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# **BROADBAND ACCESS IN ILLINOIS**

**INSTITUTE FOR REGULATORY POLICY STUDIES  
ILLINOIS STATE UNIVERSITY**

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## Acknowledgements

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The Institute would also like to thank the following persons for their assistance in completing this study: Peter Karanja, Nicholas Bowden, Rebecca Hodel and Adrienne Hahn.

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## About the Organizers

*The Institute for Regulatory Policy Studies*, residing in the Department of Economics at Illinois State University, was founded to foster education, communication, and research on regulatory policy issues of critical importance to consumers, regulators, utilities and other stakeholders. The Institute pursues these goals by sponsoring conferences and conferences, funding support for students, and conducting research. Further information about the Institute is provided on the Institute's web page.

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## I. INTRODUCTION

Working in conjunction with Lieutenant Governor Patrick Quinn's Broadband Deployment Council, the Department of Commerce and Economic Opportunity provided funds to Illinois State University for the *Institute for Regulatory Policy Studies*<sup>1</sup> to conduct an in-depth study and mapping of broadband access in Illinois. The objectives, data collection, and analytical methods and results of that study are presented in this report.

### A. Motivation for the study

The concept of the "digital divide" refers to the gap in access to, or skills needed to access, information resources in some communities compared to those having state-of-the-art (i.e., broadband) networks. The proportion of U.S. households with broadband connections increased to 19.9 percent in October 2003 (National Telecommunications and Information Administration 2004). Many national, state and local initiatives have been started to bridge the "digital divide," including initiatives in the State of Illinois.

According to the Federal Communications Commission, in 2006, there were 51 providers of ADSL, 16 providers of Cable Modem service, 36 providers of fixed wireless and 10 providers of "other" broadband service for a total of 113 providers in Illinois. This figure ranked behind only Iowa (181) and Texas (133) in total number of providers. At the same time, Illinois ranked seventh in total broadband lines (2,611,672) behind California (9,395,285), New York (4,852,849), Florida (4,408,427), Texas (4,371,655), New Jersey (2,654,674), and Pennsylvania (2,646,898) (Federal Communications Commission 2007).

On October 11, 2005, the Illinois Commerce Commission (ICC) released the *Digital Divide Elimination Infrastructure Request for Grant Proposal* (DDEIF RFGP). One of the Commission's goals in administering this Fund is "that through this grant process these underprovided areas will be able to obtain high-speed broadband access." (*Proposal*, p. 1) Yet little work has been done to identify where broadband access is already being provided in the State of Illinois and what standard should be used to determine if an area is "underserved."

In general the diffusion of new technologies takes time. Economists posit that the diffusion process follows an "S" curve such that new technologies initially diffuse at an increasing rate and over time the rate of diffusion tapers off (see Griliches (1957) for the seminal study in this regard). In the context of the diffusion of the Internet, it is not clear how the Internet will diffuse in the future (see Greenstein and Prince (2006)). Broadly speaking, there are two sides to the technology adoption decision—in this case the adoption of broadband Internet service—the demand side and the supply side. The demand for broadband access depend on, among other

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<sup>1</sup> The *Institute for Regulatory Policy Studies*, which was created in 1997, serves the electricity, natural gas and telecommunications industries and the regulatory community. The Institute's agenda includes education, communication and research on policy issues of interest to consumers, regulators and utilities in Illinois and throughout the nation. The Institute is housed in the Department of Economics at Illinois State University and is supported by Illinois State and member organizations through annual contributions. Dr. David Loomis currently serves as Executive Director of the Institute. More information about the Institute can be found at [www.irps.ilstu.edu](http://www.irps.ilstu.edu).

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factors, the price, quality of service, and average income of buyers (Demoussis and Giannakopoulos 2006).<sup>2</sup> The supply of broadband service depends on, among other factors, technology, government regulations, the prices of broadband service and substitutes for that service, and competition. The present study may be seen as focusing on the supply side.

### **B. Objectives of the Study**

Different definitions of what constitutes an “underserved” area with respect to broadband access are bound to exist. Some observers define an underserved area as one which has little or no access. Others might say that an area is underserved if it has less access to broadband service than a comparable community. Still others might point to a lack of affordably-priced broadband as being underserved since it may be unavailable from an economic standpoint to many households in the community.

The goal of this study was not to derive a single agreed-upon definition of what constitutes “underserved” but rather to provide data and analysis to equip policymakers to act on whatever definition they choose. To achieve this goal four objectives were identified:

1. Determine the availability and pricing for various broadband options at the zip code level throughout the state of Illinois. A table and map of the number of providers and average prices has been created but no detail on which providers serve specific areas is being released so as to ensure confidentiality of survey respondents.
2. Determine the penetration rate of broadband at the zip code level throughout Illinois. The penetration rate was to be calculated as the total number of broadband lines provided in a zip code divided by the number of households. A table and map of the penetration rate was to be created but no detail on number of lines by provider or by technology was to be released at the zip code level. This objective was highly dependent on the cooperation of broadband providers to report these data for this study. Unfortunately, we were, for a variety of reasons, unable to obtain sufficient data from various survey respondents to complete this aspect of the study as originally proposed.
3. Use community characteristics to predict the number of providers in an area. Another objective of the study was to relate the number of providers, by zip code, to the average price of broadband access, population density of that zip code, density of surrounding zip codes, average income level, type/size of company providing voice service, type/size of company providing cable service, and other factors. The goal was to identify areas that have fewer providers than predicted relative to the area’s characteristics. The findings would have relevance for the competitiveness of various ISP markets at the local level. Unfortunately, we were, for a variety of reasons, unable to obtain sufficient data from various survey respondents to complete this aspect of the study as originally proposed.

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<sup>2</sup> Estimations of the demand for Internet access in developed nations have revealed the demand to be somewhat unresponsive to changes in access charges, while such demand is relatively responsive to income fluctuations (see Goel et al. (2006)). To the extent similar demand responses hold in the case of Illinois, this might have implications for market penetration in Illinois, especially in jurisdictions where competition among providers is limited or nonexistent and access prices are relatively high.



4. Use community characteristics to predict the penetration rate of broadband in an area. A final objective of the study was to relate the penetration rate, by zip code, to the average price of broadband access, population density of that zip code, density of surrounding zip codes, average income level, type/size of company providing voice service, type/size of company providing cable service, and other factors. The goal was to identify areas that have less penetration than predicted relative to the area's characteristics. The findings would provide useful input in the formulation future technology policy in Illinois. For instance, based on the importance of certain community characteristics in affecting (positively or negatively) the broadband penetration rate, a case for government support could be made (see Nuechterlein and Weiser (2005)). Unfortunately, we were, for a variety of reasons, unable to obtain sufficient data from various survey respondents to complete this aspect of the study as originally proposed.

### **C. Overview of Study Methods**

To provide as comprehensive a picture as possible of broadband penetration rates and pricing in Illinois, it was important to ensure that we identified as many potential broadband service providers as possible. Trade associations, including the Illinois Telecommunications Association, the Cable Television and Communications Association of Illinois, the Illinois Energy Association, and Illinois Municipal Utilities Association were able to provide contact information on the majority of non-wireless service providers. However, to better ensure including providers that are not members of one of the associations listed above in the study, we began by surveying municipalities and townships to identify additional providers of broadband services. Survey results indicated that municipalities and townships were, by and large, unable to identify potential wireless providers. Consequently, we conducted additional in-house research to identify wireless providers of broadband service in Illinois. Once the list of potential wired and wireless service providers was compiled we then administered a second survey of potential broadband service providers in Illinois.

#### *1. Survey design and administration*

As noted above, the purpose of the first survey was to gather information from municipalities and townships on broadband service providers in Illinois and the primary contact person at each provider. This information was then combined with contact information obtained from various trade organizations to develop the list of potential broadband service providers in Illinois. We then administered a second survey designed to collect a variety of information on broadband service in Illinois, including availability by zip code, penetration rates, upload and download speeds, and pricing.

#### *2. Data analysis*

As completed surveys were received, responses were entered into an Excel spreadsheet for analysis. The data analysis consisted primarily of summary statistics on availability of broadband service by zip code.

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### *3. Preparation of Report*

The final report was prepared once the data from the main survey had been collected and analyzed.

#### **D. Summary of Results**

According to the results of this study, the availability of broadband service varies widely by zip code, but in a somewhat predictable manner. By and large, there are more providers in zip codes with higher median income and population density and that tend to be more urban. Based on the data and other information we collected, as many as 718 of the 1,348 zip codes in Illinois have access to only a single provider of broadband service. These zip codes collectively account for 15.4 percent of the state's total population. At the other extreme, people residing in 5 zip codes, accounting for 0.71 percent of the state's total population, have access to 6 or more broadband service providers. Finally, prices for broadband service range between \$15 and \$50 per month, depending on the speed of the service and other factors (e.g., whether the broadband service is part of a bundle of services purchased from the provider).

## **II. DESCRIPTION OF SURVEY DESIGN AND ADMINISTRATION**

The study involved the development and administration of two separate surveys. The first survey, referred to here as Phase I, was designed to assist in the identification of, to the extent possible, all of the potential providers of broadband services in Illinois and, more importantly, the appropriate contact person in each organization. This was done to better ensure a response to the survey of broadband service providers, referred to as Phase II in the remainder of this report.

### **A. Phase 1: Identification of Broadband Service Providers and Contact Persons**

#### *1. Survey design*

The purpose of Phase I was to help develop a more complete picture of internet service providers in Illinois who offer broadband service to their customers. The range of potential broadband service providers includes

- incumbent local exchange companies (providers of ADSL and Fiber),
- cable companies (providers of cable modems),
- Illinois wireless providers (providers of mobile wireless),
- electric companies (providers of Broadband over Power Lines),
- municipal electric companies (providers of Broadband over Power Lines), and
- companies registered with the ICC as telecommunications providers.

Most of the broadband service providers in Illinois belong to one or more of the following trade associations: the Illinois Telecommunications Association, the Cable Television and Communications Association of Illinois, the Illinois Energy Association, Illinois Municipal Utilities Association. Because certain broadband service providers might not belong to any of the trade associations listed above, we conducted a survey of Illinois municipalities and townships to develop a more complete picture of the range of potential service providers in the state. The instrument requested the following information:

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- contact information for the municipality/township responding to the survey,
- all of the 5-digit zip codes included in the municipality/township,
- the name, address, and
- contact information for each broadband service provider (or potential provider) operating with the municipality/township's boundaries.

The survey cover letter, which came from the Lieutenant Governor's Office, was designed to emphasize the importance of the study to consumers and businesses in Illinois. Copies of the cover letter and survey instrument used in Phase 1 are reproduced in Appendix A.

### *2. Administration*

The initial mailing of the survey, which consisted of the survey instrument, a cover letter describing the purpose of the survey, and a self-addressed postage-paid return envelope, was mailed to 1,341 municipalities and townships in Illinois on June 12, 2006. The survey recipients were drawn from a mailing list compiled by the Illinois Department of Commerce and Economic Opportunity. Approximately two weeks later, a second copy of the cover letter and survey instrument was sent to each of the municipalities/townships included in the initial mailing.

Respondents were given three options to respond to the survey: (1) return the completed questionnaire in the postage-paid envelope, (2) email a completed electronic version of the survey instrument to "Broadband Access in Illinois," or (3) complete an on-line version of the survey instrument. Respondents who wished to respond electronically were given a web address where they could download a Word file containing the survey instrument and an email address where they could then send the Word file once the requested information had been entered. Respondents also had the choice of completing and submitting the survey on line.

## **B. Phase 2: Survey of Broadband Service Providers**

### *1. Survey design*

The purpose of the Phase 2 survey was to collect data from broadband service providers on various aspects of the services they provide. The survey instrument requested a range of information, including

- the respondent's contact information,
- type of service provider,
- download and upload speeds,
- current high-speed internet customer data by zip code (including number of residential and business customers by internet speed range),
- pricing options, and
- plans for expanded service.

The State of Iowa has been collecting and analyzing information of the type sought in this study for the past several years. Most recently, the Iowa Utilities Board (IUB) issued a report entitled "Assessing High-Speed Internet Access in the State of Iowa: Fifth Assessment" (Iowa Utilities Board 2006). The report includes a copy of the survey instrument employed in the Iowa study. Because the survey instrument the IUB developed was designed to collect the

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same types of information of interest in this study, we contacted the IUB Project Manager regarding the possibility of using part, or all, of the IUB's survey instrument. We were able to obtain permission to use the survey instrument and modify it as necessary to fit our specific objectives and reflect terminology used in our study.<sup>3</sup> The survey cover letter, which came from the Lieutenant Governor's Office, was designed to emphasize the importance of the study to consumers and businesses in Illinois. Copies of the cover letter and survey instrument used in Phase 2 are reproduced in Appendix B.

### *2. Administration*

A pretest of the survey instrument was conducted to identify any potential problems with the design of the survey instrument. The draft survey instrument was distributed to five separate firms chosen so as to cover the range of different types of broadband service providers in the state. During the pretest, we learned that certain companies would not, in fact, be willing to provide the specific kinds of information we were seeking to obtain to complete each of the four objectives of the study described above. Because the companies in question account for a substantial share of broadband service customers in Illinois, we then entered into negotiations with the individual companies in question in an effort to obtain at least some amount of usable information. The results of these efforts are described in Section III of this report.

The initial mailing of the Phase 2 survey, which consisted of the survey instrument, a cover letter describing the purpose of the survey, and a self-addressed postage-paid return envelope, was mailed to 182 potential broadband service providers in Illinois on October 6, 2006. Approximately three weeks after the initial survey was mailed out, a postcard reminder emphasizing the importance of the study and each potential broadband service provider's cooperation was sent to each of the firms included in the initial mailing that had not yet responded to the initial mailing. (A copy of the postcard reminder is reproduced in Appendix B.)

As was the case in the Phase 1 survey, respondents were given three options to respond to the survey: (1) return the completed questionnaire in the postage-paid envelope, (2) email a completed electronic version of the survey instrument to IRPS, or (3) complete an on-line version of the survey instrument.

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<sup>3</sup> We wish to express our sincere thanks to Brenda Biddle of the IUB for providing us with an electronic version of the survey instrument employed in the IUB study.

### **III. SURVEY RESULTS**

#### **A. Response Rate**

##### *1. Phase 1 Survey*

Surveys were sent to 1,341 municipalities and townships in the Phase 1 survey. 387 municipalities/townships responded to the survey. Of that total, 312, or 80.6 percent, of the respondents provided their responses via U.S. mail. Another 74, or 19.1 percent, replied via the survey posted on the web site referred to above. Only one respondent replied via email. Of the completed surveys we received, 385 were usable, i.e., contained sufficient data to be useful in the Phase 2 survey. The remaining 2 surveys returned were unusable for different reasons and had to be discarded. This yielded a response rate of 28.7 percent.

Focusing on the usable surveys, 211 respondents identified at least one broadband service provider in their area. The number of known service providers ranged between 0 and 10. The remaining 101 respondents indicated no knowledge of any broadband service providers in their areas.

##### *2. Phase 2 Survey*

Surveys were sent to 182 broadband service providers in the Phase 2 survey. 56 service providers responded. Of the completed surveys we received, 55 were usable, i.e., contained sufficient data to be useful in the Phase 2 survey. This yielded a response rate of 30.8 percent.

### **IV. DATA ANALYSIS**

In this section we report the results of the analysis of the data collected from various broadband service providers in Illinois. Before describing the results of the analysis, however, it is important to recognize two factors that have the potential to bias the results reported here. First, the data we collected are likely to understate the availability of broadband service in Illinois due to the relatively low response rate to the survey conducted in Phase 2. This is especially true in those areas where there is only one provider and that provider did not respond to the survey (either because the provider chose not to respond or because the provider was not identified in Phase 1 and therefore was not included in the population surveyed in Phase 2).

The second source of bias has to do with the manner in which the data were collected by zip code. To be specific, if a service provider serves any part of a particular zip code, it is treated as if the entire zip code is served by that provider. This assumption was necessitated by the considerable increase in information we would have had to collect in order to more accurately determine the actual number of households in a zip code potentially served by a particular provider. It was determined that attempting to collect this additional information would have had a serious adverse effect on the response rate to the survey. The upshot is that this assumption has the effect of overstating the availability of broadband service in specific zip codes, all else constant.

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It is not possible to determine the net effect of the biases noted above. Nonetheless, these biases must be kept in mind in the course of interpreting the results reported here.

### **A. Socio-demographic Characteristics at the Zip Code Level**

Viewed from an economic perspective, the extent of the availability of broadband service in Illinois will depend on both demand and supply characteristics. Obviously, service will not be in use where it is not available. That being said, firms will only consider supplying broadband service in a specific area so long as demand is perceived to be sufficient to cover the cost of supplying such service. Among the various factors that influence demand, the price of broadband service, the number of consumers, and consumers' incomes are especially important.

#### *1. Number of Buyers*

Figure IV.1 provides information on population density by zip code. The map clearly indicates the various standard metropolitan statistical areas (SMSAs) in the state, i.e., the areas of the state where population and, correspondingly, population density are greatest. Assuming a positive correlation among population, population density and number of potential buyers, all else constant, it would be reasonable to expect that broadband services would be most readily available in those areas with the greatest population density.

#### *2. Income*

Figure IV.2 provides information on median income levels by zip code. Once again, median income levels tend to be higher in the SMSAs. Basic theory tells us that as income increases, so does demand for various good and services. Thus, all else constant, it would be reasonable to expect that broadband services would be most readily available in those areas with the highest median incomes.

#### *3. Percent Urban*

Figure IV.3 provides information on the urban/rural mix in the state. The information in this map is highly correlated with the information in Figure IV.1, i.e., as the percentage of the population considered urban in a zip code increases, so does the population density in that zip code. This in turn translates into a larger market for broadband services within a given zip code. As such, we would expect to see greater availability of broadband services in more urban areas.

### **B. Availability of Broadband Service at the Zip Code Level**

As was noted in Section III, 55 of the 182 broadband service providers surveyed returned usable completed surveys. This yielded a response rate of 31 percent. In addition to sending out follow-up surveys to non respondents we worked with various organizations to increase the amount of usable information on the availability of broadband service in the state. Thus, for example, representatives of the Illinois Independent Telephone Association explained that, in the case of its members, broadband service is available to all customers of local telephone service. We used this information to supplement the data obtained from the completed surveys. In addition, a number of providers that did not complete the survey instrument nonetheless

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provided information to us we were able to use to estimate availability of broadband service at the zip code level. We used all of the information we obtained to produce two different summaries of the availability of broadband service in Illinois.

### *1. Basic Survey Results*

The first summary of the availability of broadband service in Illinois is what might be considered a lower-bound estimate as it is based strictly on the survey results and information provided by specific firms regarding the zip codes in which they provide broadband service. Figure IV.4 illustrates our lower-bound estimate of the availability of broadband service by zip code. This information is summarized in Table IV.1 as well. As the figure and table illustrate, the availability of broadband service in Illinois varies considerably at the five-digit zip code level. According to the information in the figure and table, of the 1,348 five-digit zip codes in Illinois, there are no zip codes in which there are no broadband providers. This does not mean that everyone in every zip code has broadband access but only that there at least one broadband provider serving some part of that zip code. 718 different zip codes have access to only one broadband provider at this time. At the other extreme, people living in only one zip code in Illinois have access to six or more broadband service providers.

***Table IV.1: Number of Providers by Zip Code, Lower-Bound Estimate***

Number of Providers	0	1	2	3	4	5	6 or more
Number of Zip Codes	0	718	542	73	14	0	1
Percent of Zip Codes	0%	53.26%	40.21%	5.42%	1.04%	0%	0.07%
Percent of Population	0%	15.39%	73.25%	9.20%	1.79%	0%	0.37%

### *2. Augmented Survey Results*

The second summary is, for all intents, an upper-bound estimate of the availability of broadband service in Illinois. It was constructed by augmenting the information in the first summary with additional information that enabled us to estimate, in a crude fashion, additional availability of broadband service. This was accomplished by taking information certain providers furnished and then extrapolating the likely service territory of each provider based on that information. Figure IV.5 illustrates our upper-bound estimate of the availability of broadband service by zip code. This information is summarized in Table IV.2 as well. According to the information in the figure and table, of the 1,348 five-digit zip codes in Illinois, the number of different zip codes in which people have access to only one broadband service at this time falls to 313. At the other extreme, the number of different zip codes in which people have access to six or more broadband service providers rises to 4.

***Table IV.2: Number of Providers by Zip Code, Upper-Bound Estimate***

Number of Providers	0	1	2	3	4	5	6 or more
Number of Zip Codes	0	313	404	474	124	29	4
Percent of Zip Codes	0%	23.22%	29.97%	35.16%	9.20%	2.15%	0.30%
Percent of Population	0%	3.65%	10.64%	70.30%	11.24%	3.56%	0.61%

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3. *Comparison of Lower- and Upper-bound Estimates of Availability of Broadband Service*  
Table IV.3 simply combines the information in Tables IV.2 and IV.3 to give the reader a sense of the estimated range of the availability of broadband service in Illinois.

**Table IV.3: Comparison of Lower and Upper-Bound Estimates of Number of Providers by Zip Code**

Number of Providers	0	1	2	3	4	5	6 or more
Number of Zip Codes							
<i>Lower-bound</i>	0	718	542	73	14	0	1
<i>Upper-bound</i>	0	313	404	474	124	29	4
Percent of Zip Codes							
<i>Lower-bound</i>	0%	53.26%	40.21%	5.42%	1.04%	0%	0.07%
<i>Upper-bound</i>	0%	23.22%	29.97%	35.16%	9.20%	2.15%	0.30%
Percent of Population							
<i>Lower-bound</i>	0%	15.39%	73.25%	9.20%	1.79%	0%	0.37%
<i>Upper-bound</i>	0%	3.65%	10.64%	70.30%	11.24%	3.56%	0.61%

### **C. Pricing of Broadband Service in Illinois<sup>4</sup>**

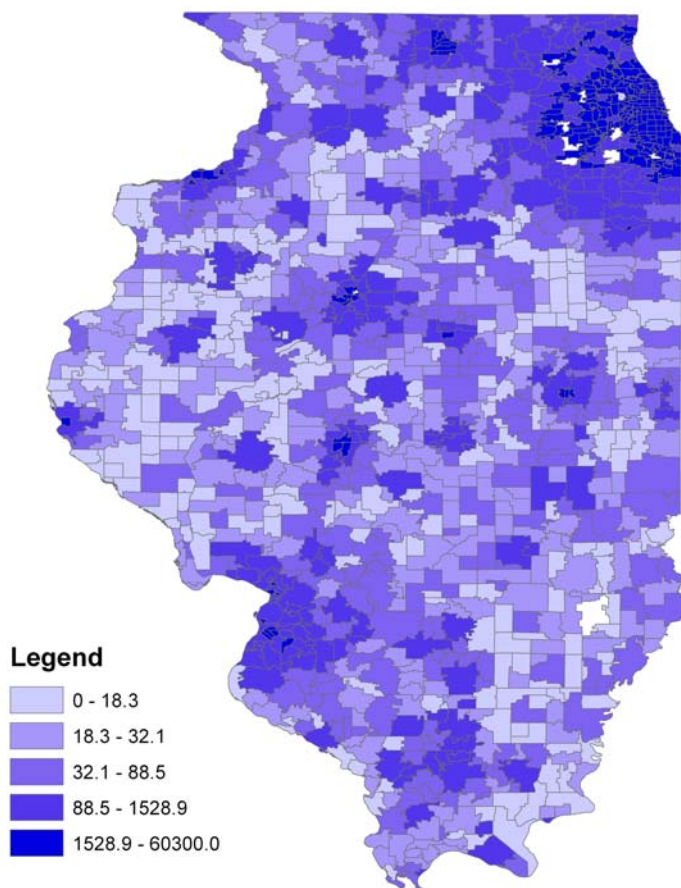
Many of the firms providing broadband service in Illinois are national in scope and therefore price their services on a national basis. Larger local telephone companies such as AT&T and Verizon charge differential pricing based on speed and on bundles of other services that the company offers. Lower speed DSL is available for \$14.99 to \$19.99 a month, although some restrictions apply. Higher speed DSL is available for \$37.99 to \$49.95 a month. Cable TV firms such as Comcast, Mediacom and Insight offer Cable Modem services that can be faster than DSL. Cable Modem prices are generally higher than entry level DSL with monthly prices ranging between \$42.95 to \$44.95 a month. Fixed Wireless firms tend to be smaller and their pricing varies widely.

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<sup>4</sup> The information in this section is not based on the survey responses but was gathered through publicly available sources.

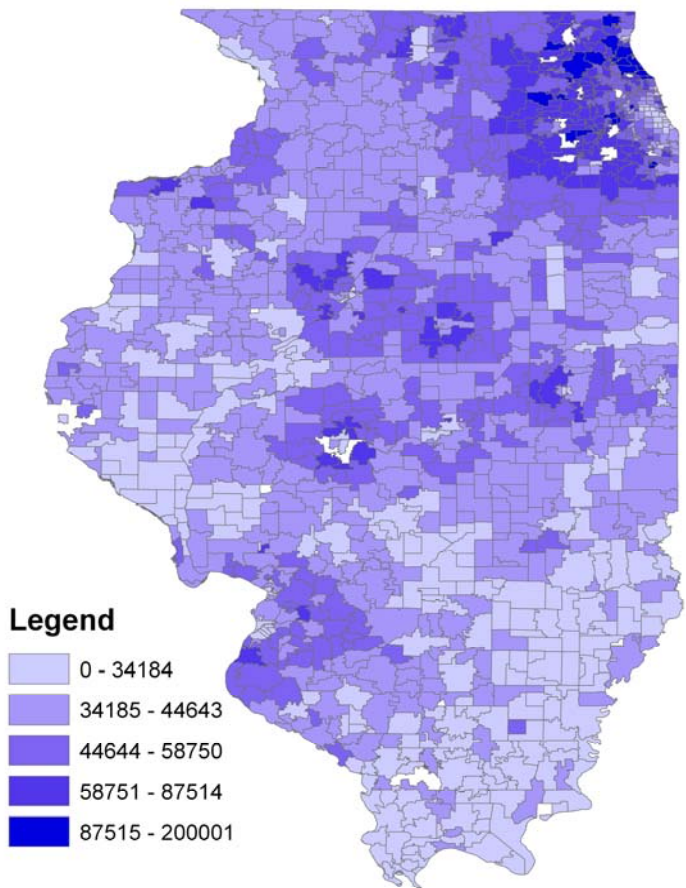


Figure IV.1 Illinois Population Density by Zip Code



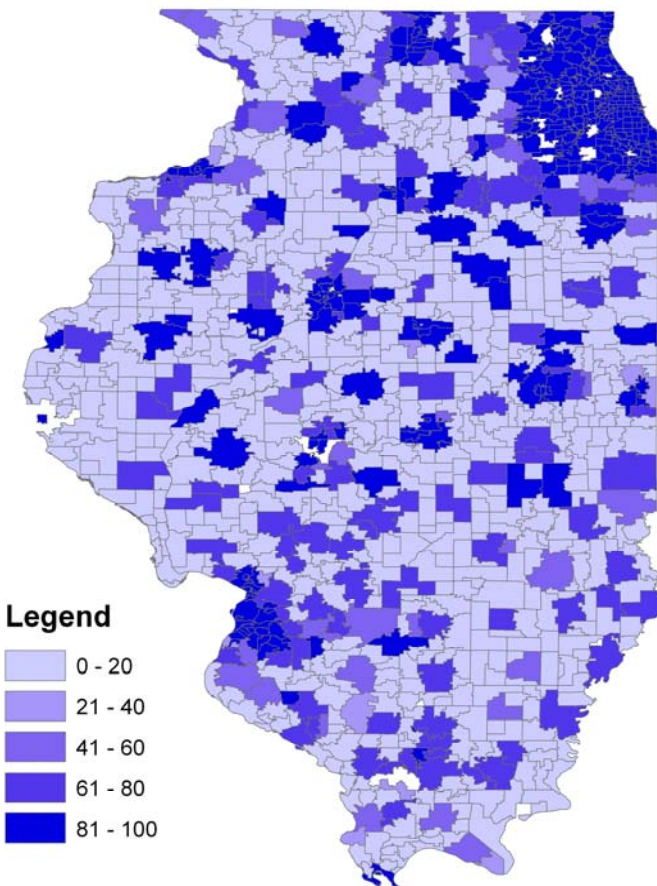
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Figure IV.2 - Median Income Levels by Zip Code



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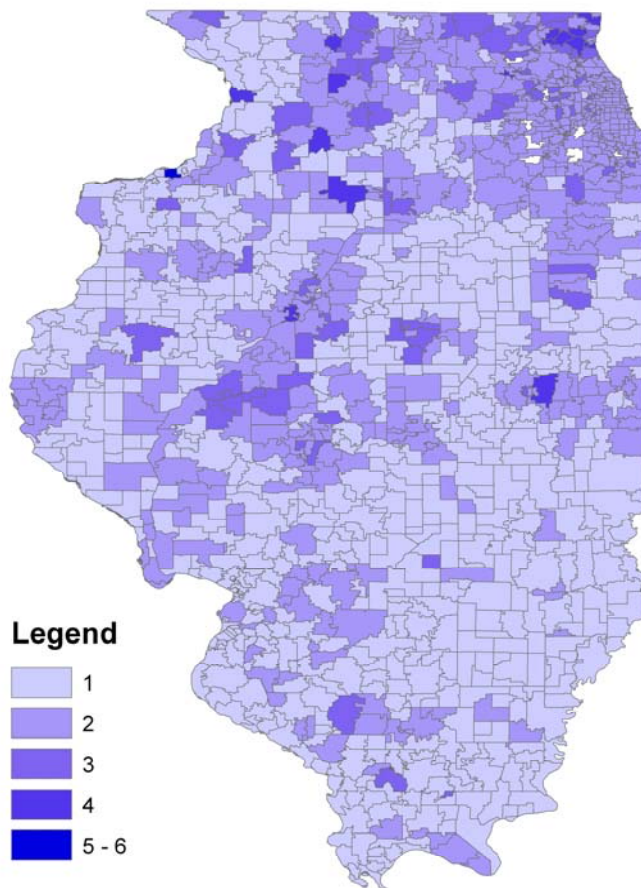
Figure IV.3 - Percent Urban Population by Zip Code



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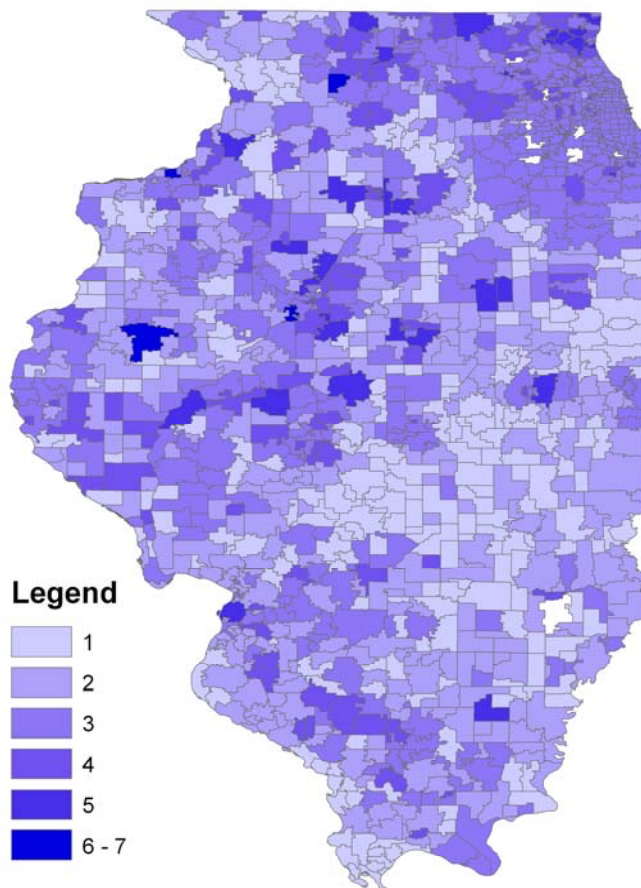
Figure IV.4 Number of Illinois Broadband Providers by Zip Code  
Lower Bound Estimate



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Figure IV.5 Number of Illinois Broadband Providers by Zip Code  
Upper Bound Estimate



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**Appendix A**  
*Phase 1 Survey Cover Letter and Survey Instrument*



**STATE OF ILLINOIS**  
**OFFICE OF THE LIEUTENANT GOVERNOR**  
**JAMES R. THOMPSON CENTER, SUITE 15-200**  
Chicago, Illinois 60601

PAT QUINN  
LIEUTENANT GOVERNOR

May 25, 2006

Dear :

I'm writing to ask your help in expanding access to broadband internet service in Illinois.

As Lt. Governor, I am chairman of the Illinois Broadband Deployment Council and I believe in a policy of "everybody in, nobody out." As you know, the Internet is a vital source of information on everything from consumer goods to government services. While dial-up Internet service is widely available, this type of Internet service is no longer sufficient. Universal access to higher speed broadband Internet service is what Illinois residents and businesses need for the future of public safety, health care, education, and economic development.

A recent study by the Federal Communications Commission (FCC) concluded that Illinois ranks third in the nation in terms of the number of providers of broadband services. Ironically, FCC statistics also show that Illinois is only 27<sup>th</sup> when it comes to broadband *adoption*. It is important for us to know where broadband service is not available, as well as where Illinois residents are not taking advantage of broadband services that do exist.

To address this issue, I am working with the Department of Community and Economic Opportunity and the Institute for Regulatory Policy Studies at Illinois State University to conduct a study of broadband access in Illinois. The first step in that study is to identify companies currently offering broadband Internet service in Illinois. Please take a few minutes and complete the enclosed survey to assist us with this effort.

Our next step is to contact each of the providers identified by you and other local leaders around the state, allowing us to create a map of broadband Internet access in Illinois. This map will give us a far better picture of broadband service than is available through the FCC or any other source. The study will be completed by fall of 2006. A downloadable copy of the final report will be available at [www.illinoisconnect.org](http://www.illinoisconnect.org).

## *Broadband Access in Illinois*

Your participation in this survey is completely voluntary. However, your responses are very important to us in our efforts to improve access to broadband services in Illinois.

When you have completed the survey, please return it in the enclosed postage-paid envelope. You can also complete the survey by visiting the Institute's website at [www.irps.ilstu.edu](http://www.irps.ilstu.edu) and following the appropriate links. If you have any questions about the survey, please call the Institute for Regulatory Policy Studies at 309-438-xxxx.

Thank you for taking the time to help us bridge the digital divide for all Illinois residents.

Sincerely,

A handwritten signature in black ink that reads "Pat Quinn". The signature is written in a cursive, slightly slanted style.

Pat Quinn  
Lieutenant Governor

*Broadband Access in Illinois*

**Broadband Internet Service Providers**

***in Illinois***

**SURVEY**

The purpose of this survey is to help us collect data that will enable us to determine the availability of access to broadband Internet services in Illinois. As it is used here, the term broadband Internet service refers to any technology that provides higher download speeds (at least 200K download), such as SDSL and ADSL, cable modem, broadband over power lines, fixed and mobile wireless service, and satellite service. Your responses will contribute to our efforts to improve access to broadband Internet services in Illinois.

**Privacy Statement:** This survey is being conducted by the Institute for Regulatory Policy Studies at Illinois State University under an agreement with the Illinois Lieutenant Governor’s Office and the Department of Community and Economic Opportunity. Your participation in this survey is voluntary. All responses are anonymous. Your responses will not be associated with you or anyone in your organization. Your name and address will not be given to any other group or used beyond the purposes of this study. If you have any questions, please call the Institute for Regulatory Policy Studies at 309-438-2106.

Please return the survey in the enclosed postage-paid envelope.

Dr. David Loomis  
Institute for Regulatory Policy Studies  
Campus Box 4200  
Department of Economics  
Illinois State University  
Normal, IL 61790-4200

You can also complete the survey by visiting the Institute’s website at [www.IRPS.ilstu.edu](http://www.IRPS.ilstu.edu) and following the appropriate links.

1. Please identify your municipality/township, including the municipality’s primary mailing address

Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Phone Number: \_\_\_\_\_

E mail: \_\_\_\_\_

2. Please list all of the 5-digit zip codes that are included in your municipality.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

*Broadband Access in Illinois*

3. Are you aware of any potential providers of broadband Internet service within your municipality's boundaries?  
1 **NO** → *You are done. Please return the survey in the envelope provided (Thank You).*  
2 **YES**

Please identify each of the broadband Internet service providers (or potential providers) that operate within your municipality's boundaries. To the extent possible, please include the provider's address, telephone number, a contact person and his/her e-mail address.

*Please attach additional sheets if you are aware of more than three potential providers.*

Company Name: _____
Company Address: _____ City: _____ State: _____ Zip Code: _____
Telephone #: _____
Contact Person and Title: _____
E-Mail Address: _____

Company Name: _____
Company Address: _____ City: _____ State: _____ Zip Code: _____
Telephone #: _____
Contact Person and Title: _____
E-Mail Address: _____

**THANK YOU FOR TAKING THE TIME TO ANSWER THIS SURVEY.**

**Appendix B**

*Phase 2 Survey Cover Letter and Survey Instrument*



**STATE OF ILLINOIS**  
**OFFICE OF THE LIEUTENANT GOVERNOR**  
**JAMES R. THOMPSON CENTER, SUITE 15-200**  
Chicago, Illinois 60601

PAT QUINN  
LIEUTENANT GOVERNOR

October 6, 2006

I'm writing to ask your help in expanding access to broadband Internet service in Illinois.

As Lt. Governor, I am Chairman of the Illinois Broadband Deployment Council and I believe in a policy of "everybody in, nobody out." While dial-up Internet service is widely available, Illinois residents and businesses need universal access to higher-speed broadband Internet service. Universal access to broadband service will enhance public safety, health care, education, and economic development. A recent study by the Federal Communications Commission (FCC) concluded that Illinois ranks third in the nation in terms of the number of providers of broadband services, but only 27<sup>th</sup> when it comes to broadband *adoption*. As such, it is important for us to know where broadband service is not available, as well as where Illinois residents are not taking advantage of broadband services that do exist.

To address these issues, I am working with the Department of Community and Economic Opportunity and the Institute for Regulatory Policy Studies at Illinois State University to conduct a study of broadband access in Illinois. We will use the results of this survey to:

- create a table and map of the number of providers and average prices of broadband Internet service in the state at the zip code level (to ensure confidentiality no detail on which providers serve a specific area will be released),
- create a table and map of the penetration rate of broadband Internet service in the state at the zip code level (no detail on number of lines by provider will be presented at any level; detail on number of lines by technology will only be reported at the state level),
- use community characteristics to predict the number of providers of broadband Internet service in each area of the state (the goal will be to identify areas that have fewer providers than predicted and are therefore "underserved" relative to the area's characteristics),
- use community characteristics to predict the penetration rate of broadband Internet service in each area of the state (the goal will be to identify areas that have less penetration than predicted and could be considered "underserved" relative to the area's characteristics).



## *Broadband Access in Illinois*

We are distributing this survey to all entities we believe are capable of providing access to high-speed broadband Internet service in Illinois, including facilities-based local exchange carriers, cable providers, wireless, and satellite companies. The study will be completed by December of 2006. A downloadable copy of the final report will be available at [www.illinoisconnect.org](http://www.illinoisconnect.org).

To successfully complete this study, we are depending on your help by responding to the enclosed survey. (Please attach additional sheets if necessary.) We request that you complete the survey and return it by October 20, 2006 to:

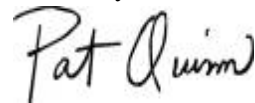
Dr. David Loomis  
Institute for Regulatory Policy Studies  
Campus Box 4200  
Illinois State University  
Normal, IL 61790-4200  
Survey Mailbox: [IRPS@ilstu.edu](mailto:IRPS@ilstu.edu)  
Phone: 309-438-8625 Fax: 309-438-5228

A postage-paid return envelope has been enclosed for your convenience. You can also complete the survey by visiting the Institute's website at [www.IRPS.ilstu.edu](http://www.IRPS.ilstu.edu) and following the appropriate links. The web-based version of the survey is in Word format. You can then submit the completed survey to the IRPS e-mailbox noted above.

Your participation in this survey is completely voluntary. However, your responses are very important to us in our efforts to improve access to broadband services in Illinois. In addition, we want to stress that your responses will be kept completely confidential. All information presented in the final report will be aggregated on an *industry* basis. Finally, as you may already know, similar studies have been conducted in other states including North Carolina, Kentucky and Iowa with considerable success. Moreover, the information generated has proven useful to all stakeholders. We believe Illinois stakeholders will realize similar benefits.

Thank you in advance for your assistance in this important study.

Sincerely,



Pat Quinn  
Lieutenant Governor

Illinois Broadband High-Speed Internet Access Survey  
As of June 1, 2006

**Section 1 – Company Information**

1. Contact Information:

Company Name:			
Company Address:	City:	State:	Zip Code:
Telephone #:	Fax #:		
Contact Person and Title:			
Contact E-Mail Address:			

2. What type of service provider is your company? (Please fill out a separate survey for each type of service you provide)

ILEC  CLEC  Cable  Wireless  Satellite  Other  Please explain other: \_\_\_\_\_

3. Does your company currently provide broadband Internet services (with download speeds greater than 200 Kbps) in Illinois?

Yes

No

3a. If Yes, please list the Internet speeds (**Download/Upload**) you offer (download greater than 200 kbps):

▶                                  ▶                                  ▶                                  ▶  
▶                                  ▶                                  ▶                                  ▶

**Please go on to Sections 2 & 3.**

3b. If No, does your company plan to offer broadband Internet service in Illinois within the next 12 months?

Yes  Please complete **Section 3.**

No  You are finished with the survey, Please submit and thank you for your time.

## Section 2 – Current High-Speed Internet Customer Data by ZIP Code

4. Please use the worksheet format to provide information for **EACH ZIP CODE** served in Illinois.  
 Additional sheets are necessary if you serve more than 20 ZIP codes.

4a. List all the ZIP codes your company currently serves	4b. Do You Currently Offer Broadband Internet Services to Residential Customers in this ZIP Code	4c. Do You Currently Offer Broadband Internet Services to Business Customers in this ZIP Code	4d. <u>Total</u> Number of Customers in this ZIP Code	4e. Number of Customers Currently Subscribing to Broadband Internet Service  <b>Speeds listed below are download speeds</b>  Please fill in number of Residential (Res) and Business (Bus) customers by Internet speed range								4f. Number of Customers that Currently Have Access to Your Broadband Internet Service in this ZIP Code
				200-512 Kbps		513-999 Kbps		1-4.99 Mbps		Over 5 Mbps		
				Res	Bus	Res	Bus	Res	Bus	Res	Bus	
99999	Yes	No	1000	200	10	125	25	0	0	0	0	675
	Y/N	Y/N										
	Y/N	Y/N										
	Y/N	Y/N										
	Y/N	Y/N										
	Y/N	Y/N										
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	Y/N	Y/N										
	Y/N	Y/N										

- Column 4a. – Please list the ZIP codes where you provide broadband Internet service.
- Column 4d. – This should be the total number of customers (both residential and business) for your primary service (i.e. telephone, cable television or wireless telephone service) in each ZIP code. For ILEC and CLEC service providers, please list the total number of access lines.
- Column 4e. – This should be the total number of your broadband Internet customers in each ZIP code (access lines for xDSL). Please give the number of residential and business customers in each Internet speed category, which are listed by download speeds.
- Column 4f. – Please list the number of customers (both residential and business) you could provide immediately with broadband Internet in each ZIP code.

**Section 3 – Prospective Broadband Internet Communities**

5. Please list any additional ZIP codes in which you plan to provide broadband Internet service within the next 12 months (by June 30, 2007).

List all Additional ZIP codes that will be Served by June 30, 2007	Month in which High-Speed Internet Service will be Available
	Pick a Month
	Pick a Month
	Pick a Month
	Pick a Month
	Pick a Month
	Pick a Month

**Section 4 – Pricing Information**

6. Does your company currently provide a stand-alone broadband Internet service?  
 Yes  What is the price of that service? Please list all current broadband Internet options and corresponding prices in the table below.

No  If you answered **NO**, you are finished with the survey.

Type of Service (Internet Speed, Bundled Services, etc.)	Recurring Rate Billed to the Customer per Month – Including any Rental Charges for Equipment (List Range if Price Varies by ZIP code)	Term of Contract – if applicable	Other Items – Include any Offers or Other Features as applicable	Installation Fee
<b>Example</b> – Internet 384 K (up and down)	\$79.95	1 year contract	Free Modem	\$25.00

*Broadband Access in Illinois*

