

THE MERTON GROUP

MARKET RESEARCH REPORT¹

TOWN OF PETERBOROUGH, NH

FEBRUARY 20, 2004

DRAFT

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1. INTRODUCTION

In this Report, The Merton Group (“Merton”) presents the results of the market research study performed as part of the Feasibility Study conducted for the Town of Peterborough, NH (the “Town”). This market research was focused on determining the feasibility of providing Merton Broadband Network (MBN) services to the Town, with such infrastructure potentially financed by loans or bonds. The MBN services are 100 Mbps data access and potentially enhanced video services using fiber to the home (FTTH). The primary focus of the market research effort was to ascertain if the Town has the fundamental base of Internet users to convert and if this base of users would convert to the new service. A secondary objective was to ascertain what the interest and acceptance would be for new services such as digital video.

The main goal for this market research was simply:

“To establish the viability for conversion from an existing Internet service provider to an MBN interconnection in a wide enough user base to ensure loan/ bond coverage.”

The study has several key objectives. They are as follows:

1. Ascertain the current use of Internet and cable/satellite TV by key demographic metrics like age; from this analysis to determine if there are certain demographic factors in the Town that are more favorable to conversion to the MBN.
2. Ascertain current Internet Service Providers’ penetration by key demographic metrics
3. Ascertain conversion rates to MBN for existing Internet and cable/satellite TV users by key demographic metrics
4. Ascertain price points for MBN acceptance; these must reflect the range of offerings from simple dial up replacement to fully enhanced 100 Mbps Internet along with enhanced video, telephony, server hosting and whatever else may be of interest

This Report summarizes the statistics collected from a residential mail-in survey commissioned and conducted by the Town in _____ 2003.

2. METHODOLOGY

As part of the initial preparatory discussions for the market research effort, Merton suggested the following possible methodologies to the Town for conducting the survey associated with the study:

1. *Intercept Interview*
A study conducted in person with respondents who are approached or intercepted in high traffic locations such as grocery stores or shopping malls.
2. *Mall Intercepts*
Interviews conducted in shopping malls by randomly selecting people from among those present to be screened. The main part of the interview can take place either on the mall floor or inside the offices of a data collection company located within the mall.
3. *Telephone Survey*
Respondents are interviewed via the telephone. The telephone interview is normally conducted from a central telephone facility.
4. *Mail-In Survey*
A standard survey questionnaire is mailed to a randomly selected portion of the total population of residences and/or businesses, or where reasonable, to the entire population of such parcels.

Of the recommended methods, the Town chose to use the Mail-In Survey technique. The final questionnaires were prepared in close discussions with the Town. Two different forms of questionnaires were developed to reflect different price points for conversion to the MBN. The final form of questionnaires is attached as *Exhibit A*.

In November 2003, the Town of Peterborough mailed out the questionnaires, with a cover letter explaining the purpose of the survey, to approximately ____ residences in the Town; ____ of the first form and ____ of the second were mailed. The questionnaires were not sent to businesses because they did not comprise the target market for purposes of the current MBN study. The residences were requested to return the questionnaire in stamped envelopes provided.

As of December 31, 2003, the Town had received 436 completed surveys, a return rate of __%, a high number in comparison to average return rates on mail-in surveys, typically about 5%-10%.

The accuracy of projections obtained, in other words, how representative the surveyed population is of the entire Town population, depends heavily on the number of survey responses obtained. If 175 to 200 responses were obtained, then it would be possible to make projections with a +/- 7.5% accuracy with 95% confidence. With about 400 responses, the accuracy of the survey increases to +/- 5%. In other words, with about 400 responses, a sample survey of current Peterborough residents would differ no more than +/- 5% than if all Peterborough residents were contacted and included in the survey. Further, if the survey were replicated, the statistics would fall within the margin for error 95 out of 100 times.

Merton processed and analyzed the 436 responses to generate the results in this Report. This sample size, as explained above, yields accuracy in results of better than +/- 5%.

3. HIGHLIGHTS

3.1 *Internet Access Demographics*

1. About 80% of Peterborough households have Internet access
2. About 55% of Peterborough homes use dial-up Internet access, 11% use cable modem, 11% use DSL and less than 3% use satellite; penetration of “broadband” is moderate at 25%.
3. About 13% of households use AoL, 11% use Earthlink, 10% use Adelphia, 5% use Verizon, 5% use MSN, 4% use MV, 4% use Worldpath, and the remaining 28% use other service providers.
4. About 43% of homes want higher speed in their Internet access, while 30% want cheaper rates and 6% want better service.

3.2 *Cable TV Demographics*

1. About 56% of Peterborough homes have cable TV (Adelphia) only, 25% have satellite TV service only, about 3% have both, and the remaining 16% have neither.
2. 58% use Adelphia, 20% use DirecTV, 4% use Dish Network and about 1% use other providers.

3.3 *Telephone Demographics*

1. About 65% of homes use a single line while 27% of households have two or more telephone lines. About 8% have no land lines, indicating that such homes perhaps use only cell phones.

3.4 *Merton Broadband Network Services*

1. **About 84% of Peterborough homes are in favor of the Town building its own broadband network as long as it does not increase their taxes.**
2. **About 34% of households are likely or very likely to switch to the MBN for broadband Internet access at the price of \$40 per month.**
3. **About 26% of homes are likely or very likely to switch to the MBN for video services at the price of \$40 per month.**

3.5 *General Statistics*

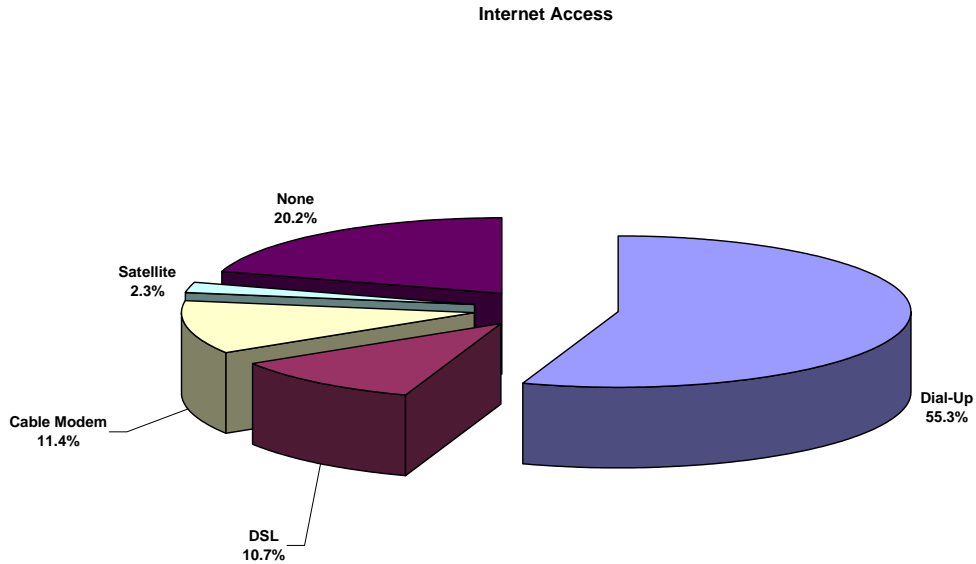
1. About 82% of homes have a personal computer.
2. 40% of homes use a PC for personal use only, and 42% use a PC for both personal and business use.

4. DETAILED RESULTS

4.1 Internet Market Statistics

4.1.1 Internet Access Usage

The survey asked the respondents what kind of Internet access service they had at home. The choices provided were dialup, cable modem, DSL and satellite. The results are shown below.

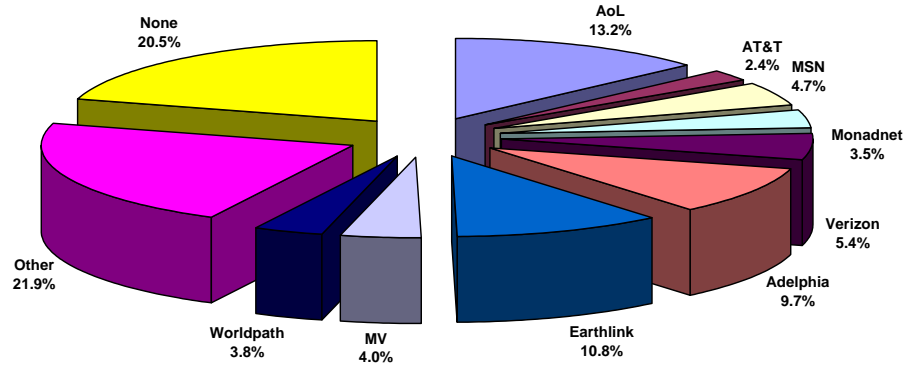


The results clearly show that there is a moderate penetration of “broadband” data service in the Town, about 25% comprising cable modem, DSL and satellite Internet service. Dial-up is 55% while 20% have no Internet access at all.

4.1.2 Internet Service Providers

The respondents were then asked who their ISP is; the choices provided were AoL, MSN, and AT&T. The results are show below. Clearly, the market is highly fragmented, with no one ISP dominating. AoL holds the highest market share, about 13%. The other major ISPs and their usage are shown below.

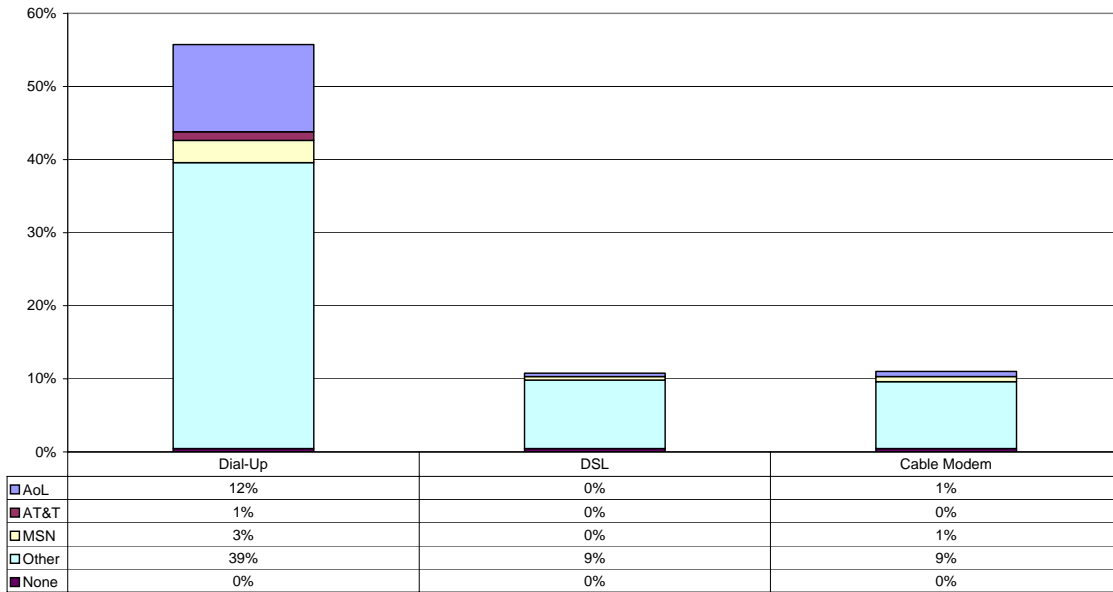
Internet Service Providers



4.1.3 ISP Market Share

The market share of the various ISPs in the Town, segmented by the service offered, is shown below.

Market Share Internet

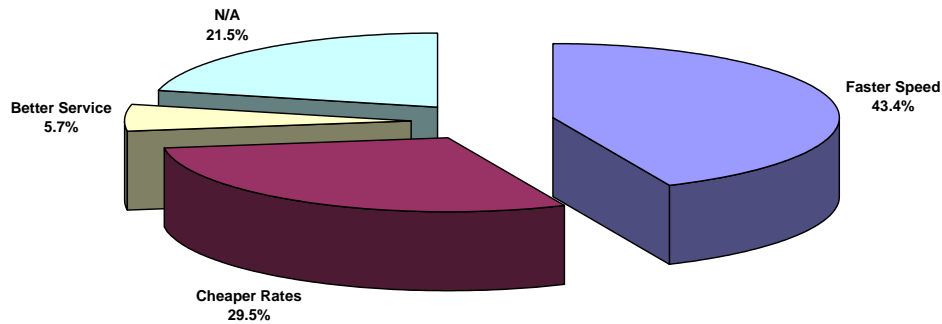


The dial-up market is highly fragmented among many ISPs. DSL is primarily from Verizon while cable modem is mostly provided by Adelpia and Earthlink.

4.1.4 *Desired Improvement in Internet Access*

The survey was also targeted at determining the psychographic profile of Internet users in the Town. The survey asked what the respondents would like to see changed/improved about their Internet access service. About 30% indicated that they would like to have cheaper service and 43% said they would like to have higher speed of access. About 6% desired better service.

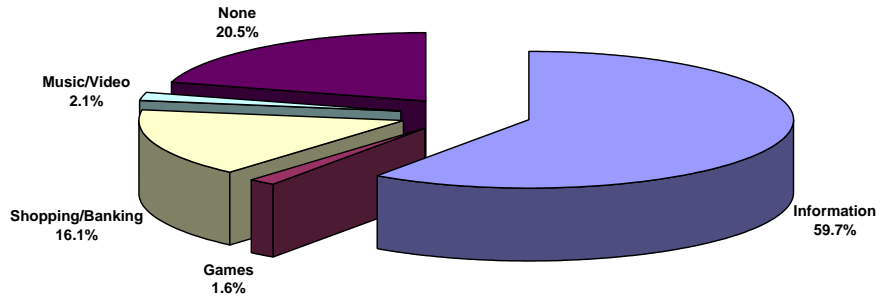
Desired Change in Internet Service



4.1.5 *Broadband Applications*

In order to understand the market for broadband services, and to determine what the Town residents would use the Internet for if they had broadband access, the survey asked what specific applications, other than the most common tasks of email/chat, the respondent would use the Internet if they had very high-speed access; the choice provided were Information (research, news, etc.), Games, Shopping/ Banking, and Music/Video comprising entertainment. This information is valuable to ISPs who wish to deliver broadband services over the MBN. The results indicated that the vast majority would use broadband for Information. The potential usage of other broadband applications appears to be weak; however, it must not be ignored that the residents of the Town have not had an opportunity to experience these other enhanced services because of lack of broadband infrastructure as well as lack of broadband providers. Perhaps, the availability of such premium services at affordable costs might spur demand.

Broadband Applications

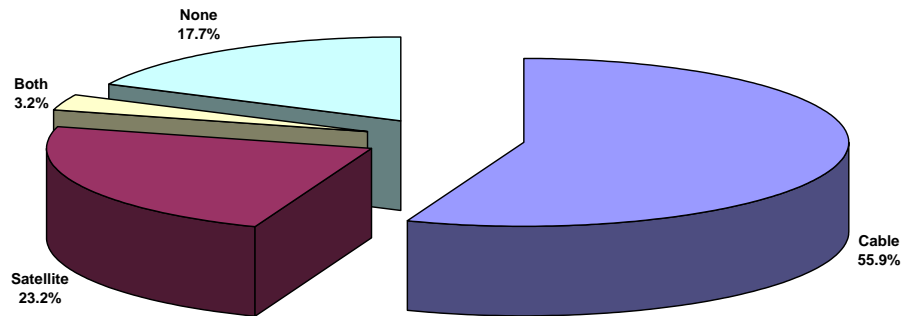


4.2 Cable TV Market Statistics

4.2.1 Cable / Satellite TV Usage

In order to understand the penetration of cable or similar services in the Town, the respondents were asked what kind of cable or dish TV service they used at home. From the results, it is clear that 82% of Town residents use cable or satellite TV service, or both. The breakout is shown below.

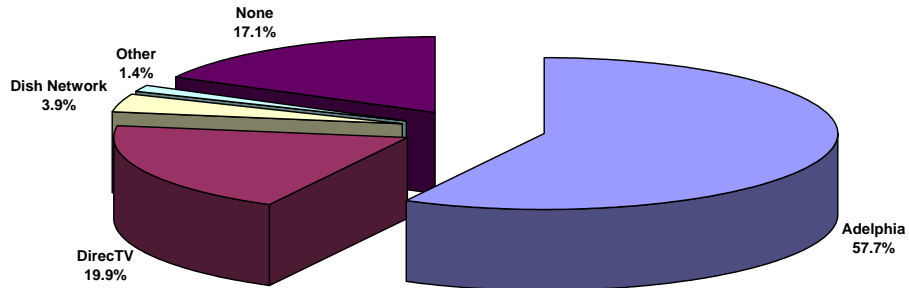
Video Services



4.2.2 Cable / Satellite TV Provider

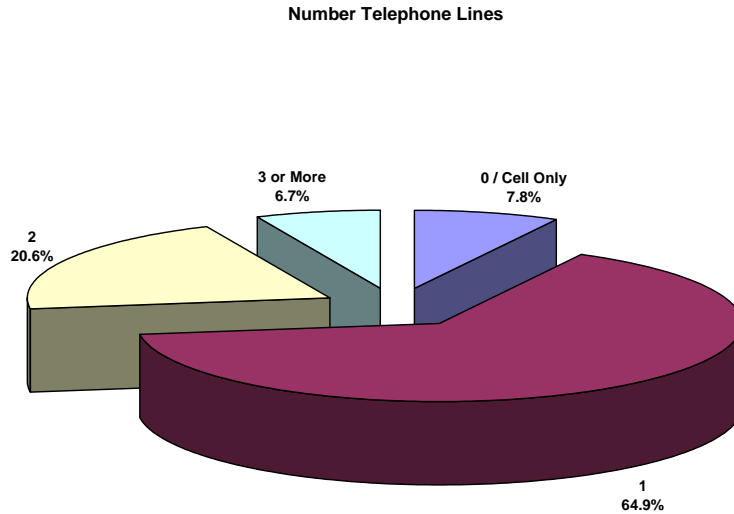
The survey also asked who the respondent's video service provider is. The results are shown below. Adelphia is the cable TV franchisee in the Town. DirecTV has the largest share of the satellite market.

Video Service Providers



4.3 Telephone Service Statistics

The survey was also targeted at understanding the current telephone service demographics in the Town. More importantly, the segment of the population, which uses more than one telephone line, represents the initial target market for conversion to the MBN. This is because a household is probably paying about \$25 to their ISP and another \$25 for the second telephone line dedicated to data/fax. With the MBN, the second telephone line could be eliminated, and the end-user could be paying the same total of \$50 to an ISP for 10+ Mbps Internet access service. This segment of the population therefore represents the “low hanging fruit” for transfer to the MBN. The results are shown below; about 27% have more than one line. About 8% have no land lines at all.



4.4 MBN Internet Access

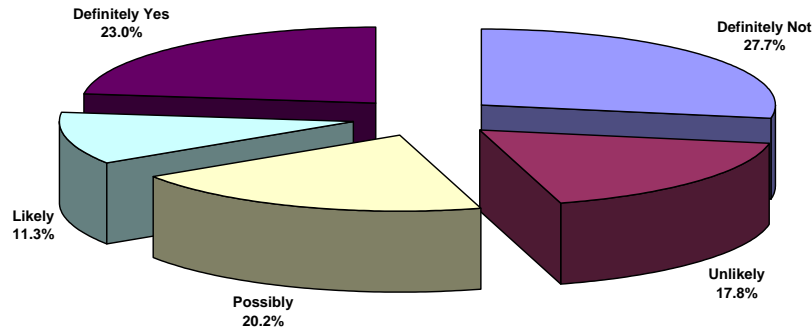
As alluded to before, this market study is primarily targeted at measuring the adoption of new services enabled by the MBN, including 100 Mbps data service and enhanced digital cable services. This information is cross-tabbed with key demographic factors to understand which segments of the market will be the potential user base, and what the price sensitivity is of that potential user base.

The survey was targeted at determining the “take rate” or rate of adoption to MBN services at two different price points (\$40 per month, \$60 per month) for two different services (100 Mbps Internet access, enhanced digital video services). The questions were asked in two different forms of the questionnaire as alluded to before in order to eliminate any psychological biases in having two price points in the same questionnaire; respondents might be biased to be inclined to the lower price point and strongly disinclined to the higher price point if both appeared on the same questionnaire. The above adoption rates were then segmented by key demographic metrics, including age and current type of Internet/ cable TV connection.

4.4.1 MBN Internet Adoption Rates

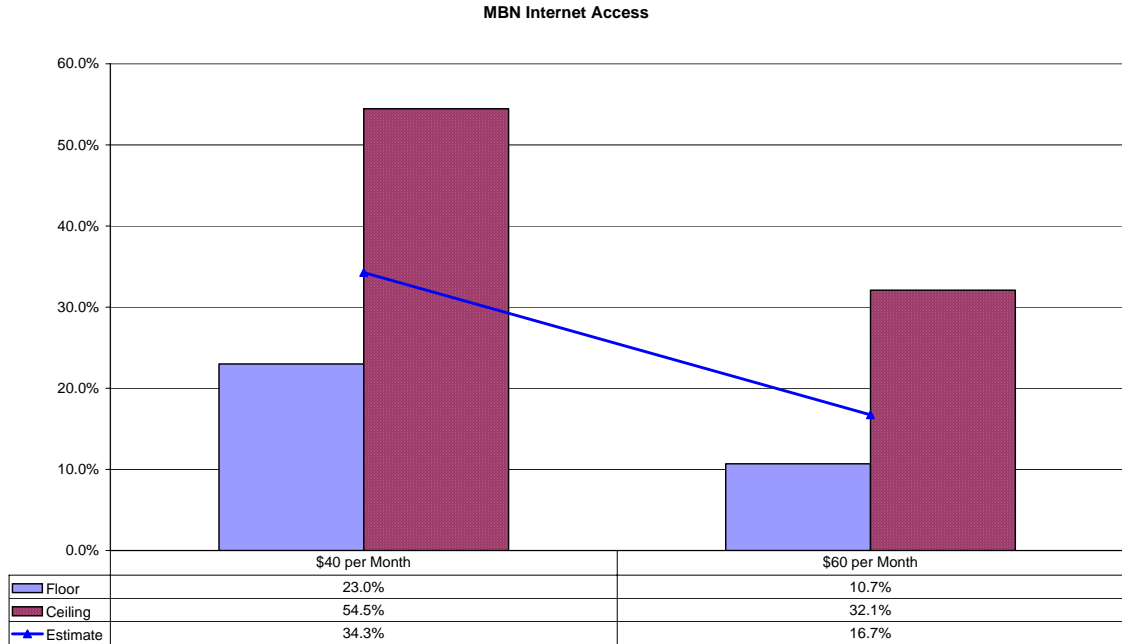
The respondents were asked the question how likely they would switch to a broadband Internet service that would be dramatically faster than what they currently have today. Two different forms of the questionnaire was developed to ask the above question at two different price points for the new service; \$40/month and \$60/month. The results are shown below for the price point of \$40. The percentages in the Valid Percent column indicate the proportion of households responding with the respective affirmative or negative reaction. The results are moderate to strong, with 34% likely or very likely to switch. However, there is good upside opportunity, measured by adding the number of “Possibly” responses, to increase market size, perhaps through effective marketing of MBN services as well as education of the residents of the capabilities of MBN.

MBN Broadband Internet at \$40/Month



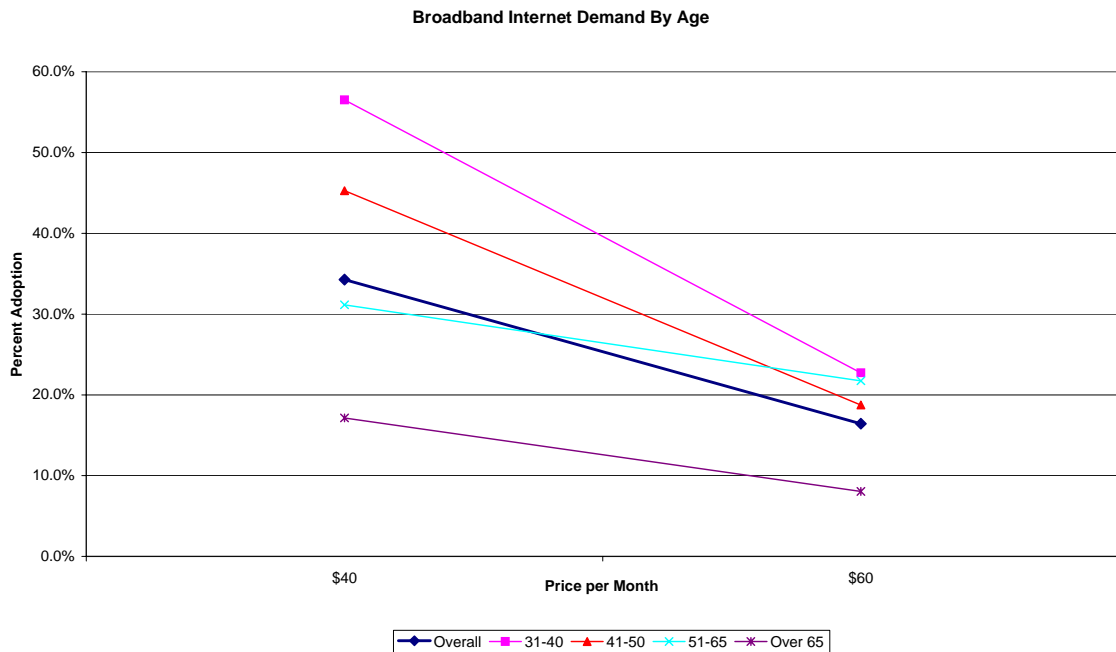
4.4.2 MBN Internet Price Sensitivity

The “floor” or minimum potential market for Internet access on the MBN was established as those respondents who answered “Definitely Yes”. The “ceiling” or maximum potential market was defined as those who answered “Likely” and “Possibly” in addition. Merton, however, estimates the market potential as only those respondents who answered “Definitely Yes” and “Likely”. The results of these estimates are presented below. Clearly, the market potential for MBN broadband Internet is moderate to strong if priced at \$40 per month, and declines sharply if priced at \$60/month. The implication is that the residents of the Town are quite price sensitive to Internet access service.



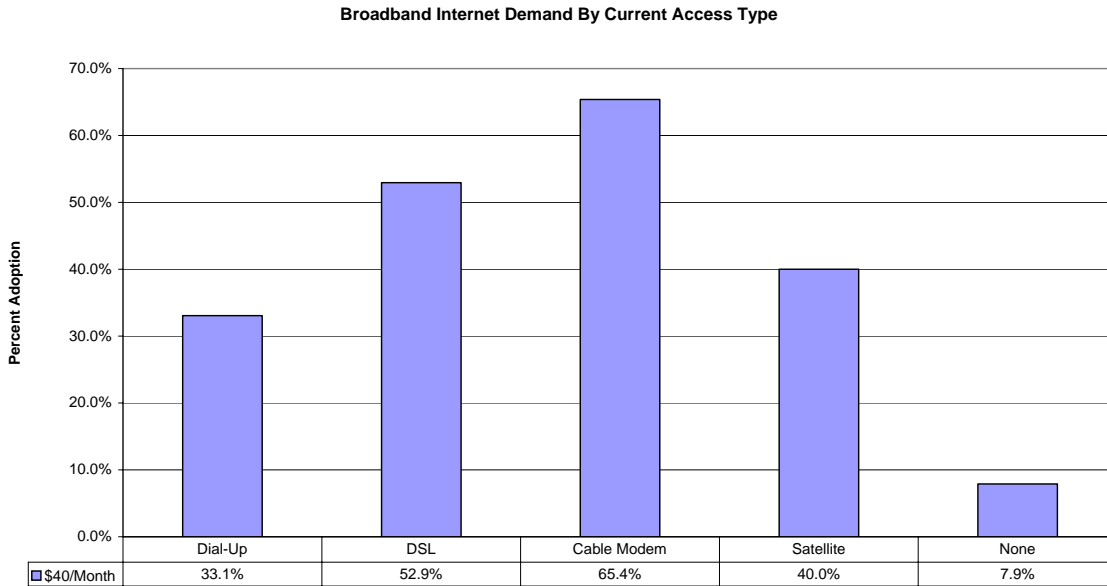
The above MBN Internet access results was further segmented by age of the respondent to get a better idea of which population segments to target for provision of MBN broadband Internet services. The results are presented in the chart below. These are the “demand curves” for MBN broadband Internet service.

- There is a wide difference in interest in broadband Internet access across different age groups, varying from 57% amongst the 31-40 respondents to about 17% amongst the senior citizens of the Town (over 65 years old) at the low end, at \$40 per month.



4.4.3 MBN Internet Adoption by Current Access Type

The MBN broadband demand was also segmented by the type of Internet access service that the respondents currently have, i.e., dialup, cable modem, DSL or satellite. This greatly helps to better understand to what extent the current users of dial-up and DSL/cable modem type services would switch to a must faster service offered by the MBN. The analysis was performed at the price point of \$40 per month. The results are shown in the chart below.



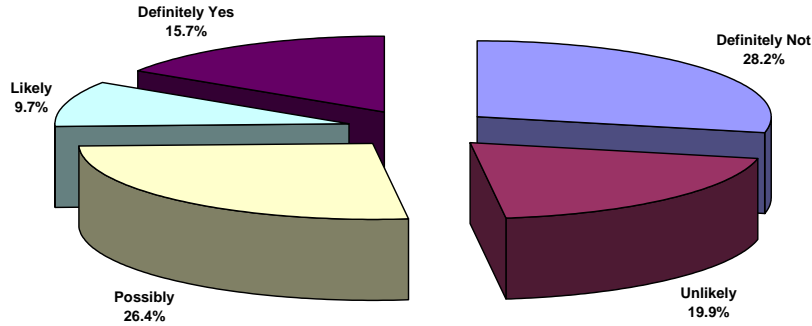
It is an interesting observation that about 65% of current cable modem users and 53% of DSL users are likely to switch to the MBN level broadband service (10-100 Mbps) if the price were \$40 per month. However, only 33% of current dial-up users will switch, and only 8% of users who do not have Internet access are willing to buy MBN Internet at \$40. The indication is that dial-up users are extremely price sensitive, and people who do not currently have Internet access are not really interested in broadband.

4.5 MBN Video Services

4.5.1 MBN Video Adoption Rates

The respondents were asked the question how likely they would switch to enhanced video services on the MBN that would provide dozens of channels of programming. The survey asked this question at the two different price points, \$40/month and \$60/month, in two different forms of questionnaires. The results are shown below. The table below shows the results at the \$40 price point. The percentages in the Valid Percent column indicate the proportion of households responding with the respective affirmative or negative reaction. The results are slightly weak, with 26% likely or very likely to switch.

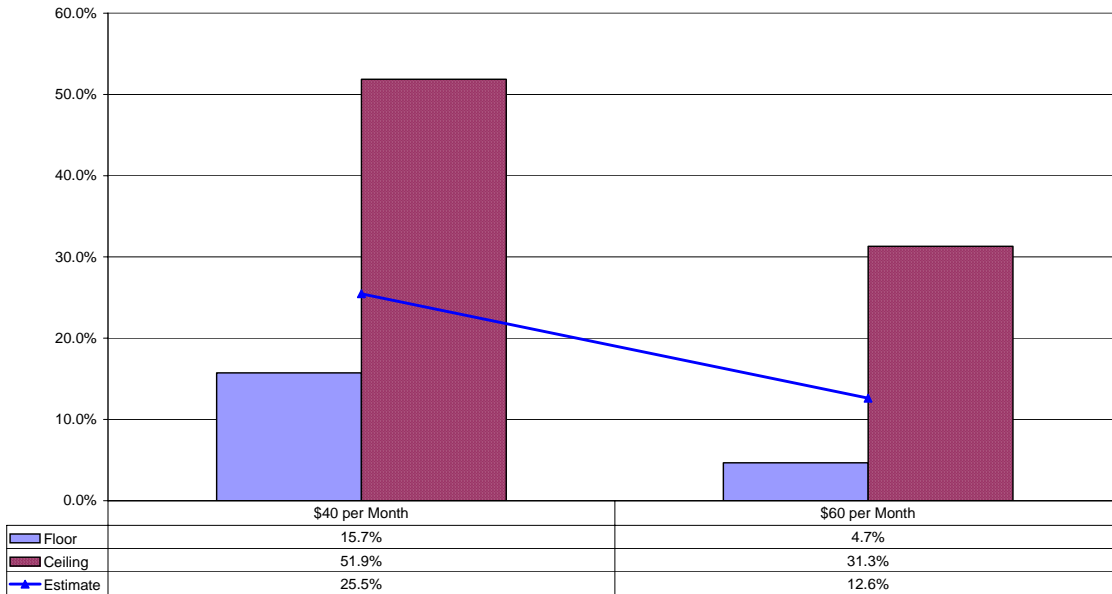
MBN Video Services at \$40/Month



4.5.2 MBN Video Price Sensitivity

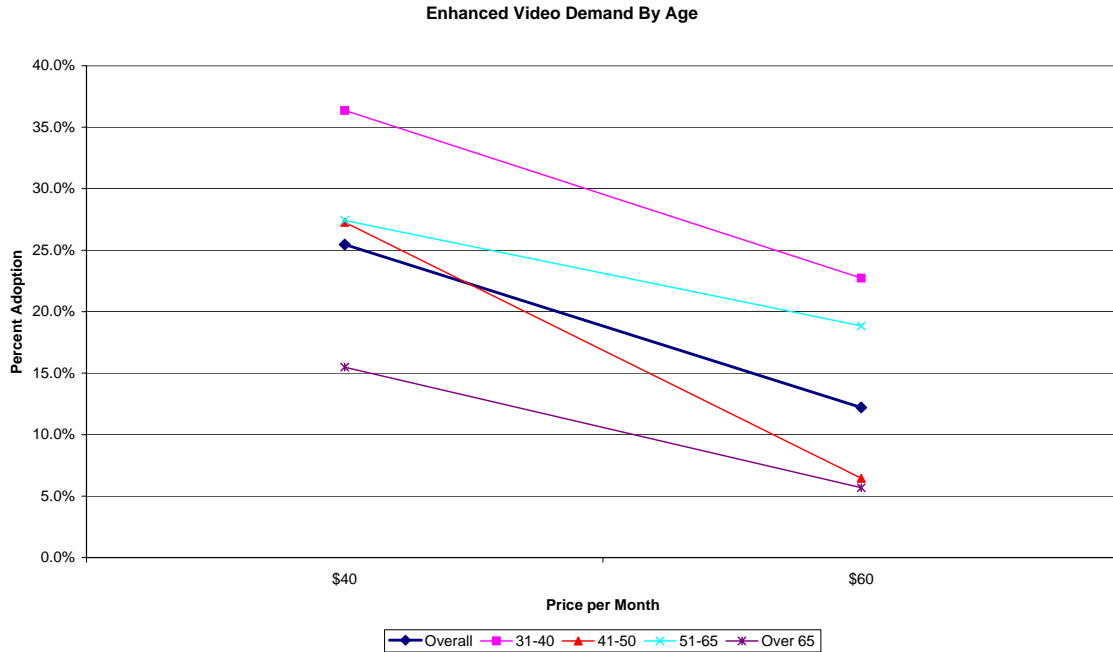
The “floor” or minimum potential market for enhanced video services on the MBN was established as those respondents who answered “Definitely Yes”. The “ceiling” or maximum potential market was defined as those who answered “Likely” and “Possibly” in addition. Merton, however, estimates the market potential as those respondents who answered “Definitely Yes” and “Likely”. The results of these estimates are presented below. The market for MBN video appears to have fairly good upside, but with somewhat weak potential at the \$40/month price point.

MBN Video Services



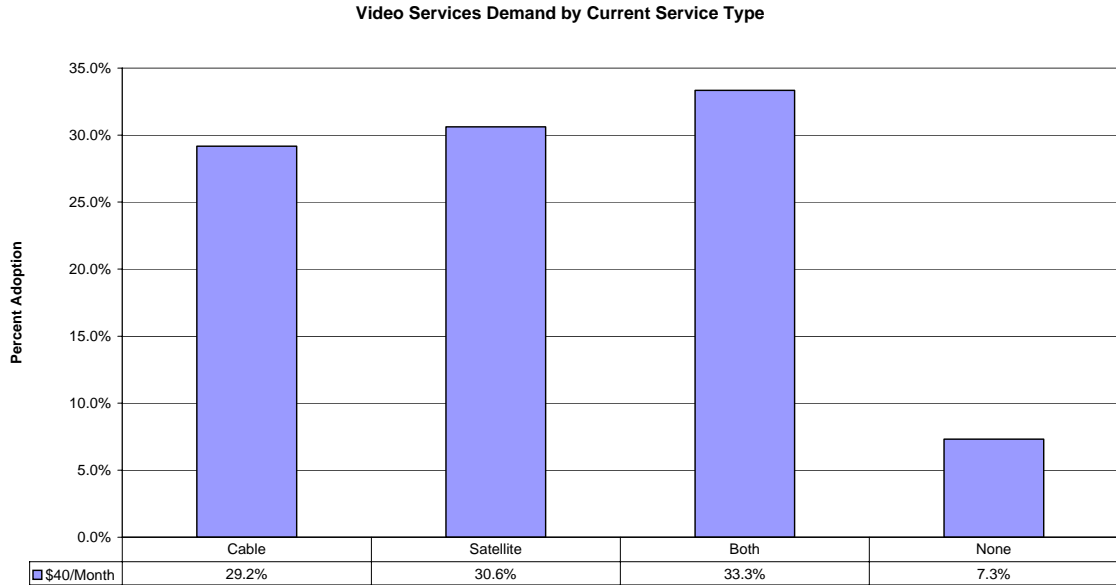
The above MBN video demand information was further segmented by age of the respondent to get a better idea of which population segments to target for provision of MBN video services. The results are presented in the chart below. These are the “demand curves” for MBN video.

- There is a large variation in interest in enhanced video services across different age groups, varying from 36% amongst the 31-40 age group to about 16% in the over 65 age group on the low end, at \$40 per month.



4.5.3 MBN Video Adoption by Current Access Type

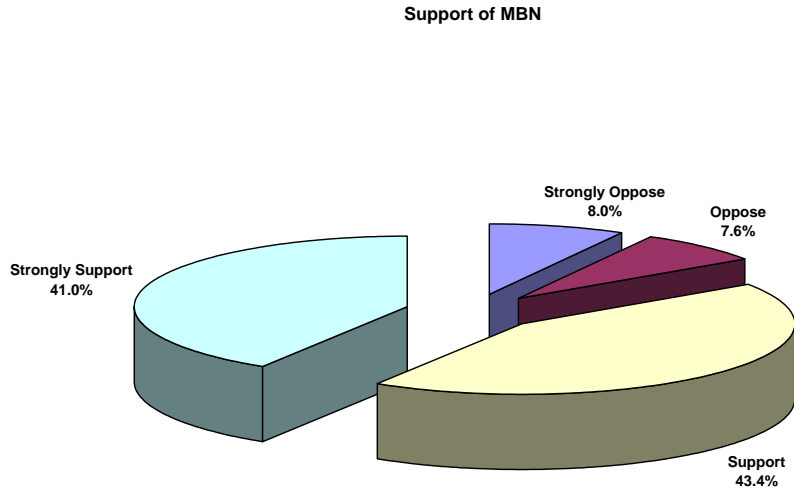
The demand for enhanced video services was also segmented by the type of cable/satellite service that the respondent currently subscribes to. The results are shown below.



Clearly, there is a propensity for the current subscribers of both cable and satellite TV services to switch to MBN video at \$40/month because they are likely paying more than \$40 now. Residents who do not currently have video service do not appear to be interested in MBN video either.

4.6 MBN Support

To determine the predisposition of the citizens of Peterborough to a Town-built fiber facility, the survey asked the question to what extent the respondent would support or not support such an initiative by the Town *if it did not increase their taxes*. It appeared from the completed questionnaires that the driving factor behind the strong support, about 84% of households, of such an initiative may have been the fact that the question specified that there would not be an increase in taxes as a result of the MBN. The survey did not ask the above question under the scenario of an increase in taxes as a result of the MBN.

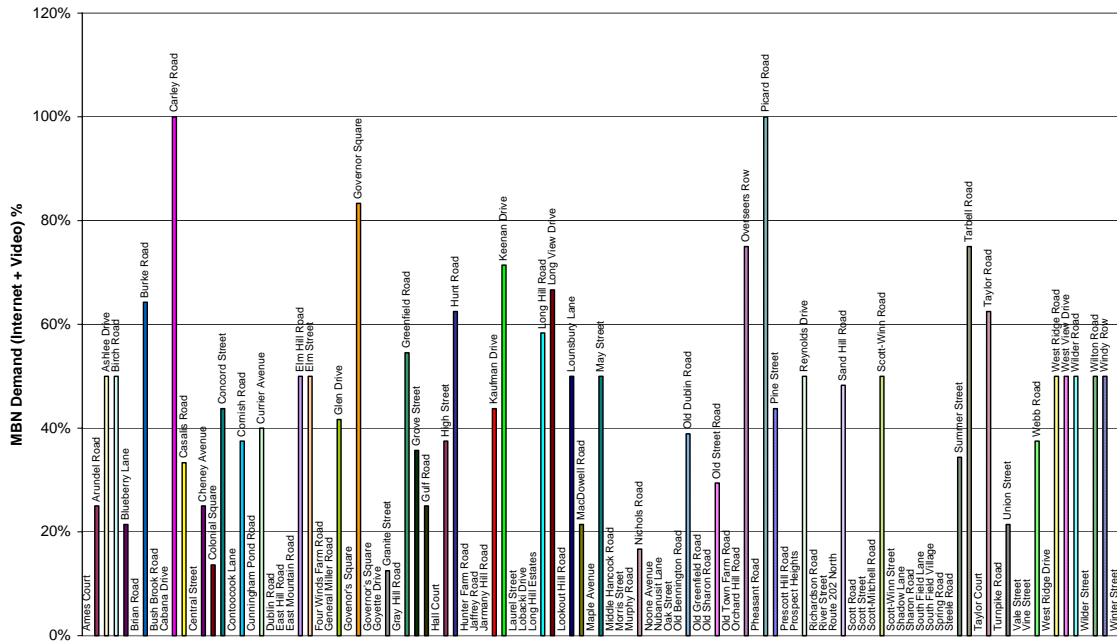


4.7 MBN Demand by Sector and Street Location

The survey also attempted to determine the number of households who are likely to switch to MBN Internet or video services by the location of their street in the Town. The respondents were asked to provide the name of the street on which they live (not their street address). Merton then cross-tabulated the street information with the demand data for MBN Internet and video services at both price points of \$40/month and \$60/month, and arrived at a metric of demand by street location. The metric for a given street simply measures the number of households on that street who are either likely or very likely to switch to MBN services at \$40/month as a percent of the number of households on that street who responded. Such results are expected to be useful in determining, or at least influencing, the initial and ongoing design of the buildout of the MBN in the Town.

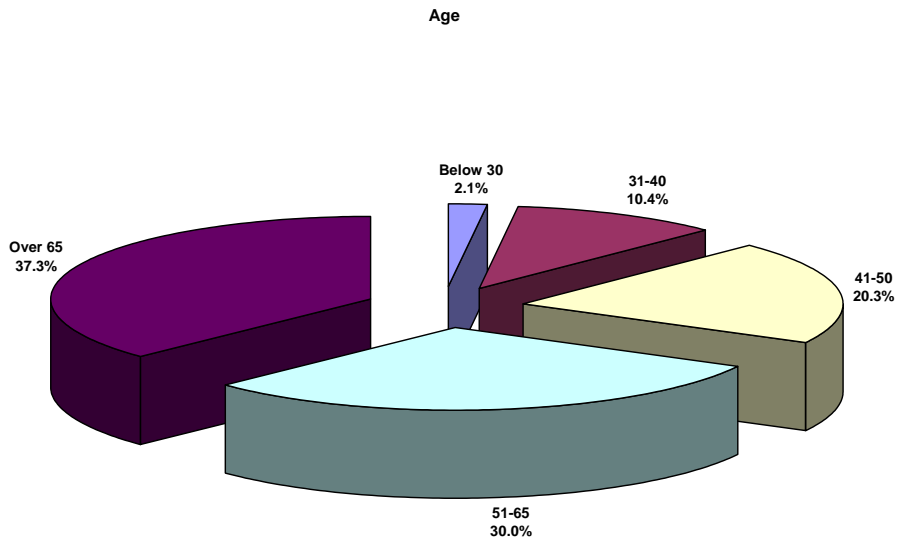
The results of demand by street location from the survey are influenced by the number of households on a given street participating in the survey. Although the questionnaires were sent out by the Town to randomly selected households, some streets had many more households responding than did others; such a bias could potentially be eliminated by surveying every household on every street, not a cost-effective solution. In addition, there are significant differences in number of households on the various streets in the Town.

Notwithstanding the above, the results in the chart below give an idea for the geographical dispersion of MBN demand in Peterborough. In the interest of readability, the chart presents only those streets that had at least five households responding.

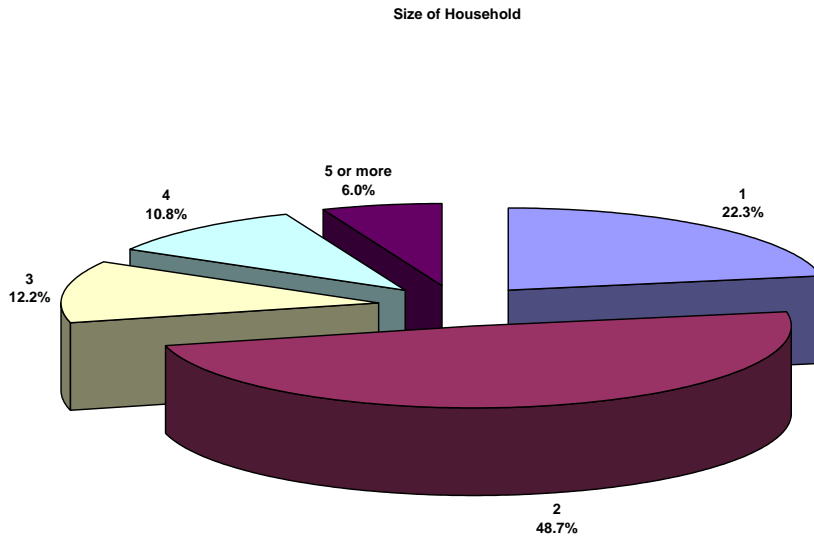


4.8 General Demographics

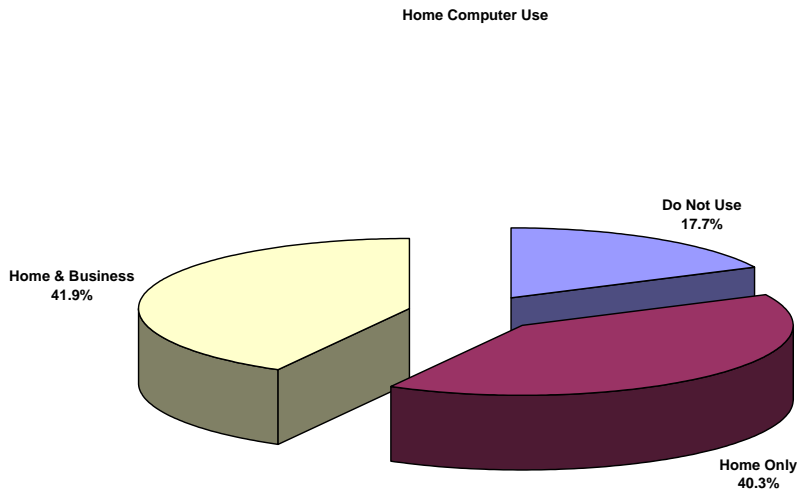
4.8.1 Age



4.8.2 *Size of Household*



4.8.3 *Personal Computer Use*



It is important to note that a fairly high percentage of households in Peterborough, about 42%, use a personal computer at home for both personal and business use. This is a significant factor suggesting that these households would derive substantial benefits from the MBN for broadband Internet as well as other enhanced services.

5. EXHIBIT A: MARKET RESEARCH QUESTIONNAIRES