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Reform of Telecommunications Taxes and Fees in New Jersey - A Research Study

FINAL REPORT

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Mr. Jeffrey Osowski, New Jersey Department of Education
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Ms. Wendy Rayner, Chief Information Officer
Office of the Governor, State of New Jersey
Ms. Patricia Tumulty, Executive Director, New Jersey Library Association
Executive Summary

The telecommunications technologies, services and regulatory policies have been on a rapid spiral of evolution in the recent years. However, the state policies on taxation of telecommunications services and service providers, and the systems of compensation of local governments for the use of public resources by cable television and telecommunications companies have not kept pace with this rapid change. Perhaps these differing treatments made economic and political sense when enacted and while telecommunications services were distinct, demand inelastic, and provided by distinct providers with no cross utilization of infrastructure and technologies. Today, the evolution of technology has removed these boundaries, and any service provider can technically and legally provide many or all telecommunications and cable communications services. The substitutability of services and providers has added great demand elasticity to the markets so inequitable pricing can seriously affect consumer behaviors. The current uneven treatment for taxes, fees and in-kind compensations distort the cost picture for the providers and the price charged to consumers and can affect the competitive availability of these services. At the same time, there is an increasing need for access to advanced information services by the schools, non-profit organizations, municipalities and governmental agencies, and with that is the need for improving the support mechanisms and public/non-profit telecommunications infrastructure of the state. This issue of inequitable taxation has been recognized by many states and some have already taken steps to reform their telecommunications tax policies. This study provides a baseline profile of revenues and service related taxes and rights-of-way user fees paid by telecommunications service providers over a 5 year period (1995-1999) and projects future revenues, fees and taxes through 2005. The study touches briefly on the issue of real estate and personal property taxation as well.

Some of the key findings of the study are the following:

- The total telecommunications services revenue grew from $8.2B in 1995 to $11.5B in 1999 with an average annual growth rate of 8.9%. As expected, different services exhibit different growth rates. In traditional services, Local Exchange has been growing at about 14% per year. The Intra-state Toll however has been declining at about 4.5% per year. The Interstate Toll has been growing at a lower rate of about 6.6%. The drop in Long Distance revenue growth shows the shift to wireless services, which has been growing at about 16% per year, despite the rapid drop in average per minute use for wireless plans. Cable TV revenues have been growing at about 8.9 % and Direct Broadcast Services (DBS) at 25%. The latter is still relatively new and despite the rapid growth, its overall market size is very small.
These varying rates of growth illustrate an ongoing shift of markets from traditional services such as local and long distance to the enhanced services such as wireless, cable and DBS.

The telecommunications service taxes and fees are varying even more drastically because: 1) there is shift in revenues among services, and 2) the service providers are subject to different types and rates of levies. The total telecommunications taxes and fees, excluding property taxes grew from $430M in 1995 to $634M in 1999. Over 80% of the total obligations are provided through sales taxes. However, sales taxes do not apply to CATV, DBS, and ISPs. About 13% of the total obligations are provided through corporate business tax, but again not all service providers are subject to the 9% state corporate tax. On the other hand CATV providers pay a 2% franchise fee for use of the rights-of-way on their “basic services” revenues to the municipalities, but other service providers are not subject to any rights-of-way use fees.

The study shows that currently the average obligation looking at all providers is about 5.25% of the total revenues from all services, with Local Exchange providing about 7% (the highest) down to 0% for the ISPs.

From the above data, one can observe that there are major anomalies in financial obligations to the state, and the burden is not equitably shared by the service providers.

The shift in service revenues will continue and perhaps intensify over the next decade further distorting the picture on equitable financial obligations to the state.

These findings in the context of the basic principles that underlie financial obligations of citizen and corporations to the state and local governments suggest a need for reforming the current tax and fee structure for telecommunications. However, any restructuring of the taxes and fees should assure

- **Competitive neutrality** -- avoiding any tax and fee mechanisms that would bias the competitive equation among service providers

- **Appropriate pricing for public goods** – avoiding distortion in efficient use of the public properties. A re-examination of the system of compensation to municipalities for the use of the public rights-of-way is necessary to ensure that the shift in telecommunications technologies is not distorting efficient use of these public resources.

- **Tax efficiency** - avoiding distortion of economic decision-making and resource allocation. Inefficient tax levies could drive companies to make investment and pricing decision geared toward local optimization than global optimization of the business.

- **Simplicity** - reducing administrative complexity and cost.
The Study then turns to application of these taxes and fees. Most are placed in the state’s general fund. The State then spends money to compensate the cities for loss of their revenues from service providers and to maintain and enhance the telecommunications infrastructure of the schools, libraries and government entities. While these latter entities have done a good job of upgrading their capabilities using the limited state money, and combining it with a number of other resources such as E-rate and NJ Technology Fund, the Study observes that: 1) it is not clear that local governments, educational institutions, and libraries can sustain and improve their current capabilities relying solely on current resources; and 2) coordination among these entities in planning and technology acquisition could improve the efficiency of maintaining and expanding the infrastructure.

There is a long and significant history in the United States of communications companies addressing local community needs and interests in exchange for unique and privileged use of the public rights-of-way and electromagnetic spectrum. As the State rationalizes its telecommunications taxes and fees, it must also act to ensure telecommunications needs of communities and local governments are met. The study envisions that under a levelized tax policy, such needs may be met by allocating a fixed % of the taxes to local governments. Any reform of the telecommunications tax and fee infrastructure should also create a more efficient and sustainable approach to support the telecommunications infrastructure of the educational facilities, and local and state government agencies.

The study raises awareness and encourages the state legislature and policy makers in New Jersey to take on the challenge and work with the agencies, communities and service providers to achieve the needed reform.
1. Introduction

The telecommunications technologies, services and regulatory policies have been on a rapid spiral of evolution in the recent years. However, the state policies on taxation of telecommunications services and service providers, and the systems of compensation of local governments for the use of public resources by cable television and telecommunications companies have not kept pace with this rapid change. For example, in New Jersey, Local Exchange Carriers (LECs) and Inter-Exchange Carriers (IXCs) are subject to corporate income tax and sales tax, but Cable Television providers (CATV) are exempt from these taxes. The CATV providers, on the other hand, are subject to a franchise fee for the use of public rights-of-way, but other telecommunications service providers are not.

Perhaps these different treatments made economic and political sense when enacted and while telecommunications services were distinct and provided by distinct providers with no cross utilization of infrastructure and technologies. Today, the evolution of technology has removed these boundaries, and any service provider can technically and legally provide many or all telecommunications and cable communications services. The current uneven treatment for taxes, fees and in-kind compensation distort the cost picture for the users and affect the growth of these services. At the same time, there is an increasing need for access to advanced information services by the schools, non-profit organizations, municipalities and governmental agencies, and with that is the need for improving the support mechanisms and public/non-profit telecommunications infrastructure of the state.

In a recent study by the National Governors’ Association, Scott Palladino and Stacy Mazer highlight the issues facing telecommunications services providers as well as the states:

“The current tax structure for the telecommunications industry is complicated by the myriad taxes and numerous government entities that apply them. According to the Committee on State Taxation, a nationwide provider of telecommunication services must file more than 55,000 tax returns annually. The complexity of the current system poses an administrative burden on telecommunications providers, especially new market entrants. State policymakers should undertake a thorough review of their telecommunications tax structure, using the fundamental principles of tax efficiency, competitive neutrality, tax equity, and administrative simplicity to guide their work.”

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4 The High Cost of Taxing Telecom, by Jeffrey A. Eisenach, Ph.D., President and co-founder of The Progress & Freedom Foundation.
6 National Governors’ Association Center for Best Practices
7 National Association of State Budget Officers
There is an increasing awareness of the issue in the New Jersey State and local governments. Furthermore, this is not just a New Jersey problem, it is a national problem, and a number of other states such as Florida, Texas, and Vermont have also begun to examine the problem and reform their telecommunications tax structure. This study provides a factual basis for moving the reform process in New Jersey forward. An effective solution in New Jersey could become a model for other states to follow.

The rest of the report is organized as follows: Section 2 documents the current telecommunications tax and fee structure in NJ and the supporting statues and regulations. Section 3 presents a five-year (1995-1999) baseline profile on revenues, and taxes and fees paid by the telecommunication service providers. This section also provides future projections for taxes and fees if the current structure continues. In section 4, we discuss the rationale for reforming the telecommunications tax and fee structure. Section 5 presents a summary of recent developments in other states and the national scene. Section 6 explores some of the options for New Jersey going forward. Finally Section 7 provides the conclusions to the study. Other supporting information is captured in the appendices.

2. Telecommunications Taxes and Fees in New Jersey

2.1 Taxes and Fees

Taxes support general government activities. They are borne “equally” by all citizens, allowing for ability to pay vs. priority of need. General revenue taxes are levied by state or local governments. Specific purpose levies often are imposed to meet some industry needs such as subsidizing industry expansion, leveling competitive opportunities or contributing to the “Golden Share” for citizens.

To meet the equality requirement and to generate the needed fund, tax codes often become complex over time, which add costs to compliance, enforcement, collection and processing. Type of taxes levied by government included:

- Income tax
- Real estate tax
- Personal property tax, for tangible and intangible assets.

Rents and user fees on the other hand “allocate scarce resources.” Resources have market value and assigning proper prices assure “efficient allocation”, i.e. “highest and best use.”

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8 In this report, “telecommunications” refers to traditional telephone services, Cable TV and related communications services, wireless and mobile services, and Internet services inclusively, unless otherwise as noted.
These types of charges are generally classified into franchise fees and user fees. They are set based on either the value (willingness to buy) or the cost (incremental cost, direct or indirect cost, or fully distributed cost).

2.2. Current Structure of Telecommunications Taxes and Fees in NJ

Telecommunications companies have four distinct—though often confused—responsibilities that form financial obligations to state and local government. First, as corporate citizens of the state, they have a citizen’s obligation to pay a fair share of the financial burdens of state and local government. Second, telecommunications services are often the vehicles for general excise taxes imposed on the users of the services. Normally excise or user taxes are chosen either to discourage use of the product (“sin taxes”) or to spread the tax burden across the entire population because consumer and taxpayer are synonymous. Third, many, but not all, telecommunications companies request and receive very special, privileged use of public property, in the form of federal electromagnetic spectrum and state and local public rights-of-way and utility easements. Fourth, companies that enjoy privileged status and special use of public property can appropriately be asked to address particular community needs and interests through in-kind contributions of facilities and services. Table 1 list the type of obligations by telecommunications service providers in New Jersey.

Table 1 - Applicable Taxes & Fees by Type of Service

<table>
<thead>
<tr>
<th>Type of Tax</th>
<th>LEC</th>
<th>LD</th>
<th>Cellular</th>
<th>CATV</th>
<th>DBS</th>
<th>Internet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporation Business Tax</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Sales &amp; Use Tax (on service)</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Local Real Property Tax</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Local Personal Property Tax</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>CATV Franchise Fee</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>In-kind Service Obligations</td>
<td>US</td>
<td>US</td>
<td>US</td>
<td>Y</td>
<td>US</td>
<td>US</td>
</tr>
<tr>
<td>BPU Annual Assessment</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

LEC = Local Exchange Carrier, LD = Long Distance, DBS = Direct Broadcasting Systems, US = Unspecified

There are no set rules on in-kind obligations except for the CATV providers, who are obligated by Federal Laws to provide local programming channels and support the local communities. We know that many of the telecommunications companies do provide in-kind support to their local communities, however the extent of this support varies from company to company and across the services.
2.3 Prohibitions on Local Taxation and Other Fees

According to the New Jersey Statutes, municipalities are prohibited from imposing "any fees, taxes, levies or assessments in the nature of a local franchise, rights-of-way, or gross receipts fee, tax, levy or assessment against telecommunication companies." CATV company issued consent by municipalities "shall pay to the municipality granting the same, in lieu of all other franchise taxes and municipal license fees, a sum equal to 2% of the gross revenues from all recurring charges in the nature of subscription fees paid by subscribers to its cable television reception service in such municipality."[9]

Corporate Business Tax  "Gas, electric, gas and electric and telecommunications public utilities that were subject to a public utility tax "must continue to pay such tax yearly."[11]

State Sales and Use Taxes  6% sales tax imposed on:

- “The receipts from every sale, except for resale, of intrastate or interstate telecommunications charged to an address in this State, regardless of where the services are billed or paid.”
- “The receipts from every sale, except for resale, of prepaid telephone calling arrangements and the recharge of prepaid telephone calling arrangements.”[12]

Internet  Internet Tax Freedom Act ("ITFA") bars state or local governments from taxing Internet access from October 1, 1998 until October 21, 2001. Congress has imposed a three year moratorium on multiple and discriminatory taxes on electronic commerce. This moratorium may be extended further.

Property Taxes  "All property real and personal within the jurisdiction of this State not expressly exempted from taxation or expressly excluded from the operation of this chapter shall be subject to taxation annually." Excluded are "the tangible goods and chattels, exclusive of inventories, used in business of local exchange telephone, telegraph and messenger systems, companies, corporations or associations that were subject to tax as of April 1, 1997 under P.L.1940, c.4 (C.54:30A-16 et seq.) as amended, and shall not include any intangible personal property whatsoever whether or not such personality is evidenced by a tangible or intangible chose in action except as otherwise provided by R.S.54:4-20."[13]

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9 New Jersey Statute § 54:30A-124.
12 New Jersey Statute § 54:32B-3(f) & (g).
13 New Jersey Statute § 54:4-1.
Table 2 lists the tax and fee rates currently imposed on telecommunications companies in New Jersey.

<table>
<thead>
<tr>
<th>Type of Tax</th>
<th>LEC</th>
<th>LD</th>
<th>Cellular</th>
<th>CATV</th>
<th>DBS</th>
<th>Internet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporation Tax</td>
<td>9%</td>
<td>9%</td>
<td>9%</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Sales Tax</td>
<td>6%</td>
<td>6%</td>
<td>6%</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Property Tax</td>
<td>2.54%</td>
<td>2.54%</td>
<td>2.54%</td>
<td>2.54%</td>
<td>2.54%</td>
<td>2.54%</td>
</tr>
<tr>
<td>Personal Property Tax</td>
<td>2.54%</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>CATV Franchise Fee</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>2%*</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>BPU Annual Assessment</td>
<td>~0.15%</td>
<td>~0.15%</td>
<td>--</td>
<td>~0.25%</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

* As % of basic service revenues

3. Baseline Profile

This section presents a baseline data on revenues and corresponding taxes and fees paid by the telecommunications service providers in New Jersey, for the years 1995 through 1999, and future projections through 2005. We need to emphasize that assembling the baseline data has been a very difficult task as such data do not exist in any one organization. We have used data from many sources, particularly, FCC, Department of Commerce, New Jersey Board of Public Utilities (NJBPU), company annual reports and other published studies. The service-level revenues for Local Exchange, and CATV are the actuals reported by the service providers to NJBPU. The Long Distance revenues are derived from FCC reports. The Wireless, DBS, and Internet revenues are derived from multiple sources at national and state level. The sources of data for the baseline are provided in Appendix A.

Figure 1 shows the revenue profile by type of service for 1995 through 2005. The total revenue grew from $8.2B in 1995 to $11.5B in 1999 with an average annual growth rate of 8.9%. As expected, different services exhibiting different growth rates. In traditional services, Local Exchange has been growing at about 14% per year. The Intra-state Toll however has been declining at about 4.5% per year. The Interstate Toll has been growing at a lower rate of about 6.6%. The drop in Long Distance revenue growth shows the shift to wireless services, which has been growing at about 16% per year, despite the rapid drop in average per minute use for wireless plans. The future projections for the year 2000-2005 are arrived at by applying the baseline average growth rate of each service to that service. We realize that the rapid evolution of telecommunications could change future growth patterns. However, at this time, we have no basis to estimate such changes with any accuracy and for our purpose the current projections are considered conservative.
Figure 1 shows the baseline revenue profile with intrastate and interstate toll revenues combined into one category, Long Distance.

<table>
<thead>
<tr>
<th>Year</th>
<th>Local</th>
<th>Intrastate Toll</th>
<th>Interstate Toll</th>
<th>Wireless</th>
<th>CATV</th>
<th>DBS</th>
<th>Internet</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>1,258</td>
<td>1,720</td>
<td>3,519</td>
<td>594</td>
<td>1,004</td>
<td>86</td>
<td>84</td>
<td>8,265</td>
</tr>
<tr>
<td>1996</td>
<td>1,350</td>
<td>1,988</td>
<td>3,852</td>
<td>736</td>
<td>1,078</td>
<td>161</td>
<td>141</td>
<td>9,307</td>
</tr>
<tr>
<td>1997</td>
<td>1,612</td>
<td>1,745</td>
<td>4,494</td>
<td>859</td>
<td>1,172</td>
<td>199</td>
<td>209</td>
<td>10,287</td>
</tr>
<tr>
<td>1998</td>
<td>1,874</td>
<td>1,489</td>
<td>4,970</td>
<td>1,032</td>
<td>1,278</td>
<td>171</td>
<td>280</td>
<td>11,094</td>
</tr>
<tr>
<td>1999</td>
<td>2,136</td>
<td>1,391</td>
<td>5,967</td>
<td>1,065</td>
<td>1,403</td>
<td>180</td>
<td>340</td>
<td>11,481</td>
</tr>
<tr>
<td>2000</td>
<td>2,440</td>
<td>1,329</td>
<td>6,243</td>
<td>1,235</td>
<td>1,542</td>
<td>180</td>
<td>380</td>
<td>12,449</td>
</tr>
<tr>
<td>2001</td>
<td>2,788</td>
<td>1,269</td>
<td>6,690</td>
<td>1,432</td>
<td>1,680</td>
<td>228</td>
<td>475</td>
<td>13,512</td>
</tr>
<tr>
<td>2002</td>
<td>3,185</td>
<td>1,212</td>
<td>7,037</td>
<td>1,661</td>
<td>1,831</td>
<td>294</td>
<td>515</td>
<td>14,712</td>
</tr>
<tr>
<td>2003</td>
<td>3,638</td>
<td>1,168</td>
<td>7,409</td>
<td>1,936</td>
<td>2,146</td>
<td>356</td>
<td>647</td>
<td>16,071</td>
</tr>
<tr>
<td>2004</td>
<td>4,156</td>
<td>1,106</td>
<td>7,948</td>
<td>2,234</td>
<td>2,272</td>
<td>447</td>
<td>760</td>
<td>17,614</td>
</tr>
<tr>
<td>2005</td>
<td>4,748</td>
<td>1,057</td>
<td>8,652</td>
<td>2,591</td>
<td>2,614</td>
<td>520</td>
<td>983</td>
<td>19,359</td>
</tr>
</tbody>
</table>

Average Annual Growth Rate = 8.9%

Figure 2- New Jersey Total Telecom Revenue by Service

<table>
<thead>
<tr>
<th>Year</th>
<th>Local</th>
<th>Intrastate Toll</th>
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</tr>
<tr>
<td>2002</td>
<td>3,185</td>
<td>1,212</td>
<td>7,037</td>
<td>1,661</td>
<td>1,831</td>
<td>294</td>
<td>515</td>
<td>14,712</td>
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<tr>
<td>2003</td>
<td>3,638</td>
<td>1,168</td>
<td>7,409</td>
<td>1,936</td>
<td>2,146</td>
<td>356</td>
<td>647</td>
<td>16,071</td>
</tr>
<tr>
<td>2004</td>
<td>4,156</td>
<td>1,106</td>
<td>7,948</td>
<td>2,234</td>
<td>2,272</td>
<td>447</td>
<td>760</td>
<td>17,614</td>
</tr>
<tr>
<td>2005</td>
<td>4,748</td>
<td>1,057</td>
<td>8,652</td>
<td>2,591</td>
<td>2,614</td>
<td>520</td>
<td>983</td>
<td>19,359</td>
</tr>
</tbody>
</table>

Average Annual Growth Rate = 8.9%

Figure 2- New Jersey Total Telecom Revenue by Service

<table>
<thead>
<tr>
<th>Year</th>
<th>Local</th>
<th>Intrastate Toll</th>
<th>Interstate Toll</th>
<th>Wireless</th>
<th>CATV</th>
<th>DBS</th>
<th>Internet</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>1,258</td>
<td>1,720</td>
<td>3,519</td>
<td>594</td>
<td>1,004</td>
<td>86</td>
<td>84</td>
<td>8,265</td>
</tr>
<tr>
<td>1996</td>
<td>1,350</td>
<td>1,988</td>
<td>3,852</td>
<td>736</td>
<td>1,078</td>
<td>161</td>
<td>141</td>
<td>9,307</td>
</tr>
<tr>
<td>1997</td>
<td>1,612</td>
<td>1,745</td>
<td>4,494</td>
<td>859</td>
<td>1,172</td>
<td>199</td>
<td>209</td>
<td>10,287</td>
</tr>
<tr>
<td>1998</td>
<td>1,874</td>
<td>1,489</td>
<td>4,970</td>
<td>1,032</td>
<td>1,278</td>
<td>171</td>
<td>280</td>
<td>11,094</td>
</tr>
<tr>
<td>1999</td>
<td>2,136</td>
<td>1,391</td>
<td>5,967</td>
<td>1,065</td>
<td>1,403</td>
<td>180</td>
<td>340</td>
<td>11,481</td>
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<tr>
<td>2000</td>
<td>2,440</td>
<td>1,329</td>
<td>6,243</td>
<td>1,235</td>
<td>1,542</td>
<td>180</td>
<td>380</td>
<td>12,449</td>
</tr>
<tr>
<td>2001</td>
<td>2,788</td>
<td>1,269</td>
<td>6,690</td>
<td>1,432</td>
<td>1,680</td>
<td>228</td>
<td>475</td>
<td>13,512</td>
</tr>
<tr>
<td>2002</td>
<td>3,185</td>
<td>1,212</td>
<td>7,037</td>
<td>1,661</td>
<td>1,831</td>
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<td>2,614</td>
<td>520</td>
<td>983</td>
<td>19,359</td>
</tr>
</tbody>
</table>

Average Annual Growth Rate = 8.9%
Figure 3 highlights the shift in revenues from traditional telecommunications services to new services.

The next few charts present different views of the taxes and fees based on the above revenue profile. In developing these profiles, we have excluded real estate and personal property taxes as well as the value of any in-kind contributions to local and state entities. These taxes and contributions are not reported to any central government body and there is no easy way to access this level of information statewide. In relative magnitudes they are also not very significant. It should be emphasized that we have estimated some components of taxes reported here from other records, hence our data may not match exactly what the service providers have paid.

The baseline tax profile is presented in Figure 4. The future projections for the years 2000 through 2005 are derived by applying the current tax and fee rates to the estimated revenues for each type of service.
Figure 4-New Jersey Telecom Paid Taxes and Fees

Projected Rates are based on average for each service

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</tr>
</thead>
<tbody>
<tr>
<td>Local</td>
<td>76</td>
<td>99</td>
<td>110</td>
<td>133</td>
<td>163</td>
<td>170</td>
<td>195</td>
<td>222</td>
<td>254</td>
<td>290</td>
<td>332</td>
</tr>
<tr>
<td>Long Distance</td>
<td>303</td>
<td>342</td>
<td>368</td>
<td>374</td>
<td>387</td>
<td>390</td>
<td>407</td>
<td>426</td>
<td>446</td>
<td>468</td>
<td>492</td>
</tr>
<tr>
<td>Wireless</td>
<td>37</td>
<td>44</td>
<td>50</td>
<td>58</td>
<td>64</td>
<td>73</td>
<td>85</td>
<td>98</td>
<td>114</td>
<td>132</td>
<td>154</td>
</tr>
<tr>
<td>CATV</td>
<td>15</td>
<td>15</td>
<td>17</td>
<td>20</td>
<td>20</td>
<td>23</td>
<td>25</td>
<td>27</td>
<td>29</td>
<td>32</td>
<td>35</td>
</tr>
<tr>
<td>DBS &amp; Internet</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>430</td>
<td>501</td>
<td>545</td>
<td>584</td>
<td>634</td>
<td>656</td>
<td>711</td>
<td>773</td>
<td>843</td>
<td>923</td>
<td>1,012</td>
</tr>
</tbody>
</table>

Figure 5 presents the telecom taxes and fees by category of tax (or fee). This figure shows that sales taxes constitute the majority of dollars collected annually.

Figure 5 - Telecommunications Taxes & Fees by Tax Category

<table>
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<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales Tax</td>
<td>371</td>
<td>415</td>
<td>455</td>
<td>490</td>
<td>500</td>
<td>539</td>
<td>583</td>
<td>632</td>
<td>688</td>
<td>750</td>
<td>821</td>
</tr>
<tr>
<td>Corporate Tax</td>
<td>42</td>
<td>68</td>
<td>70</td>
<td>71</td>
<td>110</td>
<td>90</td>
<td>99</td>
<td>109</td>
<td>120</td>
<td>133</td>
<td>140</td>
</tr>
<tr>
<td>Franchise Fee</td>
<td>12</td>
<td>12</td>
<td>14</td>
<td>16</td>
<td>17</td>
<td>20</td>
<td>21</td>
<td>23</td>
<td>25</td>
<td>28</td>
<td>30</td>
</tr>
<tr>
<td>Assessment</td>
<td>5</td>
<td>5</td>
<td>6</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>430</td>
<td>501</td>
<td>545</td>
<td>584</td>
<td>634</td>
<td>656</td>
<td>712</td>
<td>774</td>
<td>844</td>
<td>923</td>
<td>1,013</td>
</tr>
</tbody>
</table>
However, in terms of gross revenue, the % contributions to the total obligation vary widely as illustrated in Figure 6.

Figure 6 - Telecom Taxes & Fees as % of Service Provider Revenues

Figure 7 shows that the total telecommunications taxes and fees as an average % of the total gross revenues of all telecommunications services has been varying between 5% and 6% with an average of around 5.25%.

Figure 7 - Telecom Taxes & Fees as Average % of Total Revenue
4. Rationale for Reform

From the baseline data presented in the previous section we can make the following observations:

1. There are major anomalies in financial obligations to the state in terms of the type of obligation, such as sales and corporate taxes vs. franchise fees and other assessments.
2. The burden is not equitably shared by the service providers, as the rate of contribution varies significantly across the board from no contributions in the case of Internet and DBS providers to about 7% for the LEC’s.
3. There is a shift in service revenue from traditional telecommunications services, i.e. local and long distance to more “advanced services” such as wireless/mobile, cable, DSL, and IP. This shift will continue and perhaps intensify over the next decade further distorting the picture on equitable financial obligations to the state, and could lead to shortfalls in state tax revenues from telecommunications services.
4. The convergence of telecommunications technologies and regulatory reform has blurred the distinctions among the service providers as each can legally and technologically provide all of the services.

These observations in the context of the basic principles that underlie financial obligations of citizen and corporations to the state and local governments suggest a need for reforming the current tax and fee structure for telecommunications. However, any restructuring of the taxes and fees should assure:

1. **Competitive neutrality** - avoiding any tax and fee mechanisms that would bias the competitive equation among service providers.
2. **Appropriate pricing for public goods** – avoiding distortion in efficient use of the public properties. A re-examination of the system of compensation to municipalities for the use of the public rights-of-way is necessary to ensure that the shift in telecommunications technologies is not distorting efficient use of these public resources.
3. **Tax efficiency** - avoiding distortion of economic decision-making and resource allocation. Inefficient tax levies could drive companies to make investment and pricing decisions geared toward local optimization than global optimization of the business.
4. **Simplicity** - reducing administrative complexity and cost.

Furthermore, telecommunications and cable television companies are uniquely postured to provide low-cost, modern infrastructure to the educational, non-profit and governmental sectors of the state economy.
5. Recent Developments in Other States

The problems with telecommunications taxes are a national issue as the tax policies of most states have been influenced by the same forces over time. Some states have considered tax reforms for telecommunications services, and some others are contemplating. This section of the report summarizes a few models from other states. The dominant model is the Streamlined Sales Tax System Project, which aims to simplify tax compliance for new companies seeking to enter the telecommunications markets. Each of the models discussed below has advantages. This report lists only those elements of the models that are worthy goals for New Jersey to consider. This is not a comprehensive discussion of all of the provisions in each state.

5.1 Streamlined Sales Tax System Project ("SSTP")

This Project is a proactive approach by states, with input from local governments and the private sector, to design, test, and implement a radically simplified sales and use tax. The goal of the Project is to substantially reduce or eliminate the costs and burdens of sales tax compliance for businesses through a combination of simplified laws and administrative policies and the implementation of a system that would be paid for by states. This project was initiated in February 2000. Reforming sales and use tax policies will provide online and other retailers that do business in multiple states an easier way to calculate, collect, and remit existing use taxes. Four out of five states are participating in some fashion in the project. As of June 2001, 15 states have signed into law legislation developed by the Streamlined Sales Tax Project14. SSTP Model Legislation authorizes adopting state to enter into multi-state agreements in order to simplify imposition and collection of revenues from Internet and catalog sales.

5.2 Florida

Florida recently enacted Communications Services Tax Simplification Law. Chapter 00-260, Laws of Florida (the Communications Tax Law) combines current state and local taxes under a single law administered by the Florida Department of Revenue. All communication services will be taxed at the same rate starting on October 1, 2001. These services will be taxed by the State and a portion of the revenue will be distributed to local taxing jurisdictions as a replacement for the taxes and fees they currently collect.

The maximum rate of this tax will be determined by the Revenue Estimating Conference in October 2001. It will replace gross receipts, state sales and use tax, local sales and use tax, municipality utility tax and any other manner of compensation sought for use of the rights-of-way (with the exception of certain permit fees).

14 http://www.geocities.com/streamlined2000/fnlact1222.html#art1
The new Communications Tax Law requires local governments and the communications industry to submit certain revenue data to the Florida Department of Revenue to assist in the calculation of the new rates. Specifically, communication and cable providers who are currently subject to Florida taxes are required to provide information about current collections.

### 5.3 New York

New York highlights the complexity of the telecommunications tax and fee structure. A recent study by the state cataloged all of the various local taxes and fees paid by telecommunications providers, cable television companies, and consumers of telecommunications. These taxes include:

- **Local Sales and Compensating Use Tax** - Local sales taxes, along with the State sales tax, apply to sales of intrastate telecommunications services. Cable television programming services are exempt from tax. County and city tax rates vary from 3 percent to 4.25 percent.

- **Local Gross Receipts Taxes** - Cities, other than New York City, and villages may impose gross receipts taxes on sales of utility services that occur within their jurisdiction. The tax is imposed at a rate of 1 percent, but special authority has been granted to three cities (Buffalo, Rochester, and Yonkers) to impose the tax at 3 percent.

- **New York City Taxes** - The City of New York imposes its own set of corporate and excise taxes on telecommunications. This includes a 2.35 percent utility tax, an 8.85 percent general corporation tax, and a 4 percent unincorporated business tax.

- **Cable Television Franchise Fees** - Municipalities may impose fees of up to 5 percent of gross revenues derived from the operation of cable television systems.

- **Telecommunications Franchise Fees** - The telecommunications industry and local governments take opposing views on whether local governments are authorized under New York law to impose local telecommunications franchise fees and, if authorized, whether franchise fees are limited to the cost of managing the use of the public way.

The state has mandated (SFY 1999-00 budget agreement) a study of local telecommunications taxes to be conducted by the Department of Taxation and Finance and the Office of Real Property Services (ORPS).

### 5.4 South Carolina

State sets annual fee for use of rights-of-way according to fee schedule in state code. Municipalities may not charge gross receipts tax, fee or other charge on receipts from any telecommunications service, other
than (a) the business license tax authorized by the statute, and (b) cable franchise fees as defined and regulated under 47 U.S.C. Section 54217.

5.5 Texas
In Texas, telecommunications services are subject to the state sales tax, but are exempt from all local sales taxes. Local sales taxes may be applied to telecommunications services occurring between locations within Texas.

Telecommunications Infrastructure Fund (TIF) - Texas levies a Telecommunications Infrastructure Fund (TIF) assessment on firms that sell telecommunications services to end-users. Legislation passed in 1995 imposed annual assessments on telecommunications utilities, such as telephone companies, long distance carriers, and wireline services, and on commercial mobile service providers, such as cellular phone companies, paging companies, and firms that resell these services.

Prior to July 1, 1997, the assessment rate for utilities was determined based on data from previous four quarterly assessment reports and may be adjusted periodically to reflect industry changes. Multiplying the assessment rate times the taxable telecommunications receipts reported by each utility will result in the amount owed by that utility. The rate for commercial mobile service providers is, by court order, the same as that for utilities.

Effective July 1, 1997, Senate Bill 249 authorized a fixed assessment rate of 1.25% for both utilities and commercial mobile service providers. It also created The Telecommunications Infrastructure Fund Board.18

5.6 Utah
Utah has set a ceiling of 6% on taxes, licenses, fees, license fees, license taxes, or charges similar to the charges listed imposed by a municipality based on the gross revenues of public service provider derived from sales, use, or both sales and use of the service within the county or municipality19.

In July 2001, the Utah legislators created a task force on Telecommunications “to study (a) the overall structure of the taxes or fees that the state or political subdivisions of the state impose on telecommunications equipment, facilities, or services; (b) study individual taxes or fees that the state or political subdivisions of the state impose on telecommunications equipment, facilities, or services…..(c)

18 http://www.tifb.state.tx.us/
19 Utah State Code § 11-26-1.
study the telecommunications tax policy of the state and political subdivisions of the state; (d) make recommendations regarding whether the telecommunications tax policy or tax structure should be changed..”

5.7 Vermont

Vermont has recently examined its tax structure as part of an statewide study of relationship between taxes and deployment of broadband. Applicable Vermont Taxes include: 1) corporation income tax, 2) real property tax, 3) personal property tax, and 4) sales and use tax. Both cable companies and telecommunications companies pay income tax at progressive rates of between 7% and 9.75% of Net Income. Both pay real property taxes (including state-wide education tax) at varying local rates based on Fair Market Value. Telephone companies pay a personal property tax to the state of 2.37% of Net Book Value, but do not pay local taxes on personal property. Cable companies pay local personal property taxes in towns, which tax business personal property. They also pay the statewide property tax on fixtures including cables and poles, regardless of whether the property is real or personal property. Both pay 5% sales and use tax on tangible personal property used in the state. Cable companies collect from customers 5% Vermont sales tax on charges for cable service, while telephone companies collect 4.36% sales tax on charge (except the first $20 per month of local exchange service). Both cable and telecommunications companies pay a .5% gross receipts tax to contribute to the funding of the Public Service Board and the Department of Public Service.

6. Options for New Jersey

6.1 Levelized Taxes and Fees

The baseline analysis shows the current tax and fee structure for telecommunications in New Jersey distort resource allocation, fair contribution to the state and local government financial obligations, and the competitiveness of the market. These observations suggest a strong need for reform. It is well within the capability of the New Jersey legislature to address the discrepancy in excise taxes and user fees. Several recent studies suggest simplifying and levelizing taxes for telecommunications services. In particular, the study by the Governor’s Association Center recommends:

“States need to examine the patchwork of local taxes and fees imposed on telecommunications

20 Utah State, S.B. 214
21 V.S.A. § 5832.
22 V.S.A. § 5401
23 V.S.A. §§ 9771
24 It is beyond the scope of the study to propose rationalization of the property taxes.
firms. Most states grant the authority to impose these taxes and fees by statute, and, therefore, states can make any necessary changes. One step states can take is to consolidate the number of fees and taxes imposed, possibly collapsing them into one local fee to cover all expenses incurred by local governments to manage rights-of-way. This could be done so local revenue is maintained while simplifying fee administration. 25

Also, in November 1999, a consortium of telecommunications providers presented their "Proposal for State and Local Taxation of the Telecommunications Industry" to the Advisory Commission on Electronic Commerce (ACEC). The proposal offered an option for simplification of state and local telecommunications taxes, by incorporating a single, statewide transaction tax on telecommunications, a portion of which could, at the state's option, be distributed to local governments26.

The average of excise taxes and fees in NJ is currently at 5.25% ranging from zero to 7%. The revenues from telecommunications taxes and fees to the local governments have been shrinking and the gap is normally made up from the state funds. In leveling the taxes and fees, the State should consider adequate compensation to the local governments for the use of their rights-of-way. This could be a component of the overall tax rate, applied as a franchise fee across the board. A preliminary assessment suggest that the required compensation could be less than 2% of the telecommunications revenues. The exact % of taxes for this purpose will need to be established based on the current compensations to the municipalities and future gaps.

6.2 Telecommunications Trust Fund

New Jersey’s schools, colleges, libraries and governments spend millions of dollars per year on communications technology and telecommunications. Funds for these expenditures come from various sources such as the State’s general fund where the current various state telecommunications tax receipts go. These entities have done a good job of upgrading their capabilities using the limited state money, and combining it with a number of other resources such as E-rate and NJ Technology Fund. According to the experts and officials we have talked with, it is not clear that these institutions can sustain and improve their current capabilities relying solely on current resources.

Economies of scale could reduce costs to both suppliers and purchasers of telecommunications networks serving these public entities. The Governor’s Office has been adding some

coordination to the expenditures of the secondary schools, community colleges, universities and libraries. But more can be done and closer coordination with additional funding promises to greatly improve the efficiency of the delivery and availability of these communications services.

These observations, the experience of other states, and discussions with public and government officials suggest that a Telecommunications Trust Fund, funded in part from the excise tax paid by telecommunications service providers, may be a desirable approach in New Jersey. A Trust Fund could provide an effective and efficient mechanism to enhance and grow the non-commercial telecommunications infrastructure of schools, colleges, libraries and state and local governments within New Jersey.

A Trust Fund would be managed by a state-level authority that can receive and respond to the requests of the constituencies involved, namely schools, colleges, libraries and governments. Among the roles for such an entity would be: a) development of a Telecommunications Policy for planning, development, and implementation of communications technology and telecommunications infrastructure for New Jersey's schools, colleges, libraries and governments; b) development of a strategy to leverage the collective buying power of these sectors; c) development of a mechanism to distribute to the sectors receipts dedicated from the New Jersey Telecommunications Tax; d) development and coordination of an education program for these sectors and their constituents on current and emerging communications technologies and telecommunications services; e) gathering information on a regular basis to ascertain the communications technology and telecommunications needs of these sectors.

A Trust Fund would not build and operate a single, statewide telecommunications network. It would, instead, study, direct and fund a unified vision for the effective roll-out and use of advanced telecommunications services by public sector entities. This will extend the notion of collective purchasing to sharing knowledge, and enable each sector to better develop and implement the technologies relevant to their own particular mission.

A Trust Fund could also be utilized to distribute funds to local communities to supplement the rights-of-way fees and in-kind services received for the use of their rights-of-way.

20 http://www.tax.state.ny.us/statistics/policy-special/telco00/Telco00_Recent_Studies.htm
7. Conclusions

The telecommunications technologies, services and regulatory policies have been on a rapid spiral of evolution in the recent years. However, the state policies on taxation of telecommunications services and service providers, and the systems of compensation of local governments for the use of public resources by cable television and telecommunications companies have not kept pace with this rapid change. Many states have recognized this issue and have begun to address the problems. The intent of this study was to create a baseline of information on telecommunications taxes and fees in New Jersey to highlight the shortcomings of the current system, and to identify suggested policies to address the need. We recognize the complexity of the system of taxation and fee structure of the state. There are several alternative ways to address tax equity and adequate funding of community needs and interests. Whichever approach is adopted, the ultimate result should be competitively neutral, fair to taxpayers on charges for the use of the public rights-of-way, and fiscally sound in asking telecommunications companies to pay a fair share of the state’s tax burden.

We are hopeful that this study will serve as further impetus for the state legislature and policy makers to take on the challenge and work with the agencies, communities and service providers to bring New Jersey to the forefront of this evolution.
Appendices

Appendix A. Sources of Baseline Data

Revenues  Telecommunications and cable communications services are partly regulated and partly unregulated. No single organization has all the data we needed to create the baseline. We used the following data to assemble the baseline:

1. From NJBPU,
   - Total annual revenue for Local Exchange and Regional Toll combined.
   - Basic Service revenue and total revenue for CTV.
2. From FCC report “telephone revenue by state”, NJ total telecommunications revenue.
3. From FCC nationwide report on wireless, estimate of NJ wireless revenues based on number of subscribers.

The baseline data for telecommunications services were derived from the above data set.

5. The Local Exchange baseline, hence, was created from the FCC and KMPG data.
6. The baseline for regional toll (intrastate toll) was created by backing out Local Exchange revenue from the BPU data.
7. The Interstate toll was created by backing out the BPU data and wireless revenues from the FCC revenue report for NJ
8. CTV revenues came directly from the NJBPU data
9. DBS data came from KPMG study
10. The Internet baseline was estimated from the US revenue based on population.

The future revenues for the years 2000 to 2005 were projected from the baseline using the average growth rate of the baseline for that service.
Taxes and Fees. The sales tax for Local Exchange, Long Distance and Wireless was calculated by applying 6% to the baseline revenue. After comparing these estimates with the total sales tax from the Treasury, the baseline sales taxes were lowered proportionally to account for the portion of revenue produced from services provided to State and local governments, which is not subject to tax.

For corporate business tax, we used the annual reports of the key service providers. We averaged the ratio of net income to gross revenue for the key service providers who are dominant for that service in NJ, then applied this ratio to the State tax rate and estimated the corporate business tax from the revenue estimates. Then compared these estimates with the data from the Treasury and adjusted our tax estimates by service accordingly. Through this averaging process, our baselines corporate and sales taxes are within 10% of the actual data provided by the Treasury.

The franchise fees for CTV and BPU Assessments are the actuals provided by NJBPU.
Appendix B. Baseline Data for New Jersey Municipalities

The New Jersey League of Municipalities recently conducted a survey of municipalities on their computing and communications capabilities\(^\text{27}\). The survey was distributed to 244 municipalities, about 20% responded on the telecommunications questions. The following information is extracted from the survey responses.

1. Telecom budget per capita $9.4
2. Estimated total telecom budget for 2001 ~ $79M
3. Number of municipality telephone lines per 100 population ~ 0.5
4. Estimated total number of lines ~ 41K
5. Municipalities with voice mail ~ 73%
6. Municipalities with PBX system ~ 72%
7. Municipalities with video conferencing 0
8. Number of municipality PC & terminals per 100 population ~ 0.4

\(^{27}\) Michael J. Darcy, CAE, New Jersey State League of Municipalities, \(\text{http://www.njslom.com}\)
Appendix C. Baseline Data for New Jersey Libraries

New Jersey public libraries can be characterized as follows:\(^{28}\):

1. 475 Units
   - 311 central libraries
   - 148 branches, and
   - 16 bookmobiles.
2. Book
   - 19.5M titles
   - 27.94M Volumes
3. Periodicals = 68.4K titles
4. Audio Visuals = 171.35K
5. Total Circulation = 45.75M
6. Internet Access = 97% (302 out of 311)
   - 284 libraries with dedicated lines
7. Public Internet Terminals = 2580

The telecommunication infrastructure of the libraries was upgraded in the past few years. The system is structured into 15 hubs supporting all the libraries. More than 91% of the libraries have dedicated Internet access. The current speed of access varies from 56K for dial up modems to 45M for dedicated data lines,

NJ libraries telecommunications infrastructure is supported through application of\(^{29,30}\):

- Annual operations budget (State & Local)
- NJ Library Services & Technology Act Fund (initial upgrade)
- NJ Bond Fund
- Access New Jersey – Verizon Discount Program
- E-rate
- Tischler Memorial Grant

The following figure shows the distribution of NJ library budget by category of needs.

The cost of telecommunications investment and operations are not tracked separately and is included in the “other expenses”. From the E-rate applications (see chart below), we can roughly estimate that the total fund needed for sustained operations and upgrade of the telecommunications infrastructure is somewhere between $5M and $8M annually.

\(^{28}\) Robert Fortenbaugh, 1999 NJ Library Statistics
\(^{29}\) Elizabeth Breedlove, Grant Management, NJ State Libraries
\(^{30}\) Linda Kay, E-rate Program, NJ State Libraries
Distribution of NJ Library Budget  
(Fiscal Year 1999)

<table>
<thead>
<tr>
<th>Category</th>
<th>1999</th>
<th>1998</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telecom Proposals Submitted to E-rate</td>
<td>1,789,027</td>
<td>1,995,323</td>
<td>1,596,447</td>
</tr>
<tr>
<td>Discount Support Received from E-rate</td>
<td>1,346,603</td>
<td>1,385,774</td>
<td>1,308,540</td>
</tr>
<tr>
<td>% Libraries applied</td>
<td>36%</td>
<td>45%</td>
<td>25%</td>
</tr>
</tbody>
</table>

**Future Needs** - Upgrade bandwidth at Hubs, provide for Distance learning and Video Conferencing capabilities at selected sites.
### Appendix D. Telecommunications Tax Rates by State

**Table 2 - Tax Rates by State**

<table>
<thead>
<tr>
<th>State</th>
<th>Real Property Tax</th>
<th>Personal Property Tax</th>
<th>Sales Tax</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cable TV</td>
<td>Telecom</td>
<td>Cable TV</td>
</tr>
<tr>
<td>Vermont</td>
<td>Locally taxed</td>
<td>Locally taxed</td>
<td>State tax at market value</td>
</tr>
<tr>
<td>Connecticut</td>
<td>Locally taxed</td>
<td>Locally taxed</td>
<td>3.29% of net book</td>
</tr>
<tr>
<td>Maine</td>
<td>Locally taxed</td>
<td>N/A</td>
<td>State Taxed 2.7% of net book</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>Locally taxed</td>
<td>N/A</td>
<td>Locally taxed Net book value</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>Locally taxed</td>
<td>Locally taxed</td>
<td>N/A</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>Locally taxed</td>
<td>Locally taxed</td>
<td>State tax at 2.435% of net book</td>
</tr>
<tr>
<td>Delaware</td>
<td>Locally taxed</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Maryland</td>
<td>Locally taxed</td>
<td>State taxed</td>
<td>State taxed (at net book with max dep. Of 25%)</td>
</tr>
<tr>
<td>New Jersey</td>
<td>Locally taxed at 2.54% of market value</td>
<td>N/A</td>
<td>Locally taxed at 254% of market value</td>
</tr>
<tr>
<td>New York</td>
<td>Taxed at state level; paid locally (include poles, lines and fixtures except cable on private property)</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>Locally taxed at 1.199% of net worth</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Washington, D.C.</td>
<td>Locally taxed</td>
<td>Locally taxed</td>
<td>N/A</td>
</tr>
</tbody>
</table>

[http://www.state.vt.us/psd/tele/bbtax.PDF](http://www.state.vt.us/psd/tele/bbtax.PDF)
Appendix E. Study Team

Dr. M. Hosein Fallah is an Executive-in-Residence in the Wesley J. Howe School of Technology Management at Stevens. He teaches graduate courses in telecommunications policy and regulations, strategic planning, and engineering economics. Prior to joining Stevens, Dr. Fallah has spent over 20 years in Research and Development with AT&T and Lucent Technologies Bell Labs. He has led initiatives in New Product Introduction and Innovation, Systems Engineering, Quality Management, Business Planning, Process Engineering, Technology Transfer, and R&D Effectiveness. He has authored or co-authored over 23 articles and books on industry best practices in these areas.

Mr. Thomas Lancaster is the Executive Director for Schools and Government Relations at Passaic County Community College. He serves as Telecommunications Advisor to the New Jersey State League of Municipalities. During his tenure as Faculty Fellow for the New Jersey Department of Higher Education he coordinated the development of the New Jersey Intercampus Network, authored A Strategic Plan for a Statewide Network for Schools, Colleges and Libraries, and a White Paper for Leveraging the Buying Power for New Jersey's Public Service Sector. Mr. Lancaster has also been successful in securing major Federal and State grants to support public service sector telecommunications initiatives. He currently is developing the Paterson Community Technology Center.

Mr. Nicholas Miller, ESQ, the Managing Director of Miller & Van Eaton, P.L.L.C., a firm with offices in Washington, D.C. and San Francisco, involved in every aspect of telecommunications and cable TV laws. Mr. Miller served as Communications Counsel to the U.S. Senate and was special consultant to the White House on telephone deregulation issues. He represents local governments seeking policy advice related to the expansion of telecommunications and developing the full potential of telecommunications for individual communities. He is widely recognized for his expertise in First Amendment matters, as well as his experience with AT&T divestiture, the Cable Act of 1984, and the 1996 Federal Communications Act. Mr. Miller was a founding partner of the Washington D.C. law firm of Miller & Holbrooke as well as the Director of Telecommunications Practice Group within Miller, Canfield, Paddock and Stone, P.L.C. before forming the law firm of Miller & Van Eaton.