Making Telephone Service Affordable for Low-Income Households: An Analysis of Lifeline and Link-Up Telephone Programs in Florida

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February 1, 2006
[Corrected March 4, 2006][*]

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[*] Note: Typos relating to net payments and receipts for universal service on page 44 are corrected in this version.

Acknowledgements

We would like to thank Dr. Janice Hauge, Assistant Professor, and R. Todd Jewell, Associate Professor, University of North Texas; Dr. James Prieger, Assistant Professor, University of California at Davis; Dr. Shane Greenstein, Professor, Northwestern University; and student assistants Guillermo Sabbioni and Matt Masten (University of Florida) and Perry Canet and Brian McNeal (University of North Texas) for their work on the econometrics analyses. We would also like to thank Dr. Justin Brown, Assistant Professor, College of Journalism and Communications, University of Florida; Dr. Christopher McCarty and Alicia Turner, Bureau of Business and Economic Research, University of Florida, and student assistants Drew Bagley, Mario Rodriguez, Ronnie Lovler, Nissa Laughner, and Abubakar D. Alhassan (University of Florida) for their work on the population and customer surveys. We would also like to thank Dr. Marc Smith and Anne Williamson, the Shimberg Center for Affordable Housing, University of Florida, for their work on identifying the number of eligible households in Florida. Special thanks go to Cynthia Stehouwer, Virginia Hessels, and Lisa Jelks of the University of Florida for their project management and editing work. We would also like to thank Robert Rowe, Senior Partner, Balhoff & Rowe, LLC, and Robert Loube for their careful reviews of this report. Finally, we would like to thank BellSouth and Sprint for funding this research; the Florida Public Service Commission for data and support; the Office of Public Counsel for its input; Ava Parker of Lawrence, Parker & Neighbors, LLC, for her cooperation in surveying participants of Lifeline and Link-Up events; and BellSouth, Sprint, Verizon and Quincy Telephone for assisting in collecting data and providing suggestions. The authors are responsible for all errors and omissions.

Executive Summary

The seemingly low participation rates in Florida's Lifeline and Link-Up America (Link-Up) have led state officials to ask questions about the effectiveness of Florida's policies affecting both programs. These programs, which are part of nationwide programs created by the Federal Communications Commission, upon recommendation of the Federal-State Joint Board, provide low-income households with discounts on prices for basic local telephone service and service installation: The Lifeline program reduces the monthly telephone bill by up to $13.50.[1] The Link-Up program reduces the cost of telephone installation by 50 percent. Florida's participation rate—which is the number of households enrolled divided by the number of households eligible for program benefits—has attracted widespread interest among policymakers in Florida. Specifically, state policymakers and others have expressed concern that program participation rates in Florida are too low compared to those of the rest of the nation. Policymakers, regulators, telecommunications companies, and consumer advocates share a desire to improve program effectiveness.

There is controversy over the accuracy of the reported participation rates. If the reported number of households eligible for Lifeline and Link-Up is inaccurate, it follows that the participation rate will also be flawed. Therefore, one objective of this research is to develop a reliable estimate of the number of households in Florida that are eligible for Lifeline and Link-Up program benefits. Another objective is to provide more information about the determinants of participation in these programs to help policymakers consider policy changes.

To realize both objectives, BellSouth Telecommunications, Inc. and Sprint-Florida, Inc. funded PURC to investigate the reasons for Florida's seemingly low participation rate and provide accurate estimates of Florida households that are eligible for Lifeline and Link-Up benefits. This report summarizes findings of the studies that PURC sponsored for this investigation: an analysis of the number of eligible households by county for the years 2000-2005; four surveys that provide insights into Floridians' usage of communications services, awareness and understanding of the programs, and support of the programs; and two econometric studies—Florida cross-county and U.S. cross-state—that provide insights into the demographic and socioeconomic factors associated with program participation in Florida and the nation, respectively.

In terms of the first objective—more accurate estimates of households eligible for Lifeline and Link-Up—we find that the penetration rates cited by the Florida Public Service Commission (FPSC) have been reasonably accurate in recent years. This finding suggests that policymakers had reasonable numbers during their recent deliberations on Lifeline and Link-Up issues. We find that Florida's eligible households for Lifeline in 2005 numbered 1,156,788, based on the criterion applicable until recently of having a household income no greater than 125 percent of Federal Poverty Guidelines (FPG); that number was 1,251,174 based on the most recent income criterion of a household income

[1] Some bills of Florida's Lifeline customers show Lifeline credits to be in excess of $13.50. Reasons for this excess are explained in footnote 5.

not exceeding 135 percent of FPG. The corresponding participation rates are 13.2 percent for the 125 percent of FPG criterion and 12.2 percent for the 135 percent of FPG criterion. The econometrics studies show that Florida's participation rate is close to what one would expect given Florida's demographic and economic profile. However, while this is the case for the entire state, the Florida cross-county study shows that the variance between predicted and actual participation rates, for the most part, is greatest in more sparsely populated regions of the state.

In terms of demographics, Box 1 summarizes the demographics of the heads of low-income households in Florida in 2005. In general, heads of low-income households are older, more likely to be minority, and less educated than other heads of households in Florida. Low-income households were fairly evenly divided between homeowners and renters.

Box 1. Demographics of Heads of Low-Income Households in Florida, 2005[a]

- Approximately 90 percent were 55 years of age or older
- Slightly more than half were white
- One-fifth were Hispanic
- Slightly more than one-fifth were African-American
- Most (56 percent) were headed by women
- About 70 percent had no post-secondary education.

[a] Low-income was defined as households with annual incomes no greater than 135 percent of FPG

Source: Williamson, 2006

This project used two types of research—surveys and econometric analyses—to study why eligible households do or do not participate in the Lifeline program. Four surveys were conducted:

(1) in-person interviews of Floridians who attended Lifeline/Link-Up outreach programs in various parts of the state to better understand their levels of awareness and comprehension of the programs and why they ultimately decided to enroll or not enroll in Lifeline;
(2) telephone interviews of Floridians concerning their use of communications services, knowledge of Lifeline, and attitudes toward Lifeline;
(3) a written survey of low-income households to ascertain their awareness of Lifeline and their reasons for non-participation if they were aware of the program, qualified for it, and did not participate; and
(4) written surveys of households that qualified for Lifeline and that had disconnected their telephone service.[2]

Together the surveys found the following:

- Lack of awareness and distrust of support programs for low-income households are the most significant barriers to enrollment.

[2] Surveys were sent to all customers who had disconnected service from BellSouth, but the analysis only includes responses from customers who qualified for Lifeline benefits.

- Lifeline participants learn about Lifeline mostly through social workers or a social service agency, the telephone company, or a friend or family member. Learning about the program through a source trusted by the potential enrollee is important to a household's decision to enroll in the program.
- Community-based outreach efforts conducted by people who are trusted by the potential enrollee appear to increase Lifeline participation in Florida.
- The outreach events studied were more effective in informing seniors than younger Floridians about Lifeline; these events were also more effective in enrolling seniors than younger residents in the program.
- New Lifeline enrollees at the outreach events studied already had phones and were previously unaware of Lifeline.
- Almost all low-income households in Florida (88 percent) had wireline phones in their homes even though only a small percentage takes advantage of the Lifeline program. About 50 percent of low-income households had a cellular phone, about 50 percent had Internet access, and about 50 percent had either cable television or Direct Broadcast Satellite (DBS) service in their homes.
- Low-income customers who disconnect their traditional telephone service do so because they move, believe they cannot afford phone service and choose to buy other things, including preferring to use a cellular phone.
- Floridians are generally supportive of the Lifeline program as it currently exists.

The surveys also provided insights into how Floridians use communications services. Box 2 summarizes these findings. In addition, the survey participants were asked to identify their most important communications services. Traditional local phone service was rated most important most often. Cellular phones were rated most important about half as often as wireline phone service. Respondents who rated cell phones as most important were more likely to be male, more likely to be affluent, less likely to reside in a suburban area, and more likely to be younger than persons who preferred other forms of communications.

Box 2. Floridians' Use of Communications Services, 2005

- More affluent households are more likely to subscribe to wireline telephony, cable television, and DBS services than are less affluent households.
- Less affluent households are more likely to use pre-paid cellular service than are more affluent households.
- Local wireline is used more in subscriber-owned households than in other households.
- Prepaid cellular service is found more in rental and apartment units than in other types of homes.

Sources: Brown (2006a, b, c); Brown and Jamison (2005).

Two econometric studies—one that examined Florida county level data for 2003-2005 and one that examined state-level data for the United States from 2000-2005—were conducted to gain insights

into policy, demographic, and socioeconomic factors that affect Lifeline program participation. Box 3 summarizes the main findings of the Florida study.

Box 3. Main Findings of the Florida Econometrics Study of Lifeline Penetration Rates

Lifeline program participation rates in Florida were higher with:

- higher local telephone prices,
- heads of household older than 25 years of age,
- higher concentrations of households on public assistance,
- local service provided by BellSouth or Verizon,
- greater proportions of white or African-American households, and
- higher home ownership rates.

Participation rates were lower with:

- greater penetration of cellular phones,
- lower education levels for the head of the household, and
- more rural areas.

Source: Hauge, Jamison, and Jewell (2006a).

Several findings in the U.S. study were consistent with those of the Florida study, namely that Lifeline program participation rates were higher with higher local telephone prices, greater Lifeline discounts, higher education levels for the head of household, and higher concentrations of households on public assistance. However, the U.S. study provided different results than the Florida study in other respects:

- Lifeline program participation rates were lower for Verizon, Alltel, and small telephone companies than for BellSouth, Sprint, Qwest, and SBC.
- Participation rates were higher for Hispanic heads of households, relative to heads of household that were white, African-American, Asian, or of other racial or ethnic groups.
- Participation rates were lower for older heads of household.
- Participation rates were lower for states with higher concentrations of urban households.
- Participation rates were lower for more transient households.
- On a state level, greater Lifeline discounts (state plus federal) were associated with greater Lifeline participation rates.

Furthermore, another econometric study (Burton and Mayo, 2005; not part of this research project) recently concluded that restrictions on Lifeline subscribers, such as access to additional telephone lines or vertical services such as call waiting, had a negative and statistically significant effect on the number of Lifeline subscribers. So did higher customer costs of enrolling in Lifeline.

Considering these econometric findings, we may conclude the following:

(1) When local telephone prices increase, customers who are eligible for the Lifeline program are more likely to participate, thus protecting their ability to afford basic telephone service. Greater Lifeline discounts increase program participation.

(2) There may be economies of scale in marketing, thus resulting in eligible households participating in the Lifeline program at higher rates where there are greater concentrations of eligible households.

(3) At least in Florida, some eligible households are willing to substitute cellular phones for wireline phones even if it means not receiving Lifeline benefits.
(4) Adding social programs as criteria for qualifying households for Lifeline benefits seems to have little impact on participation in Lifeline.
(5) States vary in what may be effective means of supporting universal service.

In summary, we find that the primary barrier to Lifeline participation appears to be public awareness—a finding that surfaced in the surveys commissioned for this report. Awareness appears to be lowest in more sparsely populated areas. The surveys and the econometric studies point to a need for additional marketing, in particular by people and organizations that prospective Lifeline participants trust. The strategy of marketing through social service agencies that provide social programs that trigger eligibility for Lifeline and Link-Up appears to be effective.

Survey findings suggest extensive public support for the Lifeline program in its current configuration, but less support for an expanded program. Furthermore, the focus group surveys indicate that new program enrollees who signed up for Lifeline at these events already had wireline phones, implying that Lifeline may have little impact on telephone penetration for Florida's low-income households. Other surveys found significant use of cell phones by low-income households. Low-income surveys and U.S. Census Bureau statistics show high percentages of low-income households have telephone service even though only a small fraction of low-income households enroll in Lifeline.

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Section I -- Introduction

The Lifeline Assistance Program (Lifeline) and Link-Up America Program (Link-Up) in Florida are part of nationwide programs created in 1984 by the Federal Communications Commission (FCC), upon recommendation of the Federal-State Joint Board,[3] to provide low-income consumers access to affordable telephony service.[4] The Lifeline program reduces the monthly telephone bill by up to $13.50.[5] The reduction assumes the form of a credit and is deducted from the basic service charge.[6] The Link-Up program reduces the cost of telephone installation by 50 percent. That reduction assumes the form of a credit and is deducted from the service installation charge. Florida began providing Lifeline assistance in 1994.[7]

Recently, there has been widespread interest in the effectiveness of program enrollment.[8] Specifically, state policymakers and others have expressed concern that program participation rates in Florida are too low compared with those of the rest of the nation. Florida's participation rate—which is the number of households enrolled divided by the number of households eligible for program benefits—ranged from 14 to 18 percent from 2000 through 2004,[9] whereas the nationwide participation rate was estimated by the

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[3] *MTS and WATS Market Structure, and Amendment of Part 67 of the Commission's Rules and Establishment of a Joint Board*, Recommended Decision, CC Docket Nos. 78-72 and 80-286, 49 Fed. Reg. 48325 (rel. Nov. 23, 1984) (recommending the adoption of federal Lifeline assistance measures); *MTS and WATS Market Structure, and Amendment of Part 67 of the Commission's Rules and Establishment of a Joint Board*, Decision and Order, CC Docket Nos. 78-72 and 80-286, FCC 84-637, 50 Fed. Reg. 939 (rel. Dec. 28, 1984) (adopting the Joint Board's recommendation).

[4] Report and Order and Further Notice of Proposed Rulemaking, WC Docket 03-109, In the Matter of Lifeline and Link-Up, Release No. FCC 04-87, (Re. April 29, 2004). See paras. 1-4 for the justification for the Lifeline/Link-Up programs. Specifically, 47U.S.C. 254(b) establishes principles for preserving and advancing universal service, including the recognition that affordable telephone service is a national priority. As stated in para. 4 of FCC 04-87, "The Lifeline/Link-Up program is one of several universal service support mechanisms to further these goals." Another view is that an objective of these programs is to lower the amount of money that low-income households spend on telephone service so they can spend more of their household budget on other items.

[5] Some bills of Florida's Lifeline customers show Lifeline credits in excess of $13.50. As part of the price rebalancing in Florida, BellSouth, Sprint, and Verizon were restricted by statute from increasing local telephone prices for Lifeline customers. BellSouth implemented this restriction by providing a credit on the bills for its Lifeline customers equal to the increase in local telephone prices that occurred with BellSouth's price rebalancing. Instead of providing a new credit on their customers' bills, Sprint and Verizon increased the Lifeline credit on the bills of their Lifeline customers, so the Lifeline credits to their customers' bills appear to exceed $13.50.

[6] Section 364.02 of *Florida Statutes* defines "basic local telecommunications service" as: "voice-grade, flat-rate residential, and flat-rate single-line business local exchange services which provide dial tone, local usage necessary to place unlimited calls within a local exchange area, dual tone multifrequency dialing, and access to the following: emergency services such as '911,' all locally available interexchange companies, directory assistance, operator services, relay services, and an alphabetical directory listing. For a local exchange telecommunications company, the term shall include any extended area service routes, and extended calling service in existence or ordered by the commission on or before July 1, 1995. "

[7] The FPSC approved the Lifeline Program in Order No. PSC-94-0242-FOF-TL, issued on March 4, 1994.

[8] Low participation is a problem in other social programs. Currie (2004) provides a recent survey. Hoynes (1996) finds a 65 percent participation rate for AFDC-UP and Moffitt (1983) finds 43 and 38 percent participation rates for AFDC-UP and the Food Stamps Program, respectively.

[9] See Table 3.

FCC to be 33.7 percent in 2002. However, the 33.7 percentage rate is not indicative of the typical state's experience. Nearly half (49.3 percent) of the Lifeline subscribers in the United States were in California in 2002, which had a 132 percent participation rate.[10] Without California, the nationwide participation rate would have been 19.5 percent. The median state participation rate in 2002 was 17.1 percent.[11]

Policymakers, regulators, telecommunications companies, and consumer advocates have a shared desire to improve success of these programs. However, if the reasons for low participation are not better understood or the numbers upon which participation reports are based are flawed, strategies to enroll more Floridians may not be very effective.

Responding to these concerns, BellSouth Telecommunications, Inc. (hereafter, BellSouth) and Sprint-Florida, Inc. (hereafter, Sprint) funded PURC to investigate the reasons for Florida's seemingly low participation rates. This report explains the results of this study.

I. A. Three Components of this Study

This report uses the findings of three projects to derive its conclusions:

(1) An investigation of the number of eligible households for Florida's Lifeline program, to provide a reliable measurement of the true participation rate in the state. The University of Florida's Shimberg Center for Affordable Housing (Shimberg Center) performed this component of the study.
(2) Separate surveys of Floridians who do not qualify for the programs and of Floridians who do qualify but may or may not participate in the programs. These surveys provide insights into why eligible customers fail to sign up for Lifeline and Link-Up and the extent to which Floridians support the programs in their existing forms or would prefer other features. Dr. Justin Brown, Assistant Professor, College of Journalism and Communications, University of Florida, coordinated this component of the study.
(3) Econometric analyses of the determinants of the number of customers who receive Lifeline and Link-Up assistance from incumbent local exchange carriers (ILECs), using a unique database and providing Florida cross-county and U.S. cross-state comparisons to examine how state and federal policies, marketing, enrollment procedures, demographics, and other factors affect program participation. Dr. Janice Hauge, Assistant Professor, University of North Texas, and Dr. Mark Jamison, PURC Director, oversaw this work.

[10] In California in 2002, customers self-certified that they are eligible for Lifeline and Link-Up, probably resulting in an over enrollment in the programs. Report and Order and Further Notice of Proposed Rulemaking, WC Docket 03-109, In the Matter of Lifeline and Link-Up, Release No. FCC 04-87, (Re. April 29, 2004), paragraph 28.
[11] Report and Order and Further Notice of Proposed Rulemaking, WC Docket 03-109, In the Matter of Lifeline and Link-Up, Release No. FCC 04-87, (Re. April 29, 2004), Table 1-A.

A list of all project researchers and their biographical information is included in Appendix 3. Each project culminated in one or more reports that outline the methodologies used and the research findings. These reports may be accessed at PURC's website www.purc.ufl.edu.

I. B. Purposes of this Report

The purposes of this report are to: (1) describe the context for the findings of this study and recent policy changes that might affect Lifeline and Link-Up program eligibility and participation; (2) report the findings of the various components of this study and explain how the researchers derived those results; and (3) synthesize the findings and insights of these research projects—in short, to tell the story behind the numbers.

The remainder of this report is organized as follows. Section II provides background on the Lifeline and Link-Up programs and Section III describes how the programs have evolved. Sections IV through VI describe the research and findings on the number of eligible households, Floridians' reasons for participating or not participating in these programs, and demographic and economic factors that determine program participation rates, respectively. Section VII synthesizes these research findings and concludes.

Section II -- Context for this Report

The Lifeline program provides price discounts for telephone services for low-income customers. The FCC establishes guidelines for these programs, however, each state develops its own policies based on the FCC's guidelines. Within each state, eligible telecommunications carriers (ETCs) also have some leeway in administering and promoting the programs.[12]

II. A. FCC and Florida Guidelines

Under the FCC guidelines, there are four tiers of monthly federal Lifeline support.[13] The first tier of federal support is a credit (currently $6.50, representing a waiver of the federal Subscriber Line Charge) available to all eligible consumers for the federal subscriber line charge.[14] The second tier of federal support is a $1.75 credit. The third tier of federal support is one-half the amount of additional state support up to a maximum of $1.75 in federal support. (The second and third tier supports represent reductions in the price of basic telephone service.) Because Florida's ETCs provide an additional $3.50 credit to Lifeline customers' bills, Florida Lifeline subscribers currently receive a total monthly credit of $13.50, consisting of up to $10 ($6.50 + $1.75 + $1.75) in federal support and $3.50 in state support, which comes from the ETCs. The consumer may receive a lesser credit if the bill for basic local telephone service is less than the maximum available credit. At no time is the consumer's bill for local service less than zero. The fourth tier of federal support, available only to eligible consumers living on Native American tribal lands, provides an additional credit of up to $25 per month. This amount is limited to the extent that the credit does not bring the basic local residential rate below $1 per month. Pursuant to Section 364.105, *Florida Statutes*, Florida's ETCs must offer residential consumers who are no longer eligible for Lifeline a 30 percent discount from the rate for basic local service for up to a year after their eligibility for Lifeline ceases. Table 1 illustrates the possible monthly credit to customers by year from 2000 to 2005, excluding any tribal payments because Florida does not have eligible tribes.

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[12] Section 364.10, *Florida Statutes* defines an "eligible telecommunications carrier" as a telecommunications company, as defined by s. 364.02, which is designated as an eligible telecommunications carrier by the commission pursuant to 47 C.F.R. s. 54.201. In Florida, all ILECs are designated ETCs; they provide Lifeline assistance and are entitled to receive federal support. ETC status may also apply to both wireless service providers serving Floridians, whose petitions for ETC status have been approved by the FCC, and competitive local exchange carriers (CLECs) serving Floridians, whose petitions have been approved by the FPSC. Appendix 1 provides a timeline of Lifeline policy development at the federal level and for Florida.

[13] The Telecommunications Act of 1996 requires participation of all states in providing these programs but states can elect whether to administer their own programs or use the federal default program. Other universal service programs authorized by the Act include subsidies to companies providing telephony to high-cost regions of the country and discounted rates to schools, libraries, and hospitals.

[14] These funds come from fees assessed against telecommunications providers. Some providers collect monies for these fees by placing surcharges on customer bills.

Table 1
Federal and State Lifeline Credits, 2000 – 2005

Year	Basic Federal Support	Additional State Support	Federal Match	Total Federal Support	Total Federal & State Support
2000	$6.10	$3.50	$1.75	$7.85	$11.35
2001	$6.10	$3.50	$1.75	$7.85	$11.35
2002	$6.75	$3.50	$1.75	$8.50	$12.00
2003	$7.75	$3.50	$1.75	$9.50	$13.00
2004	$8.25	$3.50	$1.75	$10.00	$13.50
2005	$8.25	$3.50	$1.75	$10.00	$13.50

Source: Hauge, Jamison, and Jewell, 2006a.

Link-Up provides a 50 percent reduction (up to a maximum of $30) in the initial fee consumers must pay to connect to the telephone network. Eligible consumers, upon request, also can receive a deferred payment schedule for these connection fees. Eligible consumers living on tribal lands can receive an additional discount of up to $70 from the initial connection fee for connection charges above $60.

II. B. The Participation Rates that Triggered Concern

Concerns about participation in Florida's Lifeline program were fueled by numbers reported by the FCC and FPSC on enrollment and eligibility. Using 2002 baseline subscription data, the FCC estimated that only 13.5 percent of Florida's eligible households participated in Lifeline in 2002. The national average was reported as 33.7 percent but the accuracy of these numbers was questioned because of the discrepancy in the number of eligible households reported by the FCC and the FPSC, the complexity of identifying an unduplicated number of eligible households, and the wide variation in the participation rates across states.[15] A possible problem with the current participation rate estimates is that they are based on a count of the number of households in Florida that qualify for Temporary Assistance to Needy Families (TANF), Supplemental Security Income (SSI), Food Stamps, Medicaid, Federal Public Housing Assistance (Section 8), Low Income Home Energy Assistance Program (LIHEAP), and Bureau of Indian Affairs programs. However, some households may qualify for more than one of these programs, which could result in double counting of households and might therefore cause the actual participation rate to be understated. On the other hand, there are legitimate questions about the accuracy of estimates for all states, including Florida.

The FPSC's numbers for eligible households (819,112) in December 2002 were 28.5 percent lower than the FCC's (1,052,902) in 2002, even though the number of

[15] Report and Order and Further Notice of Proposed Rulemaking, WC Docket 03-109, In the Matter of Lifeline and Link-Up, Release No. FCC 04-87, (Re. April 29, 2004.)

participating households reported by both was almost identical.[16] Therefore, it follows that the FCC's reported penetration rate for Florida (13.5 percent) was lower than that reported by the FPSC (17.4 percent) in 2002 because the participation rate is determined by the number of participating households divided by the total number of eligible households. The questions about accurate measurements drive any informed analysis of program effectiveness because without more precise numbers, we will have a flawed understanding of the population upon which these studies are based.

[16] FPSC, 2005 (p. 30).

Section III -- Recent Changes in Public Policy

The eligibility criteria for Florida's Lifeline and Link-Up programs are listed in Table 2. Federal default eligibility criteria apply to those states that have elected not to implement their own Lifeline and Link-Up programs.[17] Florida's criteria are the same as the federal default criteria for several programs targeted to low-income households: Temporary Assistance to Needy Families (TANF), Medicaid, Food Stamps, Supplemental Security Income (SSI), Federal Public Housing Assistance, Low-Income Home Energy Assistance Program (LIHEAP), and Bureau of Indian Affairs Programs (Tribal TANF, Head Start subsidy, National School Lunch Free Lunch Program). In Florida, a household that does not qualify under the income criterion must participate in at least one of these programs to be eligible for Lifeline support.[18] Differences between the federal default and Florida criteria are explained in Section III.A.

III. A. Changes in Eligibility Criteria

In an order issued on April 29, 2004, the FCC indicated that only slightly more than one third of eligible households in the United States actually subscribed to the program. To increase eligibility and, by extension, participation, the FCC expanded in that order the federal default eligibility criteria, to include two additional means-tested programs—the National School Free Lunch program and TANF. The FCC also increased the income based criterion from up to and at 125 percent of the federal poverty guideline (FPG) to up to and at 135 percent of FPG.[19] In Florida, the eligibility criteria already included TANF. The increase in the income-based criterion was adopted in 2005 by the ILECs with the largest Lifeline program subscribership–BellSouth, Verizon, and Sprint.[20] BellSouth, Sprint, and Verizon also adopted the National School Lunch program criterion. Except for Sprint, BellSouth, and Verizon, the other Florida ILECs have not adopted the National School Lunch Free Lunch Program criterion or the 135 percent of the FPG criterion.

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[17] The FPSC initially approved the Lifeline Program in March 1994, requiring applicants to be recipients of Medicaid, AFDC, SSI or Food Stamps. See Order No. PSC-94-0242-FOF-TL. Subsequently, the FPSC adopted expanded program-based eligibility criteria for Lifeline assistance in 1998 by replacing AFDC with Temporary Assistance to Needy Families (TANF) and including the Federal Public Housing Assistance, Section 8, and LIHEAP. The FPSC also required the ETCs to file tariffs including the criteria. These criteria became effective on April 1, 1998. See Order No. PSC-98-0328-FOF-TP. The income criterion in Florida was initially statutorily adopted in the Tele-Competition Innovation and Infrastructure Enhancement Act of 2003 for certain companies and amended in 2005 Senate Bill 1322.

[18] Eligibility for Bureau of Indian Affairs programs is based upon membership in a tribe that is formally enrolled with the federal Office of Tribal Services. There are, however, no federally-enrolled tribes to date in Florida and therefore no Florida-based Native American population that would be eligible for Lifeline and Link-Up.

[19] The FPG of 125 percent for a family of four in 2005 was $24,187.50 per year; the FPG of 135 percent for a family of four in 2005 was $26,122.50 per year. For a one-person household, it was $12,920 per year in 2005.

[20] In Florida, the three companies with the greatest number of access lines subscribing to lifeline service are BellSouth with 67.8 percent, Verizon with 15.4 percent, and Sprint with 12.5 percent (FPSC, 2005, p. 30).

Table 2
Lifeline and Link-Up Federal and Florida Eligibility Criteria, 2005[21]

Federal Default Eligibility Criteria	Florida PSC Adopted Eligibility Criteria
Income-based Criteria at 135% FPG	Income-based Criteria at 135% FPG
National School Lunch Program	National School Lunch Program
Temporary Assistance to Needy Families (TANF)	Temporary Assistance to Needy Families (TANF)
Medicaid	Medicaid
Food Stamps	Food Stamps
Supplemental Security Income (SSI)	Supplemental Security Income (SSI)
Federal Public Housing Assistance (Section 8)	Federal Public Housing Assistance (Section 8)
Low Income Home Energy Assistance Program	Low Income Home Energy Assistance Program
Bureau of Indian Affairs Programs	Bureau of Indian Affairs Programs

Eligibility criteria affect the number of eligible households for the programs and, of course, the program participation or penetration rate. However, participation can be driven by multiple factors and one of the objectives of this report is to glean further insights about those factors. Two methods of increasing participation involve promotional efforts and certification procedures.[22] Moreover, changes in certain features of the program, such as conditions for termination and reconnection may also affect participation, however subtly. Promotional efforts, certification procedures, and other recently changed program features are outlined below.

[21] See Appendix 1 for a timeline of federal and state developments in Lifeline. BellSouth adopted income-based criterion of 125 percent of FPG in 2001 as a result of a settlement agreement with the OPC that was subsequently approved by the FPSC; Sprint and Verizon adopted the 135 percent of FPG criterion in 2003 following Florida's passage of the Tele-Competition Innovation and Infrastructure Enhancement Act of 2003. This act made it mandatory for an LEC to adopt this criterion if an LEC has taken action to reduce its switched network access rates pursuant to FSA 364.164. A Florida Supreme Court decision on consolidated cases SC04-9, SC04-10, and SC04-946 affirmed on appeal a decision of the FPSC regarding rates for basic local telecommunications services. That decision was linked to a decision for the ILECs to modify the income-based criterion from 125 percent FPG to 135 percent FPG. Moreover, Section 16 of 2005 S. 1322 amended the Lifeline statute (364.10) to require the three ILECs to make that change. The increase in the income criterion took effect in September 2005 (Link-Up) and November 2005 (Lifeline) for Sprint, in September 2005 (both programs) for BellSouth, and in June 2005 (both programs) for Verizon. This requirement does not apply to Florida's ILECs with smaller Lifeline customer bases. The National School Lunch Program criterion was adopted by BellSouth in June 2005, Sprint in September 2005, and Verizon in November 2005.

[22] The studies described in Section VI find that customers of some companies have a higher probability of participating in Lifeline than do customers of other companies. This may result from differences in company practices for termination and reconnection of Lifeline customers, but the researchers were unaware of any differences between the companies in this regard.

III. B. Changes in Promotional Efforts

ILECs in Florida engage in several types of initiatives to inform subscribers about the Lifeline/Link-Up programs. These companies have promoted Lifeline/Link-Up since 1995, and those efforts have become more extensive and multi-faceted over time. The Tele-Competition Innovation and Infrastructure Enhancement Act of 2003 (FS 364.10(3)(d)) required each state agency providing benefits to persons eligible for Lifeline service to collaborate with the Department of Children & Families (DCF), the FPSC, and the telephone companies in developing procedures for promoting Lifeline participation.[23] The tasks identified to implement this policy included:

(1) reviewing the eligible programs to determine which state agencies provide benefits to persons eligible for Lifeline;[24]
(2) identifying categories of eligible consumers who are and are not currently being provided Lifeline information;
(3) evaluating existing promotional procedures and determining options for expanding those procedures to increase the effectiveness of the outreach activities;
(4) developing new procedures for providing Lifeline information to categories of eligible consumers who are not currently being provided Lifeline information;
(5) developing procedures for providing Lifeline educational materials produced by the companies to the state and federal agencies;
(6) determining the most efficient and effective approach to implement any new procedures; and
(7) considering new approaches for consumer outreach.

In 2003 and 2004, the collaborating parties continued to analyze existing promotional efforts and develop new ones. Promotional efforts in 2004 focused on "grass roots" initiatives, such as providing educational materials on Lifeline to local community organizations and setting up one-to-one forums and focus groups in local communities.[25]

BellSouth and Sprint contract with a private business, Linking Solutions, Inc., to promote the Lifeline and Link-Up programs through grassroots meetings at senior centers and churches.[26] The company assisted BellSouth and the Florida Office of Public Counsel (OPC), with the initial development of the Connect Florida Campaign—a grassroots effort designed to increase education and awareness of the Florida Lifeline and Link-up programs. Subsequently, the FPSC, legislators, Sprint, and the AARP began to

[23] The project surveys found that low-income households frequently learn about Lifeline and Link-Up from social workers, social agencies, and telephone companies. See Section V.
[24] Some states automatically enroll households in Lifeline when the household enrolls in one of the qualifying social programs. See Report and Order and Further Notice of Proposed Rulemaking, WC Docket 03-109, In the Matter of Lifeline and Link-Up, Release No. FCC 04-87, (Re. April 29, 2004.) for a summary of state approaches to enrolling households in Lifeline.
[25] FPSC, 2004 (p. 16).
[26] Linking Solutions attempts to improve its clients' marketing efficiency by identifying marketing prospects (marketing trends, demographic data, and emotional triggers) and building a loyal customer base. See www.linkingsolutions.com. BellSouth entered into a contract with the company in May 2003, and it still continues to hold events throughout the state.

participate, and FPSC staff attended Connect Florida Campaign events. Over 500 non-profit organizations have signed up as alliance partners of the Connect Florida Campaign. In that capacity, they help eligible households complete applications for Lifeline/Link-Up program assistance. The Connect Florida Campaign also convenes Lifeline/Link-Up community events to provide information about the programs and to enroll eligible participants on site. BellSouth, Sprint, and Verizon differ to some extent in how they promote the programs but their outreach efforts have informational and on-site enrollment features and objectives in common.

BellSouth and Sprint contract with Ava Parker to hold awareness meetings in various regions and venues in Florida. Verizon engages in its own outreach activities. Informational efforts include bilingual bill inserts (BellSouth and Sprint), public service announcements on radio and in newspapers (Sprint and Verizon), and customer service representatives (BellSouth, Sprint, and Verizon). In 2005, BellSouth contracted with KMR Group to produce Lifeline brochures for distribution in the public schools in the 67 Florida counties plus four research schools in Florida. Moreover, 2.6 million brochures, which included the self certification application form, were included in the welcome back-to-school packets that were sent home with students. This project involved the ILECs, the FPSC, and the OPC.

In addition to receiving information from community events, consumers also can learn about their potential eligibility for Lifeline/Link-Up through eligibility notices distributed by the DCF. Since April 2003, the DCF has included information about Lifeline in the eligibility notice to clients of Medicaid, Food Stamps, and TANF. The DCF also provides information about the program during client interviews and through brochures and posters received from the FPSC.[27]

Another means of promoting Lifeline and Link-Up was initiated at the federal level. In July 2005, the FCC announced a 16-member working group of FCC and public service commission staff to develop best practices and outreach materials for those programs. Two of the working group members are from the FPSC (Federal Communications Commission, 2005b, p. 3).

III. C. Changes in Certification Procedures

The FCC's current rules require self-certification, under penalty of perjury, for the federal default states and allow (but do not require) states that operate their own Lifeline and Link-Up programs to institute stricter measures.[28] Florida's certification procedure conforms to the federal default procedure as a result of a settlement agreement among the FPSC and BellSouth, Sprint, and Verizon.[29] Florida's certification process requires the consumer to sign a document, under penalty of perjury, attesting to his or her participation in one of Florida's Lifeline eligible programs. The consumer is also required

[27] FPSC, 2004 (p. 24).
[28] 47 C.F.R. Section 54.409(b).
[29] FPSC Docket No. 040604-TL.

to identify the programs in which he or she participates. The document must be submitted to the company that provides basic telephone service to the consumer. The simplified certification procedure was approved February 1, 2005, with an effective date of March 24, 2005; the resulting impacts on program participation must be reviewed after one year. Before the simplified process was implemented, the consumer had to submit copies of letters or statements that attested to his or her actual participation in a given program (i.e., Medicaid, Food Stamps, SSI, TANF, LIHEAP, or Federal Public Housing Assistance).

The simplified certification process augments an income-based process available to consumers through the OPC. Under this process, a consumer may complete an enrollment form and submit proof of household income through supporting documentation to the OPC. Acceptable documents include: U.S. income tax statement, W-2 wage and tax statement, social security statements of benefit, Veteran's Administration statement of benefits, public/private pension statement, unemployment benefit statement, worker's compensation statement of benefit, divorce decree, child support decree, and other official agency documents.

The ILECs are responsible for verification of eligibility of consumers who have applied for Lifeline services using program-based eligibility criteria.[30] They must do so on an annual basis in keeping with the FCC's order of April 2004. The OPC completes the verification process of Lifeline consumers who apply using an income-based criterion.

III. D. Other Policy Changes to Lifeline and Link-Up

Legislation enacted in 2005 Senate Bill 1322 (codified as Section 364.10, *Florida Statutes*) made several policy changes that generally appear to conform to federal policy. A provision related to Lifeline/Link-Up expands the type of companies that could provide Lifeline/Link-Up assistance to include ETCs, provided such companies agree to meet specified conditions. In reality, this change conforms to FCC's Universal Service rules requiring that a telecommunications carrier offer Lifeline and Link-Up services in order to be designated an ETC.[31] To date, the FPSC has designated all ILECs and two CLECs, Knology and Budget Phone, as ETCs in Florida—and the FCC has designated three wireless providers to serve as ETCs in Florida—Nextel Partners, Sprint, and ALLTEL.[32] The number of households participating in Lifeline/Link-Up has the potential of expanding as more companies become designated as ETCs. ETCs must use Lifeline program eligibility criteria established by the FPSC. BellSouth, Sprint, and Verizon have

[30] Other methods of verification could include verification by migrant centers, senior centers, and social service agencies.
[31] FCC Universal Service Report and Order, CC Docket 96-45, May 8, 1997; FCC Order 97-157.
[32] As of December 31, 2005, there were two pending CLEC petitions at the FPSC (American Dial Tone and Nexus Communications) and four pending wireless petitions at the FCC (TracFone, AT&T Wireless, Southern LINC and ALLTEL [for rural areas]).

the income eligibility criterion of 135 percent and National School Lunch Free Lunch Program as additional criterion.[33]

Section 364.10 also provides that if an ETC believes a Lifeline customer no longer qualifies for Lifeline service, the ETC must provide a termination letter notifying the customer of possible termination, and allowing that customer to provide proof within 60 days of his or her qualification for Lifeline. This requirement corresponds to the FCC's requirement in Order FCC 04-87.[34] Although the FPSC had a rule related to refusal or discontinuation of service, the rule did not include the 60-day window of opportunity for consumers to establish proof. Section 364.10 seems to afford consumers somewhat more latitude than the FPSC rule that pre-dated it. In the bill, companies may require consumers with outstanding debt on their local bills to make payment arrangements as a condition for continued Lifeline service, whereas the pre-dating FPSC rule appears to allow companies to disconnect if the debt associated with some elements of the bill is not paid.[35] Another provision of Section 364.10 conforms to both an FCC order and an FPSC order that have been in effect since 1997. Specifically, an ETC is prohibited from charging a Lifeline consumer a service deposit in order to initiate service if that consumer voluntarily elects to receive toll blocking, which blocks people from making long distance calls from the telephone.[36] The increase from 125 percent to 135 percent FPG for the income-based eligibility criterion is codified in the bill and is already in effect for BellSouth, Sprint, and Verizon but not for the other companies providing local telephone service in Florida. Section 364.10 requires the FPSC to develop rules to administer the ETCs' implementation of Lifeline service in Florida.

Most of the Lifeline-related provisions in Section 364.10 conform to past FPSC decisions or federal policies rather than reflect new policies. Therefore, we would not expect these changes to substantially affect participation rates in Florida's Lifeline/Link-Up programs in the future.

[33] These requirements are also in FPSC Order PSC-04-0781-PAA-TL, In re: Adoption of the National School Lunch Program and an income-based criterion at or below 135percent of the Federal Poverty Guidelines as eligibility criteria for the Lifeline and Link-Up programs, August 10, 2004, although this order was never put into effect.

[34] FCC, 2004, paragraph 22.

[35] FPSC Rule 25-4.113, Refusal or Discontinuance of Service by Company. For nonpayment of bills for telephone service, including the telecommunications access system surcharge referred to in subsection 25-4.160(3), F.A.C., provided that suspension or termination of service shall not be made without 5 working days' written notice to the customer, except in extreme cases. The written notice shall be separate and apart from the regular monthly bill for service. A company shall not, however, refuse or discontinue service for nonpayment of a dishonored check service charge imposed by the company, nor discontinue a customer's Lifeline local service if the charges, taxes, and fees applicable to dial tone, local usage, dual tone multifrequency dialing, emergency services such as "911," and relay service are paid. No company shall discontinue service to any customer for the initial nonpayment of the current bill on a day the company's business office is closed or on a day preceding a day the business office is closed.

[36] FCC, 1997, paragraph 398. Also, see the FPSC's Order PSC-97-1262-FOF-TP.

Section IV -- Household Eligibility Numbers

IV. A. Number of Eligible Households

We now turn to identifying the number of eligible households and the enrollment numbers for Lifeline and Link-Up, which are based on research by the Shimberg Center and reports from ILECs[37] to PURC for purposes of the econometrics studies.[38] Table 3 shows the eligibility and enrollment numbers reported by the FPSC, the aggregated enrollment numbers reported by the Florida ILECs to PURC, and the Shimberg estimate of the number of eligible households for 2005. In 2005, Florida changed the eligibility criteria to include households whose incomes are at or below 135 percent of FPG (up from 125 percent of FPG), so we show the number of eligible households for both the 125 percent FPG criterion and 135 percent FPG criterion for that year. According to the Shimberg Center estimates, changing the eligibility criteria from 125 percent of FPG to 135 percent of FPG increased by 94,386 the number of eligible households in 2005 (from 1,156,788 to 1,251,174). These additional households represent a net increase of 8 percent in the number of eligible households for 2005.[39]

Table 3 shows discrepancies between PURC's data and the data reported by the FPSC. With respect to enrollment in Lifeline, it appears that discrepancies result from timing differences in data sources. The PURC enrollment data represent the number of participating households at the end of each year, except for 2005; for that year the data represent the number of households as of mid-year. These data are collected from the ILECs. The FPSC enrollment data represent the number of participating households at the end of years 2000 through 2003, with the 2004 and 2005 data reflecting enrollment through the third quarter of each of those years. The FPSC data through 2003 were obtained from the ILECs and the Universal Service Administrative Company. The FPSC enrollment data for 2004 and 2005 are collected from the ILECs. The number of eligible households is also different in the FPSC and Shimberg reports. The FPSC eligible household data were calculated using information obtained from the Office of Demographic Research of the Florida Legislature and information obtained from the FCC. We describe the Shimberg Center analysis in the following subsection.

[37] Companies providing data included BellSouth, Sprint, Verizon, Alltel, Frontier Communications of the South, ITS Telecommunications, Northeast Telephone company dba NEFCOM, and TDS Telecom / Quincy Telephone.

[38] Section VI of this report discusses the econometrics studies.

[39] The increase from 125 percent to 135 percent of FPG actually increases the number of eligible households by 12 percent based on income alone. However, this percentage is reduced by 4 percentage points because the higher income criterion of 135 percent of FPG decreases by 27 percent the number of households that would qualify under other social programs that trigger Lifeline eligibility and not under the income criterion. Raising the income threshold decreases the number of households that qualify under one or more of the social program criteria and not under the income criterion. Appendix 2 details these calculations.

Table 3
Lifeline Eligibility and Participation in Florida, 2000-2005

Year	Criteria Percent of FPG	FPSC Reports			PURC Data Collected From Shimberg and ILEC Reports[a]		
		Enrollment	Eligible Households	Participation Rate	Enrollment	Eligible Households	Participation Rate
2000	125%	134,227	816,278	16.4%	NA	1,021,238	NA
2001	125%	144,610	850,000	17.0%	NA	1,047,505	NA
2002	125%	142,548	819,112	17.4%	NA	1,076,891	NA
2003	125%	148,905	819,112	18.2%	138,417	1,103,502	12.5%
2004	125%	154,017	1,100,000	14.0%	148,095	1,126,233	13.2%
2005	125%	139,261	1,122,593	12.4%	152,802	1,156,788	13.2%
	135%					1,251,174	12.2%

[a]The ILECs reported enrollment; eligible household data are from the Shimberg Center study.
Source: Williamson, 2006.

In Table 3, PURC's data use mid-year 2005 reports from the ILECs regarding eligible households to calculate a 2005 participation rate, whereas the FPSC used more current September 2005 participation data from the ILECs. As a result, PURC's calculated participation rate for 2005 does not take into account the loss of subscribers experienced in the third quarter due to verification procedures being enacted by the ILECs. If the September 2005 ILEC enrollment figures were used (instead of mid-year 2005) along with the Shimberg estimate of eligible households, Table 3 would show PURC-estimated participation rates of 12.0 percent (instead of 13.2 percent) for the 125 percent of FPG criterion and 11.1 percent (instead of 12.2 percent) for the 135 percent of FPG criterion.

IV. B. Demographic and Socioeconomic Characteristics of Florida Households

The study by the Shimberg Center: (1) provided demographic and socioeconomic characteristics of Florida households;[40] and (2) estimated the eligible number of households for Lifeline and Link-Up in Florida. We note that program eligibility is determined for households and not for individual subscribers. We begin with the summary of the demographic and socioeconomic characteristics of Florida households.

Table 4 shows the number of households in Florida by income level for the years 2000 through 2005. We focus on the number of households that are at or below 135 percent of FPG and those that are at or below 125 percent of FPG because these are the income levels used to define eligibility for Lifeline and Link-Up. The percentages in

[40] The demographic and socioeconomic characteristics of Florida households served as inputs for the econometric studies described in Section VI of this report.

Table 4 refer to the number of Florida households qualifying under income criterion used to trigger eligibility for Lifeline/Link-Up relative to the total number of Florida households that would be eligible under the combination of qualifying social programs and the FPG income criterion. As is apparent, the number of eligible households that qualify under the income criteria represents a smaller proportion of the total number of eligible households in 2005 than in 2000. However, program eligibility through social programs accounts for only 6.1 percent in 2005 with a 135 percent of FPG criterion and 9.1 percent in 2005 with a 125 percent of FPG criterion. So the income criterion under either FPG scenario really captures the lion's share of households.[41]

Table 4
Number of Households in Florida by Income Level, 2000-2005

Year	Florida Households by Income Level			
	At or below 125 percent of FPG		At or below 135 percent of FPG	
	Number of Households	Percent of Total Eligible Households	Number of Households	Percent of Total Eligible Households
2000	953,718	93.4	1,067,881	95.4
2001	972,977	92.9	1,089,435	95.1
2002	992,864	92.2	1,111,635	94.6
2003	1,009,606	91.5	1,130,260	94.2
2004	1,027,042	91.2	1,149,806	94.0
2005	1,044,313	90.3	1,168,846	93.4

Source: Williamson, 2006.

Table 5 provides some demographic details on low-income households in Florida for the year 2005. The number of low-income households and percent of total low-income households in Florida are shown by age, race/ethnicity, gender of the head of household, and education level of the head of household, and by whether the household owns or rents its dwelling space. Income levels are divided into households at or below 125 percent of FPG and at or below 135 percent of FPG. Categories for age of the head of household are 25 to 54 years of age, 55 to 74 years of age, and greater than 74 years of age. Categories for race for heads of household are white non-Hispanic, African-American non-Hispanic, Hispanic, and all other. Education level for heads of household are categorized as no high school diploma, high school diploma, and all other.

[41] This does not imply that the social program criteria are unimportant for Lifeline eligibility. Some households may find it easier to verify that they qualify by eligibility status rather than by income. It may also be easier in some instances for telephone companies to verify household eligibility based on social program participation than on income level.

Table 5
Demographic Characteristics of Low-Income Households in Florida, 2005

Household Characteristics	Florida Households by Income Level			
	At or below 125 percent of FPG		At or below 135 percent of FPG	
	Number	Percent of Total	Number	Percent of Total
Age				
25 to 54	96,228	9.2	105,186	9.9
55 to 74	477,100	45.6	531,291	45.4
Over 74	286,082	27.4	319,264	27.3
Race/Ethnicity				
African-American	247,221	23.6	268,892	23.0
Hispanic	212,425	20.3	236,709	20.2
White	545,065	52.1	619,399	52.9
Other	40,899	3.9	45,344	3.9
Female Head of Household	590,112	56.4	652,243	55.7
Own/Rent				
Own	495,114	47.4	567,116	48.5
Rent	550,496	52.6	603,228	51.5
Education				
No HS Diploma	427,437	40.9	470,769	40.2
HS Diploma	311,626	29.8	352,834	30.1
Other	306,547	29.3	346,741	29.6

Source: Williamson, 2006.

Table 5 provides a demographic and socioeconomic profile of households that qualify for Lifeline and Link-Up.[42] The majority of eligible households are headed by persons 55 years or older (73 percent). Most are headed by women (56 percent) and most heads of household have no post-high school education (70 percent).[43]

IV. C. Methodology for Estimating the Number of Eligible Households

As noted above, consumers may be eligible for Lifeline and Link-Up through their enrollment in several social programs: TANF, Medicaid, Food Stamps, SSI, Federal Public Housing Assistance (Section 8/Housing Choice Vouchers), LIHEAP, Bureau of

[42] This table omits households that qualify for Lifeline or Link-Up using the social program criteria and not the income level criterion. Demographic and socioeconomic profile data are generally unavailable for households that qualify under the social program criteria. As Table 4 shows, these households are a small percentage of the total number of eligible households, so we believe that Table 5 provides a reasonably accurate profile of eligible households.

[43] These demographics could provide guidance for efforts to market Lifeline or Link-Up. For example, some efforts might be targeted at information outlets frequently used by senior citizens or women.

Indian Affairs Programs, and the National School Lunch Free Lunch Program. The methodology for the Shimberg study uses the concept of household formation rate to standardize the definition of households that are included in the estimates.[44] In coming up with estimates for eligible households, the Shimberg Center had to overcome at least three major challenges. First, the social service programs that trigger eligibility for Lifeline and Link-Up have different eligibility criteria, including different income eligibility thresholds. For example, income eligibility thresholds are more generous for TANF, Medicaid (in specified cases), and LIHEAP than for the Lifeline and Link-Up income criterion (now 135 percent of FPG). They are less generous for food stamps (130 percent of FPG or less, unless the person receives TANF or SSI), SSI, and the National Free Lunch program (130 percent of FPG) than for Lifeline and Link-Up. Second, households that receive one set of program benefits from an eligible social service program may be, and usually are, eligible for benefits from other eligible social service programs. For example, many recipients of TANF benefits are recipients of Medicaid and food stamps. Therefore, Floridians' enrollment in multiple programs in the past may have resulted in duplication in reported Lifeline/Link-Up eligibility numbers. Third, in some of these programs, recipients of TANF, Medicaid, food stamps, free lunches, and SSI are reported as persons and not as households, whereas recipients of LIHEAP and Section 8 vouchers/Housing Choice vouchers are reported as households. Because there is no Lifeline/Link-Up enrollment triggered by the Bureau of Indian Affairs programs in Florida, no household eligibility numbers are reported for Lifeline and Link-Up.

The Shimberg Center estimated the number of eligible households as follows. It first estimated the number of eligible households under 125 percent of FPG and under 135 percent of FPG using census data. Shimberg then estimated the number of additional eligible households that are created by including TANF, Medicaid, and Food Stamps programs in the Lifeline/Link-Up eligibility criteria.[45] Using DCF case numbers,[46] Shimberg estimated the number of households and household size and was able to identify how many of these households had income levels above 125 percent of FPG and up to and including 135 percent of FPG. Case numbers were used because a case number captures all the social programs administered by the DCF in which a given household may be enrolled. This methodology therefore reduced the probability of duplicating households in the eligibility estimates. The DCF case number data were available only

[44]The household formation rate is the household count for a county for a particular characteristic (such as home ownership) by age group, divided by the population of the county in that age group. This factor is used to determine household characteristics for the county (Williamson, 2006).

[45] Households that qualify for SSI have income levels below 125 percent of FPG, so SSI does not increase the number of eligible households. Households that participate in the National School Lunch Free Lunch program have income levels at or below 130 percent of FPG, so the Free Lunch program does not add eligible households for under the 135 percent of FPG criterion. When estimating eligible households using the 125 percent of FPG criterion, Shimberg did not add eligible households for Free Lunch because reliable statewide data could not be found that would have allowed a reasonably accurate estimate of the households that qualify for Lifeline and Link-Up only because they are in the Free Lunch program. We conclude that this omission does not have a significant effect on the Shimberg estimates because, according to the Shimberg Center, the Free Lunch program appears to be undersubscribed in Florida and some of the participants likely also participate in other programs for which the Shimberg Center was able to obtain data.

[46] A case number is a number identifier that allows DCF to track household and individual participation in social programs.

for the years 2003-2005, so Shimberg estimated the years 2000-2002 based on the 2003-2005 growth trends.

Using data from the Florida Department of Community Affairs, the Shimberg Center estimated the number of households in LIHEAP that had household income levels above 125 percent of FPG and up to and including 135 percent of FPG.[47] Finally, using U.S. Department of Housing and Urban Development (HUD) data, the Shimberg Center estimated households that would be made eligible by the federal housing program. HUD housing authority data (supplemented by a Shimberg Center survey of individual housing authorities) were aggregated up to the county level for 2001-2005. County-level growth rates for 2001 to 2002 were used to estimate county-level participants for 2000. To avoid double counting households, the Shimberg Center used household-level HUD data for 2004 to estimate the number and distribution of households that would qualify for the Lifeline program under both the income criterion and the federal housing program criterion.

To conclude, the Shimberg Center estimated the number of eligible households at or above the 125 percent of FPG criterion and up to and including the 135 percent of FPG criterion that are not captured by these income criteria exclusively due to more generous income guidelines of certain social programs that trigger Lifeline/Link-Up eligibility in Florida. For 2005, eligibility under these social programs increased the number of qualifying households by 103,959 above the number of households that would have been eligible exclusively under the 125 percent FPG criterion, and by 76,395 above the number of households that would have been eligible exclusively under the 135 percent FPG criterion. Appendix 2 Tables 1-3 provide a breakdown of these data by county.

[47] LIHEAP data were available only at the state level and not at the county level, so Shimberg estimated county-level participation by spreading the state data across counties in proportion to the county population census data.

Section V – Surveys of Factors Affecting Program Enrollment

As we note above, policymakers in Florida have been concerned that Florida's Lifeline program participation rate is too low. The participation rate is defined as the number of households participating in the program divided by the number of eligible households. Both the number of eligible households and the number of enrollees in Lifeline/Link-Up must be accurate for the participation rate to be accurate. This report uses the number of enrollees reported by ILECs in Florida. The Shimberg Center's study provided the number of eligible households which was the topic of discussion in Section IV. We believe the Schimberg Center's study, due to its well-conceived methodology, provides more accurate numbers of eligible households than has been previously available. Interestingly, as Table 3 shows, the Shimberg Center's household eligibility numbers are close to the numbers reported by the FPSC, particularly in 2004. Therefore, it appears that in past years Florida's policymakers have been relying on reasonable Lifeline participation rates estimates.

We now turn our attention to the issue of why households do or do not participate in the Lifeline program.[48] We address households' decisions to participate or not participate in Lifeline through two types of research: (1) surveys of Floridians' knowledge and attitudes toward Lifeline; and (2) econometric analyses of participation rates. Surveys are important because they allow researchers to ask for information that is unavailable in existing reports, such as how consumers learn about Lifeline and Link-Up. We summarize the findings of the surveys in this section. Section VI analyzes the econometric studies.

Dr. Justin Brown conducted four surveys[49] to examine factors that affect program participation: (1) in-person interviews of Floridians who attended Lifeline/Link-Up outreach programs in various parts of the state to better understand their levels of awareness and comprehension of the programs and why they ultimately decided to enroll or not enroll in Lifeline; (2) telephone interviews of Floridians concerning their use of communications services, knowledge of Lifeline, and attitudes toward Lifeline; (3) a written survey of low-income households to ascertain their awareness of Lifeline and their reasons for non-participation if they were aware of the program, qualified for it, and did not participate;[50] and (4) written surveys of households who qualify for Lifeline and had disconnected their traditional telephone service.[51]

The surveys found the following:

- Lack of awareness and distrust of support programs for low-income households are the most significant barriers to enrollment.

[48] We also consider participation in Link-Up. We focus our discussion on Lifeline because the eligibility criteria are the same for the two programs.
[49] The four reports of these surveys are available at http://www.purc.ufl.edu.
[50] The survey instrument was tested for validity with door-to-door surveys in Gainesville, Florida.
[51] The survey was sent to all customers who disconnected from BellSouth during the time period. Only customers who qualified for Lifeline were considered in the analysis.

- Lifeline participants learn about Lifeline mostly through social workers or a social service agency, the telephone company, or a friend or family member. Learning about the program through a source trusted by the potential enrollee is important to a household's decision to enroll in the program.[52]
- Community-based outreach efforts conducted by people who are trusted by the potential enrollee appear to increase Lifeline participation in Florida.
- Outreach events have been more effective in informing seniors than younger Floridians about Lifeline; these events also have been more effective in enrolling seniors than younger residents in the program.
- Many new Lifeline enrollees already had phones and were previously unaware of Lifeline.[53]
- Almost all low-income households in Florida have wireline phones in their homes even though only a small fraction take advantage of the Lifeline program. About 50 percent of low-income households had a cellular phone, about 50 percent had Internet access, and about 50 percent had either cable television or Direct Broadcast Satellite (DBS) service in their homes.
- Customers who qualify for Lifeline and disconnect from traditional telephone service do so because they move, believe they cannot afford phone service and choose to buy other things, including preferring to use a cellular phone.
- Floridians are generally supportive of the Lifeline program as it currently exists.

We discuss the details of each survey instrument next.

V. A. Focus Groups at Outreach Events

Five focus groups were convened in Florida in summer 2005 to respond to two questions: (1) why do qualified, low-income households not participate in Lifeline? and (2) how effective are Lifeline community outreach efforts in Florida? These focus groups included people who attended Lifeline and Link-Up rally events or workshops as part of the Connect Florida Campaign. Focus groups were held in Ft. Lauderdale, Tampa, Gainesville, Jacksonville, and Miami. A total of 46 people participated. In terms of race and ethnicity, 7 were Hispanic, 34 were African-American, and 5 were white. Females outnumbered males 35 to 11. The largest focus group had 13 people (in Ft. Lauderdale) and the smallest 6 (Miami). All participants were over age 50, and 31 participants were 65 years and older. The group discussions were conducted in English except for the one in Miami, which was conducted in Spanish and then translated into English. Each group

[52] The importance of social workers and social agencies in marketing Lifeline and Link-Up is consistent with the objectives of Florida's Tele-Competition Innovation and Infrastructure Enhancement Act of 2003 (FS 364.10(3)(d)), requiring each state agency providing benefits to persons eligible for Lifeline service to collaborate with the DCF, FPSC, and the telephone companies in developing procedures for promoting Lifeline participation.

[53] As of March 2004, 88.3 percent of all Florida low-income households had telephones, according to the FCC. See FCC, 2005a, Table 6.5.

addressed the same set of questions that were included in a focus group interviews script.[54]

The participants in the outreach events generally believed:

- *Lifeline is essential and provides needed connection to others*. All the focus groups expressed a strong sentiment that wireline telephone service is essential because it enables subscribers to remain connected with friends, family, doctors and first-responders. Many expressed concerns about living alone and not being able to drive. Some are caregivers to other household members with health issues. People use the telephone when there is an important need, but they also use it to order food and prescriptions, and to remain part of a social network.

- *Lifeline should cover only wireline service*. When asked whether Lifeline should be expanded to cover communication services other than wireline service, the majority expressed a strong preference that Lifeline should only cover wireline phone service. Two of the focus groups concluded that cell phones were difficult to use and not as reliable as wireline phone service, while two of the focus groups observed that cell phones, because of their portability, should be eligible instead of wireline phone service for Lifeline discounts. Among all focus group participants, only five said that they had a cell phone. Overall, the majority of focus group participants believed that cell phones, cable television, and the Internet were not as essential as wireline phone service and therefore should not be discounted under Lifeline.

- *They are entitled to Lifeline benefits.* While this sentiment is not consistent in all focus groups, two of the focus groups believed they were entitled to Lifeline and government assistance programs because they have worked and paid taxes for most of their adult lives.

- *Lifeline eligibility criteria appear adequate*. Only a couple of participants expressed concern about how to know if someone falls within the 135 percent of FPG criterion. While several participants observed that people may fall through the cracks because the income threshold was too low, the majority found no fault with the list of government assistance programs that triggered eligibility for Lifeline or the program's income eligibility guidelines.

- *Lifeline marketing should be expanded*. Focus group participants provided a number of suggestions for boosting awareness, ranging from word of mouth to more community outreach like the Lifeline event or workshop, advertising on billboards, television, radio and newspapers and distributing fliers and materials at government assistance agencies, churches, libraries, low-income housing and community centers. A number of participants indicated more social workers

[54] For the methodology used for the focus groups and the script used for leading discussions in those groups, see Brown and Jamison (2005). The findings below are distilled from that report.

should explain and encourage people to sign up for Lifeline. One participant remarked that the social worker in her complex tries to automatically enroll tenants in Lifeline when they become new residents. Two participants suggested that telephone companies insert Lifeline materials in telephone bills or in letter form with bills, something which they recalled receiving in the mail.

Based on these surveys, the researchers concluded:

- *Connect Florida Campaign events and workshops were effective in informing seniors (but not non-seniors) about Lifeline/Link-Up benefits and getting them to enroll, but not necessarily in increasing low-income household access to telephone service.* Eighty percent (37 out of 46) of focus group participants enrolled in Lifeline as a result of these events.[55] In nearly all cases, those who signed up as a result of the event were already telephone subscribers. The other event participants were already enrolled or did not qualify. Those who were already enrolled learned about Lifeline from a social worker, friend, family member, or the telephone company. Two participants who were already enrolled did not know that they were enrolled until after the event or workshop. Community-based outreach efforts conducted by people who are trusted by the potential enrollees appear to increase Lifeline participation in Florida.[56]

- *Lack of awareness and distrust of assistance programs are barriers to enrollment.* Overwhelmingly, focus group participants agreed that lack of awareness is the primary reason why eligible households do not participate in Lifeline. Most participants expressed that the event or workshop was the first real exposure they had to understanding Lifeline and the first opportunity they had to enroll in the program, even though information is widely distributed.

  A second barrier was general distrust in programs like Lifeline with which people are unfamiliar. Four focus groups indicated seniors are generally uncomfortable in signing up for a program about which they know very little. Three focus groups observed that personal contact from a trusted source would allay fear and increase enrollment in such an instance, including having people at the event or workshop to explain Lifeline, illustrate potential savings on monthly phone bills, and assist in filling out paperwork.

- *The Lifeline criteria and forms are generally understandable*.[57] The majority of focus group participants understood the Lifeline qualification criteria. Participants were also provided with two different enrollment forms that may be completed to enroll in Lifeline. The first was a copy of the form that was distributed and filled out at the event/workshop. Administered by the OPC, the form asks for contact

[55] Approximately three-fourths of eligible households are headed by someone 55 years of age or older. See Section IV.
[56] Telephone companies, the FPSC, and the OPC have representatives at these community events.
[57] This is important because about 40 percent of the heads of eligible households do not have a high school diploma. See Section IV.

information and lists the current income guidelines to participate in Lifeline. The second form, administered jointly by Sprint, Verizon, and BellSouth, asks the applicant for contact information and to check off participation in one of the government assistance programs that condition Lifeline eligibility. Participants did not have difficulty understanding either form, but generally believed the phone company form was simpler to comprehend and complete. The FPSC also has an enrollment form that it uses, available on the FPSC's website http://www.psc.state.fl.us/. To enroll in Lifeline, a customer needs to complete only one of these three forms.[58]

- *There were no significant differences between the Spanish-speaking group and the English-speaking groups*. There was only one difference between the four English-speaking focus groups compared to the Spanish-speaking focus group. Participants in the Spanish-speaking focus group did not express any concerns or fears over signing up for a government program like Lifeline with which they were unfamiliar while the four English-speaking groups harbored reservations. However, one might be careful about drawing too much of a conclusion from this analysis because the Spanish-speaking focus group only had six participants from one setting (Miami).

Clearly, this survey used a small but representative sample of low-income seniors in Florida. More research would need to be done to determine whether the findings above could be applied to program-eligible consumers in other age groups who make greater use of cell phones and other communications devices.

V. B. Telephone Survey on Use of Communications and Support for Lifeline

The Bureau of Business and Economic Research (BEBR), University of Florida, conducts a telephone survey of approximately 500 Florida households each month.[59] This survey includes questions that are demographic, as well as reflective of consumer behavior and attitudes toward the economy. In addition to questions that BEBR asks for the FPSC on a monthly basis, BEBR added several questions for the surveys in July, August, and September 2005 that specifically relate to consumer use of telecommunications services and Lifeline support. Collectively, the survey generated 1,493 valid responses over the three-month period. Respondents were not classified as

[58] The researchers found no evidence that multiple forms created any confusion for potential enrollees, but any investigation into simplified enrollment should consider this issue.

[59] Every month, BEBR randomly generates 4,750 Florida phone numbers using GENESYS Sampling Systems software. The pool from which numbers are drawn consists of all Florida (phone number) blocks that have at least one active number. This sample yields all kinds of phone numbers: businesses, residences, disconnected numbers, and cell phone numbers. Eligible respondents are households of Florida residents with at least one member age 18 or older. Respondent selection among eligible household members is done by the YMOF (Youngest Male/Oldest Female) method. BEBR does not conduct the monthly survey on respondents with cell phones as they cannot be tied to a geographic location with available data.

Lifeline program participants or non-participants so it is difficult to determine the extent to which their status affects their responses.

Of the respondents, over a fourth were senior citizens and almost a fourth were retired, most had at least a high school education, almost 65 percent lived in a single family detached house and almost 80 percent were homeowners. The average median annual household income was between $40,000 and $50,000.

Types of service. Respondents were asked about the types of communications services they used. As Table 6 reflects, almost all households subscribe to local wireline service telephony, two-thirds to cable television, and over a fourth to DBS. Only 12 percent use prepaid cellular service. Nearly 30 percent had considered disconnecting their wireline phone and relying only on cellular, primarily for reasons of convenience and to save money.

Table 6
Types of Communications Services Used by Floridians, 2005

Communication service	Percent
Subscribe to Telephone (wireline)	96.0
Subscribe to Cable Television	66.0
Subscribe to DBS (e.g., DirecTV, Dish Network)	28.0
Subscribe to Cellular Phone Plan	58.3
Use Prepaid Cellular	12.0

Source: Brown, 2006a.

Responses to the survey provide some insights into relationships between demographics and usage:[60]

- A significant demographic factor for use of all the services appears to be income. More affluent households (with at least $50,000 per year) are more likely to subscribe to wireline telephony, cable television, and DBS services, and less likely to use prepaid cellular than are less affluent households. Income is more significantly related to local wireline and prepaid cellular than to cable television and DBS.

- Subscriptions to local wireline telephony and cable television service appear to be more prevalent in the suburbs than in rural or urban areas, whereas use of DBS appears to be more pervasive in rural areas than in urban or suburban areas.

- The type of living arrangement also seems to matter: local wireline is used more in subscriber-owned households than in other households; cable television is used less in mobile homes or trailers than in other types of homes but DBS is used

[60] All demographic groups have demonstrated an increase in the use of more advanced telecommunications technologies over the past few years. See, for example, DeMello, 2005.

more in mobile homes or trailers than in other types of homes. Prepaid cellular is found more in rental and apartment units than other types of homes.

- Age is relevant to cable television and DBS usage. Households with members under the age of 50 years old are more likely to subscribe to cable television than other households, but are less inclined to do so if there is a household member under the age of 18 years old or over the age of 65 years old. Interestingly, households with two members or households with at least one member under 18 years old are more likely to subscribe to DBS than are households with different membership compositions.

- Health seems to be a factor primarily for users of prepaid cellular service, with those reporting to be in poor or fair health more likely than their healthier counterparts to use this type of service.

- The size of households seems to be an important factor for at least two types of services—cable television and DBS. Larger households (5 or more members) are less likely to subscribe to cable television services, whereas households of two or more members are more likely to subscribe to DBS.

Most frequently used type of communications service for local calls. Almost three-fourths of respondents indicated they use wireline phones most often to make local calls, as opposed to other communications modes. A fifth of all respondents indicated that they use cellular phones through a monthly calling plan and only 1 percent use prepaid cellular service most often. The remaining 4 percent use other types of services (payphone, broadband) or indicate they did not know what they used most often. Using cellular phones (with calling plans) to make local calls more than other modes of communications is positively correlated with households being headed by males, by adults (under 50 years old), by healthier adults, and by adults employed outside the home. These households also tend to be higher income (earning at least $50,000 annually) and tend to have more than one person living in the household. There are no statistically significant factors for households that make local phone calls most often using wireline services.

Most important communications service. Respondents were asked which one of the following types of communications services they believed to be most important to their households: wireline telephone service, monthly cell phone service, prepaid cellular service, Internet access, cable television service, and DBS. As reflected in Table 7, local wireline phone service was rated most important at 42.7 percent, followed by cell phone monthly plans at 26.5 percent.

Table 7
Communications Service Most Important to Florida Households, 2005

Communication Service	Percent
Local phone (wireline)	42.7
Cell phone	26.5
Internet Access	8.8
Cable Television	8.6
DBS (e.g., DirecTV, Dish Network)	4.7
Pre-paid Cellular	1.4
Don't know	5.2
Refused	1.9

Source: Brown, 2006a.

Several factors appear to be important with respect to these responses:

- Respondents who rated cell phone use as most important were more likely to be male, more likely to be healthy, more likely to be affluent (with household incomes of at least $50,000), less likely to reside in a suburban area, and more likely to be younger (under 50 years old) than persons who prefer other forms of communications.

- Like cellular phone use, Internet access was typically considered most important by those who were younger, were more affluent, or were living in the suburbs.

- Relatively less affluent households (with household incomes of under $50,000) typically considered wireline telephone service their most important communications service, as did persons who did not work outside the home or were part of a household that included a senior citizen.

- DBS was rated more important by males than by females. It was also rated more important by rural residents than by residents in urban or suburban areas.

Overall Support of Lifeline and Extension of Discount. The FCC has recently designated three wireless providers serving Floridians as ETCs, but the program has historically applied to wireline local telephone service. In keeping with that point, respondents were informed: "Currently, the Lifeline Program provides a monthly discount to low-income households who subscribe to traditional local phone service (via wire) and meet specific income or government assistance criteria." Prior to learning about Lifeline during the survey, only about 20 percent of the households surveyed had heard of Lifeline, regardless of the household income. African-Americans (26 percent) were more likely to be aware of it than whites (19 percent). Eight percent of the respondents' households currently subscribe to Lifeline. Of the Lifeline subscribers who responded, approximately 80 percent also have cable television.

The survey then asked respondents if they supported the existing Lifeline discount for wireline service. Nearly 7 of 10 respondents indicated their support. A follow-up question asked if respondents would be in favor of extending the discount to make other types of communication service more affordable to low-income households: monthly cell phone service, prepaid cellular, Internet access, cable television service, DBS, and Voice over Internet Protocol (VoIP). Table 8 indicates the responses to: (1) whether respondents support the existing Lifeline discount on wireline service; and (2) whether they would like to see it applied to communications services other than wireline. This question did not explain what the cost implications of extending discounts to other services would be. More than half the respondents would like the discount to be applied to Internet access and monthly cell phone plans. Slightly less than half opted for its application to cable television, 43 percent supported its application to prepaid cellular, and around a third to DBS and VoIP.

Table 8
Public Support in Florida for Lifeline Discounts by Service, 2005

Type of Communication Service	Percent in Favor
Current Lifeline Discount (wireline)	69.1
Internet Access	56.6
Cell phone	50.6
Cable Television	49.3
Prepaid cellular	43.4
DBS (e.g., DirecTV, Dish Network)	33.2
VoIP (broadband telephone)	32.1

Source: Brown, 2006a.

Several statistically significant factors characterize the almost 70 percent of respondents who favor the existing Lifeline discount that applies to wireline telephone service; these respondents are more likely to rent than own their house, less likely to live in the suburbs than in rural and urban areas, and more likely to be in a household that included a person older than 65 years of age.

The typical profile of a respondent who supported applying the Lifeline program discount to Internet access is a renter, under the age of 50, and Hispanic or African-American.

The typical profile of a respondent who expressed support for applying the Lifeline program discount to monthly cellular phone service plans and cable television is a renter, under the age of 50, in fair or poor health, living in a rural or urban area, is either Hispanic or African-American, or had less education than a college degree. Respondents supporting the extension of the Lifeline program benefit to prepaid cellular service had many of the same profile characteristics, in addition to having an elderly household member (or members). The inclusion of an elderly person (or persons) in a household was also a statistically significant characteristic of respondents supporting Lifeline discounts to cable television service.

V. C. Survey of Low-Income Households

To provide greater insight into low-income Floridians' awareness of and participation in Lifeline, Dr. Brown conducted a written survey in the fall of 2005, using a random sample of low-income households.[61] From a sample of 2,500 households, 364 returned valid surveys. Nearly three-fourths of the respondents were female (73 percent), nearly 41 percent were married, over two-thirds were white, 11 percent were African-American, almost 10 percent were Hispanic or Latino, and 89 percent indicated that English was their primary language at home. The average age of respondents was 63 and their average household size was just under two persons. Slightly more than 30 percent of those answering the survey were currently employed.

Only 38 percent of the respondents qualified for Lifeline because their income levels were at or below 135 percent of FPG. Table 9 shows that slightly less than 20 percent participated in at least one of the Lifeline-eligible government programs.

Table 9
Low-Income Household Participation in Lifeline-Eligible Programs in Florida, 2005

Government Program	Percentage
Temporary Assistance to Needy Families (TANF)	0.5
Supplemental Security Income (SSI)	8.5
Food stamps	9.1
Medicaid	12.4
Federal Public Housing Assistance (Section 8)	4.7
Low-Income Home Energy Assistance Plan (LIHEAP)	1.6
Bureau of Indian Affairs Programs	0.0
National School Lunch Program	2.5
Participation in at least one of the above	*18.4*

Source: Brown, 2006c.

Regarding their use of communications services, 75 percent of the respondents reported they currently subscribed to wireline telephone service even though approximately 7 percent indicated that they were enrolled in Lifeline. As Table 10 shows, more than 90 percent of respondents indicated that wireline telephone service was available in their home;[62] this response suggests that approximately 15 percent reporting use of wireline service at home lived with others who subscribed to that service. More than half of the respondents used a cellular phone, either at home (41 percent) or at work (11 percent). In addition, nearly 45 percent indicated they had Internet access at home.

[61] The low-income threshold for the survey was annual household income of $17,321, which is 135 percent of FPG for a two-person household. This level was chosen in part to reach a large number of households that would appear to benefit from Lifeline, as the average household size in Florida is roughly 2.5 persons. Falling at or within 135 percent of FPG is one of the ways in which a household may qualify for the Lifeline discount in Florida.

[62] This is consistent with the FCC report, which found that as of March 2004, 88.3 percent of all Florida households with incomes less than $10,000 per year had telephones. See FCC, 2005a, Table 6.5.

Nearly 60 percent indicated they either subscribed to cable television (45 percent) or DBS service (14 percent).

Table 10
Use of Communication Services by Low-Income Households in Florida, 2005

Type of Service	Percent at Home	Percent at Work*
Local wireline	90.4	23.9
Long distance (via wire)	55.2	14.6
Postpaid cellular phone	40.9	11.0
Prepaid cellular	11.3	1.1
Internet	44.8	17.3
Cable television	45.6	3.3
DBS	13.5	1.4

**Note: Only 30.8 percent of all respondents indicated they were employed*
Source: Brown, 2006c.

Only 20 percent of the respondents had heard of Lifeline and less than 5 percent had heard of Link-Up. Table 11 shows that, of those that knew about Lifeline, most learned about the program through friends and family, a telephone company, or a social worker or social service agency.

Table 11
How Low-Income Households in Florida First Learned about Lifeline (among those previously aware), 2005

Source of Learning about Lifeline	Percent
Social worker	14.2
Social service agency	11.5
Telephone company	25.7
Friend	30.0
Family member	14.2
Senior residence facility	8.6
Other	14.2

Source: Brown, 2006c.

When asked about effective means of increasing public awareness of the program, respondents ranked most highly marketing Lifeline with other well-known programs, like Food Stamps, indicating that joint marketing of Lifeline with other social programs may be an effective means for enrolling households in Lifeline. Respondents also believed that the following strategies would be effective: mailed information from telephone companies, more community outreach events, and television advertising.[63]

[63] The FPSC uses such media advertising of Lifeline by issuing public service announcements.

V. D. Survey of Customers who Disconnected Service

In Section III. B., we outlined the strategies that have been used in Florida to market the Lifeline program. However, despite significant outreach and marketing efforts by companies and others, the sometimes considerable number of new participants added each month is offset by households that choose to no longer participate in the program. For example, in April 2004, BellSouth added 2,252 customers to the program but lost 2,421 customers for a net loss of 169.[64]

The question is this: What factors cause customers who qualify for Lifeline to disconnect their phones, even if temporarily? Customer disconnection is an important issue for several reasons. First, reducing churn for Lifeline customers can be an effective way of increasing participation because a customer who was once a Lifeline customer may not re-enroll when the household reconnects telephone service. Second, reducing churn can lower acquisition costs because there is less need to reconnect customers and for marketing. Finally, Floridians sometimes need to have a telephone number to be considered for jobs.[65]

To gather information on why participants make the decision to disconnect phone service, BellSouth mailed a survey to more than 2,000 BellSouth subscribers who had disconnected service during the summer of 2005 (Brown, 2006b). Many of the customers had simply moved and had reconnected service by the time of the survey, but others had dropped their landline telephone service altogether. The survey instrument was developed by Dr. Brown and unattributed survey responses were returned to him. Focusing on responses from customers who qualified for the Lifeline program, he analyzed their communications usage, how they first learned about the Lifeline program, and whether the program should be extended to communication services other than wireline. In addition, demographic questions were included to consider gender, race and ethnicity, employment, income and current involvement in programs that would make the household eligible for Lifeline. Of the surveys mailed, nearly 13 percent of valid surveys (288 responses) were returned from households that qualified for Lifeline benefits. Overall, 88 percent of the surveys were returned in English and 12 percent of the surveys in Spanish. Only 45 of the respondents (15.6 percent) had signed up for Lifeline benefits even though all were eligible for Lifeline.

Characteristics of Eligible Households. Most of the respondents were female (73 percent) and most were unmarried (72 percent). In terms of race and ethnicity, most were white (45 percent), African-American (22.7 percent), or Hispanic (22.4 percent). Most spoke English at home (77.3 percent) and 19.7 percent spoke Spanish. Most were over 51 years old (55 percent). Nearly 90 percent of the respondents were unemployed and 89 percent indicated that they currently qualified for Lifeline because their income levels were at or below 135 percent of FPG.

[64] The Florida Senate, 2004.
[65] We would like to thank Robert Rowe for this specific insight.

As Table 12 shows, over 80 percent also participated in at least one of the Lifeline-eligible programs, but customers enrolled in Lifeline were more likely than nonenrolling respondents to also participate in other assistance programs. The exception was the LIHEAP program, where non-Lifeline households were more likely to participate than Lifeline enrollees. Nearly three-fourths of the respondents qualified for Lifeline benefits under both the income criterion and the social program participation criteria.

Table 12
Participation in Lifeline-Eligible Programs by Households that Disconnected from BellSouth Service in Florida, 2005

Government Program	Percentage of Households in Category that Participate in Government Program		
	All Eligible Households	Lifeline Households	Nonpartici-pating Households
Temporary Assistance to Needy Families (TANF)	5.1	0.0	6.0
Supplemental Security Income (SSI)	41.0	46.7	39.8
Food stamps	55.3	64.4	43.8
Medicaid	66.8	68.9	66.7
Federal Public Housing Assistance (Section 8)	17.3	24.4	16.1
Low-Income Home Energy Assistance Plan (LIHEAP)	7.8	2.2	8.8
Bureau of Indian Affairs Programs	None	None	None
Participation in at least one of the above	*82.7*	*95.6*	*80.3*

Source: Brown, 2006b.

Use of Communications Services. Table 13 summarizes the use of communications services by these respondents. The first column shows categories of communications services. The next three columns show usage of these services by all households that responded to the survey and qualified for Lifeline benefits. The next three columns show usage for survey respondents that receive Lifeline benefits. The last three columns show usage for survey respondents that qualify for Lifeline benefits but had not signed up for them. Most respondents had local telephone service in their homes and many had cellular phones at home. Households without Lifeline service were the most likely to have cellular phones. Slightly less than one-fifth of all Lifeline-eligible households had Internet access at home and households receiving Lifeline benefits were more likely to have Internet access than were non-Lifeline households (35.6 percent versus 15.3 percent, respectively). Nearly one-third of all Lifeline-eligible households subscribed to cable television (21 percent) or DBS (8.5 percent) and Lifeline households were heavier subscribers to these services than were non-Lifeline households. These results could indicate that households that are heavier users of communications services are more likely to sign up for Lifeline benefits than households that use fewer communications services. These results could also mean that Lifeline benefits help

customers afford more communications services in total and not just local telephone service.

Table 13
Current Use of Communication Services by Lifeline-Eligible Households that Disconnected from BellSouth Service in Florida, 2005

	Percent of Households in Category Using Communication Service								
	All Eligible Households			Lifeline Households			Nonparticipating Households[66]		
Type of Service	At Home	Out-side Home or Work*	At Work	At Home	Out-side Home or Work	At Work	At Home	Out-side Home or Work	At Work
Local wireline	58.6	31.2	10.8	100.0	42.2	44.4	51.4	29.3	49.1
Cellular phone (postpaid)	33.9	36.6	5.4	31.1	40.0	33.3	34.1	35.7	22.8
Prepaid cellular	10.5	11.5	1.0	4.4	6.7	0.0	11.6	12.4	5.3
Internet (all kinds)	18.3	11.5	5.4	35.6	13.3	33.3	15.3	11.2	22.8
Cable Television	21.0	3.7	0.0	33.3	4.4	0.0	18.9	3.6	0.0
Direct Broadcast Satellite	8.5	1.7	0.3	4.4	0.0	0.0	9.2	2.0	1.8

Note: Only 17.3 percent of all respondents indicated they were employed.
Source: Brown, 2006b.

Knowledge of Lifeline. A plurality of respondents learned about Lifeline from a social worker or a social service agency (42.2 percent), but many also learned about Lifeline from their telephone company (28.9 percent) or a friend (13.3 percent). Few indicated that they learned about the program through a senior residence facility (4.4 percent) or a landlord (4.4 percent).[67] Slightly more than half of all Lifeline-eligible respondents indicated that Lifeline-discounts should be extended to other communications services, such as cellular phones.[68]

[66] Includes households that did not indicate whether they participated in the Lifeline program.
[67] Several respondents indicated more than one source for learning about Lifeline.
[68] Cellular customers can now receive Lifeline discounts from wireless ETCs in Florida.

Section VI -- Econometric Analyses of Factors Affecting Lifeline Program Participation

One of the advantages of survey-based studies, like the four described above, is that they can provide rich, qualitative results on issues for which there are no existing data, such as people's stated reasons as to why they make certain decisions regarding their use of communications services, participation or non-participation in Lifeline and Link-Up, and preference of one type of service over another. However, such studies lack quantitative rigor and interviewees may provide answers that do not accurately reflect their actual situations. Because of these limitations, this project includes two econometric studies to glean further insights into why people do or do not enroll in Lifeline and Link-Up.[69] One study examined Florida county level data for 2003-2005 to gain insights into regional, demographic, and socio-economic impacts on Lifeline/Link-Up program participation in Florida. The second study examined state-level data for the United States from 2000-2005 to identify how variations in state policies might impact participation. This section describes these studies and their results. We also discuss a recent Lifeline study by Burton and Mayo (2005).[70]

The main findings of the Florida study are that Lifeline program participation rates were higher with higher local telephone prices,[71] heads of household older than 25 years of age, higher concentrations of households on public assistance, local service provided by BellSouth or Verizon,[72] greater proportions of white or African-American households, and higher home ownership rates. Participation rates were lower with greater penetration of cellular phones, lower education levels for the head of the household, and more rural areas.

Some findings in the U.S. study were consistent with the Florida study, namely that Lifeline program participation rates were higher with higher local telephone prices, greater Lifeline discounts, higher education levels for the head of household, and higher concentrations of households on public assistance. However, the U.S. study provided different results than the Florida study in other respects, implying that there are legitimate reasons for varying policies across states. More specifically, in contrast to the Florida study, the results of the U.S. study indicated that Lifeline program participation rates were:

[69] Hauge, Jamison, and Jewell (2006a, b). The regression results for both studies are found in Appendix 2, Tables 4 (Florida Study) and 5 (U.S. Study).

[70] This study is available on PURC's website at http://www.purc.ufl.edu.

[71] Studies generally find that demand for local telephone service is price inelastic, which means that customers generally do not change their consumption of local telephone service if the price changes. See Loomis and Taylor (1999) for a survey of telephone demand studies.

[72] The studies found that customers of some companies had a higher probability of participating in Lifeline even after adjusting for income, demographics, and other factors. The studies were unable to determine if these differences resulted from differences in companies, customers, or both. Differences in prices that companies charge for local telephone service do not explain these results because the econometric studies controlled for prices.

- lower for Verizon, Alltel, and small ILECs than for BellSouth, Sprint, Qwest, and SBC. In the Florida study, by contrast, customers of BellSouth or Verizon have a greater probability of participating in the Lifeline program than customers of other ILECs;
- higher for Hispanic heads of households, relative to heads of household that were white, African-American, Asian, or of another racial or ethnic group. In the Florida study, by contrast, Lifeline participation was positively correlated with greater proportions of white or African-American heads of household relative to other races or ethnic groups;
- lower for older heads of household. In the Florida study, by contrast, having a head of household older than 25 years of age was associated with greater Lifeline program participation;[73]
- lower for states with higher concentrations of urban households. The Florida study found that eligible households in rural counties were less likely to participate in the Lifeline program; and
- lower for more transient households. The Florida study, by contrast, found no statistically significant correlation between the transient nature of consumers and Lifeline program participation.[74] The lower participation rates in the U.S. study may reflect state differences.

In addition, the U.S. study found that on a state level, greater Lifeline discounts (state plus federal) were associated with greater Lifeline participation rates.

The Burton and Mayo (2005) study concluded that restrictions on Lifeline subscribers, such as access to additional telephone lines or to vertical services such as call waiting, had a negative and statistically significant effect on the number of Lifeline subscribers, as did higher costs of enrollment in Lifeline.[75] The study also found that LIHEAP was the only social program eligibility criterion to have a statistically significant impact on Lifeline participation. Consistent with the Hauge, Jamison, and Jewell (2006b) study, the Burton and Mayo (2005) study found that greater Lifeline discounts were associated with greater Lifeline enrollment.

Considering the findings of the Hauge, Jamison and Jewell (2006a, b) studies and the Burton and Mayo (2005) study, we may conclude the following:

(1) When local telephone prices increase, customers who are eligible for the Lifeline program are more likely to participate, thus protecting their ability to afford basic telephone service. Greater Lifeline discounts also increase program participation.

(2) There may be scale economies in marketing Lifeline or the greater concentration of households on public assistance increases the number of

[73] The effect of a head of household being 75 years of age or older was positive, but statistically insignificant, in the Florida study.

[74] We consider an effect to be statistically significant if there is at least a 90 percent probability that the impact is not zero.

[75] Some states have more cumbersome enrollment procedures than do other states. Florida recently simplified its enrollment procedures.

social contact points, which might increase household awareness, resulting in eligible households participating in the Lifeline program at higher rates where there are greater concentrations of eligible households. If there are scale economies in marketing, then marketing efforts are more costly on a per capita basis in more sparsely populated areas. In addition and consistent with the survey results that indicate that social workers and social agencies are important marketers of Lifeline,[76] social workers and social agencies might be more active where there are greater concentrations of households on public assistance.

(3) In Florida some eligible households are willing to substitute cellular phones for wireline phones even if it means not receiving Lifeline support.[77]

(4) Adding social programs as eligibility criteria for qualifying households for Lifeline seems to have little impact on participation in Lifeline.

(5) States vary in what may be effective means of supporting universal service. Specifically from these studies, we find:

   a. eligible households in rural areas of Florida are less likely than their urban and suburban counterparts to participate in the Lifeline program, possibly because they are less willing to participate in support programs that trigger Lifeline program eligibility; they are less aware of Lifeline; or both. The U.S. study does not indicate that this situation applies to all states;
   b. reasons why eligible households may not participate vary across states. Transient households elsewhere are more likely to participate in the Lifeline program than are transient households in Florida;[78]
   c. effects of age vary across states. In the U.S. study, higher median age within a state has a negative effect on Lifeline participation. That is, states with residents who are on average older have lower participation rates, all things equal. The Florida study found positive relationships between age of the head of household and Lifeline participation; and
   d. race and ethnicity had different impacts in different states. Higher proportions of white and African-American households were associated with higher Lifeline penetration rates in the Florida study. In the U.S. study the proportion of Hispanic heads of household impacted Lifeline participation.

We now describe how the econometric studies were conducted and examine their results in more detail, beginning with the Florida study.

[76] See Section V.

[77] The U.S. study did not find that cell phone penetration had a significant effect on Lifeline penetration rates and so the authors did not include the variable in the study.

[78] The Florida study did not find that proportions of transient households in Florida had an effect on Lifeline penetration rates and so the authors did not include the variable in the study.

VI. A. Florida Cross-County Study

An empirical model was developed using a database created from the Shimberg Center report and other data sources, such as the FCC, U.S. Census Bureau, and the FPSC. Ideally, an econometric study would use household level data to examine individual household participation decisions, but such micro-level data are unavailable. Therefore, the Florida study used county-level data for each of Florida's 67 counties for the years 2000 through 2005.[79] The operating assumption of the model is that, all things equal, a consumer will choose to participate in Lifeline if the net benefits associated with participating are equal to or exceed the net benefits of nonparticipation. Participating in Lifeline provides the consumer with a lower net price of local telephone service but requires the consumer to go through the effort of signing up for the program and to encounter the possible stigma of participating in a social program.[80] Furthermore, Lifeline programs are in part funded by and marketed by telephone companies, who may vary in their willingness and ability to promote the program. Based on these considerations, explanatory factors that affect a household's awareness and, if aware, a decision to participate or not could be divided into three categories: (1) measures of the telecommunications environment; (2) characteristics of populations eligible for Lifeline; and (3) measures that describe all households in the county and are not likely to change quickly over time.[81]

Measures of the telecommunications environment. The study considered the identities of the ILECs serving the county, the penetration of cellular telephones in the county, and the prices charged for local telephone service. It found that BellSouth or Verizon serving a county had a positive impact on Lifeline participation relative to other ILECs. Greater cellular penetration in a county was associated with lower Lifeline program participation rates. This finding suggests that perhaps eligible households were willing to substitute cellular phone service for traditional telephone service even if doing so meant giving up participating in the Lifeline program. Higher local phone rates were associated with greater Lifeline program participation, suggesting that eligible households were willing and able to participate in the program to offset at least some of the effects that higher local telephone prices might have on affordability of telephone service.

Measures of eligible population characteristics. The study considered five broad categories of measures of population traits, namely home ownership versus renting, education level, race and ethnicity, gender, and age. It found that gender of the head of the household had no statistically significant impact on Lifeline program participation. However, white heads of household and African-American heads of household were more likely to participate in the Lifeline program than heads of household of other races and ethnicity. Home ownership, as opposed to renting, had a positive and significant

[79] In this model, participation is assumed to be triggered by income-based eligibility of 125 percent of FPG because this was the income criterion in effect for the time period considered.
[80] Burton and Mayo (2005) and Handler and Hollingsworth (1969).
[81] The study uses a minimum logit chi-square estimation in which the dependent variable is the natural log of the Lifeline participation rate divided by one minus the Lifeline participation rate.

effect on participation. Those consumers who owned their homes were more likely to participate in the Lifeline program. Conversely, those with lower levels of education (no more than a high school diploma) were less likely to participate than more highly educated households. This finding underscores the importance of uncomplicated enrollment procedures, consistent with the Burton and Mayo (2005) study. Households headed by a person older than 25 years of age were more likely to participate in the Lifeline program than households headed by a younger person, but only the effects of head-of-household age groups of 25 to 54 years of age and 55 to 74 years of age were statistically significant.

Other county-level characteristics. The study also considered certain county-level traits that did not vary over time during the study period. These include whether the county was urban or rural and the proportion of county residents who received public assistance. The study found that households in rural counties were less likely to enroll in the Lifeline program than their more urban counterparts. If one of the goals is to advance universal service by promoting affordable telephone access, particularly to consumers in rural areas, this finding might help target outreach efforts. Counties where households received proportionately more government assistance were more likely to have higher participation rates in the Lifeline program than counties with lower participation in government assistance programs, perhaps because, as the survey studies also found, enrollment in social service programs was an important vehicle for household awareness of and enrollment in the Lifeline program. There also may be scale economies in marketing Lifeline or the greater concentration of households on public assistance increases the number of social contact points, which might increase household awareness. Finally, there appeared to be no discernible regional differences throughout Florida in Lifeline penetration.[82]

The study also found that participation in Lifeline varied across counties for reasons that could not be measured. Appendix 2 Table 6 provides predicted and actual participation rates by county for 2005. The predicted value is generated by the Florida econometric model. The model accurately predicts participation rates in the Lifeline program within 10 percentage points for all but seven of Florida's 67 counties, but in relative terms there is considerable variation across counties that cannot be explained with the available data.

VI. B. U.S. Cross-State Analysis

A study similar to that conducted for Florida's counties was performed to examine the factors affecting participation in the Lifeline program nationwide. With a few exceptions, the same model was used in this study as in the Florida county-level study. As we note above, ideally an econometric study would use household level data to examine individual household participation decisions. As for the Florida county-level study, such micro-level data were unavailable for a nationwide study. Furthermore

[82] Earlier versions of the Hauge, Jamison, and Jewell (2006a) study found that regional differences did not exist, so regional effects were omitted from the current version of the paper.

county-level data were unavailable on a national basis, so the U.S. study relied upon state-level data. Other differences between the Florida study and the U.S. study are noted below.[83]

For purposes of discussion, we divide explanatory factors into the following categories: (1) measures of the telecommunications and policy environment; (2) population characteristics;[84] and (3) state differences that do not vary during the years of this study.

Measures of the telecommunications and policy environment. The study considered how Lifeline participation rates might be affected by the identity of the ILECs serving the state, prices for local telephone service, and the discount to local service prices provided by the Lifeline program. It found that customers of Verizon were less likely to participate in Lifeline than customers of other ILECs. Higher local phone prices were associated with greater Lifeline participation, suggesting that eligible households were willing and able to participate in the program to offset at least some of the effects of higher local telephone prices. Greater local service price discounts for the Lifeline program were also associated with higher Lifeline participation rates.[85]

Population characteristics. The study considered how certain demographic characteristics influenced Lifeline program participation; the broad categories of population traits in this context include education level, race and ethnicity, gender, and age. In contrast to the Florida county-level study, in this study certain demographic characteristics appeared to have a significant and positive effect on Lifeline program participation. Greater proportions of female heads of household were associated with higher participation rates. A higher percentage of Hispanic heads of household relative to other race and ethnic groups also had positive impacts on program participation, but the percentage of African-American or white heads of household had no statistically significant impact on participation. Consistent with the Florida study, higher education levels were associated with greater Lifeline program participation. However, states with higher median ages appeared to have lower participation rates, all other things being equal.

State-level differences treated as constant over time. The study considered certain characteristics of states that change slowly over time and might affect Lifeline program participation, namely the proportion of rural inhabitants, income levels, and the transient nature of the population. It found that states with higher urban populations seemed to have lower program participation. This might be due to available substitutes for

[83] The authors of the U.S. study were unable to determine whether the Lifeline program participation numbers reported by other states were accurate. Given the similarity between the new Florida estimates and the FCC numbers for Florida, the FCC numbers for the other states were deemed to be reasonable to use. Note that California and Maine were deleted in the U.S. study because Hauge, Jamison, and Jewell (2006b) considered the numbers in these states to be disproportionately high and atypical.

[84] The Florida study was able to isolate characteristics of low-income households. These data were unavailable for the nationwide study, so measures of traits of the general population by state were used.

[85] Four states (Hawaii, Illinois, Louisiana, and New Hampshire) currently provide no state support to the program.

communication in an urban area, such as neighbors sharing phones, availability of affordable cell phone service, and the availability of public phones, but it is opposite from the effects of urban populations found in the Florida study. Like the Florida study, this study suggested that areas with greater concentrations of consumers who received government assistance were more likely to participate in the Lifeline program. Also in the U.S. study frequent relocation was negatively correlated with program participation.

As in the Florida county-level study, in the U.S. study certain possible explanations for program nonparticipation may not be captured by conventional measures. Appendix 2 Table 7 shows the variations that were not captured in the study as state effects. Florida's actual participation rate was very close to the predicted participation rate, indicating that Florida's participation rate is what one would expect, given the demographic and socioeconomic characteristics of Florida's population and the state's existing telecommunications policies. One could conclude that states with lower than predicted participation rates might consider improved outreach and sign-up processes (something this study did not measure),[86] particularly for more urban areas with larger populations of less educated households.

[86] The Burton and Mayo (2005) study found that outreach efforts had no statistical significance on participation in the Lifeline program.

Section VII – Conclusion and Synthesis of Findings

This section synthesizes the findings outlined in preceding sections and also points to possible future measures to increase participation and retention in Florida's Lifeline and Link-Up programs. We divide our discussion into consideration of the measurement of the Lifeline program participation rate in Florida, the determinants of the participation rate, and possible approaches for increasing participation rates. We close with a general discussion of universal service policies and suggestions for further research.

VII. A. Lifeline Program Participation in Florida

From the research findings, we observe that the following conclusions apply to Lifeline program participation in Florida:

Fairly accurate participation rates have been used in the past. The research for this project shows that the Lifeline program participation rates on which Florida's policymakers have been relying have been reasonably accurate. The number of Florida households eligible for Lifeline and Link-Up benefits was approximately 1.25 million in 2005 based on an income eligibility criterion of 135 percent of FPG. This represents a participation rate of 12.2 percent in 2005, which is lower than the participation rates of previous years. This is primarily attributable to the increase in the income eligibility criterion from 125 percent of FPG to 135 percent of FPG and to a decrease in enrollment. The change in the income eligibility criterion added 94,386 eligible households in 2005, an 8 percent increase over the number of eligible households in 2004. Verification procedures enacted by ILECs in 2005 resulted in a decline in enrollment.

Household income is the most important eligibility criterion. Over 93 percent of the households that qualified for Lifeline in 2005 qualified under the 135 percent of FPG criterion. Social programs for low-income households or families are also a means for triggering Lifeline eligibility. Programs that increased the number of eligible households the most (relative to the 135 percent of FPG criterion) were Medicaid, Food Stamps, and SSI. In 2005 these programs added 76,395 households. All other social programs added only 5,933 households, or 7.8 percent of the number added by the combination of Medicaid, Food Stamps, and SSI. Furthermore, using greater numbers of social programs to qualify households for the Lifeline program does not appear to increase participation, except perhaps to simplify enrollment. Certain counties like Okaloosa and Orange have a proportionately higher number of households whose eligibility for Lifeline participation is apparently triggered by social programs. (See Appendix 2 Tables 1-3.)

Rural areas of the state have lower than expected program enrollment. Certain Florida counties like Hernando and a few mostly northern, sparsely populated counties appear to have lower program participation than might be expected, all things equal.

There are several dominant demographic and socioeconomic characteristics of Florida's Lifeline participants. It appears that the majority of Lifeline-eligible households in Florida are headed by persons 55 years or older (73 percent). Most are headed by women (56 percent) and most have no post-high school education (70 percent). Regarding their use of communications services, the majority have wireline telephone service even though only a small fraction is enrolled in Lifeline. Most appear to also use a cellular phone and most subscribe to either cable television or DBS. In addition, nearly half appear to have Internet access at home.

VII. B. Determinants of Lifeline Participation

From the research findings, we conclude that lack of awareness, population density, race/ethnicity, gender, age, education, local telephone prices, use of cellular phones, and Lifeline discounts all appear to play a role in determining participation in the Lifeline program.

Lack of awareness appears to be a significant barrier to higher program participation rates. Surveys indicated that lack of awareness kept many eligible households from enrolling in Lifeline. Once they were made aware of the program, eligible households that participated in the surveys enrolled during outreach events.

Eligible households in rural areas of Florida are less likely than their urban and suburban counterparts to participate in the Lifeline program. This appears to be different than the urban/rural Lifeline participation pattern for the country as a whole. Greater concentrations of eligible households also lead to higher Lifeline participation rates.

Race and ethnicity have different impacts on Lifeline participation in different states. Higher proportions of white or African-American households were associated with higher Lifeline penetration rates in Florida, but nationwide the proportions of Hispanic households were associated with greater Lifeline program participation.

Effects of age vary across states. In Florida there is a positive relationship between the age of the head of household and Lifeline participation. For the United States as a whole, median age of the head of household is negatively correlated with Lifeline participation.

Substitutability of communications products may play a role in Lifeline program participation. Some low-income households choose not to participate in the Lifeline program because they prefer to purchase other goods and services and not wireline telephone service. Some prefer to use cellular phones. On the other hand, some low-income households choose to enroll in Lifeline when faced with higher prices for local telephone service or when given larger Lifeline discounts. Households that are eligible for Lifeline benefits, but that do not enroll in Lifeline also participate in other assistance programs at lower rates than do households that enroll in the Lifeline program.

VII. C. Possible Approaches for Increasing Participation

Marketing and ease of enrollment appear to be important for increasing participation rates.[87] Lack of awareness appears to be one of the major hurdles to Lifeline enrollment. A second barrier appears to be general distrust in social programs and perhaps the stigma that may be attached to participating. To counter these barriers, we believe, based on the research for this study, that the following approaches might be considered.

(1) Marketing and promotion by sources trusted by potential enrollees, such as social workers, social agencies, close associates, the FPSC, and the telephone companies appear to be particularly effective. Adding social programs as eligibility criteria for qualifying households for Lifeline seems to have little impact on participation in Lifeline, although it may decrease the cost of verifying household eligibility.

Survey respondents placed significant importance on social service agencies and social workers as marketers of Lifeline. We did not examine the expertise of these agencies and workers, but given their importance, it might be useful to look for ways to improve their knowledge of Lifeline and Link-Up. Consideration might also be given to increasing their roles in enrolling and validating customers.

(2) Transient households sometimes fail to stay current in their use of Lifeline discounts, so efforts to ease continuity of Lifeline participation may be helpful.[88] The effects of lower education levels on Lifeline participation levels in Florida underscore the need for simple and low-cost enrollment procedures. The FPSC and the telephone companies have adopted simplified procedures for customers to enroll in Lifeline.

(3) There appears to be a need for informational strategies that are targeted to more sparsely populated counties and less educated Floridians. One effective means appears to be through social programs that trigger program eligibility. Efforts might be particularly focused on social agencies in counties where a disproportionate number of households appear to be eligible through social service programs. Social programs that serve the greatest number of households eligible for Lifeline and Link-Up are Medicaid, Food Stamps, and SSI. Information and enrollment procedures need to be made accessible for less educated Floridians. Outreach activities with on-site enrollment seem to be effective for reaching senior citizens.

(4) The focus group survey suggests that Spanish-speaking Floridians might respond differently to informational strategies than English-speaking Floridians, but the sample size was small and more research is needed to validate this observation. Persons for whom wireline telephone was their most important mode of communication included

[87] The Social Marketing Institute provides papers and conferences on marketing social programs (see http://www.social-marketing.org).

[88] For example, social service agencies might track eligibility of a household and work to ensure that the household enrolls in Lifeline after it relocates.

seniors, people who were less affluent, and the unemployed. Efforts targeted to these segments of the population would appear to be particularly important.

VII. D. Other Observations

Public support of Florida's Lifeline program is widespread, but closer analysis shows that it is greater on the part of less affluent households and not much is understood about how the program works. Less affluent households are also more likely to support the application of program benefits to other forms of communications services, but the overall support for expanding Lifeline benefits appears to be weak.

Indications are that the Lifeline program does not have a large impact on the proportion of low-income households receiving telephone service but further analysis is needed before reaching firm conclusions.[89] Indeed this project reveals a need for further research on other universal service issues. We discuss possible topics next.

VII. E. Issues for Further Research

Florida's Lifeline and Link-Up programs might be made more effective through improved marketing, enrollment, and funding mechanisms. More detailed analyses of current procedures used by social service agencies, companies, and others might reveal opportunities to streamline procedures, match outreach efforts to appropriate demographic groups, and lower costs. Currently in Florida each ETC funds the state portion of its Lifeline discount. This could discourage companies from becoming ETCs and act as a deterrent to existing ETCs in aggressively marketing Lifeline. Alternative funding approaches that are competitively neutral and that do not cost ETCs should be examined.

Also, there are challenges to existing universal service programs that suggest a need for a more comprehensive review. For example, The Progress & Freedom Foundation sponsors a Universal Service Working Group that has developed suggested federal legislation on universal service.[90] Policy proposals that change how services and customers are targeted for universal service support, how money is collected to fund these policies, and how the money is distributed would affect Floridians. Additional research could provide guidance for Florida representatives and stakeholders who will participate in the policy making process. Issues for such research could include:

[89] Garbacz and Thompson (2003) find that Lifeline discounts are decreasing in their capacity to increase telephone penetration in the United States. For example, a study by the FCC staff estimated that increasing the income criterion for Lifeline from 125 percent of FPG to 135 percent of FPG would increase the number of households with telephone service in the United States by only 247,000 in 2005. (See Appendix K, FCC, 2004.) The addition of 247,000 households would represent only 0.23 percent of the 105.8 million households that had telephone service in 2005 (FCC, 2005a).

[90] The Progress & Freedom Foundation (2005).

(1) *Policy changes affecting Florida's status as a net payer in federal universal service programs and the effects of being a net payer.* In 2004, Florida customers and industry paid $248,791,000 more into federal universal service funds than they received. Florida was the largest net payer of all states. By contrast, Mississippi was the largest net recipient, receiving $164,054,000 more from the federal mechanisms than it paid. The second largest net recipient was Texas, receiving $116,440,000 more than it paid in federal universal service monies.[91]

(2) *The appropriate roles of state and federal regulators in universal service policies*. Current universal service policies, such as Lifeline/Link-Up and the subsidies for schools and libraries, have put utility regulators in the role of designing and overseeing social programs. Other government institutions may be better suited to perform this role[92] but telecommunications regulators and industry see this as a growing role for regulators.[93] Increased deregulation of telecommunications companies could limit utility regulators' jurisdiction over Lifeline and Link-Up, implying a need to study how the programs might adapt to an unregulated industry. Furthermore, the studies examined in this report indicate that Lifeline policies that may be appropriate for one state may not be appropriate for another, indicating a need to consider alternative divisions of responsibility between state and federal regulators.

(3) *Appropriate technologies and services targeted for universal service*. Florida's demographics and demand for technology differ from other states. Florida has also been a national leader in market-based solutions for developing telecommunications infrastructure. These features raise the possibility that Florida should have universal service policies that differ from those of the federal government and other states.

(4) *The potential for commercial solutions to assist low-income residents in obtaining communications services*. Some countries do not target low income households for telephone discounts because competitive markets often result in services and pricing schemes that make service affordable for the poor.[94] The research reviewed in this report indicate that, at least in Florida, some eligible households view mobile and other wireless communications as effective substitutes for wireline services.

(5) *Alternative program designs*. The econometric studies presented in Section VI found that customers of some companies have higher probabilities of participating in Lifeline than customers of other companies. Further research into why this is true would be important if future universal service programs

[91] Federal Communications Commission, 2005a.
[92] Jamison (1997).
[93] Public Utility Research Center (2005).
[94] This pattern may be emerging in the United States. A recent Wall Street Journal article cited the development of cellular phone pricing plans that target low-income immigrant workers. See Yuan (2006).

also rely on company marketing efforts. Program features that potentially lower enrollment costs, such as automatically enrolling eligible customers, should be studied.

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Appendix 1: Timeline of Lifeline Policy Decisions for the United States and Florida

Federal Actions

November 1984 and December 1984 – The Federal Communications Commission establishes the Lifeline Assistance Program (Lifeline). See MTS and WATS Market Structure, and Amendment of Part 67 of the Commission's Rules and Establishment of a Joint Board, Recommended Decision, CC Docket Nos. 78-72 and 80-286, 49 Fed. Reg. 48325 (rel. Nov. 23, 1984) (recommending the adoption of federal Lifeline assistance measures); MTS and WATS Market Structure, and Amendment of Part 67 of the Commission's Rules and Establishment of a Joint Board, Decision and Order, CC Docket Nos. 78-72 and 80-286, FCC 84-637, 50 Fed. Reg. 939 (rel. Dec. 28, 1984) (adopting the Joint Board's recommendation).

February 1996 – President Clinton signs the Telecommunications Act of 1996, codified as 47 USC. Section 214 (e) (1) of the Act provides that in order to be designated as an "eligible telecommunications carrier" eligible to receive universal service support, a carrier must: offer the services that are supported by the federal universal support mechanisms using its own facilities, a combination of its own facilities and resale of another carrier's services; and advertise the availability of such services and the charges for those services using media of general distribution.

May 1997 – The Federal Communications Commission issues Report and Order on Universal Service in CC Docket No. 96-45, FCC 97-157. The order agrees with the Joint Board's recommendations on the following. The order expands the scope of the Lifeline program by providing a baseline support amount of $3.50 per month to low-income consumers in every state regardless of whether they participate and increasing Lifeline support to equal one-half of any intrastate support, up to $1.75 of additional funding. All eligible telecommunications carriers are required to provide Lifeline service. The collection and distribution of support must be competitively neutral. The order specifies the services to be included under Lifeline and prohibits disconnection of Lifeline service for non-payment of toll charges and service deposit requirements for customers who accept toll limitation.

December 2000 – The Federal Communications Commission requests the Federal-State Joint Board to review the Lifeline and Link-Up programs for all low-income customers, including the review of the income eligibility criteria.

April 2003 – The Federal-State Joint Board issues CC Docket No. 96-45, Recommended Decision, 18 FCC Rcd 6589, 6591. In the Recommended Decision, the Joint Board makes several recommendations to improve the effectiveness of the low-income support mechanism.

April 2004 – The Federal Communications Commission releases Report and Order and Further Notice of Proposed Rulemaking, WC 03-109, In the Matter of Lifeline and Link-Up, Order No. FCC 04-87. This order added the National School Lunch Free Lunch Program to the program-based eligibility criteria, and added an income-based eligibility criterion of 135 percent of FPG.

Florida Actions

March 1994 – The Florida Public Service Commission establishes the Lifeline Program by issuing Order No. PSC 94-0242-FOF-TL. That order allowed eligible subscribers to receive up to $7.00 in Lifeline assistance ($3.50 federal and $3.50 state). The FPSC also approved the tariff filed by Southern Bell to provide a Lifeline Assistance Plan. The FPSC approved the tariffs of the remaining ILECs in two subsequent orders - PSC-95-1150-FOF-TL and PSC-95-1245-FOF-TL issued September 15, 1995, and October 10, 1995, respectively.

October 1997 –The Florida Public Service Commission adopts the FCC Lifeline Program by issuing Order No. PSC-97-1262-FOF-TP. This order extends an additional $1.75 to Lifeline subscribers.

February 1998 – The Florida Public Service Commission issues Order No. PSC-98-0328-FOF-TP. In this order, the Commission adopts the remaining $1.75 of FCC Lifeline support with state matching support of $3.50. The Commission also expanded the eligibility criteria to replace AFDC with Temporary Assistance to Needy Families (TANF) and to include the Federal Public Housing Assistance, Section 8, and LIHEAP.

March 1998 – The Florida Public Service Commission enters into an "Interagency Agreement for Assistance in Consumer Awareness Campaign for Lifeline Assistance Program and Link-Up Florida" (Agreement) with the Florida Department of Children and Families, Florida Department of Elder Affairs, and former Florida Department of Labor and Employment Security. Pursuant to the Agreement, the Commission agreed to provide Lifeline educational materials to the other agencies, and the agencies agreed to in turn provide those materials to eligible clients.

May 1998 – The Florida Legislature enacts House Bill 4785, requiring the Florida Public Service Commission to "determine and report to the President of the Senate and the Speaker of the House of Representatives the amount of support necessary to provide residential basic local telecommunications service to low-income customers" by February 15, 1999.

February 1999 – The Florida Public Service Commission issues its report in response to House Bill 4785, codified as FS 364.025.

August 2001 – The Florida Public Service Commission approves a Stipulation and Settlement Agreement between BellSouth and the Office of Public Counsel which

included a BellSouth commitment to initiate an income eligibility test at 125 percent of the FPG for Lifeline.

April 2003 – The Department of Children and Families modifies its procedures so that information about the Lifeline and Link-Up programs will be provided during client interviews and on client eligibility notices.

May 2003 – The Florida Legislature enacts "The Tele-Competition Innovation and Infrastructure Enhancement Act of 2003," codified as FS 364.10. This Act requires that by December 31, 2003, each state agency that provides benefits to persons eligible for Lifeline shall, in cooperation with the Department of Children and Families (DCF), the Florida Public Service Commission, and telecommunications companies providing Lifeline service, develop procedures to promote participation in Lifeline. The 2003 Act further requires the FPSC to report to the Governor, the President of the Senate, and the Speaker of the House of Representatives by December 31 each year on the number of customers subscribing to Lifeline service and the effectiveness of procedures to promote participation in the program. In addition, any LEC authorized by the Florida Public Service Commission to reduce its switched network access rates pursuant to FS 364.164 must provide Lifeline service to customers who meet an income eligibility test at 125 percent or less of the FPG.

December 2003 – The Florida Public Service Commission issues Order No. PSC-03-1469-FOF-TL in Docket Nos. 030867-TL, 030868-TL, and 030869-TL that authorize BellSouth, Sprint, and Verizon to reduce their switched network access rates and use the 125 percent income-based criterion for Lifeline eligibility.

August 2004 – The Florida Public Service Commission issues Order No. PSC-04-0781 PAA-TL, adopting the additional program criteria and the 135 percent of FPG eligibility criterion. The order also determined the need for a streamlined certification process. This order was subsequently protested.

February 2005 – The Florida Public Service Commission issues Order No. PSC-05-0153 ASTL, approving proposals filed by BellSouth, Sprint, and Verizon to implement a simplified Lifeline and Link-Up certification process. This order also established a one-year trial period to allow all parties to assess the costs associated with the simplified certification process and determine the corresponding benefits in terms of increased Lifeline program participation.

April 2005 – The Florida Public Service Commission issues Order No. PSC-05-0440-PAA-TL in Docket No. 050095-TL that approves BellSouth's proposal to add the National School Lunch Free Lunch Program to its Lifeline and Link-Up program-based eligibility criteria.

May 2005 -- The Florida Legislature enacts Senate Bill 1322, codified as FS 364.10. This bill increases the Lifeline and Link-Up income-based eligibility criterion to 135

percent of the FPG. The bill also provided the Florida Public Service Commission with greater authority to improve the Lifeline and Link-Up enrollment process. .

September 2005 – The Florida Public Service Commission issues Order No. PSC-05-0918-PAA-TL in Docket No. 050490-TL that approves Sprint's proposal to add the National School Lunch Free Lunch Program to its Lifeline and Link-Up program-based eligibility criteria.

October 2005 -- Verizon files a tariff, effective November 1, 2005, that adopts the National School Lunch Free Lunch Program.

Appendix 2: Tables

Appendix 2 Table 1. Florida Eligible Households by County and Effects of Increasing Income Criterion, 2005

County	Eligible Households using 125% FPG Criterion			Eligible Households using 135% FPG Criterion			Effect of Increasing Income Criterion from 125% FPG to 135% FPG		
	Households at or below 125% FPG	Additional Eligible Households[a]	Total Eligible Households	Households at or below 135% FPG	Additional Eligible Households[a]	Total Eligible Households	Adding Households at or below 135% FPG	Adding Additional Eligible Households	Increase in Total Eligible Households
ALACHUA	21,133	1,087	22,220	22,827	749	23,576	1,694	(338)	1,356
BAKER	1,593	193	1,786	1,759	143	1,902	166	(49)	117
BAY	10,399	1,428	11,827	11,345	1,119	12,464	946	(309)	637
BRADFORD	2,008	195	2,203	2,210	148	2,358	202	(47)	155
BREVARD	27,298	3,133	30,431	30,839	2,300	33,139	3,541	(833)	2,708
BROWARD	100,294	9,168	109,462	112,408	6,556	118,964	12,114	(2,612)	9,502
CALHOUN	1,157	140	1,297	1,274	103	1,377	117	(37)	80
CHARLOTTE	8,237	911	9,148	9,755	642	10,397	1,518	(270)	1,248
CITRUS	9,516	1,074	10,590	10,977	763	11,740	1,461	(312)	1,149
CLAY	4,541	912	5,453	5,304	709	6,013	763	(203)	560
COLLIER	12,500	1,665	14,165	13,675	1,356	15,031	1,175	(309)	866
COLUMBIA	4,919	449	5,368	5,412	326	5,738	493	(123)	370
DADE	188,058	16,351	204,409	207,384	11,376	218,760	19,326	(4,975)	14,351
DESOTO	2,543	220	2,763	2,882	161	3,043	339	(58)	281
DIXIE	1,522	116	1,638	1,671	80	1,751	149	(35)	114
DUVAL	47,255	4,907	52,162	53,054	3,744	56,798	5,799	(1,163)	4,636
ESCAMBIA	20,843	2,009	22,852	23,085	1,494	24,579	2,242	(515)	1,727
FLAGLER	2,380	400	2,780	2,711	275	2,986	331	(125)	206
FRANKLIN	1,068	83	1,151	1,175	64	1,239	107	(19)	88
GADSDEN	3,772	279	4,051	4,177	203	4,380	405	(76)	329
GILCHRIST	1,434	144	1,578	1,577	115	1,692	143	(29)	114
GLADES	830	26	856	948	19	967	118	(7)	111
GULF	1,186	121	1,307	1,307	96	1,403	121	(25)	96
HAMILTON	1,188	129	1,317	1,299	93	1,392	111	(35)	76

[a] These are households that are eligible because of their participation in social programs but would not be eligible under the income criterion.

Appendix 2 Table 1 (cont.). Florida Eligible Households by County and Effects of Increasing Income Criterion, 2005

County	Eligible Households using 125% FPG Criterion			Eligible Households using 135% FPG Criterion			Effect of Increasing Income Criterion from 125% FPG to 135% FPG		
	Households at or below 125% FPG	Additional Eligible Households[a]	Total Eligible Households	Households at or below 135% FPG	Additional Eligible Households[a]	Total Eligible Households	Adding Households at or below 135% FPG	Adding Additional Eligible Households	Increase in Total Eligible Households
HARDEE	1,893	271	2,164	2,147	223	2,370	254	(48)	206
HENDRY	1,865	337	2,202	2,080	263	2,343	215	(75)	140
HERNANDO	8,827	922	9,749	9,988	634	10,622	1,161	(289)	872
HIGHLANDS	8,245	682	8,927	9,417	500	9,917	1,172	(182)	990
HILLSBOROUGH	60,308	6,910	67,218	67,438	4,946	72,384	7,130	(1,964)	5,166
HOLMES	1,686	183	1,869	1,869	132	2,001	183	(50)	133
INDIAN-RIVER	7,786	908	8,694	9,049	690	9,739	1,263	(218)	1,045
JACKSON	4,208	517	4,725	4,655	395	5,050	447	(122)	325
JEFFERSON	1,137	104	1,241	1,253	75	1,328	116	(29)	87
LAFAYETTE	625	69	694	686	54	740	61	(15)	46
LAKE	13,286	1,606	14,892	15,324	1,179	16,503	2,038	(427)	1,611
LEE	25,085	3,221	28,306	28,688	2,473	31,161	3,603	(747)	2,856
LEON	17,993	1,166	19,159	19,295	845	20,140	1,302	(320)	982
LEVY	4,137	243	4,380	4,532	165	4,697	395	(78)	317
LIBERTY	555	55	610	611	41	652	56	(14)	42
MADISON	1,669	151	1,820	1,834	115	1,949	165	(37)	128
MANATEE	15,518	1,810	17,328	17,632	1,350	18,982	2,114	(460)	1,654
MARION	21,217	2,074	23,291	23,590	1,490	25,080	2,373	(585)	1,788
MARTIN	6,343	804	7,147	7,497	635	8,132	1,154	(170)	984
MONROE	5,862	466	6,328	6,387	365	6,752	525	(101)	424
NASSAU	3,174	324	3,498	3,562	246	3,808	388	(78)	310
OKALOOSA	8,118	1,225	9,343	9,277	971	10,248	1,159	(254)	905
OKEECHOBEE	2,814	452	3,266	3,195	354	3,549	381	(98)	283
ORANGE	50,159	6,602	56,761	56,378	4,925	61,303	6,219	(1,678)	4,541
OSCEOLA	9,966	1,836	11,802	11,530	1,331	12,861	1,564	(505)	1,059
PALM-BEACH	62,292	7,456	69,748	69,403	5,648	75,051	7,111	(1,808)	5,303

[a] These are households that are eligible because of their participation in social programs but would not be eligible under the income criterion.

Appendix 2 Table 1 (cont.). Florida Eligible Households by County and Effects of Increasing Income Criterion, 2005

County	Eligible Households using 125% FPG Criterion			Eligible Households using 135% FPG Criterion			Effect of Increasing Income Criterion from 125% FPG to 135% FPG		
	Households at or below 125% FPG	Additional Eligible Households[a]	Total Eligible Households	Households at or below 135% FPG	Additional Eligible Households[a]	Total Eligible Households	Adding Households at or below 135% FPG	Adding Additional Eligible Households	Increase in Total Eligible Households
PASCO	24,104	2,981	27,085	27,982	2,054	30,036	3,878	(927)	2,951
PINELLAS	55,259	7,256	62,515	62,027	5,243	67,270	6,768	(2,013)	4,755
POLK	32,781	3,670	36,451	36,637	2,725	39,362	3,856	(945)	2,911
PUTNAM	7,089	770	7,859	7,794	533	8,327	705	(237)	468
SANTA-ROSA	7,408	707	8,115	8,508	541	9,049	1,100	(166)	934
SARASOTA	15,968	2,089	18,057	18,215	1,613	19,828	2,247	(476)	1,771
SEMINOLE	14,536	1,684	16,220	16,395	1,271	17,666	1,859	(414)	1,445
ST-JOHNS	5,832	633	6,465	6,608	485	7,093	776	(148)	628
ST-LUCIE	12,444	1,897	14,341	13,874	1,432	15,306	1,430	(465)	965
SUMTER	4,141	298	4,439	4,782	219	5,001	641	(78)	563
SUWANNEE	4,014	420	4,434	4,396	296	4,692	382	(125)	257
TAYLOR	1,788	164	1,952	1,966	117	2,083	178	(48)	130
UNION	827	53	880	914	38	952	87	(15)	72
VOLUSIA	29,813	3,653	33,466	33,687	2,581	36,268	3,874	(1,072)	2,802
WAKULLA	1,310	130	1,440	1,430	95	1,525	120	(34)	86
WALTON	4,594	318	4,912	5,084	242	5,326	490	(76)	414
WASHINGTON	1,963	217	2,180	2,175	161	2,336	212	(56)	156
Total	**1,044,313**	**112,475**	**1,156,788**	**1,168,846**	**82,328**	**1,251,174**	**124,533**	**(30,147)**	**94,386**
Percent Change							**12%**	**-27%**	**8%**

[a] These are households that are eligible because of their participation in social programs but would not be eligible under the income criterion.

Source: Williamson, 2006.

Appendix 2 Table 2. Florida Eligible Households by County and Eligibility Criteria Using 125 percent of FPG, 2000-2005

County	2005					2004				
	Households at or below 125% FPG	TANF, Medicaid & Food Stamps Eligible Households Above 125% FPG	Section 8/Housing Choice Voucher Households Above 125% FPG	LIHEAP Households Above 125% FPG	Total Eligible Households	Households at or below 125% FPG	TANF, Medicaid & Food Stamps Eligible Households Above 125% FPG	Section 8/Housing Choice Voucher Households Above 125% FPG	LIHEAP Households Above 125% FPG	Total Eligible Households
ALACHUA	21,133	950	88	49	22,220	20,920	851	83	32	21,886
BAKER	1,593	183	5	5	1,786	1,566	161	5	3	1,735
BAY	10,399	1,342	54	32	11,827	10,102	1,145	54	21	11,322
BRADFORD	2,008	190	-	5	2,203	1,974	164	-	4	2,142
BREVARD	27,298	2,910	124	99	30,431	26,880	2,521	121	64	29,586
BROWARD	100,294	8,305	564	299	109,462	98,066	7,178	524	196	105,964
CALHOUN	1,157	137	-	3	1,297	1,143	131	-	2	1,276
CHARLOTTE	8,237	851	24	37	9,148	8,088	795	17	24	8,924
CITRUS	9,516	1,045	3	26	10,590	9,322	961	3	17	10,303
CLAY	4,541	878	7	27	5,453	4,473	730	7	17	5,227
COLLIER	12,500	1,583	35	47	14,165	12,142	1,455	35	30	13,662
COLUMBIA	4,919	434	2	12	5,368	4,858	374	2	8	5,242
DADE	188,058	14,628	1,228	495	204,409	185,332	13,026	1,224	326	199,907
DESOTO	2,543	213	-	7	2,763	2,476	228	-	4	2,708
DIXIE	1,522	112	-	4	1,638	1,475	99	-	2	1,576
DUVAL	47,255	4,352	382	173	52,162	46,699	3,810	354	114	50,976
ESCAMBIA	20,843	1,848	91	70	22,852	20,653	1,534	87	46	22,320
FLAGLER	2,380	365	18	17	2,780	4,817	316	18	10	5,161
FRANKLIN	1,068	81	-	2	1,151	1,056	60	-	1	1,117
GADSDEN	3,772	271	-	8	4,051	2,963	234	-	5	3,202
GILCHRIST	1,434	140	-	4	1,578	1,391	118	-	3	1,512
GLADES	830	24	-	2	856	809	22	-	1	832
GULF	1,186	118	-	3	1,307	1,174	129	-	2	1,305

Appendix 2 Table 2 (cont.). Florida Eligible Households by County and Eligibility Criteria Using 125 percent of FPG, 2000-2005

County	2005					2004				
	Households at or below 125% FPG	TANF, Medicaid & Food Stamps Eligible Households Above 125% FPG	Section 8/Housing Choice Voucher Households Above 125% FPG	LIHEAP Households Above 125% FPG	Total Eligible Households	Households at or below 125% FPG	TANF, Medicaid & Food Stamps Eligible Households Above 125% FPG	Section 8/Housing Choice Voucher Households Above 125% FPG	LIHEAP Households Above 125% FPG	Total Eligible Households
HAMILTON	1,188	125	-	4	1,317	1,172	110	-	2	1,284
HARDEE	1,893	266	-	5	2,164	1,843	243	-	3	2,089
HENDRY	1,865	330	-	7	2,202	2,527	286	-	5	2,818
HERNANDO	8,827	885	11	26	9,749	8,648	850	11	17	9,526
HIGHLANDS	8,245	662	2	17	8,927	8,063	623	2	11	8,699
HILLSBOROUGH	60,308	6,356	336	218	67,218	59,421	5,877	316	141	65,756
HOLMES	1,686	176	2	4	1,869	1,661	170	2	3	1,836
INDIAN-RIVER	7,786	835	44	29	8,694	7,644	712	44	19	8,419
JACKSON	4,208	482	24	11	4,725	4,160	423	24	7	4,614
JEFFERSON	1,137	95	5	3	1,241	1,116	90	5	2	1,213
LAFAYETTE	625	67	-	2	694	611	61	-	1	673
LAKE	13,286	1,531	26	50	14,892	12,922	1,334	26	31	14,313
LEE	25,085	2,977	139	105	28,306	24,704	2,645	137	67	27,552
LEON	17,993	977	127	62	19,159	17,610	877	127	41	18,655
LEVY	4,137	228	6	9	4,380	4,029	226	6	6	4,267
LIBERTY	555	53	-	2	610	542	39	-	1	582
MADISON	1,669	147	-	4	1,820	1,657	146	-	3	1,806
MANATEE	15,518	1,667	91	52	17,328	15,231	1,473	90	33	16,828
MARION	21,217	1,971	46	57	23,291	20,692	1,784	45	37	22,558
MARTIN	6,343	777	8	20	7,147	6,222	732	7	13	6,974
MONROE	5,862	384	64	17	6,328	5,845	369	61	12	6,287
NASSAU	3,174	317	2	5	3,498	3,094	318	2	4	3,417
OKALOOSA	8,118	1,144	51	30	9,343	8,003	958	51	19	9,032

Appendix 2 Table 2 (cont.). Florida Eligible Households by County and Eligibility Criteria Using 125 percent of FPG, 2000-2005

County	2005					2004				
	Households at or below 125% FPG	TANF, Medicaid & Food Stamps Eligible Households Above 125% FPG	Section 8/Housing Choice Voucher Households Above 125% FPG	LIHEAP Households Above 125% FPG	Total Eligible Households	Households at or below 125% FPG	TANF, Medicaid & Food Stamps Eligible Households Above 125% FPG	Section 8/Housing Choice Voucher Households Above 125% FPG	LIHEAP Households Above 125% FPG	Total Eligible Households
OKEECHOBEE	2,814	443	-	9	3,266	1,965	381	-	6	2,352
ORANGE	50,159	6,168	262	172	56,761	49,007	5,384	252	112	54,755
OSCEOLA	9,966	1,771	13	53	11,802	9,724	1,487	13	33	11,256
PALM-BEACH	62,292	6,754	485	217	69,748	61,064	5,991	473	141	67,668
PASCO	24,104	2,836	64	81	27,085	23,692	2,536	64	51	26,343
PINELLAS	55,259	6,742	362	152	62,515	54,800	5,921	360	101	61,182
POLK	32,781	3,487	73	111	36,451	32,095	3,006	69	72	35,242
PUTNAM	7,089	744	10	17	7,859	5,726	591	10	11	6,337
SANTA-ROSA	7,408	678	-	29	8,115	7,170	568	-	19	7,757
SARASOTA	15,968	1,981	56	52	18,057	15,717	1,911	55	34	17,716
SEMINOLE	14,536	1,599	26	60	16,220	14,193	1,328	26	39	15,586
ST-JOHNS	5,832	601	-	32	6,465	5,650	542	-	20	6,212
ST-LUCIE	12,444	1,801	58	38	14,341	12,194	1,609	55	24	13,881
SUMTER	4,141	282	4	12	4,439	4,014	282	4	8	4,308
SUWANNEE	4,014	411	-	9	4,434	3,896	371	-	6	4,273
TAYLOR	1,788	160	-	4	1,952	1,767	139	-	3	1,909
UNION	827	50	-	3	880	799	55	-	2	856
VOLUSIA	29,813	3,421	142	91	33,466	29,290	2,961	132	59	32,442
WAKULLA	1,310	119	4	6	1,440	2,071	115	4	4	2,194
WALTON	4,594	291	15	12	4,912	4,481	255	15	7	4,759
WASHINGTON	1,963	208	3	5	2,180	1,931	182	3	3	2,120
Totals	**1,044,313**	**103,959**	**5,185**	**3,331**	**1,156,788**	**1,027,042**	**92,003**	**5,023**	**2,165**	**1,126,233**

Appendix 2 Table 2 (cont.). Florida Eligible Households by County and Eligibility Criteria Using 125 percent of FPG, 2000-2005

County	2003					2002				
	Households at or below 125% FPG	TANF, Medicaid & Food Stamps Eligible Households Above 125% FPG	Section 8/Housing Choice Voucher Households Above 125% FPG	LIHEAP Households Above 125% FPG	Total Eligible Households	Households at or below 125% FPG	TANF, Medicaid & Food Stamps Eligible Households Above 125% FPG	Section 8/Housing Choice Voucher Households Above 125% FPG	LIHEAP Households Above 125% FPG	Total Eligible Households
ALACHUA	20,706	831	77	39	21,653	20,489	772	75	18	21,354
BAKER	1,542	152	5	4	1,703	1,518	137	5	2	1,662
BAY	10,102	1,090	54	25	11,271	9,960	964	49	14	10,987
BRADFORD	1,938	173	-	4	2,115	1,909	165	0	2	2,076
BREVARD	26,489	2,403	118	76	29,086	26,109	2,150	115	48	28,422
BROWARD	95,986	6,420	485	236	103,126	93,999	5,478	446	181	100,103
CALHOUN	1,120	118	-	2	1,240	1,104	109	0	1	1,214
CHARLOTTE	7,958	808	10	28	8,804	7,823	787	9	11	8,630
CITRUS	9,133	969	3	20	10,125	8,959	931	3	11	9,905
CLAY	4,403	707	7	20	5,137	4,344	622	7	17	4,989
COLLIER	11,808	1,324	35	35	13,202	11,466	1,195	34	31	12,726
COLUMBIA	4,813	347	2	9	5,172	4,762	304	2	5	5,073
DADE	182,702	12,423	1,220	392	196,737	180,158	11,321	1,215	200	192,894
DESOTO	2,417	216	-	5	2,638	2,354	218	0	3	2,575
DIXIE	1,433	98	-	3	1,534	1,394	91	0	1	1,486
DUVAL	46,150	3,535	325	137	50,148	45,639	3,127	306	69	49,141
ESCAMBIA	20,475	1,568	83	56	22,182	20,286	1,428	82	22	21,818
FLAGLER	4,658	239	18	11	4,926	4,504	176	18	4	4,702
FRANKLIN	1,040	67	-	2	1,109	1,027	60	0	1	1,088
GADSDEN	2,937	228	-	7	3,172	2,914	207	0	5	3,125
GILCHRIST	1,346	124	-	3	1,473	1,298	116	0	1	1,415
GLADES	779	27	-	2	808	759	29	0	1	789
GULF	1,167	107	-	2	1,276	1,157	102	0	1	1,260

Appendix 2 Table 2 (cont.). Florida Eligible Households by County and Eligibility Criteria Using 125 percent of FPG, 2000-2005

County	2003					2002				
	Households at or below 125% FPG	TANF, Medicaid & Food Stamps Eligible Households Above 125% FPG	Section 8/Housing Choice Voucher Households Above 125% FPG	LIHEAP Households Above 125% FPG	Total Eligible Households	Households at or below 125% FPG	TANF, Medicaid & Food Stamps Eligible Households Above 125% FPG	Section 8/Housing Choice Voucher Households Above 125% FPG	LIHEAP Households Above 125% FPG	Total Eligible Households
HAMILTON	1,165	86	-	3	1,254	1,150	67	0	1	1,217
HARDEE	1,806	218	-	4	2,028	1,764	194	0	3	1,961
HENDRY	2,449	270	-	5	2,724	2,386	240	0	4	2,630
HERNANDO	8,482	774	11	19	9,286	8,318	719	11	15	9,062
HIGHLANDS	7,872	585	1	13	8,472	7,716	547	1	9	8,273
HILLSBOROUGH	58,589	5,124	297	168	64,178	57,782	4,508	277	98	62,666
HOLMES	1,636	164	2	4	1,806	1,617	158	2	1	1,779
INDIAN-RIVER	7,500	767	44	22	8,333	7,364	733	44	9	8,150
JACKSON	4,108	389	24	9	4,529	4,064	343	24	4	4,434
JEFFERSON	1,100	95	5	3	1,203	1,087	95	5	1	1,188
LAFAYETTE	594	57	-	1	652	584	52	0	0	636
LAKE	12,571	1,272	26	36	13,905	12,255	1,143	26	24	13,447
LEE	24,338	2,394	134	78	26,944	23,986	2,103	132	44	26,264
LEON	17,254	855	127	49	18,285	16,910	794	127	15	17,846
LEVY	3,900	236	6	7	4,149	3,796	240	6	2	4,044
LIBERTY	528	45	-	1	574	513	41	0	1	555
MADISON	1,642	125	-	3	1,770	1,626	114	0	1	1,741
MANATEE	14,955	1,384	89	40	16,467	14,684	1,243	88	30	16,044
MARION	20,185	1,712	44	43	21,984	19,716	1,583	44	26	21,369
MARTIN	6,103	698	6	15	6,822	6,003	659	5	16	6,683
MONROE	5,831	383	59	14	6,287	5,823	383	56	6	6,267
NASSAU	3,010	270	2	4	3,286	2,933	247	2	9	3,190
OKALOOSA	7,903	1,052	51	23	9,029	7,793	1,006	51	19	8,870

Appendix 2 Table 2 (cont.). Florida Eligible Households by County and Eligibility Criteria Using 125 percent of FPG, 2000-2005

County	2003					2002				
	Households at or below 125% FPG	TANF, Medicaid & Food Stamps Eligible Households Above 125% FPG	Section 8/Housing Choice Voucher Households Above 125% FPG	LIHEAP Households Above 125% FPG	Total Eligible Households	Households at or below 125% FPG	TANF, Medicaid & Food Stamps Eligible Households Above 125% FPG	Section 8/Housing Choice Voucher Households Above 125% FPG	LIHEAP Households Above 125% FPG	Total Eligible Households
OKEECHOBEE	1,934	301	-	7	2,242	1,906	230	0	3	2,139
ORANGE	47,895	4,876	243	133	53,146	46,813	4,230	223	100	51,365
OSCEOLA	9,498	1,335	13	38	10,883	9,283	1,117	13	15	10,428
PALM-BEACH	59,902	6,137	460	168	66,667	58,820	5,829	448	125	65,221
PASCO	23,307	2,266	64	59	25,696	22,947	1,981	64	36	25,027
PINELLAS	54,356	5,387	359	123	60,225	53,959	4,710	357	100	59,126
POLK	31,423	2,890	65	85	34,463	30,800	2,592	65	44	33,500
PUTNAM	5,671	612	10	13	6,306	5,619	546	9	5	6,179
SANTA-ROSA	6,944	563	-	22	7,529	6,729	506	0	11	7,246
SARASOTA	15,470	1,888	53	40	17,451	15,244	1,842	51	40	17,177
SEMINOLE	13,867	1,272	26	47	15,212	13,553	1,109	26	44	14,731
ST-JOHNS	5,481	496	-	23	6,000	5,323	444	0	13	5,779
ST-LUCIE	11,950	1,529	51	27	13,558	11,724	1,393	51	23	13,191
SUMTER	3,909	285	4	9	4,207	3,810	287	4	5	4,106
SUWANNEE	3,771	370	-	7	4,148	3,658	350	0	2	4,010
TAYLOR	1,757	146	-	3	1,906	1,740	139	0	2	1,881
UNION	779	30	-	2	811	754	20	0	1	775
VOLUSIA	28,793	2,650	123	70	31,636	28,309	2,265	112	45	30,730
WAKULLA	1,981	121	4	5	2,111	1,904	122	4	2	2,032
WALTON	4,386	216	15	9	4,626	4,291	179	15	3	4,488
WASHINGTON	1,909	157	3	4	2,073	1,876	132	3	2	2,013
Totals	**1,009,606**	**86,456**	**4,861**	**2,580**	**1,103,502**	**992,864**	**77,705**	**4,713**	**1,609**	**1,076,891**

Appendix 2 Table 2 (cont.). Florida Eligible Households by County and Eligibility Criteria Using 125 percent of FPG, 2000-2005

County	2001					2000				
	Households at or below 125% FPG	TANF, Medicaid & Food Stamps Eligible Households Above 125% FPG	Section 8/Housing Choice Voucher Households Above 125% FPG	LIHEAP Households Above 125% FPG	Total Eligible Households	Households at or below 125% FPG	TANF, Medicaid & Food Stamps Eligible Households Above 125% FPG	Section 8/Housing Choice Voucher Households Above 125% FPG	LIHEAP Households Above 125% FPG	Total Eligible Households
ALACHUA	19,832	716	73	0	20,622	19,207	665	71	0	19,943
BAKER	1,492	123	5	0	1,620	1,469	110	5	0	1,584
BAY	9,828	853	44	0	10,725	9,699	754	39	0	10,492
BRADFORD	1,887	156	0	0	2,043	1,859	149	0	0	2,008
BREVARD	25,610	1,923	113	0	27,645	25,146	1,720	110	0	26,976
BROWARD	92,804	4,673	407	0	97,885	91,644	3,987	369	0	96,000
CALHOUN	1,086	100	0	0	1,186	1,072	92	0	0	1,164
CHARLOTTE	7,647	766	8	0	8,421	7,469	745	8	0	8,222
CITRUS	8,771	894	3	0	9,669	8,583	859	3	0	9,446
CLAY	4,210	546	7	0	4,763	4,072	480	7	0	4,559
COLLIER	10,926	1,078	34	0	12,038	10,401	972	34	0	11,407
COLUMBIA	4,697	265	2	0	4,965	4,626	232	2	0	4,860
DADE	177,955	10,316	1,211	0	189,482	175,798	9,400	1,207	0	186,405
DESOTO	2,315	219	0	0	2,534	2,279	221	0	0	2,500
DIXIE	1,351	85	0	0	1,436	1,319	78	0	0	1,397
DUVAL	44,771	2,765	288	0	47,824	43,914	2,446	269	0	46,628
ESCAMBIA	20,111	1,301	81	0	21,492	19,923	1,184	80	0	21,187
FLAGLER	4,230	130	18	0	4,377	3,979	95	18	0	4,092
FRANKLIN	1,009	54	0	0	1,063	990	48	0	0	1,038
GADSDEN	2,905	187	0	0	3,092	2,894	169	0	0	3,063
GILCHRIST	1,271	109	0	0	1,380	1,247	102	0	0	1,349
GLADES	753	30	0	0	783	746	32	0	0	778
GULF	1,164	96	0	0	1,260	1,161	91	0	0	1,252

Appendix 2 Table 2 (cont.). Florida Eligible Households by County and Eligibility Criteria Using 125 percent of FPG, 2000-2005

County	2001					2000				
	Households at or below 125% FPG	TANF, Medicaid & Food Stamps Eligible Households Above 125% FPG	Section 8/Housing Choice Voucher Households Above 125% FPG	LIHEAP Households Above 125% FPG	Total Eligible Households	Households at or below 125% FPG	TANF, Medicaid & Food Stamps Eligible Households Above 125% FPG	Section 8/Housing Choice Voucher Households Above 125% FPG	LIHEAP Households Above 125% FPG	Total Eligible Households
HAMILTON	1,138	51	0	0	1,189	1,126	40	0	0	1,166
HARDEE	1,765	173	0	0	1,938	1,768	154	0	0	1,922
HENDRY	2,375	213	0	0	2,588	2,360	190	0	0	2,550
HERNANDO	8,143	667	11	0	8,821	7,958	619	11	0	8,588
HIGHLANDS	7,640	511	1	0	8,152	7,565	477	1	0	8,043
HILLSBOROUGH	56,212	3,966	258	0	60,436	54,706	3,489	238	0	58,434
HOLMES	1,602	152	2	0	1,756	1,596	147	2	0	1,745
INDIAN-RIVER	7,201	701	44	0	7,945	7,035	669	44	0	7,748
JACKSON	4,011	302	23	0	4,336	3,959	266	23	0	4,248
JEFFERSON	1,093	95	5	0	1,193	1,103	95	5	0	1,203
LAFAYETTE	569	47	0	0	616	561	43	0	0	604
LAKE	11,771	1,026	26	0	12,823	11,326	922	26	0	12,273
LEE	23,116	1,846	130	0	25,092	22,264	1,622	127	0	24,013
LEON	16,510	737	127	0	17,374	16,135	685	127	0	16,946
LEVY	3,701	244	6	0	3,951	3,605	248	6	0	3,859
LIBERTY	513	37	0	0	550	512	34	0	0	546
MADISON	1,615	104	0	0	1,719	1,604	95	0	0	1,699
MANATEE	14,328	1,115	86	0	15,530	13,973	1,001	85	0	15,060
MARION	19,251	1,463	45	0	20,758	18,781	1,352	45	0	20,178
MARTIN	5,901	621	4	0	6,527	5,800	586	4	0	6,390
MONROE	5,769	382	53	0	6,204	5,708	382	50	0	6,140
NASSAU	2,847	225	2	0	3,074	2,756	205	2	0	2,963
OKALOOSA	7,654	962	51	0	8,667	7,511	920	51	0	8,482

Appendix 2 Table 2 (cont.). Florida Eligible Households by County and Eligibility Criteria Using 125 percent of FPG, 2000-2005

County	2001					2000				
	Households at or below 125% FPG	TANF, Medicaid & Food Stamps Eligible Households Above 125% FPG	Section 8/Housing Choice Voucher Households Above 125% FPG	LIHEAP Households Above 125% FPG	Total Eligible Households	Households at or below 125% FPG	TANF, Medicaid & Food Stamps Eligible Households Above 125% FPG	Section 8/Housing Choice Voucher Households Above 125% FPG	LIHEAP Households Above 125% FPG	Total Eligible Households
OKEECHOBEE	1,887	176	0	0	2,063	1,868	134	0	0	2,002
ORANGE	45,350	3,670	203	0	49,223	43,921	3,183	184	0	47,288
OSCEOLA	8,762	935	13	0	9,709	8,268	782	13	0	9,062
PALM-BEACH	57,586	5,536	435	0	63,557	56,408	5,257	422	0	62,088
PASCO	22,410	1,732	64	0	24,206	21,889	1,514	64	0	23,467
PINELLAS	53,629	4,117	356	0	58,102	53,319	3,599	354	0	57,273
POLK	30,169	2,324	65	0	32,558	29,583	2,084	65	0	31,732
PUTNAM	5,578	487	8	0	6,073	5,540	435	7	0	5,981
SANTA-ROSA	6,512	454	0	0	6,966	6,314	408	0	0	6,722
SARASOTA	14,923	1,796	49	0	16,768	14,616	1,752	47	0	16,415
SEMINOLE	13,138	966	26	0	14,130	12,745	842	26	0	13,613
ST-JOHNS	5,098	397	0	0	5,495	4,885	355	0	0	5,240
ST-LUCIE	11,406	1,269	51	0	12,727	11,101	1,156	52	0	12,309
SUMTER	3,555	288	4	0	3,847	3,331	290	4	0	3,624
SUWANNEE	3,609	330	0	0	3,939	3,559	312	0	0	3,871
TAYLOR	1,720	132	0	0	1,852	1,704	126	0	0	1,830
UNION	744	13	0	0	757	733	9	0	0	742
VOLUSIA	27,800	1,935	101	0	29,836	27,280	1,654	90	0	29,023
WAKULLA	1,862	123	4	0	1,989	1,820	124	4	0	1,948
WALTON	4,034	148	15	0	4,197	3,795	122	15	0	3,932
WASHINGTON	1,855	110	3	0	1,969	1,830	92	3	0	1,926
Totals	**972,977**	**69,962**	**4,566**	**0**	**1,047,505**	**953,718**	**63,102**	**4,418**	**0**	**1,021,238**

Source: Williamson, 2006.

Appendix 2 Table 3. Florida Eligible Households by County and Eligibility Criteria Using 135 percent of FPG, 2000-2005

County	2005					2004				
	Households at or below 135% FPG	TANF, Medicaid & Food Stamps Eligible Households Above 135% FPG	Section 8/Housing Choice Voucher Households Above 135% FPG	LIHEAP Households Above 135% FPG	Total Eligible Households	Households at or below 135% FPG	TANF, Medicaid & Food Stamps Eligible Households Above 135% FPG	Section 8/Housing Choice Voucher Households Above 135% FPG	LIHEAP Households Above 135% FPG	Total Eligible Households
ALACHUA	22,827	660	59	31	23,576	22,599	600	55	20	23,274
BAKER	1,759	136	4	3	1,902	1,728	128	4	2	1,862
BAY	11,345	1,061	38	20	12,464	11,180	888	38	13	12,119
BRADFORD	2,210	145	-	3	2,358	2,172	125	-	2	2,299
BREVARD	30,839	2,145	92	62	33,139	30,370	1,950	90	41	32,451
BROWARD	112,408	5,934	434	188	118,964	109,962	5,258	403	125	115,748
CALHOUN	1,274	101	-	2	1,377	1,261	94	-	1	1,356
CHARLOTTE	9,755	606	13	23	10,397	9,583	572	9	15	10,179
CITRUS	10,977	745	1	16	11,740	10,752	689	1	11	11,453
CLAY	5,304	688	4	17	6,013	5,223	574	4	11	5,812
COLLIER	13,675	1,296	31	30	15,031	13,285	1,203	30	19	14,538
COLUMBIA	5,412	316	2	8	5,738	5,346	283	2	5	5,636
DADE	207,384	10,146	919	312	218,760	204,370	9,495	916	207	214,987
DESOTO	2,882	157	-	4	3,043	2,807	178	-	3	2,988
DIXIE	1,671	78	-	2	1,751	1,618	70	-	1	1,689
DUVAL	53,054	3,354	281	109	56,798	52,450	3,002	260	72	55,785
ESCAMBIA	23,085	1,393	57	44	24,579	22,870	1,148	55	29	24,102
FLAGLER	2,711	253	11	11	2,986	5,331	222	11	7	5,571
FRANKLIN	1,175	63	-	1	1,239	1,161	48	-	1	1,210
GADSDEN	4,177	198	-	5	4,380	3,332	175	-	3	3,510
GILCHRIST	1,577	112	-	3	1,692	1,533	94	-	2	1,629
GLADES	948	18	-	1	967	924	17	-	1	942
GULF	1,307	94	-	2	1,403	1,296	103	-	1	1,400

Appendix 2 Table 3 (cont.). Florida Eligible Households by County and Eligibility Criteria Using 135 percent of FPG, 2000-2005

County	2005					2004				
	Households at or below 135% FPG	TANF, Medicaid & Food Stamps Eligible Households Above 135% FPG	Section 8/Housing Choice Voucher Households Above 135% FPG	LIHEAP Households Above 135% FPG	Total Eligible Households	Households at or below 135% FPG	TANF, Medicaid & Food Stamps Eligible Households Above 135% FPG	Section 8/Housing Choice Voucher Households Above 135% FPG	LIHEAP Households Above 135% FPG	Total Eligible Households
HAMILTON	1,299	91	-	2	1,392	1,283	82	-	1	1,366
HARDEE	2,147	220	-	3	2,370	2,088	205	-	2	2,295
HENDRY	2,080	258	-	5	2,343	2,853	230	-	3	3,086
HERNANDO	9,988	612	5	17	10,622	9,791	610	5	11	10,417
HIGHLANDS	9,417	488	1	11	9,917	9,207	465	1	7	9,680
HILLSBOROUGH	67,438	4,564	245	137	72,384	66,438	4,271	230	90	71,029
HOLMES	1,869	129	1	3	2,001	1,845	123	1	2	1,971
INDIAN-RIVER	9,049	642	30	18	9,739	8,888	538	30	12	9,468
JACKSON	4,655	372	16	7	5,050	4,601	325	16	5	4,946
JEFFERSON	1,253	71	2	2	1,328	1,229	70	2	1	1,302
LAFAYETTE	686	53	-	1	740	665	46	-	1	712
LAKE	15,324	1,128	20	31	16,503	14,903	997	20	20	15,940
LEE	28,688	2,305	103	66	31,161	28,257	2,051	101	42	30,451
LEON	19,295	715	91	39	20,140	18,889	684	91	26	19,690
LEVY	4,532	157	3	6	4,697	4,414	153	3	4	4,573
LIBERTY	611	40	-	1	652	599	28	-	1	628
MADISON	1,834	112	-	3	1,949	1,824	115	-	2	1,941
MANATEE	17,632	1,248	69	33	18,982	17,306	1,119	68	21	18,515
MARION	23,590	1,425	29	36	25,080	23,013	1,288	28	23	24,352
MARTIN	7,497	616	6	12	8,132	7,353	566	5	8	7,933
MONROE	6,387	304	50	11	6,752	6,369	288	48	7	6,712
NASSAU	3,562	241	1	3	3,808	3,476	256	1	2	3,735
OKALOOSA	9,277	912	41	19	10,248	9,145	768	41	12	9,966

Appendix 2 Table 3 (cont.). Florida Eligible Households by County and Eligibility Criteria Using 135 percent of FPG, 2000-2005

County	2005					2004				
	Households at or below 135% FPG	TANF, Medicaid & Food Stamps Eligible Households Above 135% FPG	Section 8/Housing Choice Voucher Households Above 135% FPG	LIHEAP Households Above 135% FPG	Total Eligible Households	Households at or below 135% FPG	TANF, Medicaid & Food Stamps Eligible Households Above 135% FPG	Section 8/Housing Choice Voucher Households Above 135% FPG	LIHEAP Households Above 135% FPG	Total Eligible Households
OKEECHOBEE	3,195	348	-	6	3,549	2,270	301	-	4	2,575
ORANGE	56,378	4,615	201	109	61,303	55,066	4,071	194	71	59,402
OSCEOLA	11,530	1,289	9	33	12,861	11,251	1,098	9	21	12,378
PALM-BEACH	69,403	5,133	379	137	75,051	68,054	4,699	369	90	73,211
PASCO	27,982	1,957	46	51	30,036	27,495	1,822	46	33	29,396
PINELLAS	62,027	4,880	268	96	67,270	61,525	4,250	266	64	66,106
POLK	36,637	2,611	45	70	39,362	35,865	2,246	42	46	38,199
PUTNAM	7,794	514	9	10	8,327	6,299	407	9	7	6,722
SANTA-ROSA	8,508	523	-	18	9,049	8,228	437	-	12	8,677
SARASOTA	18,215	1,538	43	33	19,828	17,931	1,477	41	21	19,471
SEMINOLE	16,395	1,214	19	38	17,666	16,007	991	19	25	17,042
ST-JOHNS	6,608	465	-	20	7,093	6,399	415	-	13	6,827
ST-LUCIE	13,874	1,366	42	24	15,306	13,596	1,233	40	15	14,884
SUMTER	4,782	210	2	8	5,001	4,629	202	2	5	4,838
SUWANNEE	4,396	290	-	6	4,692	4,271	263	-	4	4,538
TAYLOR	1,966	114	-	3	2,083	1,946	95	-	2	2,043
UNION	914	36	-	2	952	879	43	-	1	923
VOLUSIA	33,687	2,422	102	57	36,268	33,104	2,072	95	37	35,309
WAKULLA	1,430	87	4	4	1,525	2,297	86	4	3	2,390
WALTON	5,084	225	9	7	5,326	4,962	194	9	5	5,170
WASHINGTON	2,175	156	1	3	2,336	2,143	136	1	2	2,283
Totals	1,168,846	76,395	3,837	2,097	1,251,174	1,149,806	68,732	3,718	1,375	1,223,631

Appendix 2 Table 3 (cont.). Florida Eligible Households by County and Eligibility Criteria Using 135 percent of FPG, 2000-2005

County	2003					2002				
	Households at or below 135% FPG	TANF, Medicaid & Food Stamps Eligible Households Above 135% FPG	Section 8/Housing Choice Voucher Households Above 135% FPG	LIHEAP Households Above 135% FPG	Total Eligible Households	Households at or below 135% FPG	TANF, Medicaid & Food Stamps Eligible Households Above 135% FPG	Section 8/Housing Choice Voucher Households Above 135% FPG	LIHEAP Households Above 135% FPG	Total Eligible Households
ALACHUA	22,363	581	51	25	23,020	22,135	542	50	13	22,739
BAKER	1,703	114	4	2	1,824	1,676	103	4	2	1,785
BAY	11,021	869	38	16	11,943	10,873	773	34	10	11,690
BRADFORD	2,135	125	-	3	2,263	2,100	115	0	2	2,217
BREVARD	29,930	1,835	88	48	31,901	29,501	1,680	86	34	31,301
BROWARD	107,678	4,684	373	148	112,883	105,500	4,059	343	127	110,029
CALHOUN	1,236	91	-	1	1,328	1,217	86	0	1	1,304
CHARLOTTE	9,436	586	5	18	10,045	9,285	576	5	8	9,874
CITRUS	10,526	714	1	13	11,254	10,324	699	1	8	11,032
CLAY	5,141	549	4	13	5,707	5,071	480	4	12	5,566
COLLIER	12,918	1,119	30	22	14,089	12,542	1,031	30	22	13,624
COLUMBIA	5,293	254	2	6	5,555	5,237	223	2	4	5,466
DADE	201,462	9,058	912	247	211,679	198,646	8,514	909	141	208,210
DESOTO	2,738	170	-	3	2,911	2,671	177	0	2	2,850
DIXIE	1,570	71	-	2	1,643	1,528	68	0	1	1,596
DUVAL	51,853	2,766	240	86	54,945	51,299	2,472	226	48	54,045
ESCAMBIA	22,673	1,150	52	35	23,910	22,460	1,029	51	15	23,555
FLAGLER	5,157	172	11	7	5,347	4,980	132	11	3	5,126
FRANKLIN	1,144	59	-	1	1,204	1,133	57	0	1	1,191
GADSDEN	3,302	173	-	4	3,479	3,279	161	0	3	3,443
GILCHRIST	1,483	100	-	2	1,585	1,426	94	0	1	1,521
GLADES	890	22	-	1	913	867	24	0	1	892
GULF	1,289	81	-	2	1,372	1,278	75	0	1	1,353

Appendix 2 Table 3 (cont.). Florida Eligible Households by County and Eligibility Criteria Using 135 percent of FPG, 2000-2005

County	2003					2002				
	Households at or below 135% FPG	TANF, Medicaid & Food Stamps Eligible Households Above 135% FPG	Section 8/Housing Choice Voucher Households Above 135% FPG	LIHEAP Households Above 135% FPG	Total Eligible Households	Households at or below 135% FPG	TANF, Medicaid & Food Stamps Eligible Households Above 135% FPG	Section 8/Housing Choice Voucher Households Above 135% FPG	LIHEAP Households Above 135% FPG	Total Eligible Households
HAMILTON	1,275	66	-	2	1,343	1,259	54	0	1	1,313
HARDEE	2,043	181	-	3	2,227	1,997	162	0	2	2,160
HENDRY	2,767	209	-	3	2,979	2,695	185	0	3	2,882
HERNANDO	9,610	558	5	12	10,185	9,432	531	5	10	9,979
HIGHLANDS	8,987	444	1	8	9,440	8,809	422	1	6	9,238
HILLSBOROUGH	65,504	3,751	216	106	69,577	64,593	3,345	202	69	68,209
HOLMES	1,818	119	1	2	1,940	1,793	114	1	1	1,909
INDIAN-RIVER	8,730	590	30	14	9,364	8,574	564	30	6	9,174
JACKSON	4,546	305	16	5	4,872	4,498	272	16	2	4,788
JEFFERSON	1,212	69	2	2	1,284	1,197	68	2	1	1,267
LAFAYETTE	648	42	-	1	691	638	37	0	0	675
LAKE	14,503	955	20	23	15,501	14,137	869	20	17	15,042
LEE	27,861	1,847	99	49	29,856	27,469	1,618	97	31	29,215
LEON	18,519	650	91	31	19,291	18,158	618	91	11	18,878
LEVY	4,274	162	3	5	4,443	4,161	165	3	2	4,330
LIBERTY	583	33	-	1	617	566	30	0	0	596
MADISON	1,807	100	-	2	1,909	1,790	94	0	1	1,885
MANATEE	16,988	1,057	67	25	18,137	16,686	962	66	21	17,735
MARION	22,452	1,237	27	27	23,743	21,938	1,143	27	18	23,127
MARTIN	7,211	543	5	10	7,768	7,090	507	4	11	7,612
MONROE	6,360	307	46	9	6,722	6,352	309	43	4	6,708
NASSAU	3,383	219	1	3	3,606	3,300	208	1	6	3,515
OKALOOSA	9,032	828	41	14	9,915	8,905	786	41	14	9,745

Appendix 2 Table 3 (cont.). Florida Eligible Households by County and Eligibility Criteria Using 135 percent of FPG, 2000-2005

County	2003					2002				
	Households at or below 135% FPG	TANF, Medicaid & Food Stamps Eligible Households Above 135% FPG	Section 8/Housing Choice Voucher Households Above 135% FPG	LIHEAP Households Above 135% FPG	Total Eligible Households	Households at or below 135% FPG	TANF, Medicaid & Food Stamps Eligible Households Above 135% FPG	Section 8/Housing Choice Voucher Households Above 135% FPG	LIHEAP Households Above 135% FPG	Total Eligible Households
OKEECHOBEE	2,233	221	-	4	2,458	2,204	158	0	2	2,363
ORANGE	53,818	3,636	186	83	57,724	52,586	3,147	171	70	55,974
OSCEOLA	10,993	978	9	24	12,003	10,749	823	9	11	11,591
PALM-BEACH	66,781	4,813	359	105	72,059	65,592	4,653	349	88	70,682
PASCO	27,045	1,620	46	37	28,748	26,622	1,452	46	25	28,145
PINELLAS	61,035	3,927	265	77	65,305	60,605	3,451	264	71	64,390
POLK	35,124	2,126	40	54	37,344	34,433	1,884	40	31	36,387
PUTNAM	6,233	431	9	8	6,681	6,174	390	8	4	6,575
SANTA-ROSA	7,969	421	-	14	8,404	7,717	370	0	8	8,095
SARASOTA	17,652	1,451	40	25	19,168	17,396	1,408	39	28	18,871
SEMINOLE	15,641	914	19	30	16,604	15,286	764	19	31	16,100
ST-JOHNS	6,201	374	-	14	6,589	6,016	329	0	9	6,353
ST-LUCIE	13,330	1,165	37	17	14,550	13,075	1,065	37	16	14,193
SUMTER	4,503	210	2	6	4,721	4,388	210	2	4	4,604
SUWANNEE	4,134	264	-	5	4,403	4,010	251	0	2	4,263
TAYLOR	1,937	110	-	2	2,049	1,919	108	0	1	2,028
UNION	857	23	-	1	881	832	17	0	1	849
VOLUSIA	32,546	1,863	89	44	34,542	32,016	1,584	81	32	33,712
WAKULLA	2,199	92	4	3	2,298	2,112	95	4	1	2,212
WALTON	4,856	160	9	5	5,031	4,757	128	9	2	4,896
WASHINGTON	2,119	123	1	3	2,246	2,081	107	1	1	2,190
Totals	**1,130,260**	**64,537**	**3,599**	**1,623**	**1,200,019**	**1,111,635**	**58,608**	**3,489**	**1,132**	**1,174,863**

Appendix 2 Table 3 (cont.). Florida Eligible Households by County and Eligibility Criteria Using 135 percent of FPG, 2000-2005

County	2001					2000				
	Households at or below 135% FPG	TANF, Medicaid & Food Stamps Eligible Households Above 135% FPG	Section 8/Housing Choice Voucher Households Above 135% FPG	LIHEAP Households Above 135% FPG	Total Eligible Households	Households at or below 135% FPG	TANF, Medicaid & Food Stamps Eligible Households Above 135% FPG	Section 8/Housing Choice Voucher Households Above 135% FPG	LIHEAP Households Above 135% FPG	Total Eligible Households
ALACHUA	21,426	505	49	0	21,979	20,761	470	47	0	21,279
BAKER	1,649	93	4	0	1,746	1,623	84	4	0	1,711
BAY	10,727	688	31	0	11,445	10,586	612	27	0	11,225
BRADFORD	2,076	106	0	0	2,182	2,046	97	-	0	2,143
BREVARD	28,944	1,538	84	0	30,566	28,412	1,408	82	0	29,902
BROWARD	104,184	3,517	313	0	108,015	102,904	3,048	284	0	106,236
CALHOUN	1,199	81	0	0	1,280	1,182	77	-	0	1,259
CHARLOTTE	9,079	566	5	0	9,650	8,867	557	4	0	9,428
CITRUS	10,113	683	1	0	10,798	9,891	669	1	0	10,561
CLAY	4,917	419	4	0	5,340	4,754	366	4	0	5,124
COLLIER	11,956	949	30	0	12,935	11,377	874	29	0	12,280
COLUMBIA	5,167	196	2	0	5,365	5,090	172	2	0	5,264
DADE	196,204	8,003	906	0	205,113	193,843	7,522	903	0	202,268
DESOTO	2,629	183	0	0	2,812	2,588	190	-	0	2,778
DIXIE	1,482	64	0	0	1,546	1,447	61	-	0	1,508
DUVAL	50,335	2,209	212	0	52,756	49,380	1,974	198	0	51,552
ESCAMBIA	22,272	920	51	0	23,242	22,058	823	50	0	22,931
FLAGLER	4,675	101	11	0	4,787	4,401	77	11	0	4,489
FRANKLIN	1,114	55	0	0	1,169	1,093	53	-	0	1,146
GADSDEN	3,267	149	0	0	3,416	3,252	138	-	0	3,390
GILCHRIST	1,399	88	0	0	1,487	1,371	83	-	0	1,454
GLADES	860	26	0	0	886	851	29	-	0	880
GULF	1,285	69	0	0	1,354	1,283	63	-	0	1,346

Appendix 2 Table 3 (cont.). Florida Eligible Households by County and Eligibility Criteria Using 135 percent of FPG, 2000-2005

County	2001					2000				
	Households at or below 135% FPG	TANF, Medicaid & Food Stamps Eligible Households Above 135% FPG	Section 8/Housing Choice Voucher Households Above 135% FPG	LIHEAP Households Above 135% FPG	Total Eligible Households	Households at or below 135% FPG	TANF, Medicaid & Food Stamps Eligible Households Above 135% FPG	Section 8/Housing Choice Voucher Households Above 135% FPG	LIHEAP Households Above 135% FPG	Total Eligible Households
HAMILTON	1,244	43	0	0	1,287	1,232	35	-	0	1,267
HARDEE	1,994	144	0	0	2,138	1,997	129	-	0	2,126
HENDRY	2,682	163	0	0	2,845	2,664	144	-	0	2,808
HERNANDO	9,235	505	5	0	9,745	9,029	481	5	0	9,515
HIGHLANDS	8,722	401	1	0	9,124	8,633	381	1	0	9,015
HILLSBOROUGH	62,849	2,982	188	0	66,019	61,168	2,659	174	0	64,001
HOLMES	1,775	109	1	0	1,885	1,769	105	1	0	1,874
INDIAN-RIVER	8,386	539	30	0	8,955	8,198	515	29	0	8,743
JACKSON	4,437	242	16	0	4,694	4,380	215	16	0	4,611
JEFFERSON	1,204	67	2	0	1,273	1,216	66	2	0	1,284
LAFAYETTE	620	32	0	0	652	612	28	-	0	640
LAKE	13,582	790	20	0	14,392	13,068	718	20	0	13,806
LEE	26,478	1,417	95	0	27,991	25,505	1,242	94	0	26,840
LEON	17,739	587	91	0	18,417	17,340	557	91	0	17,989
LEVY	4,059	167	3	0	4,229	3,950	170	3	0	4,122
LIBERTY	566	26	0	0	592	565	24	-	0	589
MADISON	1,776	88	0	0	1,864	1,764	83	-	0	1,847
MANATEE	16,280	875	65	0	17,220	15,872	796	64	0	16,732
MARION	21,427	1,056	28	0	22,511	20,899	976	28	0	21,903
MARTIN	6,971	472	4	0	7,447	6,851	441	3	0	7,295
MONROE	6,298	310	41	0	6,649	6,232	312	39	0	6,583
NASSAU	3,202	198	1	0	3,401	3,103	188	1	0	3,292
OKALOOSA	8,746	746	41	0	9,533	8,584	708	41	0	9,333

Appendix 2 Table 3 (cont.). Florida Eligible Households by County and Eligibility Criteria Using 135 percent of FPG, 2000-2005

County	2001					2000				
	Households at or below 135% FPG	TANF, Medicaid & Food Stamps Eligible Households Above 135% FPG	Section 8/Housing Choice Voucher Households Above 135% FPG	LIHEAP Households Above 135% FPG	Total Eligible Households	Households at or below 135% FPG	TANF, Medicaid & Food Stamps Eligible Households Above 135% FPG	Section 8/Housing Choice Voucher Households Above 135% FPG	LIHEAP Households Above 135% FPG	Total Eligible Households
OKEECHOBEE	2,183	112	0	0	2,295	2,158	80	-	0	2,238
ORANGE	50,946	2,723	156	0	53,825	49,334	2,356	141	0	51,831
OSCEOLA	10,141	692	9	0	10,841	9,572	582	9	0	10,162
PALM-BEACH	64,233	4,498	340	0	69,071	62,927	4,349	330	0	67,606
PASCO	26,001	1,301	46	0	27,348	25,390	1,165	46	0	26,601
PINELLAS	60,238	3,032	263	0	63,533	59,907	2,664	262	0	62,833
POLK	33,725	1,669	40	0	35,434	33,070	1,478	40	0	34,588
PUTNAM	6,128	352	7	0	6,487	6,087	318	6	0	6,411
SANTA-ROSA	7,466	325	0	0	7,791	7,243	286	-	0	7,529
SARASOTA	17,035	1,365	37	0	18,438	16,685	1,324	36	0	18,045
SEMINOLE	14,813	639	19	0	15,471	14,375	534	19	0	14,928
ST-JOHNS	5,764	289	0	0	6,053	5,523	253	-	0	5,776
ST-LUCIE	12,727	973	37	0	13,737	12,384	889	37	0	13,310
SUMTER	4,089	210	2	0	4,301	3,829	210	2	0	4,041
SUWANNEE	3,956	239	0	0	4,195	3,901	227	-	0	4,128
TAYLOR	1,897	106	0	0	2,003	1,880	104	-	0	1,984
UNION	821	12	0	0	833	809	8	-	0	817
VOLUSIA	31,446	1,346	73	0	32,865	30,862	1,144	65	0	32,071
WAKULLA	2,066	97	4	0	2,168	2,019	100	4	0	2,123
WALTON	4,472	102	9	0	4,583	4,206	81	9	0	4,296
WASHINGTON	2,057	92	1	0	2,151	2,029	80	1	0	2,110
Totals	**1,089,435**	**53,340**	**3,378**	**0**	**1,146,153**	**1,067,881**	**48,649**	**3,267**	**0**	**1,119,797**

Source: Williamson, 2006.

Appendix 2 Table 4. Florida Regression Results
Dependent Variable = Logit of Lifeline Participation Rate
N = 201

Variable	Coefficient	Standard Error	Marginal Effect
Percent of Customers Served by BellSouth	0.180***	(0.070)	0.052
Percent of Customers Served by Sprint	0.012	(0.078)	0.004
Percent of Customers Served by Verizon	0.424***	(0.069)	0.026
Price for Local Telephone Service	0.067***	(0.021)	0.605
Cellular Penetration	-0.063*	(0.037)	-0.064
Percent of Households that Own their Homes	1.963**	(0.887)	1.074
Percent without a High School Diploma	-1.741***	(0.642)	-0.651
Percent with no more than a High School Diploma	-4.312***	(1.175)	-1.149
Percent White Households	3.655**	(1.747)	2.408
Percent African-American Households	3.929**	(1.719)	0.775
Percent Hispanic Households	2.427	(1.727)	0.202
Percent Female Head of Household	0.298	(0.974)	0.146
Percent Head of Household 25 to 54 Years Old	2.449***	(0.831)	1.016
Percent Head of Household 55 to 74 Years Old	1.727*	(1.061)	0.461
Percent of Head of Household 75 Years or Older	0.215	(1.256)	0.033
Percent Rural Households	-1.212***	(0.247)	-0.435
Percent of Households on Public Assistance	48.388***	(3.303)	1.177
Year 2004	0.070**	(0.029)	0.430[§]
Year 2005	0.072**	(0.032)	0.439[§]
Constant	-7.907***	(1.473)	

Log Likelihood = 70.683
[§] Marginal effect estimated as a discrete change from 0 to 1
*** Significant at 1%
** Significant at 5%
* Significant at 10%
(Source: Hauge, Jamison, and Jewell, 2006a)

Appendix 2 Table 5. U.S. Study Regression Results
Dependent Variable = Logit of Lifeline Participation Rate
N = 294

Variable	Coefficient (Standard Error)
Percent of Customers Served by BellSouth	1.274** (0.123)
Percent of Customers Served by Sprint	3.000** (0.315)
Percent of Customers Served by Small ILECs	0.605** (0.149)
Percent of Customers Served by Alltel	0.920* (0.576)
Percent of Customers Served by Qwest	1.505** (0.120)
Percent of Customers Served by SBC	1.486** (0.099)
Price for Local Telephone Service	0.026** (0.010)
Total Lifeline Discount	0.142** (0.012)
Median Household Income ($000s)	0.020* (0.010)
Median Age	-0.085** (0.022)
Percent of Population with no more than High School Diploma	8.956** (1.428)
Percent of Population with an Undergraduate College Degree	19.437** (2.120)
Percent White	1.571 (0.819)
Percent African-American	-1.483 (1.139)
Percent Hispanic	4.530** (0.824)
Percent Female Head of Household	43.281** (8.758)
Percent Urban Households	-1.844** (0.281)
Percent of Households that have Recently Moved	-7.441** (0.848)
Percent of Households on Public Assistance	40.321** (4.836)
Constant	-26.693** (3.656)

Log Likelihood = -78.724
** Significant at 1%
* Significant at 5%
Source: Hauge, Jamison, and Jewell, 2006b.

Appendix 2 Table 6. Actual and Predicted Lifeline Participation Rates for Florida, 2005

County	Actual Rate	Predicted Rate	Difference
Alachua	7.93%	8.01%	-0.08%
Baker	36.31%	14.09%	22.22%
Bay	5.67%	10.79%	-5.12%
Bradford	6.07%	12.99%	-6.92%
Brevard	15.45%	13.61%	1.84%
Broward	9.45%	9.82%	-0.37%
Calhoun	0.09%	4.90%	-4.81%
Charlotte	9.24%	9.23%	0.01%
Citrus	11.88%	11.18%	0.70%
Clay	19.31%	12.00%	7.31%
Collier	8.12%	9.09%	-0.97%
Columbia	14.89%	18.18%	-3.29%
Desoto	5.07%	8.58%	-3.51%
Dixie	23.31%	11.70%	11.61%
Duval	15.42%	14.05%	1.37%
Escambia	16.83%	16.71%	0.12%
Flagler	7.06%	6.31%	0.75%
Franklin	0.09%	2.88%	-2.79%
Gadsden	15.02%	14.66%	0.36%
Gilchrist	11.64%	10.39%	1.25%
Glades	3.51%	4.71%	-1.20%
Gulf	0.00%	0.00%	0.00%
Hamilton	6.56%	13.26%	-6.70%
Hardee	6.41%	13.13%	-6.72%
Hendry	5.40%	13.22%	-7.82%
Hernando	0.02%	8.79%	-8.77%
Highlands	6.90%	7.54%	-0.64%
Hillsborough	12.38%	12.31%	0.07%
Holmes	16.34%	19.35%	-3.01%
Indian River	9.88%	10.02%	-0.14%
Jackson	11.75%	7.69%	4.06%
Jefferson	9.46%	7.61%	1.85%

Appendix 2 Table 6 (cont.). Actual and Predicted Lifeline Participation Rates for Florida, 2005

County	Actual Rate	Predicted Rate	Difference
Lafayette	3.29%	7.36%	-4.07%
Lake	9.42%	7.46%	1.96%
Lee	8.40%	10.03%	-1.63%
Leon	10.00%	8.63%	1.37%
Levy	11.45%	5.87%	5.58%
Liberty	0.00%	0.00%	0.00%
Madison	7.43%	18.98%	-11.55%
Manatee	14.76%	11.59%	3.17%
Marion	13.99%	9.70%	4.29%
Martin	9.83%	8.30%	1.53%
Miami-Dade	25.78%	25.51%	0.27%
Monroe	8.59%	7.56%	1.03%
Nassau	10.52%	6.29%	4.23%
Okaloosa	10.83%	10.90%	-0.07%
Okeechobee	10.51%	12.17%	-1.66%
Orange	14.62%	14.44%	0.18%
Osceola	12.78%	8.66%	4.12%
Palm Beach	9.35%	10.65%	-1.30%
Pasco	17.73%	10.87%	6.86%
Pinellas	14.14%	14.13%	0.01%
Polk	10.76%	12.98%	-2.22%
Putnam	16.26%	12.75%	3.51%
Santa Rosa	15.28%	15.78%	-0.50%
Sarasota	3.29%	8.12%	-4.83%
Seminole	10.04%	12.27%	-2.23%
St. Johns	10.51%	10.65%	-0.14%
St. Lucie	11.52%	14.13%	-2.61%
Sumter	8.35%	10.77%	-2.42%
Suwannee	5.66%	11.16%	-5.50%
Taylor	0.00%	0.01%	-0.01%
Union	4.92%	18.39%	-13.47%

Appendix 2 Table 6 (cont.). Actual and Predicted Lifeline Participation Rates for Florida, 2005

County	Actual Rate	Predicted Rate	Difference
Volusia	16.99%	12.41%	4.58%
Wakulla	7.75%	6.49%	1.26%
Walton	30.29%	8.22%	22.07%
Washington	18.85%	14.52%	4.33%
Mean	**10.77%**	**10.66%**	**-0.10%**

Source: Hauge, Jamison, and Jewell, 2006a.

Appendix 2 Table 7. Actual and Predicted Lifeline Participation Rates by State, 2005

State*	Actual	Predicted	Difference
Alabama	9.09%	7.58%	1.51%
Alaska	47.55%	35.40%	12.15%
Arizona	25.57%	22.17%	3.40%
Arkansas	6.21%	6.27%	-0.06%
Colorado	57.58%	32.20%	25.38%
Connecticut	41.95%	42.89%	-0.94%
DC	3.54%	4.02%	-0.48%
Delaware	26.20%	25.52%	0.68%
Florida	17.57%	17.30%	0.27%
Georgia	15.67%	15.00%	0.67%
Hawaii	11.31%	15.10%	-3.79%
Idaho	22.93%	14.60%	8.33%
Illinois	12.95%	15.00%	-2.05%
Indiana	11.55%	11.29%	0.26%
Iowa	19.76%	23.49%	-3.73%
Kansas	10.92%	15.22%	-4.30%
Kentucky	18.01%	13.27%	4.74%
Louisiana	5.75%	5.65%	0.10%
Maryland	5.30%	9.64%	-4.34%
Massachusetts	39.64%	34.48%	5.16%
Michigan	14.45%	12.98%	1.47%
Minnesota	22.06%	20.89%	1.17%
Mississippi	8.98%	8.98%	0.00%
Missouri	8.50%	9.74%	-1.24%
Montana	37.08%	40.62%	-3.54%
Nebraska	21.78%	34.03%	-12.25%
Nevada	21.42%	19.38%	2.04%
New Hampshire	9.66%	9.53%	0.13%
New Jersey	14.61%	13.05%	1.56%
New Mexico	41.51%	41.31%	0.20%
New York	37.73%	40.63%	-2.90%

Appendix 2 Table 7 (cont.). Actual and Predicted Lifeline Participation Rates by State, 2005

State	Actual	Predicted	Difference
North Carolina	18.81%	19.15%	-0.34%
North Dakota	56.59%	29.58%	27.01%
Ohio	34.71%	25.61%	9.10%
Oklahoma	45.83%	12.24%	33.59%
Oregon	11.04%	24.94%	-13.90%
Pennsylvania	15.42%	14.56%	0.86%
Rhode Island	73.07%	30.09%	42.98%
South Carolina	9.46%	6.64%	2.82%
South Dakota	60.21%	33.57%	26.64%
Tennessee	8.03%	17.65%	-9.62%
Texas	21.83%	23.68%	-1.85%
Utah	16.92%	21.15%	-4.23%
Vermont	39.35%	37.75%	1.60%
Virginia	9.06%	7.83%	1.23%
Washington	28.70%	26.24%	2.46%
West Virginia	3.33%	5.47%	-2.14%
Wisconsin	25.52%	21.30%	4.22%
Wyoming	10.25%	19.53%	-9.28%
Mean	23.16%	20.29%	2.87%

* California and Maine omitted.

Source: Hauge, Jamison, and Jewell, 2006b.

Appendix 3: Researcher Biographies

Janice Hauge
Dr. Hauge is Assistant Professor of Economics at the University of North Texas. She also teaches a master's course at the University of West Indies. While working on her Ph.D. in Economics at the University of Florida, she served as the director of the Center for Economic Education. Dr. Hauge was also a Research Assistant with PURC, specializing in telecommunications studies. She is a student fellow with the Communications Competitiveness Research Initiative. Dr. Hauge received her Master's in Economics at the London School of Economics.

Dr. Hauge has published articles in *Cato Journal*, *Health Economics*, and *Journal of Regulatory Economics*, and has presented papers at several conferences, including Southern Economic Association, American Economic Association, International Communications Forecasting Conference, and International Industrial Organization Conference. She is a recipient of the 2005 Junior Faculty Summer Research Fellowship, the Edward Zabel Award for superior research progress, and twice awarded the Walter Lanzillotti Dissertation Award.

Lynne Holt
Dr. Lynne Holt has worked for the Public Utility Research Center at the University of Florida since August 2001. Her other center affiliations at UF include the Askew Institute on Politics and Society and the Bureau of Business and Economic Research. She has 26 years' experience in public policy formulation and research. At PURC she coauthored with Dr. Sanford Berg, PURC Director of Water Studies, a series of articles on water regulation. These articles appeared in *Water 21*, the publication of the International Water Association. She also has collaborated on other PURC projects related to water, telecommunications, and energy.

Before coming to the University of Florida, Dr. Holt worked for almost 18 years in the Kansas Legislative Research Department where she prepared a wide variety of utility-related and economic development reports for the state House of Representatives, Senate, and special legislative task forces. Prior to that employment, she served as an Energy Research Analyst at the Kansas Corporation Commission, making written and oral presentations on energy conservation and utility regulation.

Justin Brown
Dr. Justin Brown is Assistant Professor with the Department of Telecommunications at the University of Florida. Dr. Brown's research addresses the application of the First Amendment to the Internet as well as policy implications involving issues concerning broadband access, universal service, must-carry and new media. Dr. Brown teaches courses in telecommunication law and regulation, new media systems, and introduction to telecommunication.

Dr. Brown's research is represented in such publications as *Cardozo Arts & Entertainment Law Journal*, *Communication Research*, *Communication Law & Policy*, *Federal Communications Law Journal, Cornell Journal of Law & Public Policy,* and *UNESCO's Encyclopedia of Life Support Systems*. He has made numerous research presentations at conferences organized by the International Communications Association (ICA), American Educators in Journalism & Mass Communication (AEJMC), Broadcast Education Association (BEA), and the Telecommunication Policy Research Conference (TPRC). Dr. Brown also worked as a research assistant at Penn State's Institute for Information Policy and the Pennsylvania Center for the First Amendment, and currently serves on the editorial review board of *Journalism and Mass Communication Educator*.

Mark A. Jamison

Dr. Mark Jamison was named Director of PURC at the University of Florida in May 2004 and has served as its Director of Telecommunications Studies since 1996. His responsibilities include developing training programs and conducting research on telecommunications issues. The PURC training program has trained more than 600 infrastructure executives and government officials from 90 countries.

Dr. Jamison is also a Research Associate with the Center for Public Policy Research, the Special Academic Advisor to the Chair of the Florida Governor's Internet task force, and an Affiliated Scholar with the Communications Media Center at New York Law School. Between February 1993 and June 1996, he served as a manager of regulatory policy for Sprint where he developed policies on pricing, costing, and market structure issues. Prior to joining Sprint, he worked nine years for state regulatory commission staffs in the U.S. He served as a telecommunications analyst with the Iowa Utilities Board and then as Head of Research. During this time he also served as chairperson of the National Association of Regulatory Utility Commissioners (NARUC) Staff Subcommittee on Communications, as Chairperson of the State Staff for the Federal/State Joint Conference on Open Network Architecture, and as a member of the State Staff for the Federal/State Joint Board on Separations. Dr. Jamison was the Communications Economist for the Kansas Corporation Commission and served on the faculty of NARUC Annual Regulatory Studies Program. His current research covers the globalization of telecommunications, convergence of information industries, and the international development of telecommunications competition.

Anne R. Williamson

Anne Williamson is Assistant Director of Housing Policy and Programs at the Shimberg Center for Affordable Housing at the University of Florida. Her research agenda is designed to provide results that support the efforts of federal, state, and local policymakers, program administrators, advocates, and individual citizens to address the complex challenges associated with creation of affordable housing opportunities and community revitalization.

Prior to joining the Shimberg Center, Ms. Williamson served as management within government, corporate, and academic organizations associated with housing and community development efforts.