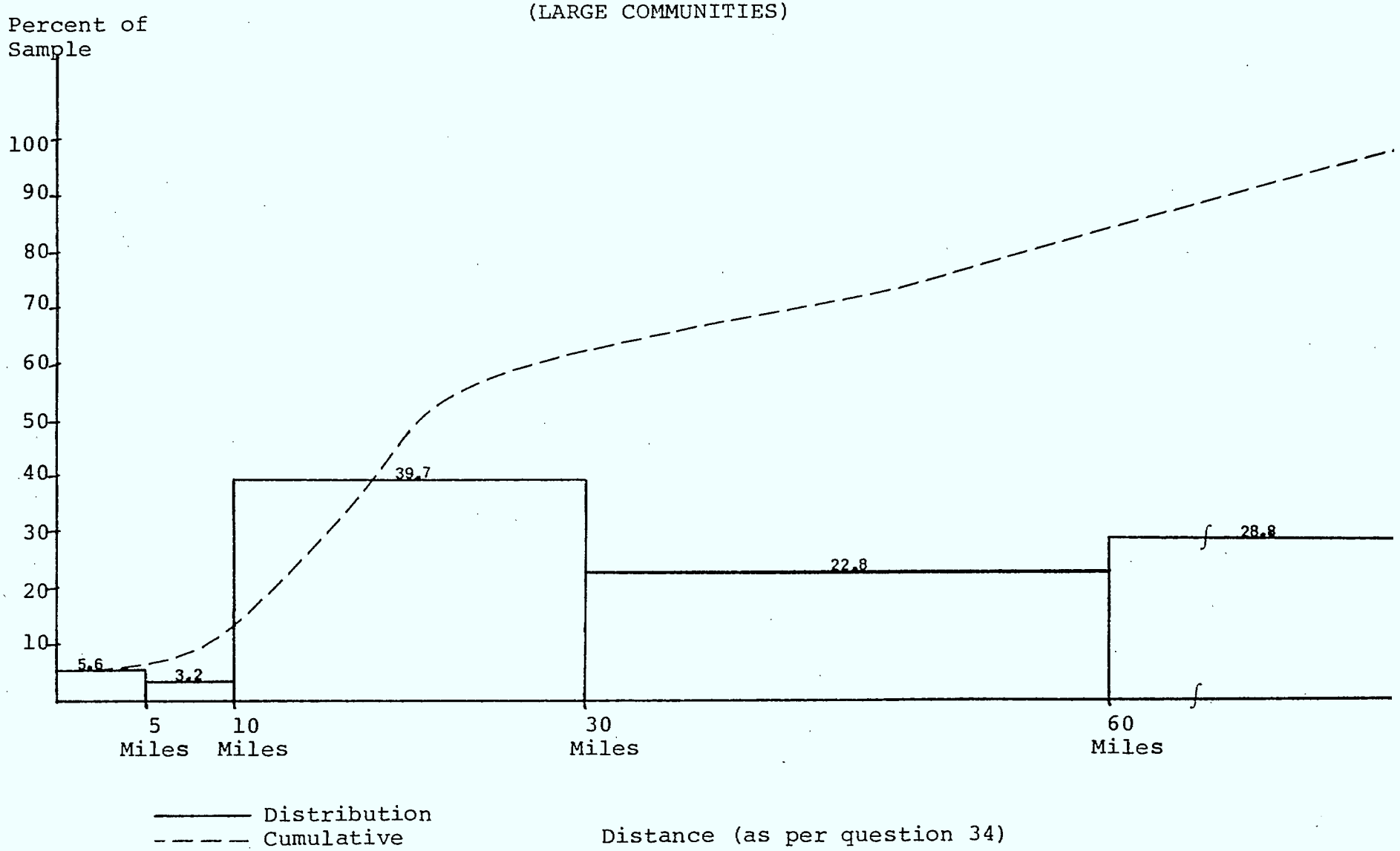


FIGURE A-18

SAMPLE DISTRIBUTION

OF

DISTANCE TO NEAREST NEIGHBOUR

(LARGE COMMUNITIES)

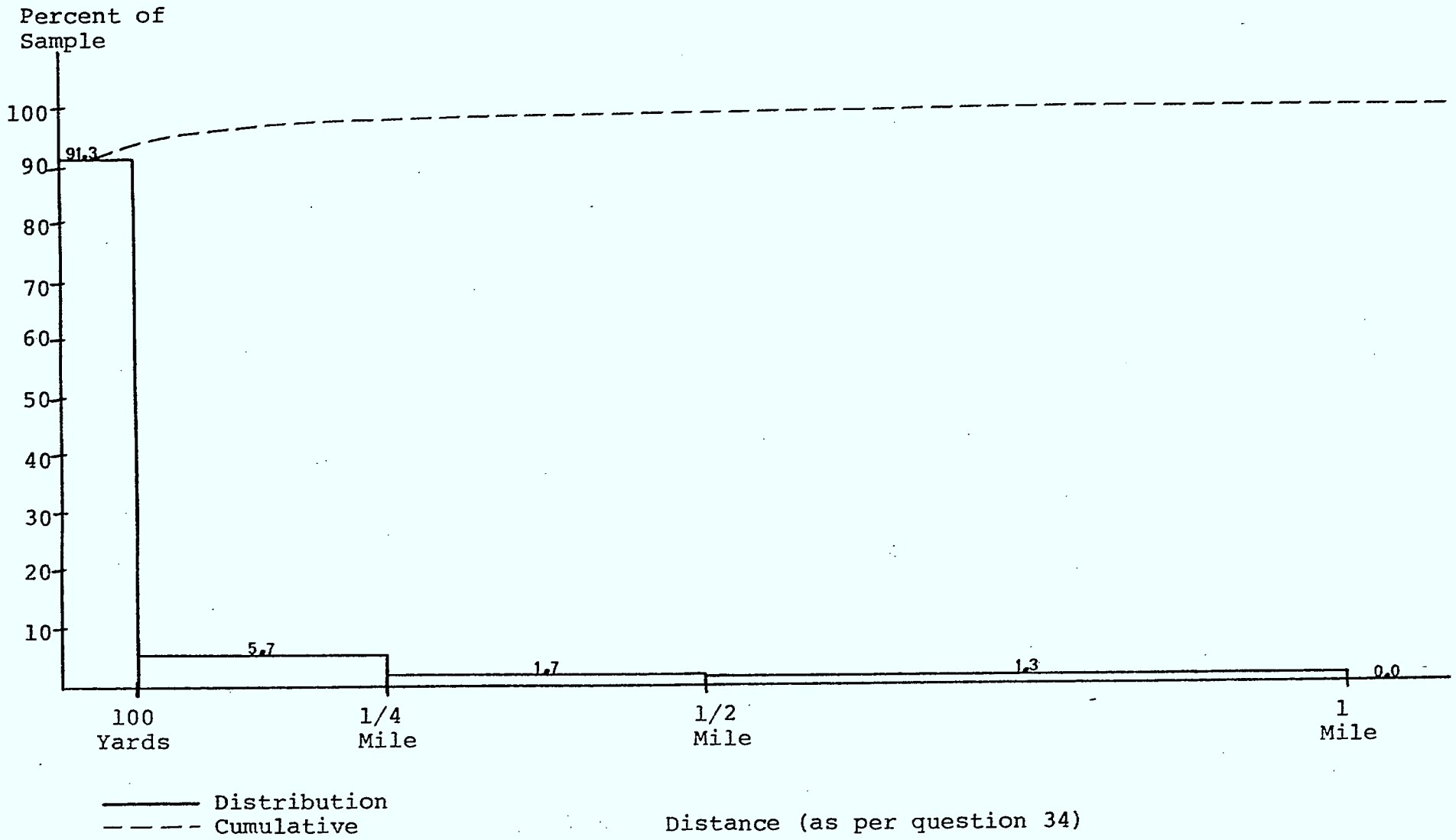


FIGURE A-19

SAMPLE DISTRIBUTION

VS

HOUSEHOLD DENSITY

AND

SATISFACTION WITH TELEVISION SERVICE

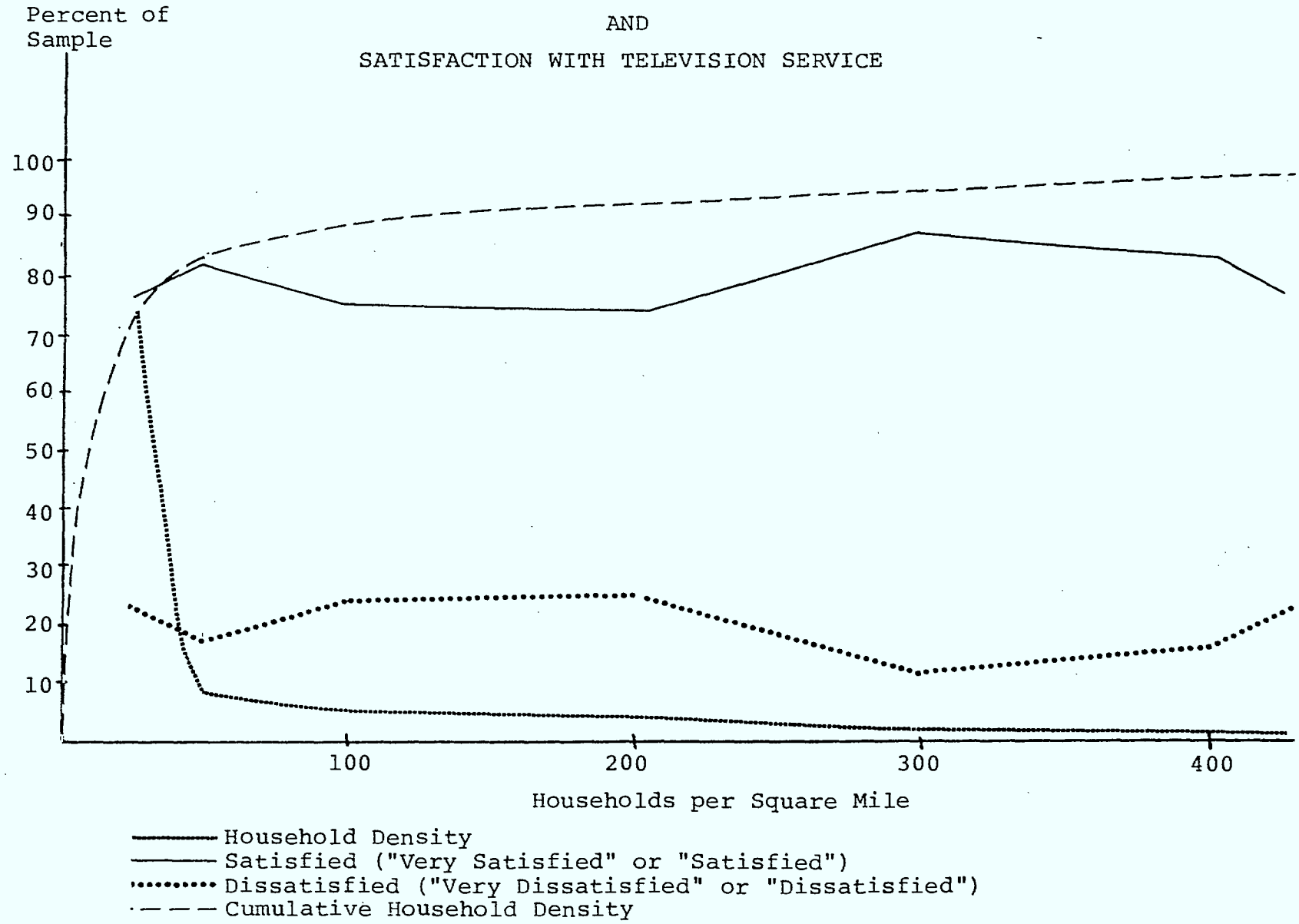


FIGURE A-20

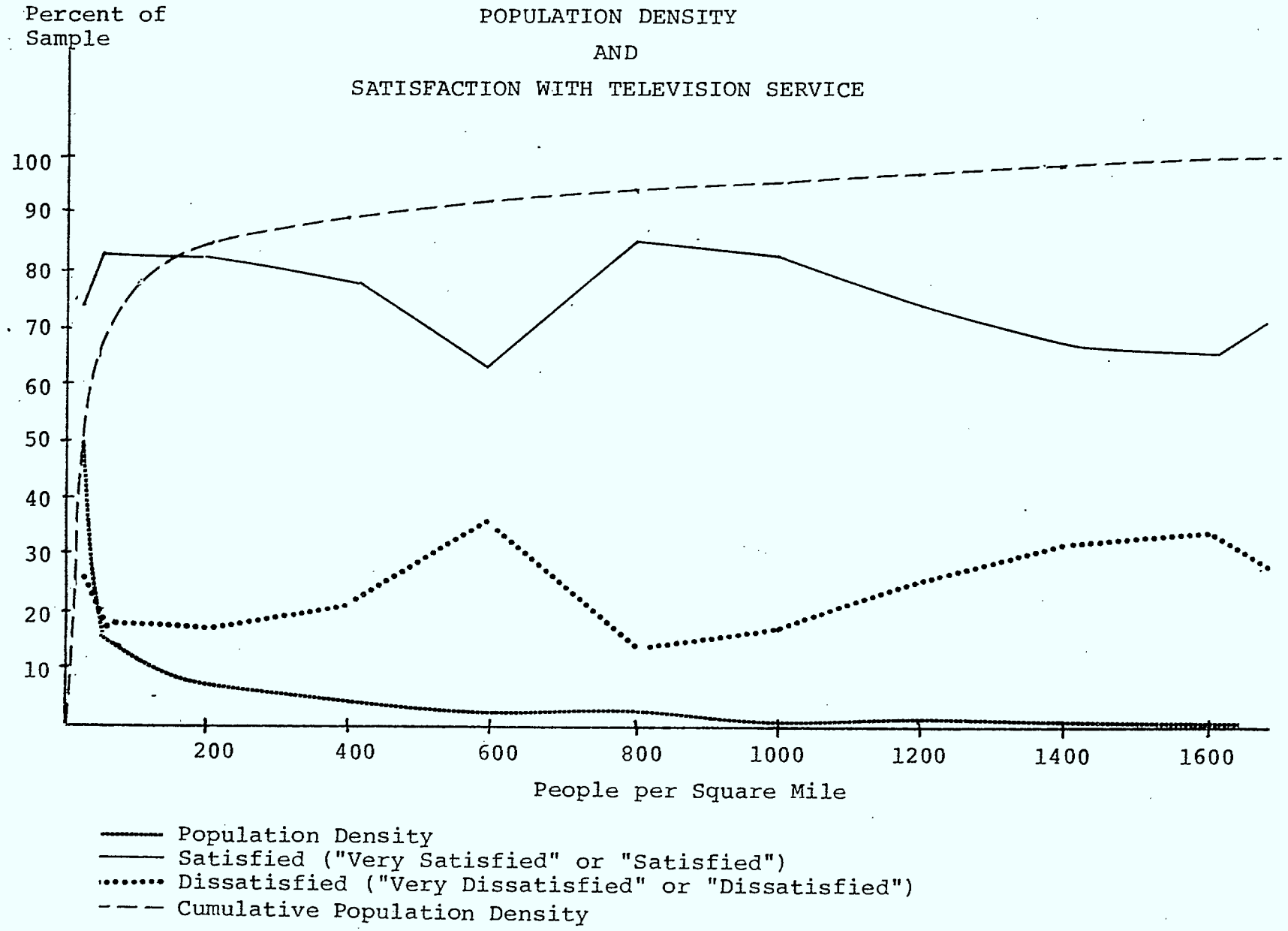
SAMPLE DISTRIBUTION

VS

POPULATION DENSITY

AND

SATISFACTION WITH TELEVISION SERVICE



As would be expected there is considerable regional variation in population distribution (see Figures A6, A8, A10, A12, A14). On a national basis two thirds of the sample households were located within 100 yards from their nearest neighbour (Figure A4). In the Prairie region however where overall population density is lowest in rural Canada, only one third of the sample households were within 100 yards of their nearest neighbour. Similarly the Prairies households are farthest from the nearest city except for the Atlantic Region.

A.5.2 Sample Characteristics

The final data base consisted of 2,667 respondents. Although numerous measures were included in the survey instrument, five demographic measures were compared to Statistics Canada data which is based on the 1976 Census. This enabled the representativeness of the sample along the following five dimensions to be evaluated:

i) tenure
ii) type of dwelling
iii) household size
iv) language
v) marital status

The comparison of the Statistics Canada information to the survey results[1] (see Table A-4) suggests that the sample is generally well balanced along these dimensions, and that the sampling procedure was carried out in a reliable fashion. However, some discrepancies are worth noting. For example, while the survey reports 69% to speak English, Statistics Canada reports 62%. Although this might at first appear to be a large discrepancy, it is explained quite easily. The survey measured the **language spoken most often at home** while Statistics Canada in their 1976 Census year measured **mother tongue.** The difference is obvious and explains why more people would report speaking English at home. In addition, the comparisons indicate that people who are married and live in the Prairie region were oversampled, as were people in single or semi-detached houses in the Prairies and B.C.

---

1 The survey data is unweighted except at the National level, and the Statistics Canada data excludes the SG6 file.

TABLE A-4

SAMPLE CHARACTERISTICS

	Atlantic		Quebec		Ontario		Prairies		B.C.		National	
	Frame[1]	Survey[2]	Frame[1]	Survey[2]	Frame[1]	Survey[2]	Frame[1]	Survey[2]	Frame[1]	Survey[2]	Frame[1]	Survey[3]
Total Households	(244,500)	(551)	(327,640)	(585)	(362,845)	(507)	(337,475)	(549)	(134,440)	(475)	(1,406,950)	(2,047)
	%	%	%	%	%	%	%	%	%	%	%	%
Tenure												
Own	89	92	81	87	83	86	84	91	79	84	83	88
Rent	11	8	19	13	17	14	16	10	21	16	17	12
	%	%	%	%	%	%	%	%	%	%	%	%
Type of Dwelling												
Single/Semi-detached	87	95	81	90	90	95	86	97	75	88	85	94
Row	1	-	1	2	*	1	1	-	2	-	1	1
Duplex/Triplex	2	1	6	6	2	1	1	1	1	2	2	2
Apartment	2	*	5	*	4	1	3	*	4	1	4	*
All Other[4]	8	3	7	2	5	3	10	2	18	10	8	3
Total Families[5]	(218,355)	(516)	(291,590)	(558)	(310,755)	(470)	(275,660)	(509)	(111,600)	(445)	(1,207,960)	(1,916)
	%	%	%	%	%	%	%	%	%	%	%	%
Household Size												
2 persons	30	27	29	27	35	31	35	33	37	43	33	31
3 persons	21	21	20	22	19	19	19	19	19	16	20	20
4 persons	20	25	21	24	22	27	21	25	23	22	21	25
5 persons	13	11	13	14	13	15	13	14	12	14	13	14
6 persons	7	11	8	7	7	6	7	6	5	4	7	7
7 persons	4	3	4	4	3	1	3	1	2	1	3	2
8 persons	2	2	3	2	1	*	1	1	1	*	2	1
9 or more	3	2	3	1	1	*	1	1	*	*	2	1

---

* Less than 0.5%

1 Statistics Canada data based on the 1976 Census (excludes SG6)

2 Unweighted

3 Weighted

4 Statistics Canada data includes "moveable" dwellings even if on foundations.

5 Base for Statistics Canada data is Total Families (excluding one person households). Therefore, survey data has been calculated on households with 2 or more persons.

TABLE A-4 (cont'd)

SAMPLE CHARACTERISTICS

	Atlantic		Quebec		Ontario		Prairies		B.C.		National	
	Frame[1]	Survey[2]	Frame[1]	Survey[2]	Frame[1]	Survey[2]	Frame[1]	Survey[2]	Frame[1]	Survey[2]	Frame[1]	Survey[3]
Language	(932,865)	(551)	(1,249,595)	(585)	(1,220,880)	(507)	(1,122,965)	(549)	(428,090)	(475)	(4,954,395)	(2,047)
	%	%	%	%	%	%	%	%	%	%	%	%
English	81	84	7	5	85	92	75	94	86	96	62	69
French	18	16	92	95	7	4	5	2	2	1	30	28
Other	1	0	1	0	6	4	19	4	10	2	7	2
Not Stated	1	1	1	0	1	*	1	1	2	1	1	*
Marital Status	(244,595)	(551)	(327,490)	(585)	(362,830)	(507)	(337,275)	(549)	(134,475)	(475)	(1,406,665)	(2,047)
	%	%	%	%	%	%	%	%	%	%	%	%
Married[4]	79	84	82	88	80	84	77	87	78	85	79	86
Separated	2	2	2	1	3	1	2	2	4	2	2	1
Widowed	12	9	9	6	11	8	11	7	7	4	10	7
Divorced	1	1	1	*	2	1	1	1	3	2	2	1
Single	6	5	6	5	6	6	9	5	8	6	7	5

* Less than 0.5%

1 Statistics Canada data based on the 1976 Census (excludes SG6)

2 Unweighted

3 Weighted

4 Survey data includes "Common Law"

A.5.3 Weighting Scheme

As previously explained in section A.4.1 (Sampling Frame), the frame was stratified to provide even coverage of the rural portions of each of the five regions (Atlantic, Quebec, Ontario, Prairies, and B.C.). In so doing, the resultant sample was not distributed according to the actual proportion of rural households in each region (e.g. rural households in the Atlantic region and in B.C. were oversampled). In order to correct for the disproportionate regional representation, the total national sample was weighted down (i.e. from 2667 respondents to 2047). In addition, the data presented for small and large rural communities was weighted down such that it would represent all regions. The regional data was not weighted as it proved to be representative in terms of the proportions of small and large communities within each region.

As a result there are, in effect, three different total sample sizes:

a) the national data base (2047 respondents) which is representative of the population size of both community sizes and the five regions.

b) the regional data base (2667 respondents distributed as follows: Atlantic region, 551 respondents; Quebec, 585 respondents; Ontario, 507 respondents; Prairies, 549 respondents; and B.C., 475 respondents) is representative of both small and large community sizes within each region.

c) the community data base (2057 respondents distributed as follows: small, 1787 respondents; and large, 270 respondents) is representative of the population size across the five regions for each community size.

It is important to remember that no one type of respondent has been weighted up, that is, inflated or given more weight. Where the sample was weighted, it was always weighted down (i.e. the actual number of respondents sampled was 2,667).

APPENDIX B

GLOSSARY OF TECHNICAL TERMS

APPENDIX B

GLOSSARY OF TECHNICAL TERMS

The definitions or discussions presented below are not comprehensive; only the aspects relevant to the analysis reported here have been retained.

- **Frequency distribution:** The frequency distribution of a given questionnaire item merely describes how the sample answered the question.

  The "shape" of a frequency distribution is of particular interest to the researcher; besides indicating how the measurement went, this shape has important analytical implications. For instance, certain statistical analyses (e.g. correlation, regression) usually assume that the shape of the distribution exhibits certain characteristics (e.g. unimodality, normality, etc.). Several statistics are commonly used to characterise the shape of a frequency distribution:

  - measures of central tendency (mean, mode, median)
  - measures of dispersion or spread about the mean (variance, standard deviation)
  - measure of symmetry (skewness)
  - measure of relative flatness (kurtosis)

- **Crosstabulation:** A crosstabulation is a joint frequency distribution of cases according to two or more classifactory variables. These joint frequency distributions can be statistically analyzed by certain tests of significance, e.g. the chi-square statistic, to determine whether or not a relationship exists between them.

- **Measures of association:** Hypothesis testing usually involves an investigation of whether the answers to one question (e.g. purchase intentions) are related to the answers of one or several other questions (e.g. degree of satisfaction, intensity of need). Several measures of statistical association are available because some of them (e.g. regression, correlation) can only be used when the variables involved exhibit certain distributional and scaling characteristics. When these characteristics are not satisfied, "non-parametric" measures of association are used (e.g. Cramer's V, Contingency Coefficient, Lambda).

- **Correlation coefficients:** They measure the degree (or strength) of statistical association between two variables. They range from -1 to +1; the sign of the coefficient indicates the direction of the relationship (inverse or positive); the absolute value indicates the degree of association: a "0" indicates an absence of statistical association, which means that the two variables vary independently of each other; a "1" indicates a perfect statistical association, which means that the variation in one variable parallels exactly the variation in the other variable. The Pearson coefficient is used for interval-scaled variables while the Spearman coefficient is used for ordinal-scaled (rank ordered) variables.

- **Level of significance:** This concept arises when random samples are used to infer the existence of relationships in the population. A test of significance is used to learn the probability that the relationship observed in the sample could have happened by chance. The probability of the observed relationship occuring by chance is equal to the proportion of every possible sample in which the relationship between two variables is as strong or stronger than in the observed sample. It has become convention in social science to accept as statistically significant relationships which have a probability of occuring by chance 5 percent of the time or less (i.e. 5%), that is, in no more than 5 out of 100 samples. The significance tests used in this report include the ^{2}, the significance test for the correlation coefficient, and the Fisher test (for the coefficient of determination R^2).

- **Standard error:** The standard error statistic indicates the potential degree of discrepancy between the sample mean and the unknown population mean. If we were to draw an infinite number of equal-sized samples from a given population, the means of these samples would be normally distributed around the true population mean. The standard deviation of this distribution is called the standard error. About 66% of the sample means would be contained in the interval defined by the population mean $\pm$ one standard error.

- **Factor analysis:** This is a technique that can be used to reduce a set of intercorrelated variables into a smaller set of new variables (called factors) which are truly independent (uncorrelated).

APPENDIX C

QUESTIONNAIRE

HDUSEHDLD QUESTIDNNAIRE
CDMMUNICATIDNS STUDY

LOCATIDN NUMBER: [| | |] 7/1D

HDUSEHOLD NUMBER: [ ] 11-

12-1

FDR OFFICE USE DNLY						
PRDV.		EA			FILE	REP.
13-	14-	15-	16-	17-	18-	19-

ASK TO SPEAK TO THE HEAD OF HOUSEHDLD.

Hello, I am _____ of Canadian Facts, a market research company. We are conducting a survey on behalf of the Government of Canada (HAND LETTER OF INTRODUCTION). We would appreciate your co-operation.

A. Is this your primary residence, that is, do you live in this home for six months or more of the year?

YES ..... ☐ NO ..... ☐ RECDRD BELDW AND END INTERVIEW

B. (IF YES TO A ABOVE, INTERVIEW MALE HEAD OF HOUSEHOLD)

TRIP:	1	2	3
DATE:	_____	_____	_____
NO ONE AT HOME	20-1	21-1	22-1
NDT A PRIMARY RESIDENCE	2	2	2
NO MALE HEAD DF HOUSEHOLD	3	3	3
INITIAL REFUSAL _____ (EXPLAIN REFUSAL)	4	4	4
RESPDNDENT NOT AT HOME	5	5	5
RESPDNDENT REFUSAL _____ (EXPLAIN REFUSAL)	6	6	6
TERMINATION (SPECIFY QUESTION NUMBER _____)	7	7	7
CDMPLETION	8	8	8

23/74

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DEMAND RESEARCH CONSULTANTS INCORPORATED

HOUSEHOLD QUESTIONNAIRE
COMMUNICATIONS STUDY

LOCATION NUMBER: [ ][ ][ ][ ] 7/10

HOUSEHOLD NUMBER: [ ] 12-2

FOR OFFICE USE ONLY			
PROV.	EA	FILE	REP.

TELE A (Continued)

I am going to give you a list of four telecommunication services. Suppose that you had 10 points to allocate for improvement to these services in your area. The more points you give to a service the more you feel it must be improved, the less points you give the less you feel it must be improved. You can allocate the 10 points to one or all the services, but remember that the total must add up to 10. (HAND TO RESPONDENT, RESPONDENT RECORDS)

	NO. OF POINTS	
Telephone services	_____	19/21
CB or mobile radio services	_____	22/24
Radio broadcasting services	_____	25/27
Television services	_____	28/30
TOTAL MUST ADD UP TO 10 TOTAL =	10	

NO IMPROVEMENT NEEDED
IN ANY OF THESE SERVICES 0

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SECTION B

3-a) How many different telephone numbers are in use in your home?

ONE .....31 [1 GO TO Q.4-a)]

TWO 2

THREE OR MORE 3

NONE ..... [4 GO TO Q.5]

-b) Are any of these telephone numbers business numbers?

YES 32-1

NO 2

(IF "ONE" TO 3-a) and "YES" TO 3-b), GO TO Q.14-a).)

4-a) What is your residential telephone mainly used for in your home? (DO NOT READ LIST) (CIRCLE CODE 1 BESIDE FIRST USE MENTIONED)

-b) Anything else? (CIRCLE CODE 2 BESIDE SECOND MENTION. PROBE, CONTINUE UNTIL RESPONDENT HAS MENTIONED ALL OF HIS/HER USES.)

	4-a) FIRST MENTION	4-b) SECOND MENTION	THIRD MENTION	FOURTH MENTION	FIFTH MENTION	SIXTH MENTION	SEVENTH MENTION
	TELEPHONE IS MAINLY USED FOR:						
BUSINESS	33-1	2	3	4	5	6	7
HEALTH PROBLEMS	34-1	2	3	4	5	6	7
CONVENIENCE, TIME SAVING, EFFICIENCY (e.g. enquiries, appointments, etc).	35-1	2	3	4	5	6	7
FEEL ISOLATED, MIGHT HAVE TO CALL FOR HELP ..	36-1	2	3	4	5	6	7
SOCIAL REASONS (e.g. calling friends, social activities, etc.)	37-1	2	3	4	5	6	7
FAMILY REASONS	38-1	2	3	4	5	6	7
SECURITY (fire, police, burglars, etc.)	39-1	2	3	4	5	6	7
OTHER (SPECIFY)	____	____	____	____	____	____	____

[GO TO QUESTION 6]

5-a) (IF NO TELEPHONE IN HOUSEHOLD, ASK:) Would you tell me why you do not have a phone? (DO NOT READ LIST) (CIRCLE CODE 1 FOR FIRST MENTION.)

-b) And are there any other reasons why you do not have a phone in your home? (CIRCLE CODE 2 FOR SECOND MENTION, CODE 3 FOR THIRD MENTION)

	5-a) FIRST MENTION	5-b) SECOND MENTION	THIRD MENTION
	REASONS FOR LACK OF PHONE:		
TOO EXPENSIVE	40-1	2	3
TELEPHONE ON ORDER/ WAITING FOR INSTALLATION ..	41-1	2	3
RECENTLY MOVED TO HOUSE	42-1	2	3
CANNOT GET THE TYPE OF SERVICE I WANT	43-1	2	3
UNOBTAINABLE, CAN'T GET IT	44-1	2	3
SERVICE NOT AVAILABLE .	45-1	2	3
NO NEED FOR ONE	46-1	2	3
OTHER (SPECIFY)	____	____	____

[GO TO QUESTION 13]

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6. (HAND CARD B)

Please look at this scale and tell me how satisfied your household is with each of the following aspects of your present telephone service. (READ EACH ITEM AND RECORD ANSWER BEFORE READING THE NEXT ONE.) (START READING AT THE "X" AND CONTINUE FOR ALL STATEMENTS)

		VERY SATISFIED	SATISFIED	DISSATISFIED	VERY DISSATISFIED	DON'T KNOW	NOT APPLICABLE
X	a) Speed of repair service?	47-1	2	3	4	5	6
	b) Reliability of service, i.e., few breakdowns?	48-1	2	3	4	5	6
	c) Speed of installation service?	49-1	2	3	4	5	6
	d) Operator service?	50-1	2	3	4	5	6
	e) Number of parties on your line?	51-1	2	3	4	5	6
	f) Size of area within which you can call free, i.e., without long distance charges?	52-1	2	3	4	5	6
	g) Ability to call, free of charge, essential services such as police, hospital, etc.?	53-1	2	3	4	5	6
	h) Overall clarity of communication	54-1	2	3	4	5	6
	i) Billing service?	55-1	2	3	4	5	6
	j) Basic monthly charge (not including long distance calls)?	56-1	2	3	4	5	6
	k) Cost of long distance calls?	57-1	2	3	4	5	6
	l) Cost of installation service?	58-1	2	3	4	5	6
	m) Availability of line when you want it?	59-1	2	3	4	5	6
	n) Your telephone service in general?	60-1	2	3	4	5	6

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7-a) What type of residential telephone service do you pay for? Is it a ... (READ LIST)?

Private line ...61 [1 GO TO Q.8-a)]

Two party line .. 2

Four party line .. 3

More than 4 party line 4

-b) Including yourself, how many parties are actually on your line at the present time?

NO. OF PARTIES: _____ 62/63
(WRITE IN)

DON'T KNOW .. ☐

8-a) For how many years have you had a (REPEAT TYPE OF SERVICE MENTIONED IN Q.7-a))?

LESS THAN 1 YEAR .. ☐

NO. OF YEARS : _____ 64/66
(SPECIFY)

-b) Did you have to pay more than $50 to have your telephone installed?

YES 67-1

NO ..... [2 GO TO Q.9]

-c) How much did it cost? _____ 68/70 71/74
(SPECIFY)

DUP. 1/4
5-7
DUP. 6

9. Now I am going to read a list of community facilities and services. Please tell me if you have to make a long distance call from your home in order to telephone ..... (READ LIST)?

	LONG DISTANCE CALL REQUIRED:		
	YES	NO	DON'T KNOW
The nearest hospital	7-1	2	3
The nearest doctor	8-1	2	3
The nearest dentist	9-1	2	3
The nearest elementary school	10-1	2	3
The nearest secondary school	11-1	2	3
The place where you work	12-1	2	3
The nearest fire department	13-1	2	3
The nearest police station	14-1	2	3
The nearest grocery store	15-1	2	3
The nearest service station	16-1	2	3
Municipal offices	17-1	2	3

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10-a) Have there been any major improvements in your telephone service since it was first installed?

YES 18-1
NO ..... 2 GO TO Q.11

10-b) (IF YES IN Q.10-a)) Did you yourself ask for this improvement, or did the telephone company carry out the improvement on its own?

Asked for improvement 19-1
Company carried out on its own 2

10-c) How long ago did this improvement take place?

MONTHS _____ (SPECIFY) 20/21

YEARS _____ (SPECIFY) 22/23

11-a) On the average, how much is your total monthly phone bill?

$ _____ (WRITE IN) 24/26

RESPONDENT CHECKED PHONE BILL(S): YES ...27-1
NO 2

11-b) Excluding charges for long distance calls and tax, how much is the basic monthly charge for your telephone?

$ _____ (WRITE IN) 28/29

RESPONDENT CHECKED PHONE BILL(S): YES ...30-1
NO 2

11-c) Does your monthly phone bill include charges for any of the following optional equipment? (READ LIST)

	YES	NO
Extension telephones	31-1	☐
Pushbutton dials	2	☐
Coloured or decorator telephones ...	3	☐
Other items (SPECIFY) _____		
_____		

12. Suppose that you have just moved to a different place; you have the choice between two, and only two, types of telephone service. For each of the following situations, could you indicate which type of service you would buy?

(SHUFFLE DECK AND HAND TO RESPONDENT. HAVE RESPONDENT TELL YOU WHICH CARD HE/SHE IS LOOKING AT (T1 TO T17) AND CHECK ✓ BOX, THEN RECORD RESPONDENT'S CHOICE (P1 TO P9) FOR EACH CARD.)

CARD:	DESCRIPTION: LINE	MONTHLY RATE	CALLING AREA	CHOICE:
T1 ... ☐ →	Private	$6	Same	P1 32-1
	Private	$10	Larger	P2 2
T2 .... ☐ →	4 Party	$6	Same	P7 33-1
	2 Party	$10	Same	P5 2
T3 .... ☐ →	4 Party	$10	Same	P8 34-1
	4 Party	$18	Larger	P9 2
T4 .... ☐ →	2 Party	$10	Same	P5 35-1
	Private	$18	Same	P3 2
T5 .... ☐ →	4 Party	$6	Same	P7 36-1
	Private	$18	Same	P3 2
T6 .... ☐ →	4 Party	$18	Larger	P9 37-1
	Private	$18	Same	P3 2
T7 .... ☐ →	4 Party	$18	Larger	P9 38-1
	4 Party	$6	Same	P7 2
T8 .... ☐ →	Private	$6	Same	P1 39-1
	2 Party	$6	Larger	P4 2
T9 .... ☐ →	Private	$18	Same	P3 40-1
	2 Party	$6	Larger	P4 2
T10 ... ☐ →	2 Party	$6	Larger	P4 41-1
	Private	$10	Larger	P2 2
T11 ... ☐ →	2 Party	$18	Same	P6 42-1
	4 Party	$18	Larger	P9 2
T12 ... ☐ →	4 Party	$18	Larger	P9 43-1
	2 Party	$10	Same	P5 2
T13 ... ☐ →	Private	$10	Larger	P2 44-1
	4 Party	$6	Same	P7 2
T14 ... ☐ →	2 Party	$18	Same	P6 45-1
	4 Party	$6	Same	P7 2
T15 ... ☐ →	4 Party	$10	Same	P8 46-1
	2 Party	$18	Same	P6 2
T16 ... ☐ →	Private	$18	Same	P3 47-1
	4 Party	$10	Same	P8 2
T17 ... ☐ →	4 Party	$18	Larger	P9 48-1
	Private	$6	Same	P1 2

BIN B2038

c

15. Recent breakthroughs in telephone technology make it possible to offer you a telephone service comparable to that available in large cities; that is, anyone could get a private line and enjoy a large free calling area (that is, people in surrounding communities and essential services could be called without long distance charges).

(HAND CARD C AND READ:)

Subscribing to this new telephone service would give you:

a private line

a larger free calling area (so that people in surrounding communities and essential services could be called without long distance charges).

Choice situation A:

(READ STATEMENT)

Suppose that this new improved telephone service is available to you as early as next month, and that the basic monthly charge (that is, not including long distance calls) is $10 per month, how likely would you be to buy this service within the next 12 months?

(HAND RESPONDENT SCALE CARD AND CIRCLE ANSWER BELOW)

RESPONDENT'S CHOICE:

Certain or almost certain (9 or 10 chances in 10)	49-1
Good possibility (7 or 8 chances in 10)	2
Fairly good possibility (4, 5 or 6 chances in 10)	3
Fair possibility (2 or 3 chances in 10)	4
No chance or almost no chance (0 or 1 chance in 10) ..	5

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13. Recent breakthroughs in telephone technology make it possible to offer you a telephone service comparable to that available in large cities; that is, anyone could get a private line and enjoy a large free calling area (that is, people in surrounding communities and essential services could be called without long distance charges).

(HAND CARD C AND READ:)

Subscribing to this new telephone service would give you:

a private line

a larger free calling area (so that people in surrounding communities and essential services could be called without long distance charges).

Choice situation C:

(READ STATEMENT)

Suppose that this new improved telephone service is available to you as early as next month, and that the basic monthly charge (that is, not including long distance calls) is $25 per month, how likely would you be to buy this service within the next 12 months?

(HAND RESPONDENT SCALE CARD AND CIRCLE ANSWER BELOW)

RESPONDENT'S CHOICE:

Certain or almost certain (9 or 10 chances in 10)	49-1
Good possibility (7 or 8 chances in 10)	2
Fairly good possibility (4, 5 or 6 chances in 10)	3
Fair possibility (2 or 3 chances in 10)	4
No chance or almost no chance (0 or 1 chance in 10) ..	5

BIN B2038

Recent breakthroughs in telephone technology make it possible to offer you a telephone service comparable to that available in large cities; that is, anyone could get a private line and enjoy a large free calling area (that is, people in surrounding communities and essential services could be called without long distance charges).

(HAND CARD C AND READ:)

Subscribing to this new telephone service would give you:

a private line

a larger free calling area (so that people in surrounding communities and essential services could be called without long distance charges).

Choice situation B:

(READ STATEMENT)

Suppose that this new improved telephone service is available to you as early as next month, and that the basic monthly charge (that is, not including long distance calls) is $18 per month, how likely would you be to buy this service within the next 12 months?

(HAND RESPONDENT SCALE CARD AND CIRCLE ANSWER BELOW)

RESPONDENT'S CHOICE:

Certain or almost certain (9 or 10 chances in 10)	49-1
Good possibility (7 or 8 chances in 10)	2
Fairly good possibility (4, 5 or 6 chances in 10)	3
Fair possibility (2 or 3 chances in 10)	4
No chance or almost no chance (0 or 1 chance in 10)	5

BIN B2038

14-a) How many colour television sets are in use in your home? (RECORD BELOW)

-b) And how many black and white television sets are in use in your home? (RECORD BELOW)

	14-a) COLOUR	14-b) BLACK AND WHITE
NONE	50-0	51-0
ONE	1	1
TWO	2	2
THREE OR MORE	3	3

IF ONE OR MORE, GO TO Q.16

15-a) (IF NO TV IN HOME, ASK:) Why don't you use a television set in your home? (DO NOT READ LIST. CIRCLE CODE 1 FOR FIRST MENTION.)

-b) Any other reason? (CIRCLE CODE 2 BELOW FOR SECOND MENTION, ETC. PROBE, CODE ONLY FIRST THREE MENTIONS.)

REASONS FOR NOT WATCHING TV:	15-a) FIRST MENTION	15-b) SECOND MENTION	THIRD MENTION
DO NOT WATCH TV/NOT INTERESTED	52-1	2	3
TOO EXPENSIVE TO BUY TV	53-1	2	3
RECEPTION EQUIPMENT (ANTENNA, TOWER, ETC.) TOO EXPENSIVE	54-1	2	3
POOR RECEPTION	55-1	2	3
NO RECEPTION	56-1	2	3
NO STATION IN OWN LANGUAGE	57-1	2	3
CANNOT WATCH/HEAR (BLIND, DEAF, ETC.)	58-1	2	3
OTHER (SPECIFY)	_____	_____	_____

GO TO QUESTION 21

16-a) (IF ONE OR MORE TV IN USE IN HOME, ASK:) What is your TV mainly used for in your home? (DO NOT READ LIST. CIRCLE CODE 1 FOR FIRST MENTION.)

-b) Anything else? (CIRCLE CODE 2 FOR SECOND MENTION, ETC. PROBE, CODE ONLY FIRST THREE MENTIONS.)

MAIN USES FOR TV:	16-a) FIRST MENTION	16-b) SECOND MENTION	THIRD MENTION
EDUCATION (FOR CHILDREN)	59-1	2	3
EDUCATION (FOR ADULTS)	60-1	2	3
THE NEWS	61-1	2	3
INFORMATION (news, talk shows, documentaries, etc.)	62-1	2	3
ENTERTAINMENT (recreation, sports, movies, variety, game shows, etc.)	63-1	2	3
TO KEEP ME COMPANY WHEN ALONE	64-1	2	3
TO KILL/ PASS TIME	65-1	2	3
HANDICAPPED/CANNOT GET OUT	66-1	2	3
KEEPS CHILDREN QUIET	67-1	2	3
DO NOT WATCH	68-1	2	3
OTHER (SPECIFY)	_____	_____	_____

69/74

BIN B2038

17. (HAND CARD TV8)

Please look at this scale and tell me how satisfied your household is with each of the following aspects of your present TV service. (READ EACH ITEM AND RECORD ANSWER BEFORE READING THE NEXT ONE.) (START READING AT THE "X" AND CONTINUE FOR ALL STATEMENTS)

		VERY SATISFIED	SATISFIED	DISSATISFIED	VERY DISSATISFIED	DON'T KNOW	NOT APPLICABLE
X-a)	Overall quality of picture on most channels?	7-1	2	3	4	5	6
-b)	Overall quality of sound on most channels?	8-1	2	3	4	5	6
-c)	Content of national programming?	9-1	2	3	4	5	6
-d)	Amount of local programming..	10-1	2	3	4	5	6
-e)	The number of French Canadian channels you receive?	11-1	2	3	4	5	6
-f)	The number of English Canadian channels you receive?	12-1	2	3	4	5	6
-g)	The number of American channels you receive?	13-1	2	3	4	5	6
-h)	The cost of the reception equipment you require?	14-1	2	3	4	5	6
-i)	The reliability of your reception equipment?	15-1	2	3	4	5	6
-j)	Your television service in general?	16-1	2	3	4	5	6

SECTION C (Continued)

18-a) How many American stations can you get on your TV set(s)? (RECORD BELOW)

-b) On how many of these (NO. OF AMERICAN STATIONS) do you generally get good reception? (RECORD BELOW)

-c) And on how many do you generally get poor reception? (RECORD BELOW)

-d) How many Canadian stations, with English programs, can you get on your TV set(s)? (RECORD BELOW)

-e) And on how many of these (NO. OF ENGLISH STATIONS) would you say that you generally get good reception? (RECORD BELOW)

-f) And on how many do you generally get poor reception? (RECORD BELOW)

-g) Finally, how many Canadian stations, with French programs, can you get on your TV set(s)? (RECORD BELOW)

-h) On how many of these (NO. OF FRENCH STATIONS) do you generally get good reception? (RECORD BELOW)

-i) And on how many do you generally get poor reception? (RECORD BELOW)

	-a), -b), -c) AMERICAN STATIONS	-d), -e), -f) ENGLISH CANADIAN STATIONS	-g), -h), -i) FRENCH CANADIAN STATIONS
TOTAL NO.	17/18	23/24	29/30
RECEPTION: .... GOOD	19/20	25/26	31/32
.... POOR	21/22	27/28	33/34

DO NOT WATCH .....35-1 ..... 2 3

19-a) Has there been any major improvement, in your area, with respect to overall television service?

YES 36-1

NO ..... [2 GO TO Q.19-c)]

-b) (IF YES IN Q.19-a))

How long ago did that improvement take place?

NO. OF MONTHS: _____ 37/38
(SPECIFY)

NO. OF YEARS : _____ 39/40
(SPECIFY)

-c) Do you have any of the following TV equipment for receiving TV programs? (READ LIST)

	YES	NO
External antenna, not including rabbit ears	41-1	 2
Tower	42-1	 2
Rotor	43-1	 2
Booster	44-1	 2

-d) When did you buy this equipment? _____ years 45/46

-e) (IF YES TO ONE OR MORE IN 19-c))

How much has this equipment cost you in total, including any repairs you may have made?

$_____ 47/49
(SPECIFY)

BIN B2038

20. Again, suppose that you have just moved to a different place; you have the choice between two, and only two, types of TV service. For each of the following situations, could you indicate which type of service you would buy?

(SHUFFLE DECK AND HAND TO RESPONDENT. HAVE RESPONDENT TELL YOU WHICH CARD HE/SHE IS LOOKING AT (TV-1 TO TV-23) AND CHECK ✓ BOX, THEN RECORD RESPONDENT'S CHOICE (P1 TO P9) FOR EACH CARD.)

CARD:	DESCRIPTION				CHOICE:
	CHANNELS	RECEPTION	PROGRAM-MING	MONTHLY RATE	
TV-1 ... ☐ →	2	Fair	Same	$6	P1 50-1
	2	Excellent	Same	$12	P2 2
TV-2 ... ☐ →	6	Fair	Better	$12	P8 51-1
	4	Excellent	Better	$6	P4 2
TV-3 ... ☐ →	6	Fair	Better	$12	P8 52-1
	6	Excellent	Same	$20	P9 2
TV-4 ... ☐ →	4	Fair	Same	$12	P5 53-1
	2	Fair	Better	$20	P3 2
TV-5 ... ☐ →	2	Fair	Better	$20	P3 54-1
	4	Fair	Same	$20	P6 2
TV-6 ... ☐ →	6	Fair	Same	$6	P7 55-1
	2	Fair	Better	$20	P3 2
TV-7 ... ☐ →	6	Excellent	Same	$20	P9 56-1
	2	Fair	Better	$20	P3 2
TV-8 ... ☐ →	2	Excellent	Same	$12	P2 57-1
	2	Fair	Better	$20	P3 2
TV-9 ... ☐ →	2	Fair	Better	$20	P3 58-1
	2	Fair	Same	$6	P1 2
TV-10 .. ☐ →	4	Excellent	Better	$6	P4 59-1
	6	Fair	Same	$6	P7 2
TV-11 .. ☐ →	2	Fair	Same	$6	P1 60-1
	4	Fair	Same	$20	P6 2
TV-12 .. ☐ →	6	Fair	Better	$12	P8 61-1
	2	Excellent	Same	$12	P2 2
TV-13 .. ☐ →	6	Fair	Same	$6	P7 62-1
	6	Fair	Better	$12	P8 2
TV-14 .. ☐ →	6	Excellent	Same	$20	P9 63-1
	6	Fair	Same	$6	P7 2
TV-15 .. ☐ →	4	Fair	Same	$12	P5 64-1
	2	Fair	Same	$6	P1 2
TV-16 .. ☐ →	4	Excellent	Better	$6	P4 65-1
	6	Excellent	Same	$20	P9 2
TV-17 .. ☐ →	2	Fair	Same	$6	P1 66-1
	6	Fair	Better	$12	P8 2
TV-18 .. ☐ →	6	Excellent	Same	$20	P9 67-1
	4	Fair	Same	$12	P5 2
TV-19 .. ☐ →	2	Excellent	Same	$12	P2 68-1
	6	Fair	Same	$6	P7 2
TV-20 .. ☐ →	2	Excellent	Same	$12	P2 69-1
	6	Excellent	Same	$20	P9 2
TV-21 .. ☐ →	2	Excellent	Same	$12	P2 70-1
	4	Fair	Same	$12	P5 2
TV-22 .. ☐ →	4	Fair	Same	$20	P6 71-1
	2	Excellent	Same	$12	P2 2
TV-23 .. ☐ →	6	Excellent	Same	$20	P9 72-1
	2	Fair	Same	$6	P1 2

Recent breakthroughs in television broadcasting technology make it possible to offer you a television service comparable to that available in large cities; that is, anyone could get at least six different channels, and the reception on each channel would be excellent.

(HAND CARD TV C AND READ)

Subscribing to this new television service would give you:

- reception of at least six different channels in your own language (English or French)
- excellent reception on each channel
- same type of programming as you receive now

Choice situation A:

(READ STATEMENT)

Suppose that this new improved television service is available to you as early as next month, and costs $ 6 per month; how likely would you be to buy this service within the next 12 months?

(HAND RESPONDENT SCALE CARD AND CIRCLE ANSWER BELOW)

RESPONDENT'S CHOICE:

Certain or almost certain (9 or 10 chances in 10)	7-1
Good possibility (7 or 8 chances in 10)	2
Fairly good possibility (4, 5 or 6 chances in 10)	3
Fair possibility (2 or 3 chances in 10)	4
No chance or almost no chance (0 or 1 chance in 10) ..	5

BIN B2038

21. Recent breakthroughs in television broadcasting technology make it possible to offer you a television service comparable to that available in large cities; that is, anyone could get at least six different channels, and the reception on each channel would be excellent.

(HAND CARD TV C AND READ)

Subscribing to this new television service would give you:

- reception of at least six different channels in your own language (English or French)
- excellent reception on each channel
- same type of programming as you receive now

Choice situation B:

(READ STATEMENT)

Suppose that this new improved television service is available to you as early as next month, and costs $12 per month; how likely would you be to buy this service within the next 12 months?

(HAND RESPONDENT SCALE CARD AND CIRCLE ANSWER BELOW)

RESPONDENT'S CHOICE:

Certain or almost certain (9 or 10 chances in 10)	7-1
Good possibility (7 or 8 chances in 10)	2
Fairly good possibility (4, 5 or 6 chances in 10)	3
Fair possibility (2 or 3 chances in 10)	4
No chance or almost no chance (0 or 1 chance in 10) ..	5

BIN B2038

Recent breakthroughs in television broadcasting technology make it possible to offer you a television service comparable to that available in large cities; that is, anyone could get at least six different channels, and the reception on each channel would be excellent.

(HAND CARD TV C AND READ)

Subscribing to this new television service would give you:

- reception of at least six different channels in your own language (English or French)
- excellent reception on each channel
- same type of programming as you receive now

Choice situation C:

(READ STATEMENT)

Suppose that this new improved television service is available to you as early as next month, and costs $20 per month; how likely would you be to buy this service within the next 12 months?

(HAND RESPONDENT SCALE CARD AND CIRCLE ANSWER BELOW)

RESPONDENT'S CHOICE:

Certain or almost certain (9 or 10 chances in 10)	7-1
Good possibility (7 or 8 chances in 10)	2
Fairly good possibility (4, 5 or 6 chances in 10)	3
Fair possibility (2 or 3 chances in 10)	4
No chance or almost no chance (0 or 1 chance in 10) ..	5

BIN B2038

...ecent breakthroughs in television broadcasting technology make it possible to offer you a television service comparable to that available in large cities; that is, anyone could get at least six different channels, and the reception on each channel would be excellent.

(HAND CARD TV D AND READ)

Subscribing to this new television service would give you:

- reception of at least six different channels in your own language (English or French)
- excellent reception on each channel
- same type of programming as you receive now

SHOW PICTURE 1

Choice situation A:

(READ STATEMENT)

Now, suppose that this same improved television service is available through a different technology which would require you to buy (cash or credit) a special reception unit costing $400. This unit would replace all of your existing reception equipment, including antenna, booster, rotor, etc. how likely would you be to buy this service within the next 12 months?

(HAND RESPONDENT SCALE CARD AND CIRCLE ANSWER BELOW)

RESPONDENT'S CHOICE:

Certain or almost certain (9 or 10 chances in 10)	8-1
Good possibility (7 or 8 chances in 10)	2
Fairly good possibility (4, 5 or 6 chances in 10)	3
Fair possibility (2 or 3 chances in 10)	4
No chance or almost no chance (0 or 1 chance in 10) ..	5

BIN B2038

22. Recent breakthroughs in television broadcasting technology make it possible to offer you a television service comparable to that available in large cities; that is, anyone could get at least six different channels, and the reception on each channel would be excellent.

(HAND CARD TV D AND READ)

Subscribing to this new television service would give you:

- reception of at least six different channels in your own language (English or French)
- excellent reception on each channel
- same type of programming as you receive now

SHOW PICTURE I

Choice situation B:

(READ STATEMENT)

Now, suppose that this same improved television service is available through a different technology which would require you to buy (cash or credit) a special reception unit costing $600. This unit would replace all of your existing reception equipment, including antenna, booster, rotor, etc. how likely would you be to buy this service within the next 12 months?

(HAND RESPONDENT SCALE CARD AND CIRCLE ANSWER BELOW)

RESPONDENT'S CHOICE:

Certain or almost certain (9 or 10 chances in 10)	8-1
Good possibility (7 or 8 chances in 10)	2
Fairly good possibility (4, 5 or 6 chances in 10)	3
Fair possibility (2 or 3 chances in 10)	4
No chance or almost no chance (0 or 1 chance in 10) ..	5

BIN B2038

22. Recent breakthroughs in television broadcasting technology make it possible to offer you a television service comparable to that available in large cities; that is, anyone could get at least six different channels, and the reception on each channel would be excellent.

(HAND CARD TV D AND READ)

Subscribing to this new television service would give you:

- reception of at least six different channels in your own language (English or French)
- excellent reception on each channel
- same type of programming as you receive now

SHOW PICTURE I

Choice situation C:

(READ STATEMENT)

Now, suppose that this same improved television service is available through a different technology which would require you to buy (cash or credit) a special reception unit costing $800. This unit would replace all of your existing reception equipment, including antenna, booster, rotor, etc. how likely would you be to buy this service within the next 12 months?

(HAND RESPONDENT SCALE CARD AND CIRCLE ANSWER BELOW)

RESPONDENT'S CHOICE:

Certain or almost certain (9 or 10 chances in 10)	8-1
Good possibility (7 or 8 chances in 10)	2
Fairly good possibility (4, 5 or 6 chances in 10)	3
Fair possibility (2 or 3 chances in 10)	4
No chance or almost no chance (0 or 1 chance in 10) ..	5

BIN B2038

23. Another recent television and telephone technology makes it possible to offer you a combined television and telephone service. That is, you could get at least six different channels with excellent reception on each channel, as well as a private line and a large free calling area where you could call without long distance charges, people in surrounding communities and essential services.

(HAND CARD TV E AND READ)

Subscribing to this new combined television and telephone service would give you:

for television:

- reception of at least six different channels in your own language (English or French)
- excellent reception on each channel
- same type of programming as you receive now

for telephone:

- private line
- a larger free calling area (people in surrounding area and essential services could be called free)

Choice situation A:

(READ STATEMENT)

Suppose that this new combined Telephone/Television service is available to you as early as next month and costs $15 per month; how likely would you be to buy this service within the next 12 months?

(HAND RESPONDENT SCALE CARD AND CIRCLE ANSWER BELOW)

RESPONDENT'S CHOICE:

Certain or almost certain (9 or 10 chances in 10)	9-1
Good possibility (7 or 8 chances in 10)	2
Fairly good possibility (4, 5 or 6 chances in 10)	3
Fair possibility (2 or 3 chances in 10)	4
No chance or almost no chance (0 or 1 chance in 10) ..	5

BIN B2038

23. Another recent television and telephone technology makes it possible to offer you a combined television and telephone service. That is, you could get at least six different channels with excellent reception on each channel, as well as a private line and a large free calling area where you could call without long distance charges, people in surrounding communities and essential services.

(HAND CARD TV B AND READ)

Subscribing to this new combined television and telephone service would give you:

for television:

- reception of at least six different channels in your own language (English or French)
- excellent reception on each channel
- same type of programming as you receive now

for telephone:

- private line
- a larger free calling area (people in surrounding area and essential services could be called free)

Choice situation B:

(READ STATEMENT)

Suppose that this new combined Telephone/Television service is available to you as early as next month and costs $25 per month; how likely would you be to buy this service within the next 12 months?

(HAND RESPONDENT SCALE CARD AND CIRCLE ANSWER BELOW)

RESPONDENT'S CHOICE:

Certain or almost certain (9 or 10 chances in 10)	9-1
Good possibility (7 or 8 chances in 10)	2
Fairly good possibility (4, 5 or 6 chances in 10)	3
Fair possibility (2 or 3 chances in 10)	4
No chance or almost no chance (0 or 1 chance in 10) ..	5

BIN B2038

23. Another recent television and telephone technology makes it possible to offer you a combined television and telephone service. That is, you could get at least six different channels with excellent reception on each channel, as well as a private line and a large free calling area where you could call without long distance charges, people in surrounding communities and essential services.

(HAND CARD TV E AND READ)

Subscribing to this new combined television and telephone service would give you:

for television:

- reception of at least six different channels in your own language (English or French)
- excellent reception on each channel
- same type of programming as you receive now

for telephone:

- private line
- a larger free calling area (people in surrounding area and essential services could be called free)

Choice situation C:

(READ STATEMENT)

Suppose that this new combined Telephone/Television service is available to you as early as next month and costs $35 per month; how likely would you be to buy this service within the next 12 months?

(HAND RESPONDENT SCALE CARD AND CIRCLE ANSWER BELOW)

RESPONDENT'S CHOICE:

Certain or almost certain (9 or 10 chances in 10)	9- 1
Good possibility (7 or 8 chances in 10)	2
Fairly good possibility (4, 5 or 6 chances in 10)	3
Fair possibility (2 or 3 chances in 10)	4
No chance or almost no chance (0 or 1 chance in 10) ..	5

BIN B2038

SECTION D

24. Does anyone in your household, including yourself, have any CB and/or General Radio Service (GRS) equipment?

YES 10-1

NO 2

25. And do you or anyone in this house have any mobile radio or mobile telephone equipment?

YES 11-1

NO 2

IF NO TO BOTH Q.24 AND Q. 25, GO TO Q.28.

26. Which type of equipment would you say is most important to this household, CB or mobile radio?

CB 12-1

MOBILE RADIO 2

DON'T KNOW 3

27-a) What is your (MOST IMPORTANT IN Q.26) mainly used for? (DO NOT READ LIST)

(CODE 1 FOR FIRST MENTION)
(CODE 2 FOR SECOND MENTION, ETC.)

-b) Anything else? (PROBE, CODE THE FIRST 3 RESPONSES IN ORDER MENTIONED)

	27-a) MAIN USES: FIRST MENTION	27-b) SECOND MENTION	THIRD MENTION
BUSINESS	13-1	2	3
EMERGENCY	14-1	2	3
SECURITY	15-1	2	3
FUN/HOBBY/LIKE TO TALK WITH PEOPLE	16-1	2	3
CONVENIENCE	17-1	2	3
OUTDOOR SPORTS	18-1	2	3
NOT USING IT (AT PRESENT)	19-1	2	3
OTHER (SPECIFY)	_____	_____	_____

BIN B2038

28. A recent technology makes it possible to replace your present telephone service with a service which combines telephone and mobile radio benefits. In other words, the new service can be used either as a mobile 2-way radio or as a portable telephone. To get this new service, one set of new equipment [SHOW PICTURE 2] would be needed for each mobile telephone you require.

(HAND CARD R AND READ)

Buying the special equipment to replace your present telephone set would give you:

- a service equivalent to a private line telephone service
- a telephone which can be used in a number of places; for instance, in your home or car
- basic monthly rate of $4 per month

Choice situation A:

(READ STATEMENT)

Suppose that one set of new combined mobile radio-mobile telephone equipment is available to you as early as next month and costs $300; how likely would you be to buy this service within the next 12 months?

(HAND RESPONDENT SCALE CARD AND CIRCLE ANSWER BELOW)

RESPONDENT'S CHOICE:

Certain or almost certain (9 or 10 chances in 10)	20-1
Good possibility (7 or 8 chances in 10)	2
Fairly good possibility (4, 5 or 6 chances in 10)	3
Fair possibility (2 or 3 chances in 10)	4
No chance or almost no chance (0 or 1 chance in 10)	5

BIN B2038

28. A recent technology makes it possible to replace your present telephone service with a service which combines telephone and mobile radio benefits. In other words, the new service can be used either as a mobile 2-way radio or as a portable telephone. To get this new service, one set of new equipment [SHOW PICTURE 2] would be needed for each mobile telephone you require.

(HAND CARD R AND READ,

Buying the special equipment to replace your present telephone set would give you:

- a service equivalent to a private line telephone service
- a telephone which can be used in a number of places; for instance, in your home or car
- basic monthly rate of $4 per month

Choice situation B:

(READ STATEMENT)

Suppose that one set of new combined mobile radio-mobile telephone equipment is available to you as early as next month and costs $500; how likely would you be to buy this service within the next 12 months?

(HAND RESPONDENT SCALE CARD AND CIRCLE ANSWER BELOW)

RESPONDENT'S CHOICE:

Certain or almost certain (9 or 10 chances in 10)	20-1
Good possibility (7 or 8 chances in 10)	2
Fairly good possibility (4, 5 or 6 chances in 10)	3
Fair possibility (2 or 3 chances in 10)	4
No chance or almost no chance (0 or 1 chance in 10) ..	5

BIN B2038

28. A recent technology makes it possible to replace your present telephone service with a service which combines telephone and mobile radio benefits. In other words, the new service can be used either as a mobile 2-way radio or as a portable telephone. To get this new service, one set of new equipment [SHOW PICTURE 2] would be needed for each mobile telephone you require.

(HAND CARD B AND READ)

Buying the special equipment to replace your present telephone set would give you:

- a service equivalent to a private line telephone service
- a telephone which can be used in a number of places; for instance, in your home or car
- basic monthly rate of $4 per month

Choice situation C:

(READ STATEMENT)

Suppose that one set of new combined mobile radio-mobile telephone equipment is available to you as early as next month and costs $700; how likely would you be to buy this service within the next 12 months?

(HAND RESPONDENT SCALE CARD AND CIRCLE ANSWER BELOW)

RESPONDENT'S CHOICE:

Certain or almost certain (9 or 10 chances in 10)	20-1
Good possibility (7 or 8 chances in 10)	2
Fairly good possibility (4, 5 or 6 chances in 10)	3
Fair possibility (2 or 3 chances in 10)	4
No chance or almost no chance (0 or 1 chance in 10)	5

BIN B2038

SECTION E

And now just a few questions to help us in classifying your answers.

29. For how many years have you lived in this home?

NO. OF YEARS: _____ 21/22
(SPECIFY)

30. Do you: ..... (READ LIST)?

Own this home? 23-1

Rent this home? 2

31-a) Do you consider this home to be <u>located</u> in a rural area or an urban area?

URBAN ...24-1

RURAL 2

OTHER (SPECIFY) _____

-b) And is your <u>way of life</u> more urban or more rural?

URBAN ...25-1

RURAL 2

OTHER (SPECIFY) _____

32. Would you say that this home is part of a community that is a town, a village, a settlement, etc., or that this home is isolated?

ISOLATED ..... 26-1 GO TO Q.34

PART OF A COMMUNITY ... 2

33 (IF IN COMMUNITY AT Q.32)

Approximately how many people live in this community?

NO. OF PEOPLE: _____ 27/30
(SPECIFY)

34. (HAND CARD E-1)

Please look at this card and tell me how far this home is from: (READ LIST AND RECORD)

	Under 100 yards	Over 100 yards -less than ¼ mile	¼ mile -less than ½ mile	½ mile -less than 1 mile	1 mile -less than 5 miles	5 miles -less than 10 miles	10 miles -less than 30 miles	30 miles -less than 60 miles	60 or more miles
a) Your nearest neighbour	31-1	2	3	4	5	6	7	8	9
b) the nearest grocery store ..	32-1	2	3	4	5	6	7	8	9
c) the nearest elementary school	33-1	2	3	4	5	6	7	8	9
d) the local police detachment	34-1	2	3	4	5	6	7	8	9
e) the local fire department	35-1	2	3	4	5	6	7	8	9
f) the nearest hospital	36-1	2	3	4	5	6	7	8	9
g) the nearest city _____ (WRITE IN NAME)	37-1	2	3	4	5	6	7	8	9

35. How many people including yourself, live in this household who are:

	NO. OF PEOPLE
Under 5 years of age 38-	
5 to 14 39-	
15 to 24 40-	
25 to 44 41-	
45 to 54 42-	
55 to 64 43-	
65 and over 44-	
TOTAL = 45/46	

36. So there are _____ people living in this household?
(TOTAL NO. IN HOUSEHOLD)

(CORRECT TOTAL IF REQUIRED)

37. What is your occupation?

_____ IN _____ 47-
(TYPE OF JOB) (TYPE OF COMPANY)

RETIRED .....48 -1
UNEMPLOYED 2
HOMEMAKER 3

(IF EMPLOYED OUTSIDE THE HOME, ASK:) Is that full-time or part-time?

FULL-TIME .....49 -1
PART-TIME 2

38-a) What is your marital status?

MARRIED 50-1

SINGLE (NEVER MARRIED).	2	
SEPARATED	3	GO TO
WIDOWED	4	Q.39
DIVORCED	5	

-b) What is the occupation of your spouse?

_____ IN _____ 51-
(TYPE OF JOB) (TYPE OF COMPANY)

RETIRED 52-1
UNEMPLOYED 2
HOMEMAKER 3

(IF EMPLOYED OUTSIDE THE HOME, ASK:) Is that full - time or part-time?

FULL-TIME .....53 -1
PART TIME 2

BIN B2038

39. And how far did you go in school? (DO NOT READ LIST)

	SOME	COMPLETED
PUBLIC/ELEMENTARY (GRADES 1 TO 8; QUEBEC, GRADES 1 TO 7)	54-1	2
SECONDARY/HIGH SCHOOL (GRADES 9 TO 13; QUEBEC, GRADES 8 TO 12)	3	4
TECHNICAL/SENIOR COLLEGE (ABOVE GRADES 12 OR 13; QUEBEC, CEGEP)	5	6
UNIVERSITY	7	8
POST-GRADUATE	9	0
NO FORMAL SCHOOLING		55-1
REFUSED		2

40. (HAND CARD E-2) And in which age group are you?

A. 18 TO 24	56-1
B. 25 TO 34	2
C. 35 TO 44	3
D. 45 TO 54	4
E. 55 OR OVER	5
REFUSED	6

41. (HAND CARD E-3) And what was the total household income from all sources before taxes during 1979? Just tell me which letter coincides with your income group?

L	57-1
M	2
N	3
O	4
P	5
Q	6
R	7
S	8
T	9
U	0
V	58-1
W	2

42. What language is spoken most often in this household?

ENGLISH	59-1
FRENCH	2
OTHER (SPECIFY) _____	

Type of dwelling: (OBSERVE, DO NOT ASK)

SINGLE OR SEMI-DETACHED HOUSE	60-1
ROW HOUSES	2
DUPLEX, TRIPLEX, QUADRUPLEX	3
SUITE OVER STORE, ETC.	4
APARTMENT (5 TO 7 UNITS)	5
APARTMENT (8 TO 19 UNITS)	6
APARTMENT (20 OR MORE UNITS)	7
ROOM(S), PART OF HOME	8
OTHER (CIRCLE CODE AND SPECIFY) _____	9

BIN B2038

ASK TO SEE THE PHONE BILL IF NOT VOLUNTEERED. RECORD NAME OF PHONE COMPANY.

BASIC MONTHLY CHARGE: _____ 61/63

TOTAL MONTHLY CHARGE: _____ 64/66

RECORD NAME OF PHONE COMPANY: _____ 67-
68-

69-
FINISH TIME: ___:___ 70-
71-

DEBRIEFING

In this survey we have described a number of possible service options. These options may not be available in this area in the near future. They have been included for illustrative purposes only.

NAME: _____

ADDRESS: _____

CITY: _____ TELEPHONE NO. _____

72-
DATE: _____ INTERVIEWER: _____ 73-
74-

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