THE IMPACT ON LOW-INCOME PEOPLE OF THE INCREASED COST FOR BASIC TELEPHONE SERVICE:

A Study of Low-income Massachusetts Resident's Telephone Usage Patterns and Their Perceptions of Telephone Service Quality

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1993

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New England Telephone Company has recently proposed a 14.6% rate increase for measured service with slightly lower percentage increases for local unlimited and residence premium services. For Lifeline customers using no New England toll service, monthly bills would increase an average of 14%. This report examines the impact of these proposed rate increases on low-income people as well as the quality of telephone service received by low-income people.

I. Methodology

To ascertain the impact of the proposed rate increases on low-income people, the National Consumer Law Center (NCLC) designed two surveys to address the following questions:

1. What percentage of low-income households have phones?

2. What are the telephone usage patterns of low-income households?

3. Do individuals who do not have phones in their homes have different telephone usage patterns than those who do have phones in their homes?

4. To what types of telephone services do low-income households subscribe?

5. What are low-income people's perceptions of the quality of telephone service that they receive?

Because the survey was designed so that it could be administered during the intake process of various social service agencies, two separate survey tools were used to keep the survey interview brief. Each of the final two surveys, Massachusetts Low-Income Telephone Survey 1 and 2, contains a maximum of ten questions.

The surveys were pre-tested and revised. Both surveys were reviewed by two experts in the field of statistical research and analysis.

Four social service agencies received a combined total of 700 copies of the two surveys interleaved, and were requested to administer the survey over a two to three week time period. NCLC staff consulted with the agencies administering the survey at regular intervals. Over 250 completed surveys were returned to NCLC.

Studies similar in content, though larger in scope and number of respondents, have been conducted under the direction of the Connecticut Department of Public Utilities and by the Michigan Divestiture Research Fund. The results of the Massachusetts study are strikingly similar to the findings of the larger Connecticut and Michigan studies, supporting the conclusion that a larger pool of Massachusetts low-income households would have yielded results comparable to NCLC's more targeted

study.

As discussed below, a third survey was administered to New England Telephone customer service representatives in 24 offices as part of the report's examination of quality of service issues. This survey is referred to in the text of this report as the "NET Survey."

II. Survey Respondents

Massachusetts Low-income Telephone Surveys 1 and 2 were completed by 250 low-income people in the Metropolitan Boston area. These individuals responded to the survey during the intake process of Action for Boston Community Development (ABCD) and Greater Boston Legal Services; with the delivery of a meal delivered by the meals on wheels program for Cambridge/Somerville Elder Services; and during a break from an activities program at Somerville Council on Aging. These agencies provide services to individuals and families whose household incomes are below 150% of the federal poverty level.[1] According to each of these agencies, most of the people who receive assistance from each of these agencies are far poorer than 150% of the federal level. For example, the income eligibility for obtaining services at Greater Boston Legal Services is 125% of the Federal Poverty Level.

The population surveyed by NCLC consisted of individuals who came into ABCD's neighborhood offices to obtain government surplus food or participate in the Job Employment and Training Program, individuals who received legal services from one of Greater Boston Legal Service's neighborhood or downtown offices, homebound elderly people who received meals on wheels through Cambridge/Somerville Elder Services and elders who participated in programs sponsored by the Somerville Council

[1] Federal Register, Vol. 56., No. 34, February 20, 1991, 6860.

Size of Family Unit	100% of the Fed. Poverty Lev.	150% of the Fed. Poverty Lev.
1	$6,620	$9,930
2	$8,880	$13,320
3	$11,140	$16,710
4	$13,400	$20,100
5	$15,660	$23,490
6	$17,920	$26,880
7	$20,180	$30,270
8	$22,440	$33,660

on Aging. The communities in which survey respondents reside include Boston, Cambridge, Somerville, Chelsea, and Quincy.

What is known about the survey respondents is 1.) their ages; 2.) that they have qualified for services at one of the five agencies previously mentioned and, therefore, have incomes below 150% of the federal poverty level; and 3.) their street name and zip code. A more detailed profile of survey respondents can be inferred by examining statistics kept by the agencies at which survey respondents sought services, and by examining U.S. Census Data for each of the cities or neighborhoods in which survey respondents live.

The age of the survey respondents was varied. The chart below illustrates the percentage distribution of individuals throughout various age groups.[2]

Percent Distribution of Survey Respondents by Age	
20 and Under	3% (n=7)
21-30	23% (n=57)
31-40	15% (n=36)
41-50	8% (n=19)
51-65	10% (n=26)
66-90 and over	32% (n=79)

Agency and Census data indicate that the populations from which respondents were drawn is approximately half non-white or Latino, about 3/4 female, about 1/4 elderly. As previously mentioned some of the survey respondents were drawn from the pool of clients receiving legal services from Greater Boston Legal Services. The table below gives a profile of GBLS's total client population from which survey respondents were drawn. The large percentages of blacks, Hispanics and women in the population served by GBLS is representative of the Massachusetts low income population as a whole (see tables below).

[2] Persons 66 years of age and older are slightly over-represented in the pool of survey respondents in comparison with the entire low-income population. According to U.S. Census data, persons 66 and over comprise 21% of the total adult population below the federal poverty level. It should be noted, that Greater Boston Legal Services, as indicated in data below, also has a larger percentage of elders in their total client population (24%) than is represented in the nationwide low income population. The result of having a larger number of persons over 66 among survey respondents is that the phone penetration rate reported in the survey will be slightly higher than that of the entire low income population in Massachusetts.

Greater Boston Legal Services Client Demographics Services, 1991.[3]

GENDER	Number	Percent
Male	6,302	28%
Female	15,874	70%
Unknown/Group	260	2%
AGE		
Children (0-17)	244	1%
Adults (18-60)	16,746	75%
Older Adults	5,298	24%
Unknown	148	1%
RACE/ETHNICITY		
African/American	5541	25%
Asian	896	4%
Latino	4872	22%
Native American	29	.001%
White	10,911	49%
Unknown	37	.001%
Client Groups (i.e. members of class action suits)	150	.006%

The table below based on the 1990 Census cross references age with income. The table shows that children live in poverty in significantly higher numbers than the general population. Statewide, elders are also more likely to fall below the federal poverty level than other age groups.

INCOME AND POVERTY STATUS IN 1989 OF SELECTED MASSACHUSETTS CITIES[4]

[3] Greater Boston Legal Services, 1991.

[4] U.S. Department of Commerce, Census Bureau, 1990 Census of Population and Housing, Summary Social, Economic and Housing Characteristics, Table 9 Income and Poverty Status in 1989; 1990.

	Per Capita Income	Total # of Hseholds	Income in 1989 below poverty level (% of total hsehlds)				
			All ages	Related Children		65 and over	Families
				Under 18	5-17		
MA	$17,224	5,812,415	8.9%	12.9%	12.2%	9.4%	6.7
Boston	15,581	545,764	18.7	28	28.1	15.3	15
Cambridge	19,879	82,208	10.7	14.6	14.8	10.7	7.2
Chelsea	11,559	27,919	24.1	38.9	35.6	12.3	22.9
Quincy	17,436	83,723	6.8	10.8	9.9	9.1	5.3
Somerville	15,179	74,061	11.5	15.1	16.2	10.8	7.6

Though the U.S. Census Bureau has not yet released data from the 1990 Census which cross references race with income, previous Census data show that non-whiles fall below the federal poverty line in far greater percentages than whites.[5] The tables below shows that many of the cities or neighborhoods in Boston represented in the telephone surveys have higher numbers of racial minorities than the statewide average. Given the large percentages of minorities in each of these cities coupled with the fact that minorities tend to have lower incomes than whites, it is probable that the pool of NCLC survey respondents has a significant number of minorities. The Greater Boston Legal Services data bear this out.

[5] U.S. Department of Commerce, Bureau of the Census, Poverty in the United States: 1988 and 1989 (Series P-60, No.171, June 1991.

% of Population by Geographic Region as Defined by Race and Poverty Status[6]

Area Name	% of Population that is Black	% of Population Below F.P.L.
Massachusetts	5%	
Allston/Brighton	6.6	20.1
Back Bay/Fenway	8.2	15.4(BB), 37.2 (FNWY)
Beacon Hill/West End	3.3	10.7
North End/Waterfront	1.2	11.9
Charlestown	.6	12.7
East Boston	2.1	19.3
South Boston	.9	17.3
South End/China Town/Downtown	20.4	22.3
Roxbury/Mission Hill	61.7	30.1
Dorchester	45.9	22.6
Neponset/Mattapan	56.4	17.0
Roslindale	6.7	10.5
Jamaica Plain	10.7	16.5
West Roxbury	1.6	.5
Hyde Park	22.3	7.5

Sex, Race and Hispanic Origin for Selected MA Cities: 1990								
	Male	Female	White	Black	Indian	Asian	Other	Any Race Hispanic
MA	48%	52%	90%	5%	.2%	2%	3%	5%
Boston	48	52	63	26	.3	5	21	11
Camb.	49	51	75	13	.3	8	2	7
Chelsea	49	51	70	5	.2	5	20	32
Quincy	46	53	92	1	.2	7	.4	1
Somvlle	48	52	89	6	.1	4	2	6

The preceding age, race, income and geographic demographic data derived from the Massachusetts Low-Income Telephone Surveys, Agency and U.S. Census data,

[6] Commonwealth of Massachusetts, Joint Committee on Congressional Redistricting, Table 9.

presents a comprehensive profile of the pool of respondents for the Massachusetts Low-Income Survey 1 & 2.

III. Survey Results

The results of the Massachusetts Low-income Telephone Survey 1 and 2 and the survey directed toward New England Telephone customer service representatives were analyzed within four broad categories.

-Telephone Usage Patterns for those with phones in their homes

-Quality of service issues for those with phones in their homes

-Telephone usage patterns for those without phones

-Quality of service issues for those without phones

A. Telephone Usage Patterns of Low-Income Households Which Have Telephones

1. Telephone Penetration Rates

Eighty-nine percent (n=220) of the respondents said that they had telephone service in their own homes and 11% (n=28) responded that they did not have telephone service in their own homes. These penetration rates are significantly lower than the nationwide telephone penetration rate of 93.4%[7] or the Massachusetts statewide penetration rate of 97.9% for all occupied households.[8] However, these numbers do closely correspond to penetration rates for various minority groups and low-income households. According to the U.S. Census Bureau, nationwide, the 1990 annual average penetration rate for black households was 83.5% and 84.1% for Hispanic households.[9] Within Massachusetts, as of March 1991, 87.93% of all black families had phones.[10] Census Bureau data show that the presence of a phone in the home is

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[7] U.S. Department of Commerce, Bureau of the Census, Percentage of Households with a Telephone by State, Table 1.2, 1991.

[8] State Data Center, Massachusetts Institute for Social and Economic Research, Housing: Utilities and Vehicles Available, 1990, 25.

[9] U.S. Department of Commerce, Bureau of the Census, Percentage of Households with a Telephone by State, Table 1.3, 1991.

[10] A.G. 1-5, Attachment 1.

closely linked to income. For example, for households earning under $5000 a year, the penetration rate was 73.9% while the penetration rate for households earning $75,000 a year or more was 99.7%.[11]

TELEPHONE PENETRATION RATES		
	Telephone in Home	No Telephone in Home
Nationwide (all races)	93.4%	6.6%
Blacks (nationwide)	83.5%	16.5%
Hispanic Origin (nationwide)	84.1%	15.9%
Massachusetts	97.9%	2.1%
All Blacks (Massachusetts)	87.93%	12.07%
Blacks in MA with incomes under $10,000	73.08%	26.92%
Hispanics in MA with incomes under $10,000	74.69%	25.31%
Whites in MA with incomes under $10,000	90.17%	9.83%
MA Low-income Telephone Survey	**89%**	**11%**

Since the income level of the Massachusetts survey respondents is known to be at or near poverty and the table above demonstrates that low-income Massachusetts residents have penetration rates significantly lower than the statewide penetration rate, it is obvious that universal access to telephone service is far from a reality for low-income households represented by NCLC's survey.

[11] U.S. Department of Commerce, Bureau of the Census, Percentage of Households with a Telephone by State, Table 1.4, 1991.

2. For What Purposes are Telephones Used By Low Income Households And With What Frequency

a. Implications of Lack of Telephone Service

The lack of universal access to telephone service has become an increasing hardship as our society becomes more and more dependent upon telephones for communications of all kinds. A 1988 study conducted by the National Consumer Law Center for the Maine Public Utilities Commission found that 80 percent of the Maine households whose energy service was disconnected during the winter months lacked telephone service which inhibited the household from contacting the utility in order to enter into a payment plan or to otherwise obtain assistance in preventing the shutoff.[12] Similarly, lack of access to telephones impedes a low income individual's ability to obtain employment. In *Butte Community Union v. Lewis,*[13] the court found that lack of telephone service was found to be a significant barrier to employment since the types of employment low-income households generally obtain involve jobs offered and accepted via telephone.[14] Lack of telephone service also hinders an individual's ability to obtain public benefits. For example, less than 70 percent (66.5%) of all telephone calls to Social Security Telephone Service Centers and less than 60 percent (58.2%) of all telephone calls to statewide Social Security offices were done with easy accessibility, according to a 1988 General Accounting Office (GAO) study.[15] Busy signals, unanswered calls, disconnected calls and calls places on hold for longer than two minutes were all difficulties experienced by households seeking to contact the Social Security Administration. Overall, more than one in seven phone calls to a Social Security office received a busy signal; a repeat call made within one minute generated a busy signal in 60 percent of the cases. For a household using a telephone in the home, this difficulty is a nuisance. For a household that lacks telephone service in the home, and lacks easy access to a pay telephone, this difficulty may lead to the denial or loss of Social Security benefits.

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[12] NCLC, A California Advocates Guide To Telephone Customer Service Issues, 1990, 3.

[13] 745 P.2d 1128, 1131 (Mont. 1987).

[14] NCLC, A California Advocates Guide To Telephone Customer Service Issues, 1990, 3.

[15] U.S. General Accounting Office, Social Security: Little Overall Change in Telephone Accessibility Between 1985 and 1988, GAO/HRD-88-129 (Sept 1988).

b. Usage Patterns of Low-Income Households With Phones

The number of calls survey respondents reported making varied widely, with the mean number per week being 17. The table below shows the percentage distribution of number of phone calls made per week. As is evident from the table below, the Connecticut survey showed a similar pattern.[16]

Percent of Survey Respondents by Total Number of Calls Per Week		
# of calls per week	MA Responses	CT Responses
0-5	18% (n=40)	16%
5-10	27% (n=60)	32%
10-15	11% (n=25)	
15-20	13% (n=29)	51%
20-25	11% (n=24)	
25-30	8% (n=18)	
30-40	5% (n=12)	
40-50	4% (n=10)	
50 or more	3% (n=6)	

In order to ascertain the purposes for which telephones are used by low income households, survey respondents were asked,

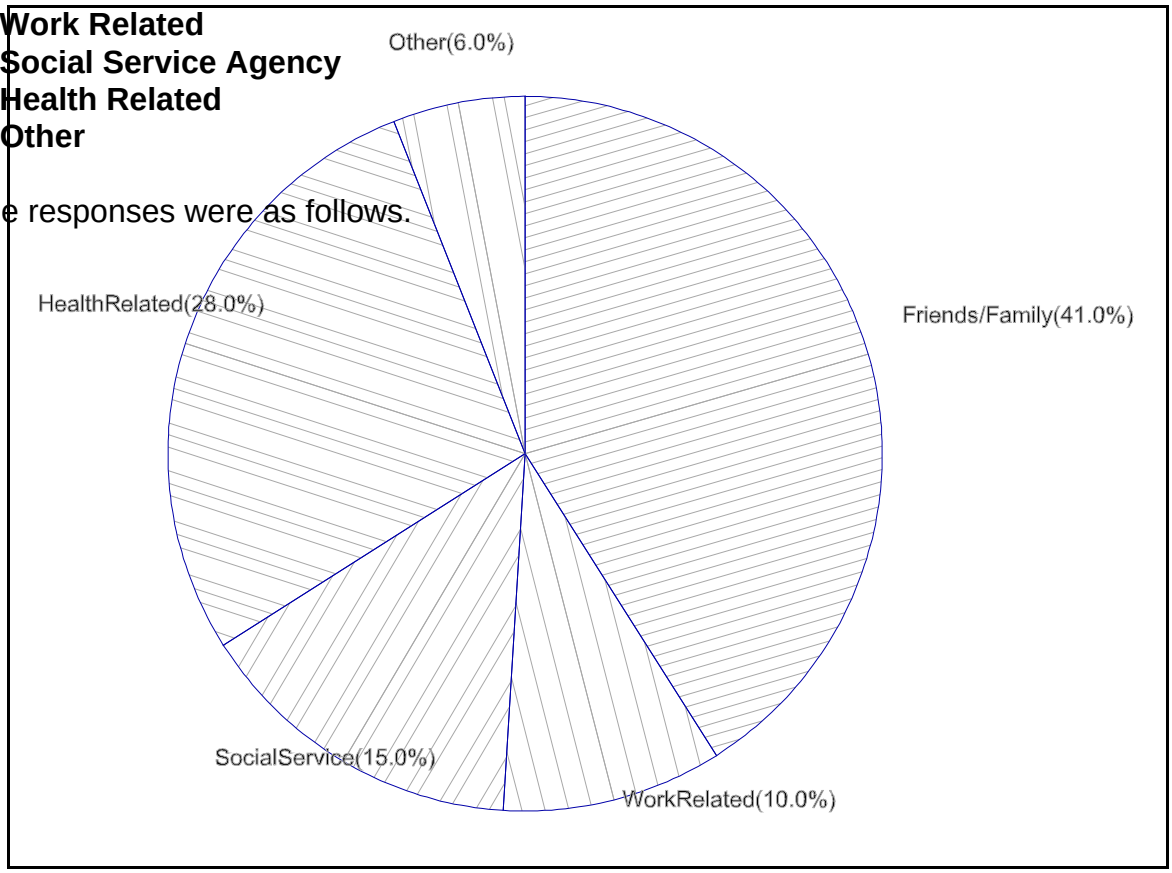
Thinking over the phone calls you made over the last month, what is the purpose of these calls.

1. Friends and Family

[16] RPM Systems, Inc., An Exploratory Study of: Low-Income Telephone Subscribers and Non-Subscribers in Connecticut, May 1988, 57.

2. Work Related
3. Social Service Agency
4. Health Related
5. Other

The responses were as follows.



For most of society, the telephone has become an integral part of maintaining contact with friends and family. One 35 year old survey respondent wrote on his/her survey form in response to a question asking the respondent's most important use of the telephone "communication, I have no transportation."

For the homebound elderly or physically disabled, the telephone may be the only link with other human beings. Unlike able bodied people who may be able to use a pay phone or a neighbor's phone, a homebound individual cannot get to either of these

phones. In an emergency situation a homebound elderly individual would have no way of notifying anyone that help was needed or even make any contact with friends, family or a social service agency, if he/she did not have a home phone.

The Director of the Meals on Wheels program for Cambridge/ Somerville Elder services, though noting that he has no statistical evidence to support this, said that his years of experience have shown that homebound elderly will maintain telephone service at all costs. According to the American Association of Retired Persons, "older persons..value basic telephone service more highly than other ages groups.[17] Elders will make tremendous personal sacrifices to be certain that they do not lose their only mode of direct communication with other people. Statistical evidence verifies this observation. For example, the Michigan low-income telephone study found that elderly respondents were more likely to say that they would cut back on other necessities such as clothing rather than give up telephone service.[18] Data provided by NET specific to Massachusetts residential telephone customers lists a 98.84% penetration rate for all people 65 and over. Telephone penetration rates for elderly people do not reflect elderly people's ability to afford telephone service, dropping only slightly(to 96.94%) in households with incomes below $10,000. The elderly, out of necessity, are willing to forego other basic necessities to keep telephone service in their homes.

The NCLC survey results also bear out this finding. Out of 100 survey respondents who were homebound elderly, only one did not have telephone service. Elderly respondents who were not homebound likewise had nearly a 100% subscription rate. Less than one percent of homebound elderly did not have telephone service, whereas 11% (n=28) of all survey respondents did not have telephone service in their home.

Findings from the Michigan study[19] on telephone usage among the elderly indicate that the elderly were far more likely to consider the reason for their telephone calls to be essential than were non-elderly callers. Medical calls were cited by 22 percent (compared to 1 percent of non-elderly); social service calls were mentioned first by 10 percent (as compared to zero percent of non-elderly).

Homebound elderly have more medical concerns than those who are younger

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[17] AARP," Consumer Safeguards in The Information Age: The Need for New Cost Allocation Methods,"Information Brief, Number 11, November 1991.

[18] Michigan Citizens Lobby, Low Income Households in the Post-Divestiture Era: A Study of Telephone Subscribership and Use in Michigan, October, 1986, 78.

[19] Cooper, **Low-income Households in the Post-Divestiture Era: A Study of Telephone Subscribership and Use in Michigan**, (October 1988).

and are in better health. As low income individuals, they are unlikely to have the care of a home health care worker on which they can rely for assistance in meeting basic needs and taking care of daily personal business. When an elderly homebound individual has a health related need, he/she must rely on the phone to speak with a health care worker if, for example, a prescription runs out. Similarly, if a homebound elderly individual has a problem or question about his/her Social Security benefits or does not receive his/her check, the only way for him/her to resolve this problem is by telephone, since he or she cannot walk into a Social Security office. Thus, without telephone service in the home, it is impossible for a homebound person to independently take care of his/her own needs.

An elderly homebound individual's lack of a phone affects others as well. The Director of the Cambridge/Somerville Meals on Wheels program noted that the few individuals who do not have phones frequently ask the Meals on Wheels driver to do things for them such as grocery shop or run other errands. Besides the fact that this is not part of the driver's job, the driver taking the time to fulfill these requests may delay service to other elderly Meals on Wheels recipients. Consequently, the lack of telephone service has repercussions felt well beyond the household which does not have a phone.

3. What Services Do Survey Respondents Have?

a. Basic Services

Eighty-nine percent (n=91) of the survey respondents reported paying a flat monthly rate, while 11% (n=12) reported paying for each local call (measured service). Only 16% (n=19) of survey respondents said that they were told about Measured Service when they initially placed their order for telephone service.

Questions were designed to find out what percentage of the surveyed population subscribe to the least expensive service and what some telephone usage patterns were of those who subscribed to measured service. The survey pool was also examined to determine if there were individuals who might benefit by measured service but responded that they had a flat rate service.

Many of those who subscribed to measured service may make too many phone calls each month to benefit by this service. Conversely, those who could benefit most, people who made few phone calls, did not subscribe to measured service.

Of the 11% (n=12) of survey respondents who reported using measured service the average number of phone calls per week was 16 which may be too many phone calls to benefit from paying for each call. Sixteen calls per week is just under the average of 17 calls per week for all survey respondents. As discussed above, this average is somewhat misleading because the mean was elevated by a handful of

respondents who reported making 100+ phone calls a week. Forty-six percent of respondents who had telephones in their own homes reported to making 10 or fewer calls per week. Eighteen percent of the respondents who had phones reported making five or fewer calls per week. Only 8% of those making 5 or fewer calls per week had measured service. These findings differed from the Michigan study which found that those who had measured service made 1/3 fewer phone calls than those with a flat rate service.[20]

What was predictable in studying the respondents who had measured service or who made relatively few phone calls per month was age. The average age for respondents who had measured service was 61 years old. For those who made 10 or fewer calls a week the average age was 59. And for those who made 5 or less calls a week the average age was 60. The Michigan study, likewise found that the elderly tend to make fewer phone calls.[21]

Two possible conclusions can be drawn from the low number of survey respondents who subscribe to measured service. The first is that measured service is not described or promoted sufficiently by NET. A second is that telephone users need to be better educated on the benefits of measured service. Individuals may have the same type of service for years even though their telephone usage patterns have changed. Therefore, people who are already customers need to be educated or re-educated about the prices for and benefits of various types of telephone services. Such re-education is particularly important for people who are on fixed incomes and may be foregoing other basic necessities to maintain a level of telephone service that is not beneficial to them.

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[20] A Study of Telephone Subscribership and Use in Michigan, p. 101.

[21] A Study of Telephone Subscribership and Use in Michigan, p. 99.

b. Enhanced Services

Survey 2 asked respondents who had telephones in their homes if they had any of the following enhanced services: call waiting; touch tone; call forwarding; and 3-way calling. The chart below illustrates what percentages of these respondents indicated that they subscribed to these enhanced services.

Percentage of Survey Respondents Subscribing to Various Enhanced Services		
	MA Low Income Survey	MA Statewide subscription rate provided by NET
touch tone	60% (n=68)	73.7%
call waiting	39% (n=45)	38%
call forwarding	8% (n=10)	4%
3-way calling	10% (n=12)	4%

Survey respondents who had enhanced services had a lower average age, 50, compared to the average age of 55 for all survey respondents. The zip codes of those households subscribing to enhanced services had approximately the same zip code distribution as the entire pool of all survey respondents.

It is important to note that the Michigan study, which examined disconnections among the other issues mentioned, found that "In all comparisons of enhanced services (touch tone, call forwarding and call waiting), involuntary disconnects have higher levels of subscribership to enhanced services than active accounts."[22] Having high numbers of enhanced services as part of one's telephone service appears to be one factor leading to loss of telephone service.

As part of New England Telephone's response to the Attorney General's data request (A.G. #2-1), NET submitted the percentages of residential customers in each city or town who subscribed to touch tone or any of the custom calling services (call waiting, call forwarding, 3-way calling, Speed-8 and Speed-30).

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[22] A Study of Telephone Subscribership and Use in Michigan, p. 144.

The statewide average for percentage of subscribership to touch tone service among all residential customers was 73.7 percent. Analysis of the data provided by NET on an exchange by exchange basis showed that exchanges which had higher percentages of people living in poverty also had higher percentages of subscribership to touch tone service.

The city of Boston leads the state in the number of people below the federal poverty level.[23] Out of the 15 exchanges with the highest percent of touch tone lines, six were Boston exchanges. Roxbury had the fourth highest subscribership rate in Massachusetts and the second highest rate in Boston with 90.46 percent of all Roxbury residential customers subscribing to touch tone. Roxbury also has one of the highest poverty rates in the state with 30.1 % of the population falling below the federal poverty level.[24] The lowest rate of subscribership of any Boston neighborhood is West Roxbury which has the lowest number of people below the federal poverty level (5%).[25]

[23] Center for Labor Market Studies, Northeastern University.

[24] Center for Labor Market Studies, Northeastern University.

[25] Center for Labor Market Studies, Northeastern University.

Comparison of Poverty Level and Rate of Subscribership to Touch Tone in Boston Neighborhoods[26]

Neighborhood (Exchange Name)	% of residents below the Federal Poverty Level	% of Residential Customers Subscribing to Touch tone
Allston/Brighton (Brighton)	20.1%	83.08%
Back Bay/Fenway (Back Bay)	15.4 (BB), 37.2 (FNWY)	92.82
Beacon Hill/West End (Bowdin)	10.7	86.44
South Boston (South Boston)	17.3	80.32
Charleston (Charleston)	12.7	84.48
East Boston (East Boston)	19.3	78.22
South End/Downtown/ China Town (Harrison)	22.3	85.90
Roxbury/ Mission Hill (Roxbury)	30.1	90.46
Dorchester (Dorchester)	22.6	85.62
Mattapan/Neponset (Mattapan)	17	87.58
Jamaica Plain (Jamaica Plain)	16.5	81.63
West Roxbury (West Roxbury)	5	70.44
Hyde Park	7.5	75.25

[26] NET exchange areas and neighborhood borders are not exact matches, although the overlap is considerable. The names of exchanges provided by NET did not match the names of the exchanges listed on the touch tone or custom calling information also provided by NET, making an exact match between exchanges such as Bowdin or Back Bay with their geographic area impossible.

Neighborhoods which could not easily be identified in the exchange information provided by NET are not listed.

Neighborhood (Exchange Name)	% of residents below the Federal Poverty Level	% of Residential Customers Subscribing to Touch tone
(Hyde Park)		

The pattern of low income areas having above average subscribership prevails statewide as is evident from the information regarding select lower income cities listed below.

Comparison of Poverty Level and Rate of Subscribership to Touch Tone		
	% of Residents Below the Federal Poverty Level	% of Residential Customers Subscribing to Touch Tone
Chelsea	24.1	82.82
Lowell	27.5	80.35
New Bedford	16.8	76.26
Springfield	20.1	73.84

Each of these cities is above the statewide average and above the total rate of subscribership for touch tone service in that particular city's geographic region. For example, the total percent of subscribership for the area in which Springfield is located is 60.64%.

The high rates of subscribership for touch tone in low income communities is even more dramatic when compared with subscribership levels for some wealthier communities. Newton even falls below the area average of 78.37% for its geographic region.

Comparison of Poverty Level and Rate of Subscribership to Touch Tone		
	% of Residents Below the Federal Poverty Level	% of Residential Customers Subscribing to Touch Tone
Cohassett	2.2	79.85
Concord	3.3	77.4
Marblehead	3.3	78.54
Newton	4.3	77.48

Residents of these communities are far more likely to be able to afford touch tone, yet the percent of subscribership is far below that of the poorest Boston neighborhoods, as well as of many cities with low-income populations statewide.

An even more striking pattern emerges with subscription rates for custom calling services: people in low income areas subscribe to custom calling services at two and three times the state average. As part of the Attorney General's data request (Exhibit. AG-4), New England Telephone submitted a combined percentage for all custom calling services. As a result, some percentages are above 100% if large numbers of customers within a particular exchange subscribe to more than one custom calling service.

The statewide average for custom calling features in service on residential lines is 50.76%. The three highest rates of subscribership to custom calling services are Massachusetts are in Roxbury (141.41%), Dorchester (121.42%), and Mattapan (115.55%). The percentages of subscribership far surpass those for any other community in Massachusetts and are three to five times higher than most other cities. Roxbury's percentage of custom calling features in service is almost three times the statewide total percentage for custom calling features in service. All of the areas with the highest percent of custom calling features are predominantly lower income communities, specifically low-income minority areas within Boston.

Comparison of Poverty Level and Rate of Subscribership to Custom Calling Services in Boston Neighborhoods[27]

Neighborhood (Exchange Name)	% of residents below the Federal Poverty Level	% of Residential Customers Subscribing to Custom Calling Service
Allston/Brighton (Brighton)	20.1%	76.44
Back Bay/Fenway (Back Bay)	15.4 (BB), 37.2 (FNWY)	81.24
Beacon Hill/West End (Bowdin)	10.7	66.33
South Boston (South Boston)	17.3	57.65
Charleston (Charleston)	12.7	68.69
East Boston (East Boston)	19.3	66.95
South End/Downtown/ China Town (Harrison)	22.3	67.70
Roxbury/ Mission Hill (Roxbury)	30.1	141.41
Dorchester (Dorchester)	22.6	121.42
Mattapan/Neponset (Mattapan)	17	115.55
Jamaica Plain (Jamaica Plain)	16.5	76.95
West Roxbury (West Roxbury)	5	51.3
Hyde Park (Hyde Park)	7.5	68.58

[27] NET exchange areas and neighborhood borders are not exact matches, although the overlap is considerable. The names of exchanges provided by NET did not match the names of the exchanges listed on the touch tone or custom calling information also provided by NET, making an exact match between exchanges such as Bowdin or Back Bay with their geographic area impossible.

As with touch tone service, the rate of subscribership to custom calling services in many low income communities is above the average (50.76%) statewide.

Comparison of Poverty Level and Rate of Subscribership to Custom Calling Features		
	% of Residents Below the Federal Poverty Level	% of Custom Calling features in service within Specified Exchange
Chelsea	24.1	56%
Lowell	27.5	62.73%
New Bedford	16.8	52.26%
Springfield	20.1	66.51%

Comparison of Poverty Level and Rate of Subscribership to Custom Calling Features		
	% of Residents Below the Federal Poverty Level	**% of Custom Calling features in service within Specified Exchange**
Cohassett	2.2	37.60
Concord	3.3	37.75
Marblehead	3.3	33.17
Newton	4.3	45.95

The question arises as to why low-income telephone customers subscribe to touch tone and custom calling services in numbers that far exceed the statewide averages and in many instances exceed the subscribership rates of people in communities who could more likely afford additional services.

The answer lies within the intersection of what both the customer and the seller (NET) bring to the sales discussion when telephone service is first ordered. Low income people are, often times, less sophisticated buyers than wealthier individuals. According to David Caplovitz in his book The Poor Pay More, Consumer Practices of Low Income Families,

> Not having enough cash and credit would seen to create a sufficient problem for low-income consumers. But they have other limitations as

well. They tend to lack the information and training needed to be effective consumers in a bureaucratic society.[28]

Among the reasons for this lack of sophistication, according to Caplovitz, are limited education and lack of know-how in terms of evaluating the advice of salespeople.[29] The U.S. Census data below clearly illustrates the relationship between educational attainment and poverty status.

Poverty Status by Years of School Completed[30]

Years of School Completed	% in Category Below the Federal Poverty Level
Did not Complete High School	23.5%
Completed High School	6.9%
No College	9.3%
Some College, Not a Graduate	6.4%
Completed College	2.8%

Given the dearth of information provided by the 24 New England Telephone sales representatives who were surveyed (see section B. below), it is understandable why low income people subscribe to optional calling services that they can ill afford and for which they may not realize they are paying an additional price.

c. Lifeline and Link-Up

Lifeline provides a $7 reduction in the monthly charge for recipients of other public benefits such as Aid to Families with Dependent Children and Food Stamps. Link-Up America, also a low-income benefit, is a 50% discount for the initial installation fee. Both of these programs may be viewed as the flip side of enhanced services, since optional services add costs to basic telephone service, while these programs subtract costs. Survey 2 also asked people if they were told about Lifeline or Link-Up when they first ordered their telephone service and secondly whether or not they received the

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[28] Caplovitz, David, The Poor Pay More, Consumer Practices of Low-Income Families, New York: Collier-MacMillan, 1967, 14.

[29] Ibid.

[30] U.S. Bureau of the Census, Poverty in The United States: 1988 and 1989 (Series P-60, No.171), Table 15.

Lifeline benefit.[31]

Few responded that they had been told about Lifeline and Link-Up and even fewer reported receiving the lifeline benefit. Respondents to Survey 2 were asked,

"When you ordered service were you told about any of the following services?
1. Lifeline Discount (a discount on your monthly local service)
2. Link-Up Discount (a discount on the initial hookup charge for phones)
3. Measured Service (pay for each local call rather than flat monthly rate)"

Fourteen percent (n=16) of the respondents reported being told of Lifeline and 13% (n=15) reported being told about Link-up when placing their initial order for phone service. Relatedly, as discussed in more detail below in section B., the NCLC survey of NET customer service offices showed a void in customer service representatives informing potential customers about Lifeline and Link-Up.

Only 8% (n=9) of the survey respondents said they actually receive the Lifeline discount. Individuals who receive Aid to Families with Dependent Children (AFDC), Emergency Aid to the Elderly, Disabled and Children (formerly General Relief), Supplemental Social Security (SSI), Medicaid, Food Stamps and Fuel Assistance are categorically eligible for Lifeline and Link-Up. Given the fact that all of the survey respondents are low-income people, and that they are in contact with a social services agency, it is reasonable to predict that a large number of the survey respondents, at the very least more than 8%, receive assistance from one of the forementioned entitlement programs. In fact, 56.3% of all persons living below the Federal Poverty Level in 1989 received public assistance.[32] Therefore, many people who are eligible for Lifeline do not actually receive this benefit.

Low-income people's lack of knowledge about Link-Up America is particularly distressing, since this is a one time benefit. If new customers are not told about Link-Up when they first order telephone service, their ability to take advantage of a benefit to which they are entitled is lost. Additionally, if a potential new customer is not told about

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[31] Lifeline and Link-Up went into effect in Massachusetts in April of 1990 according to Exhibit A.G.-19. Survey respondents who subscribed to telephone service prior to that date would not have reported being told about either of these benefits. However, as is described below, low-income households move with much greater frequency than individuals in higher income brackets. The U.S. Census Bureau reports that nearly 20% of all people below the federal poverty level moved in 1989 (U.S. Census Bureau,Poverty in the United States: 1988 and 1989, Table 9.) Thus, about 40% of low-income households have moved since the establishment of Lifeline and Link-Up in Massachusetts.

[32] U.S. Bureau of Census, Poverty in the United States: 1988 and 1989(Series P-60, No.171, Table 8.

the existence of the Link-Up benefit, the high installation cost may prevent this individual from ever obtaining telephone service. According to findings in the Michigan Telephone Study,

> The inability to afford the larger costs associated with initiating or restoring service - overdue bills, installation charges and deposits - was the ***major*** obstacle to acquiring service.[33]

Many people who make informational calls such as those made by NCLC in the NET survey may be making the decision as to whether or not they can afford telephone service on the basis of their initial contact with a NET sales office. Therefore, the phone company's not informing people inquiring about telephone service about the Link-Up program may contribute to higher numbers of low income households not having telephone service.

B. The Mobility of Low Income Households

One of the reasons why it is important that the NET sales representative inform potential customers about Link-Up is that low income people move more frequently than people in other income brackets and would, therefore, comprise a proportionately higher number of potential customers inquiring about new telephone service.

According to data compiled and analyzed by the U.S. Census Bureau in reports such as Geographical Mobility: March 1987 to March 1990, the lower an individual's or household's income the more likely they are to move. Other factors such as race, being Hispanic, age and employment status also strongly affect an individual's or household's mobility.

When households move, they need to 1.) contact the telephone company to establish service in their new home, and 2.) pay another installation fee. Therefore, since lower income households move more frequently than higher income households, they will be contacting the telephone company with greater frequency and paying more installation fees than higher income households. NET's failure to mention Link-Up means that low-income households who meet the income eligibility standards for Link-Up are repeatedly paying twice as much on their installation fee as they should be.

The chart below illustrates the relationship of mobility status to income.[34]

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[33] Michigan Citizens Lobby, Low Income Households in the Post-Divestiture Era: A study of Telephone Subscribership and Use in Michigan, October, 1986, 152.

[34] The Census Bureau defines "Householder" as "the person who owns or rents the house. U.S. Bureau of the Census, Geographical Mobility: March 1987 to March 1990, December 1991, 3.

MOVERS IN THE NORTHEAST BY INCOME LEVEL (Householders over age 15)			
Household Income	# of Movers in thousands	% of Income Group that Moved in 1990	% of Income Group that Moved in 1990
less than $5000	141	17%	17%
$5000-$9999	233	12	13%
$10,000-$14,999	224	14	
$15,000-$19,999	213	14	
$20,000-$24,999	228	15	
$25,000-$29,999	206	15	
$30,000-$34,999	164	12	
$35,000-$39,999	134	11	
$40,000-$44,999	149	12	
$45,000-49,999	89	9	9%
$50,000-$54,999	103	11	
$55,000-$59,999	77	10	
$60,000-$64,999	57	9	
$65,000-$69,999	41	8	
$70,000-$74,999	41	7	

U.S. Department of Commerce, U.S. Bureau of the Census, Geographical Mobility: March 1987 to March 1990 (Series P-20, No. 456), December 1991, 15.

MOVERS IN THE NORTHEAST BY INCOME LEVEL (Householders over age 15)			
Household Income	# of Movers in thousands	% of Income Group that Moved in 1990	% of Income Group that Moved in 1990
$75,000-$79,999	38	8	
$80,000-$84,999	15	5	
$85,000-$89,999	28	11	
$90,000-$94,999	26	13	
$95,000-$99,999	14	8	
$100,000 and over	86	8	

In addition, race, Hispanic origin, status as renter or owner, and employment status factor heavily into a household or individual's mobility.

Nationwide Profile of Movers[35]
(in thousands)

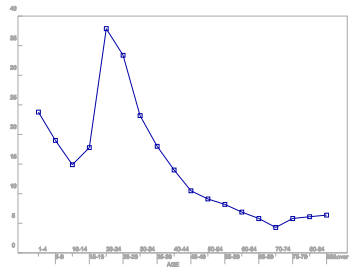
	Total Population	Total Movers	Percent of Group Moving
All Persons	242,208	43,381	17.9
Male	117,791	21,681	18.4
Female	124,416	21,700	17.4
White	203,788	35,302	17.3
Black	29,769	6,024	20.2
Hispanic	20,257	5,086	25.1
Non-Hispanic	221,951	38,295	17.3

[35] U.S. Department of Commerce, U.S. Bureau of the Census, Geographical Mobility: March 1987 to March 1990 (Series P-20, No. 456), December 1991, 33.

	Total Population	Total Movers	Percent of Group Moving
All Persons	242,208	43,381	17.9
Home Owner	162,877	15,047	9.2
Renter	79,331	28,334	35.7
Employed	116,669	22,569	19.3
Unemployed	6,830	2,019	29.6

The average number of individuals who moved in 1990 was 17.9% of the total U.S. population. The percentage of movers in each of the categories listed above presents a clear picture of the population groups that move most frequently: blacks, Hispanics, and the unemployed.

Age is also a determinative factor in an individual's mobility status. As the graph below illustrates, more than 1/3 of all people in their 20's moved in 1990. It is likely that a large number of these individuals are moving out of their family's home and into a home of their own for the first time. One may, therefore, conclude that many of the 39,188,000 Americans in this 20-29 age group are establishing contact with a phone company for the first time. According to the Federal Communications Commission age group breakdown which most closely coincides with the Census Bureau age categories, the penetration rate for those 16-24 was 81% in 1991 compared to a 95% penetration rate for all ages.[36]



[36] Federal-State Joint Board, Monitoring Report CC Docket No. 97-339, January 1992, Table 1.5.

Lack of clear and accurate information, as well as a failure to mention Lifeline and Link-Up, may inhibit those who have very little knowledge of telephone service and costs from becoming subscribers.

C. Survey 3: Inquiry to NET Customer Service Representatives as to the Cost of Telephone Service

An investigator called twenty-four New England Telephone offices statewide and asked:

> **I am probably moving to <u>(name of town)</u> next month and am interested in getting information on how much it would cost to have telephone service in my home?**

Though the customer service representatives were generally friendly, they uniformly gave little information about what services New England Telephone offers and the prices of these services. The initial response to the question posed by the survey administrator ranged from informing the caller of the installation cost (62% of the NET representatives), to hanging up on the caller or telling the caller that information could not be given out until the caller was ready to have his phone hooked up (13% of NET representatives). Other responses included telling the caller what telephone service options or packages were available. Generally, after the installation charge was quoted, the customer service representative added that the monthly cost would depend upon what type of services the caller wanted.

Since so little information was given out, the survey administrator added,

> **I'm moving from out of state, so I am not really familiar with what type of services are offered in Massachusetts.**

The amount of information given out in response to this statement was varied. The chart below indicates the percentage of customer service representatives that mentioned and/or explained various services.

Percent of NET Customer Service Reps
Offering and Explaining Services

SERVICES	Service offered?	Service explained?	Are you told service is optional?
Touch Tone	58% (n=14)	21% (n=5)	4% (n=1)
Call Waiting	75% (n=18)	25% (n=6)	8% (n=2)
Call Forwarding	46% (n=11)	17% (n=4)	8% (n=2)
Speed Calling	38% (n=9)	8% (n=2)	8% (n=2)
Three Way Calling	42% (n=10)	13% (n=3)	0
Telesure (inside wire maintenance)	17% (n=4)	0	0
Additional Listings	4% (n=1)	0	0
Nonpublished listings	0	0	0
Lifeline (low-income discount)	0	0	
Link-up (low income installation discount)	0	0	
Measured	75%* (n=18)	50% (n=12)	79% (n=19)
Flat Rate	38% (n=9)	21% (n=5)	
Circle	29% (n=7)	25% (n=6)	
Suburban	8% (n=2)	4% (n=1)	
Metropolitan	8% (n=2)	13% (n=3)	
Bay State East/West	33% (n=33)	17% (n=4)	

*Before the call was concluded, the survey administrator asked the service representative what the cheapest possible service was that he could get. Eighty-five percent of those who were asked this question (18 customer service representatives)

responded that measured service was the cheapest or quoted the price for measured service without naming it. Four customer service representatives gave an incorrect answer. The remaining service representatives discontinued the conversation before the survey administrator was able to ask this question: one NET service representative in North Adams hung up on the survey administrator; a service representative in Dorchester said to call back when the caller was ready for the hook-up; and a service representative in Pittsfield said that one would have to place an order to find out about the charges.

What is obvious from this chart is that while a number of basic and enhanced services were mentioned, few were explained, and almost none were referred to as being optional. Perhaps most significant to the low-income population is that no customer service representative mentioned the Lifeline or Link-Up programs.

It is not surprising that the services which were mentioned most frequently by NET customer service representatives (touch tone and call waiting) have the highest subscribership among survey respondents. Certainly these services may be desirable and a great help to many customers, and these reasons may account for the high numbers of survey respondents who have these services. However, Lifeline and Link-Up would, likewise, be desirable and a great help to many people, though few survey respondents reported receiving these benefits despite the fact that a large majority of survey respondents are probably eligible for these programs.

The New England Telephone customer service representative is an important informational source for potential telephone customers. If an NET customer service representative does not tell potential customers about Lifeline and Link-Up, a customer may never become aware that these programs exist. The pronounced differences in percent of survey respondents subscribing to enhanced calling services versus those signing up for Lifeline and Link-up can be reasonably attributed, at least in part, to customers' knowledge of these services and programs. If potential customers did not know about touch tone or call waiting, they could not subscribe to these services. Similarly, customers who are not aware of Lifeline and Link-Up can not request these discounts.

The most troubling failure comes in the Company's failure to comply with its own dictates that company service representatives ascertain the usage patterns of prospective customers in order to best match the services available to them. Indeed, the Company's operating procedures, at page Part 1, section 1, page 87, states that "in order to present a recommendation for the best type and grade of service and the appropriate line features, the following facts *are determined* (emphasis added): obtain additional information from the customer, e.g.: calling habits; number of users* * *."

Indeed, the company's manual states specifically that "based on obtained facts," the

service and line features recommendation is: "appropriate grade and type of service; e.g., 1MR, 1FR, etc.* * *local usage allowance, if any, or unlimited calling area (Exhibit A.G.-20)."

The explanations of NET services and options given by NET customer service representatives are inadequate. The initial contact with New England Telephone should be the first step in providing quality service. If potential customers are not informed of the majority of services available, what calling patterns each of these services is geared toward, and what services are optional, customers will routinely be matched with service packages that are not suited to their needs.

D. What type of service quality do low-income customers who have phones in their home receive?

Respondents of Survey 1 were asked

If you <u>do not</u> have a cordless phone, have you experienced any of these problems within the last year?
1. static
2. line disconnects
3. no dial tone
4. other voices on your line

Forty-three percent (n=46) of survey respondents reported experiencing at least one of these problems. Static was the most frequently cited problem with 39% (n=42) of survey reporting experiencing it during the last year. Cross-talk (other voices on the line) was the second most common problem reported by 28% (n=30) of respondents. No dial tone was reported by 17% (n=18) of respondents and line disconnects were reported by 23% (n=25) of survey respondents. By comparison, on average, 20% of NET residence customers report static trouble or phone dead, and about 12% report hearing difficulties or call cut offs.[37]

It is more than likely that, since all the survey respondents have low incomes, the telephone equipment they purchase is inexpensive and contributes to the above mentioned problems. In the areas which had the largest number of survey respondents, Boston and Somerville, there were significant differences in reporting of service quality according to zip code of residence. Problems were cited with markedly higher frequency in the Boston zip codes than in the Somerville zip codes. Sixty-three percent (n=34) of the respondents from Boston reported at least one of those problems, while

[37] Exhibit A.G. 28, DPU 5-3, Attachment I.

only 26% (n=9) of the respondents from Somerville reported problems. Within the Boston zip code areas problems were noted with greatest frequency in Mattapan, where 81% (n=13) of all respondents reported problems.

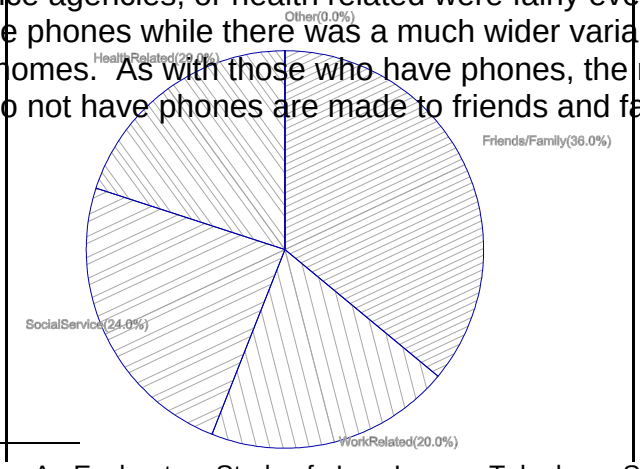
There is no reason to believe anything but that all low-income respondents would be equally likely to have poor telephone equipment in their homes. The dramatic differences in perception of service quality thus leads to the conclusion that there are factors other than customer premises equipment contributing to the poor quality telephone service reported by low-income Boston residents, particularly those living in Roxbury and Mattapan.

E. Profile and Telephone Usage Patterns For Survey Respondents Without Phones

Those who did not have phones showed some marked differences in calling patterns from those who have telephones in their homes. As discussed below, lack of access to telephone service may have significant and even, at times, life-threatening impacts on a person's life.

The average age of respondents without telephones in their homes was much younger than that of all survey respondents, 38 versus 51 years old. Those without phones made an average of 8 phone calls per week whereas the average for those that do have telephone service in their homes is 17 calls per week. Similarly, respondents of the Connecticut survey who did not have their own phones made an average of 8.4 calls per week.[38]

Who the survey respondent calls also differed between those who had phones in their homes and those who did not. The percentage distribution of calls that were work related, to social service agencies, or health related were fairly evenly distributed for those who do not have phones while there was a much wider variance for those who have phones in their homes. As with those who have phones, the most frequent calls made by those who do not have phones are made to friends and family.



[38] RPM Systems, Inc., An Exploratory Study of: Low-Income Telephone Subscribers in Connecticut, May 1988, 29.

TELEPHONE USAGE PATTERNS COMPARING THOSE WITH PHONES TO THOSE WITHOUT PHONES IN THEIR HOMES		
Use of Phone	No phone	Phone in Home
Health Reasons	22%	28%
Social Service	25%	15%
Friend/Family	39%	41%
Work	6%	10%
Other	8%	6%

Individuals who do not have telephones are in contact with friends and family, employers, social service agencies and health related organizations less frequently than those with phones. The sharpest contrast in the percent distribution of telephone calls between those who have telephones and those who do not is that those with phones place 15% of their phone calls to social service agencies, while those without phones place 25% of their calls to social service agencies. It should be noted that while the distribution of calls is similar between those who have phones and those who do not, the **number** of calls made by individuals without phones is less than half the average number made by those with phones: 8 calls per week versus 17 calls per week, respectively.

F. Pay Phones Not Filling the Gap: Quality Service Issues For Those Without Telephone Service In Their Homes

1. Placing Phone Calls

For those who do not have phones in their homes, pay phones are a major alternative. According to the survey results, 52% (n=15) of those without phones relied on pay phones to make phone calls, 31% (n=9) relied on friends and family member's phones to make phone calls, 14% (n=4) responded "other" when asked what phone was used and one respondent reported using his/her job phone. The Connecticut survey also found a strong reliance on pay phones, with 58% responding that they use a pay phone to place calls and 59% responding that they rely on a friend or neighbor's phone and 19% said they would use an agency, business or bar phone (the Connecticut percentages are greater than 100 since some individuals selected more than one option).[39]

[39] RPM Systems, Inc., An Exploratory Study of: Low-Income Telephone Subscribers in

Reliance on pay phones presents numerous problems. The first problem is not knowing if the pay phone closest to your home will be in working order when you need it. When survey respondents were asked if over the past year they have found pay phones in good working order, 0 people reported finding pay phones *always* in working order, 12% (n=3) reported finding them *never* in working order and 88% (n=23) reported *sometimes* finding pay phones in working order. Therefore, those who rely on pay phones to place calls have unreliable access to telephone service.

A second problem has been brought on by the widespread use of voice mail technology. With numerous businesses, government agencies and social service agencies using voice mail, it is likely to be more expensive and more difficult to reach the person with whom one needs to speak. A pay phone user's change begins running out quickly as he/she listen to the lengthy directions to press 1 if..., press 2 if...., only in many cases to be transferred to another directory. If the caller does not have enough change to go through the entire voice mail message, he/she will have to call back and begin the process again. The problem is compounded if he/she must ultimately leave a message on someone's voice mail and do not have a phone at which he/she can be reached.

Those who do not have a phone in their own home do not have immediate access to a phone, which is critical in emergency circumstances. Fifty-two percent of those without a phone in their home had to travel more than 3 minutes to gain access to a telephone. The breakdown of length of time to get to a phone is found in the chart below.

How close is the nearest phone in the event of an emergency?	
1 minute	18% (n=5)
2-3 minutes	26% (n=7)
4-5 minutes	36% (n=10)
more than 5 minutes	14% (n=4)
no phone available in emergency	7% (n=2)

Connecticut, May 1988, 29.

The findings of the Connecticut survey closely match the Massachusetts findings. In an emergency situation 65% of the respondents were less than 3 minutes from a phone; 35% were farther than 3 minutes, and 16% were farther than 5 minutes from the nearest available phone.[40]

Even those who have access to a phone in a relatively short amount of time may not have access to the phone 24 hours a day seven days a week. Forty-six percent (n=13) of survey respondents without phones said that they did have access to a phone 24 hours a day, 7 days a week, while 54% (n=15), responded that they did not. In the event of an emergency, if one's neighbor whom one relies upon to use a phone is not home, or the pay phone at the convenience store is out of order, one would have to spend precious time searching out an available, functioning phone.

Seconds lost in an emergency situation may result in an otherwise avoidable fatality. In an emergency situation, according to the American Medical Association, a delay in breathing, if lasting for more than six minutes can result in death.[41] If an individual has a heart attack "brain damage is likely if the brain is starved for oxygen for more than 3 to 4 minutes."[42] Many of those who are alone during a medical emergency (often because they live alone) would not be able to walk three or more minutes to a pay phone to obtain emergency assistance. According to the Connecticut study, three groups were found to be "at greater-than-normal risk" because of lack of telephone service, including "persons over 60 and living alone."[43] The study found that of 59 "no-telephone households" with elderly members, 30 were senior citizens living alone, 23 had a disability or serious medical problem, and 10 of those disabled seniors lived alone. More than half of the seniors living alone (17 of 30) lived more than three minutes away from the telephone they would need to rely upon in an emergency. Thus, the 50% (n=14) of families without phones who must travel 3-5 or more minutes to reach a phone are in greater danger of loss of life than households who have a telephone in their homes.

2. Receiving Phone Calls

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[40] RPM Systems, Inc., An Exploratory Study of: Low-Income Telephone Subscribers and Non-Subscribers in Connecticut, May 1988, 37.

[41] Charles Clayman, editor. American Medical Association Encyclopedia of Medicine, New York: Random House, 1989, 134.

[42] Charles Clayman, editor. American Medical Association Encyclopedia of Medicine, New York: Random House, 1989, 236.

[43] RPM Systems, **An Exploratory Study of Low-Income Telephone Subscribers and Non-Subscribers in Connecticut**, (May 1988)

Receiving phone calls is also problematic for people who do not have their own phones. Responding to the question "what phone do you generally use to receive calls," 32% (n=9) responded pay phone, 0 reported receiving phone calls at work, 43% (n=12) responded friend or neighbor's phone, 14% (n=4) responded none and 11% (n=3) responded other.

For those who are able to receive calls at a friend or neighbor's phone it is likely that an employer, social worker, or someone calling about a family emergency will be able to at least get a message to the individual they are trying to reach. For the remaining 57% (n=16) of survey respondents without phones reaching that individual or family will prove to be difficult, if not impossible. In order to receive calls at a pay phone in a timely way, one must have made arrangements previously in order to be at the pay phone when the phone call comes in. What is perhaps most significant is that 11% of these individuals without phones have no way of receiving phone calls.

Inability or difficulty in receiving phone calls has many implications. It is more difficult for a family member to obtain employment, since an employer will not be able to reach that individual except by mail to set up an appointment for an interview. Depending upon how soon the employer needs to fill the position, there may not be time to send a letter and wait for a response. In this case the candidate without a phone may be eliminated from consideration. For families with school age children, there may be emergency situations where school officials must reach the parents. For example, if the child is injured on the school playground and needs emergency surgery, the hospital may have to wait to have the parents approval before surgery can be performed.

Social service providers who were interviewed for this study reported numerous difficulties in trying to deliver services to those without phones. For example, agencies administering fuel assistance need to call households to notify them when a fuel oil delivery will be made. Delays in reaching households may result in winter days without heat.

Lack of access to telephone service may prevent people from even obtaining social services to begin with. According to one study looking at why households do not participate in the Food Stamp program in Vermont, even for those households who knew who to contact for assistance in understanding the application and income reporting requirements, the inability to contact the agencies by phone was one of the most significant problems in obtaining such assistance.[44]

The procedure at Greater Boston Legal Services for reaching a client who does

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[44] Sandage Advertising & Marketing, Food Stamp Program: Focus Group Research Report, prepared for Vermont Department of Social Welfare, at 8 - 9 (1989).

not have a phone is to send a letter. If there is not enough time to send a letter by mail, a letter is sent by cab to the client's house. There are some difficulties with this process. Many low-income clients live in apartment buildings where the mailboxes are not secure and, therefore, use P.O. Boxes as their addresses, so they can be assured of receiving mail. If a social service agency only has a P.O. Box address for the client, there is no way to deliver a letter to the client's home. Secondly, if the agency has a home address and the client is not home when the cab driver delivers the letter, there is no way to securely deliver the letter if the client's door is only accessible via a locked building door. Thus, a client may lose the opportunity for an appeal or the favorable resolution to their case may be jeopardized by not being able to be reached by phone.

IV. Conclusion

Universal access to telephone service is still far from a reality for some 47,382 Massachusetts households.[45] Lack of access to telephone service translates into great difficulty in, if not complete barriers to reaching employers, social service agencies and health care providers. These households also have less frequent contact with friends and family members. Each of these are contributing factors to persistent poverty and the inability of people to rise out of poverty. If a prospective employer cannot reach an individual about a job, that individual does not get a job. For many low income households that do have telephone service, particularly elderly households, other basic necessities are sacrificed to maintain telephone service.

Households who do not have access to telephones are not representative of the larger population. Those without phones are disproportionately black, Hispanic, and young. Therefore, blacks, Hispanics and the younger age groups are more likely to experience the difficulties associated with absence telephone service in the home: difficulty in obtaining employment or benefits; less frequent phone contact with friends and family.

The results of the Massachusetts Low-Income Telephone study clearly show that persons without phones make fewer phone calls, experience difficulty in finding a phone to place phone calls and may have not way of regularly receiving phone calls.

The results of the NCLC survey of New England Telephone offices clearly show that NET practices contribute to the inability of certain households to obtain telephone service. New England Telephone sales representatives do not inform potential customers about the existence of the Lifeline and Link-Up America programs,

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[45] Massachusetts Institute for Social & Economic Research, 1990 Census of Population and Housing, Housing: Utilities and Vehicles Available, 25.

representatives give out incomplete and erroneous information about NET services and options, and fail to match customer calling patterns with sales packages sold as required by NET company policy. Since those who do not have access to telephone services are disproportionately minorities, serious questions arise concerning the potential existence of discriminatory practices by New England Telephone.

These concerns are intensified by the poor service quality experienced by current NET subscribers in the predominantly minority communities of Roxbury and Mattapan. Not only do these customers experience service problems such as static and cross talk with much greater frequency than customers in other areas, NET's own data show that these households are sold optional services in far greater percentages than statewide averages. Since other studies clearly show that above average subscriptions by low-income households to enhanced calling services is associated with phone disconnections, NET contributes to customers, loss of services by selling the customer optional services which the customer is not able to afford.

The service currently provided by NET to customers and potential customers, particularly those who are low income, is inadequate and substandard at best and directly works against national goals of universal access to telephone access at worst. To redress these problems and to ensure that progress is being made toward the goal of universal telephone access, regardless of race, age or income, the following five recommendations should be implemented.

A. Recommendations

I. The creation of a Massachusetts Telecommunications Education Trust Fund

Quite clearly it will be impossible to determine the precise number of residential customers who have been damaged as a result of New England Telephone's failure to abide by its own procedural manual to ascertain usage levels and patterns as a basis to make recommendations for the type of local service appropriate for new applicants for service. Equally as clearly, it will be impossible to determine the precise number of residential customers who have been damaged by New England Telephone's failure to comply with its duty to inform customers of the least-cost rate available, or by its overreaching in sales.

Nonetheless, it would be unjust and unreasonable to permit New England Telephone to retain the gains from its own failure to abide by these obligations. Accordingly, under well-accepted doctrines of restitution, it would be equitable for the Department to direct New England Telephone to capitalize a Massachusetts Low-Income Telecommunications Education Trust Fund. The Trust Fund should be

administered by a Board consisting of representatives of different consumer, social service, industry and regulatory interests. Representatives of Greater Boston Legal Services, the Massachusetts Community Action Association, the Department, and NET might well be appropriate Trustees. The Trust would be empowered to make grants and enter into contracts to further the education of low-income households in the use of telecommunications services as well as to fund advocacy and research on low-income telecommunications needs. One of the first educational projects should be to notify all low-income customers that certain services are optional and may be dropped at any time with no cost to the consumer resulting from the discontinuing of an optional service.

The Trust Fund can be based on the models which exist in the forms of the California Telecommunications Education Trust Fund as well as the Michigan Divestiture Research Fund.

II. An order directing New England Telephone to provide affirmative notice of the availability of its Lifeline and Link-up America rates to all new applicants for service

In order to ensure that all new applicants for service receive notice of these two important programs, or at least to ensure that the notice of such programs is not "lost" in the "responsibilities" of New England Telephone service representatives to engage in the sale of enhanced services, the company should be directed to provide oral notice of the availability of the Lifeline and Link-up America rates during any inquiry concerning new residential telephone service. Moreover, NET should be directed to provide written notice, in a form approved by a recognized adult education program, of the availability of such rates within 14 days after the issuance of the first monthly statement. NET should be directed to accept applications for such discounts at any office at which an application for new service is accepted.

Additionally, NET should be required to list on *every* NET bill the services to which that customer subscribes and the cost for *each* service.

III. An order directing New England Telephone to undertake an inquiry into local calling patterns and usage levels prior to recommending local service types, documenting that inquiry, and seeking to match those patterns and levels to the recommended local service type

The Company should be directed to determine local calling patterns and levels of usage prior to recommending the type of local service to new service applicants. The Company should be required to document this determination and maintain such documentation as part of its information system files.

IV. An effort to incorporate application for Lifeline discounts directly into the application and/or eligibility forms for the public benefits programs which serve as the determinants of Lifeline availability.

The Department should direct NET to engage in a collaborative effort involving Greater Boston Legal Services, Massachusetts Law Reform Institute, the Massachusetts Community Action Agency Association, the Attorney General's office and other interested parties to develop means of expanding the penetration of the Company's Lifeline rate. The first order of business of such a collaborative effort might be to directly incorporate an application for Lifeline telephone rates into the application forms for all public benefits programs that serve as the determinants of eligibility for the Lifeline rate.

These remedies will further the goal of universal telephone access and will protect the right to "quality" service, not only of low-income consumers, but of all residential telephone customers in Massachusetts.

Appendices

Appendix A

Massachusetts Low-Income Telephone Surveys 1 and 2

Appendix B

Survey of New England Telephone Offices