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Crossed Lines: Regulatory Missteps in Telecom Policy

Diane Katz
Theodore R. Bolema, Ph.D., J.D.

An analysis of forced access in Michigan

Mackinac Center for Public Policy

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Violation of property rights is the defining feature of current telecom policy.

Executive Summary

Modern telecommunications is a mind-boggling marvel of software, switches and electromagnetic spectrum. But telecommunications policy doesn't have to be complex if guided by fundamental American principles.

Among the most basic of these principles is the protection of private property rights. But violation of this principle is the defining feature of current telecom policy, and the primary cause of its failure.

This report documents this policy misstep that has cost workers their jobs, investors their savings and consumers the benefits of a robust telecom market. We also recommend solutions grounded in sound economic principles that would help to restore rationality in telecom policy. Failure to institute reforms will inhibit technological innovation and economic growth, as well as undermine the reliability and security of our communications network.

The core of state and federal telecom policy for local calling is the requirement that wire line companies such as Verizon, BellSouth, SBC and Qwest allow rivals to utilize their networks at below-cost rates. We refer to this requirement as "forced access" throughout the report.

All too predictably, this regulatory approach, an obvious violation of property rights, has significantly skewed investment incentives and undermined technological innovation. And it hasn't even produced the outcome Congress intended.

Forced access was conceived as necessary to jumpstart competition in local calling services. Lawmakers assumed that once new entrants gained market share, they would build new facilities to compete against incumbent wire line networks. But as documented in Section III of this report, most competitors in Michigan have shunned investment in independent facilities, preferring instead simply to resell the network services they obtain at discount, compliments of regulatory fiat.

This outcome is precisely the opposite of what Congress intended. And it is a significant factor impeding telecom investment and economic growth.

Most competitors in Michigan have shunned investment in independent facilities.

Based on data from the Michigan Public Service Commission (MPSC), we have found that 89 percent of the wire lines billed by competitors in 2002 actually were serviced in whole or in part by an incumbent network, up from 62 percent in 1999.

There has been a corresponding decline in the proportion of lines served by independent facilities. Competitors utilized their own facilities to service a mere 10 percent of their customers in 2002, down from 29 percent in 1999.

Northwestern University economist Debra J. Aron also has found that between March 2002 and March 2003, for every (net) new line competitors serviced via independent facilities, they added three lines dependent for service on an incumbent network.

This policy miscalculation carries serious consequences. Investors see little benefit in providing new telecom capital so long as the government continues to require that incumbent service providers subsidize their rivals. Indeed, the market valuation of publicly traded telecom companies has fallen by $2 trillion in the past three years, leading to the loss of 500,000 jobs.

Moreover, total capital spending on telecom facilities declined from $100 billion in 2000 to less than $40 billion last year. The cutbacks inhibit innovation and potentially jeopardize network reliability.

This reliance on incumbent networks also has largely failed to stimulate new products or services, or even lower rates — the hallmarks of competition. Local telephone rates, which held steady in Michigan in the years preceding the 1996 telecom act, actually increased thereafter.

The economic adversity has not been confined to telecom service providers. To the extent that capital expenditures have been restricted, the entire chain of technology supply has been rattled, including software firms, chipmakers, fiber optic manufacturers and even Internet Service Providers.

Congress was right in wanting to end the monopoly franchise system in local calling, a relic of the telephone history chronicled in Section II. But their faith in central planning evidently overrode any recognition of the technological changes sweeping the industry.

As documented in Section V, the tremendous growth of wireless service, Internet communications and cable telephony present a formidable competitive challenge to the wire line incumbents — all without benefit of subsidies. As Deutsche Bank analysts observed: "The [incumbents] are facing steep declines in total access lines, caused by a sharp contraction in both primary and secondary lines, as wireless, DSL and cable/satellite platforms continue to cannibalize fixed line connections."[1]

The regulatory model has failed to achieve state and federal policy objectives.

Most state telecom law is dictated by federal statute, which complicates reform efforts. However, the Michigan Legislature and the Public Service Commission can take steps to improve the regulatory environment. Specific recommendations for reform are provided in Section VI.

If we strip away all the technical jargon and irksome acronyms that often cloud the policy debate, what we essentially are left with are disparate visions about the power of markets to maximize technological innovation. As the data in this report demonstrate, the regulatory model has failed to achieve state and federal policy objectives. It is yet another reminder that deviating from time-tested principles of property rights carries costly consequences.

1. Introduction

Stunning advances in technology enable us daily to communicate in real time from any location across any distance, whether we wish to talk with a loved one or to transmit reams of data. The software, satellites and fiber optics that make all this possible would be amazing enough for the power they put at our fingertips. That we also enjoy unparalleled choice among various technologies and service providers makes modern telecommunications all the more remarkable.

Failure to institute reforms will inhibit innovation and economic growth.

For all the productivity and convenience made possible by telecom innovations, the industry is mired in a financial crisis that threatens further progress and jeopardizes U.S. competitiveness. The value of publicly traded telecom stocks on the NASDAQ index soared by 446 percent between 1997 and 2000,[2] but those gains are now just a sweet memory for many stockholders. The index has plunged by 80 percent in the past three years, with devastating consequences: a $2 trillion reduction in the value of publicly traded telecom firms, a $1-trillion increase in corporate debt, and the loss of 500,000 jobs.[3]

Myriad factors have conspired to undermine the telecom sector. Flawed public policy certainly ranks as a principal culprit. This report chronicles some costly regulatory missteps, documents the consequent policy failures, and recommends solutions grounded in sound economic principles. Failure to institute reforms will inhibit technological innovation and economic growth, as well as undermine the reliability and security of our communications network.

Michigan is a key state in the reform calculus by virtue of its use of technology and its sheer economic muscle. The number of high-speed[4] lines statewide increased eightfold in the past four years, from 81,223 in 1999 to 640,766 today — the ninth largest number in the nation.[5] Moreover, the number of local telephone lines billed by competing service providers is exceeded only by New York.[6]

Yet the degree of broadband penetration in even top ranking states like Michigan still lags those of global frontrunners such as Korea, Hong Kong and Singapore.[7] Policy reforms at the state level would nurture deployment of advanced technologies and positively influence the entire Midwest region. Such leadership is particularly important as the Federal Communications Commission (FCC) devolves key elements of telecom regulatory authority to the states, a move under challenge as unconstitutional.

Ironically, the crux of the current problem — the Telecommunications Act of 1996 — was intended as an instrument of reform to increase competition in local calling services. In a major departure from six decades of federal telecom policy, Congress sought to end the monopoly franchise system in local calling.

Unfortunately, lawmakers overrode basic principles of property rights and

Competitors are simply reselling network services they obtain at a discount, compliments of regulatory fiat.

opted for central planning by prescribing a tortuous regulatory regime to "manage" competition in local calling. The FCC ultimately issued more than 10,000 pages of do's and don'ts. This created uncertainty in the industry and unleashed seemingly endless litigation.

In testimony earlier this year before the House Committee on Energy and Commerce, economist Robert Crandall of the Washington, D.C.-based Brookings Institution characterized the 1996 act as "a vast new system of wholesale-price regulation," adding that the subsequent regulations made the telecom sector "a treacherous environment for investment." Merrill Lynch analysts, meanwhile, judged the U.S. telecom sector as having "the worst combination of structural, regulatory and other adverse factors of any major market."

The most problematic aspect of the act was the requirement that incumbent wire line companies such as Verizon, BellSouth, SBC and Qwest allow rivals to use their networks at regulated rates. Such forced access — a regulatory taking of private property — was necessary, Congress reasoned, to allow new entrants to gain market share. Once this business base was established, competitors were expected to construct independent facilities.

The FCC devised a complex formula to set access rates. The rates would be calculated based on the cost of operating and maintaining a hypothetical network built in the future. This hypothetical network would presumably feature the most advanced technologies and operate at optimum efficiency.

Of course, no such network actually exists. And with no market confirmation of these hypothetical network costs, regulators set the access rates artificially low. Because these access rates fail to cover operating costs in many instances, the network owners are effectively subsidizing their rivals.

Anna-Maria Kovacs of Commerce Capital Markets calculates that access rates fall "radically" below actual costs by some 50 percent to 60 percent. J.P. Morgan Securities likewise reports that incumbents lose about 60 percent of line revenue when a competitor woos away a customer, but retain 95 percent of the service costs.

Predictably, network access subsidies have skewed investment incentives. As the findings of this study document, most competitors have not invested in new facilities as Congress intended. Most are simply reselling the network services they obtain at a discount, compliments of regulatory fiat.

In essence, this forced-access regime has done little more than allow new entrants to put their names on existing services and call it competition. It is a policy misstep that has forfeited vast opportunities. Investors dedicated billions of dollars in start-up costs, but competitors have produced little in the way of new technologies or applications that would constitute meaningful competition. Incumbent firms, meanwhile, have been forced to curtail network upgrades and R&D as access subsidies to their competitors erode operating revenues.

Simply put, federal telecom policy and the substantial state regulation it spawned have proved to be a failure. As stated earlier this year by securities analysts with Fulcrum Global Partners LLC: "The fact that we are no closer to a deregulated market than we were in 1995 speaks volumes for how ineffective the law was in the first place. The incremental social burden that the Telecom Act of 1996 has placed upon the industry, consumers and the country overall cannot begin to be measured."

The most rapidly expanding sectors of telecom are the least regulated.

It is instructive to note that the most rapidly expanding sectors of the telecom industry — wireless and cable telephony — are also the least regulated. This is more than coincidence. As history has repeatedly shown, technological progress thrives in the absence of centralized authority. Both alternatives represent significant competitive challenges to major wire line carriers — without subsidies or onerous regulation.

As the Fulcrum analysts noted: "It should be clear by now to all, that cable telephony, wireless substitution as well as broadband overlay devices represent the most realistic proposition for long-term competition."

There will continue to be special interests that insist on government control of the wire line market. But this study provides ample evidence that the current regulatory framework — obsolete, ineffective and wasteful — is in need of reform.

II. A Brief History of Telecom Regulation

The Early Years

Alexander Graham Bell patented the telephone on March 7, 1876. During the course of the next 20 years, the average number of daily calls per 1,000 population grew relatively slowly, from 4 to 37.[8] But once the Bell patents expired in 1894, thousands of competitors began wiring the nation, increasing the daily calling average per 1,000 people from 37 in 1895 to 391 in 1910. By 1907, Bell rivals controlled 51 percent of local service.[9]

Michigan's first local telephone company emerged in 1877, when an Upper Peninsula businessman strung a line between his inland office and the Lake Superior port at Ontonagon.[10] By the century's turn, some 200 telephone companies were providing service in the state.

In response to the burgeoning competition, American Telephone and Telegraph (AT&T) began buying up rivals. But AT&T's acquisitions troubled federal authorities, who began mulling antitrust action. This prompted company officials to propose what subsequently became known as the "Kingsbury Commitment." On Dec. 19, 1913, AT&T agreed to sell $30 million of its Western Union stock and to allow competitors to interconnect with its network. The company also pledged that for every new local system acquired, it would sell an equal share of lines to rivals.

This arrangement was wholly in keeping with the brilliant strategy of AT&T's then-President Theodore Newton Vail, who aggressively promoted telephone service as a "natural monopoly." Public officials, eager to regulate the nascent industry, embraced Vail's motto of "One Policy, One System, Universal Service."

AT&T had the most to gain from raising regulatory barriers to market entry.

Of course, as the nation's dominant service provider, AT&T had the most to gain from government raising the regulatory barriers to market entry. The more difficult it was to launch competitive service, the more secure was the company's market share.

Congress first vested federal regulatory authority over telephone services in the Interstate Commerce Commission, under the Mann-Elkins Act of 1910. This followed the practice of local franchising initiated by states and municipalities to control rates and service quality.

The theory of "natural monopoly," now widely questioned, presumed that redundant telephone infrastructure was economically inefficient. Monopoly power could simply be tempered through regulation. In hindsight, competition might well have yielded new technologies and applications that instead took decades to achieve.

The "natural monopoly" theory gained widespread currency. For example, a 1921 report by the Michigan Public Service Commission concluded that "Competition resulted in duplication of investment," and that states were justified in denying requests by rivals to deploy new lines.[11] A report that same year from the U.S. House of Representatives likewise concluded that, "There is nothing to be gained by local competition in the telephone business."[12]

The drawbacks to the regulated monopoly approach are now more widely recognized. Firms that enjoy government protection from competition, and for whom rates of return are guaranteed through regulation, face less financial pressure to innovate or operate efficiently. Moreover, bureaucrats often became so committed to the regulatory structure that they regard competition as a threat rather than as a potential solution to the very structural conditions that led to the adoption of regulation.

By 1925, telecom rate regulation was in effect across most of the nation, and competition was either discouraged or explicitly prohibited. The regulatory structure was finalized when Congress created the Federal Communications Commission in 1934.

In enacting the Communications Act of 1934, Congress authorized the new agency to impose telecom service requirements at regulated rates. Any deviations in product or service required government approval. Odd as it may seem, these regulatory strictures still partially persist even as Moore's Law — the predicted doubling of data density every 18 months — accelerates the pace of technological change.

But as noted by a 1988 Department of Commerce report: "The chief focus of the Communications Act of 1934 was on the regulation of telecommunications, not necessarily its maximum development and promotion. (T)he drafters of the legislation saw the talents and resources of the industry presenting more of a challenge to the public interest than an opportunity for national progress."[13]

The regulatory disconnect between local and long distance calling is obsolete.

Thus, with the cooperation of state and federal officials, AT&T secured its dominance over telephone service for decades to come, controlling more than 80 percent of all telephone lines and assuming family status as "Ma Bell."[14]

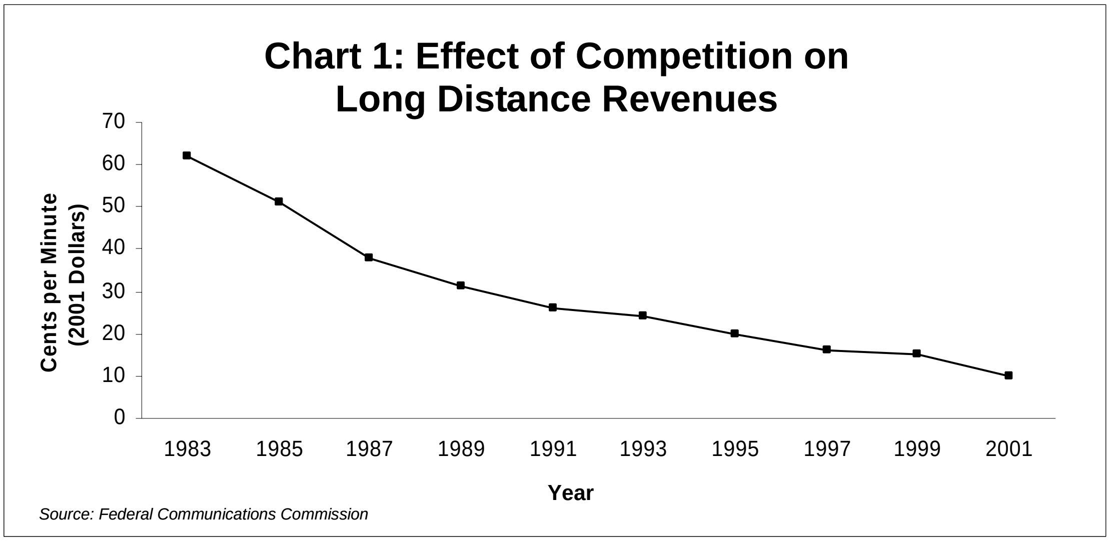
The Breakup of the Bell System

Challenges to AT&T's protected standing arose in the 1970s, prompting the FCC to allow limited entry into long distance services as well as into enhanced applications such as computer processing. Local service, however, remained off limits to competition. This regulatory disconnect continues today despite technological advances that have rendered obsolete any distinction between local and long distance calling.

In the mid-1970s, the U.S. Justice Department filed an antitrust lawsuit against AT&T based on complaints by MCI and other long distance service providers. The lawsuit went unresolved for eight years. In 1982, the company settled with the government under conditions ordained by Judge Harold H. Greene, of the Federal District Court for the District of Columbia.

The landmark settlement required AT&T to divest its local operating companies, and to restrict its services to the long distance market. Thus, in 1984, Michigan Bell became Ameritech Michigan, one of seven regional "Baby Bells" that assumed control of local calling services. AT&T was allowed to keep its equipment operations. (These were later spun off as Lucent Technologies.) Judge Greene retained jurisdiction over the case for more than a decade, effectively elevating himself as the nation's telecom czar. Virtually every major business decision required approval by both the judge and the FCC.

A subsequent series of mergers and acquisitions reduced the number of regional operating companies from seven to four: SBC, Verizon, BellSouth and Qwest. In Michigan, Ameritech was acquired by SBC in 1999, and Verizon acquired GTE, another Michigan carrier, in 2000.



Costly FCC regulations have actually inhibited competition in local services.

Competition in long distance service yielded dramatic consumer benefits. As shown in Chart 1, average revenues per minute for interstate and international calls originating in the United States dropped from 62 cents per minute in 1983 to 10 cents per minute in 2001. In many instances, calling across state lines and even international borders cost less than toll calls within a single state.

The 1996 Telecommunications Act

The artificial distinction between local and long distance services created by the Bell breakup produced regulatory upheaval as new technologies and services developed. Would Internet access be classified as a long-distance service? Would the Baby Bells be permitted to provide voice messaging and other "information services"?

Congress sought to calm the chaos with passage of the Telecommunications Act of 1996. Cognizant of the benefits realized through long distance competition, lawmakers effectively declared an end to the monopoly franchise system governing local calling.

Congress also presumed that the Federal Communications Commission could manage the transition to local competition better than the market. But as noted by John Thorne, senior vice president and deputy general counsel of Verizon, "Regulators sometimes make massive mistakes, especially when they cling to traditional approaches that have been overtaken by profound changes in technology and markets."[15]

In fact, as documented by the data in Section III of this report, the onerous and costly regulations imposed by the FCC have actually inhibited competition in local wire line services and contributed to a massive loss of investment.

The principal problem was the regulatory seizure of private property, which invariably skews investment incentives. Congress forced incumbent local telephone companies to share their facilities with rivals at regulated rates. By lawmakers' reasoning, competitors would need to establish market share before they would build independent facilities with which to compete.

Congress delegated to the FCC the authority to determine which facilities should be shared, and how various parts of the network, called "unbundled network elements" (UNE), as well as the entire network platform (UNE-P) would be priced. However, lawmakers did establish an eligibility baseline for this subsidized access. It was not intended to be an entitlement. Eligibility was supposed to be based on whether a competitor would be "impaired" from competing if they were denied access.

The rates calculated by most states have proven to be economically unsustainable.

Section 251(3)(2)(B) of the 1996 act directs the FCC to "consider, at a minimum, whether … the failure to provide access to such network elements would *impair* the ability of the telecommunications carrier seeking access to provide the services that it seeks to offer." (Emphasis added.)

The FCC established a pricing formula for network elements, called "Total Element Long-Run Incremental Cost" (TELRIC), based on the cost of building and operating a hypothetical maximum-efficiency network. The rates subsequently calculated by most states cover an irrationally broad range, and most have proven to be economically unsustainable.

As explained by Verizon's John Thorne, the TELRIC rates bear no resemblance to market realities. "The regulatory discount for ordinary resale is typically 20-25 percent; the UNE-P typically prices out at a discount of closer to 60-65 percent. UNE-P serves no purpose whatsoever, except to permit a game of regulatory arbitrage, conducted by companies that have built nothing in the way of a network at all."[16]

From a plain reading of the 1996 act, there can be no doubt that Congress intended to restrict regulated network access. Yet the FCC crafted eligibility standards that effectively granted access subsidies to any and all competitors for the asking. This disregard of congressional intent was recognized by the U.S. Supreme Court, which struck down the FCC regulations in 1999 and ordered the agency to rewrite the access rules.[17]

Admonishing the agency for regulatory activism, the court reminded FCC officials that "[If] Congress had wanted to give blanket access to incumbents' networks, [it] would simply have said (as the Commission in effect has) that whatever requested element can be provided must be provided."

Far from being humbled by the highest court in the land, the commission subsequently produced another set of overbroad access regulations. The so-called

The FCC majority has brought forth "a molten morass of regulatory activity."

"impairment standard," which was supposed to limit eligibility for subsidized access, was crafted in language only a handful of telecom lawyers could actually interpret — and which gave the FCC the widest possible latitude:

> "(T)he failure to provide access to a network element would 'impair' the ability of a requesting carrier to provide the services it seeks to offer if, taking into consideration the availability of alternative elements outside the incumbent's network, including self-provisioning by a requesting carrier or acquiring an alternative from a third-party supplier, lack of access to that element materially diminishes a requesting carrier's ability to provide the services it seeks to offer."[18]

This second set of impairment standards was also struck down as unconstitutional in May 2002 by the U.S. Court of Appeals for the District of Columbia, which accused the agency of indulging in "lofty abstractions" and "differentials so broad, we have no way of assessing the real meaning."[19]

The Triennial Review Order

The FCC's third attempt to craft lawful regulations debuted on Aug. 21, 2003. On August 22, the newsletter of equity research firm Jefferies & Company, Inc., featured the headline: "FCC's Big Order Finally Out — So Let The Lawsuits Begin!" Dana Frix, a telecom lawyer with the New York law firm of Chadbourne & Parke, told the International Herald Tribune: "Every word will be challenged. My children will go to college on this stuff. This is a lawyer's dream."

Indeed, within days of release, numerous telecom companies and trade associations had filed constitutional challenges to the so-called Triennial Review Order.

The contentiousness was not limited to the courtroom. The FCC itself was deeply divided, having approved the order by a vote of 3-to-2. Commission Chairman Michael Powell, who joined Commissioner Kathleen Abernathy in dissent, publicly excoriated the majority for "taking a politically expedient course instead of the right course."

"The decision," Powell said, "will prove too chaotic for an already fragile telecom market. In choosing to abdicate its responsibility to craft clear and sustainable rules ... the majority has brought forth a molten morass of regulatory activity that may very well wilt any lingering investment interest in the sector."

What so displeased Powell and much of the telecom industry was the decision by the commission majority to foist upon states the responsibility for determining whether market conditions justify subsidized access, rather than crafting a federal impairment standard as Congress intended. If allowed to stand, the Triennial Review Order will require 50 state utility commissions to issue 50 sets of standards for determining whether competitors are eligible for subsidized network access. The resulting regulatory nightmare exemplifies why the Founders vested in Congress authority over interstate commerce.

The commission majority defended its action by asserting the need for a more "granular" analysis of impairment than could be accomplished from Washington.

Even when a market is declared open, incumbents can still be forced to provide subsidized access.

Powell and his supporters, however, declare other motives at play. "Make no mistake," he said in his dissent, "the role of the states dominated this proceeding solely because states are perceived as a more favorable venue for preserving the status quo of aggressive [subsidized access] rights. ... The record was beside the point. The goal was to keep [subsidized access] in place. In so doing, the Majority's decision substantially repeats the errors of our past approaches."

Powell's sentiments were echoed by Wall Street analysts such as Bernstein Research Call, which predicted that giving states such broad regulatory latitude would "... result in 'gaming' on the part of the state commissions predisposed to insuring the perpetual availability of [subsidized access]."

III. The Effects of Regulatory Policy in Michigan

Assessing the Competition

Competition in local telephone service was the principal policy goal of the Telecommunications Act of 1996. Assessing whether the statute has achieved this objective in Michigan requires measuring the level of competition that has emerged since its passage.

Regulators have made the measurement of competition maddeningly complex. How the measurement is conducted depends on how the results will be applied. For example, federal law provides a 14-point checklist of competitive conditions that must be met before incumbent wire line companies are allowed to provide long distance services.

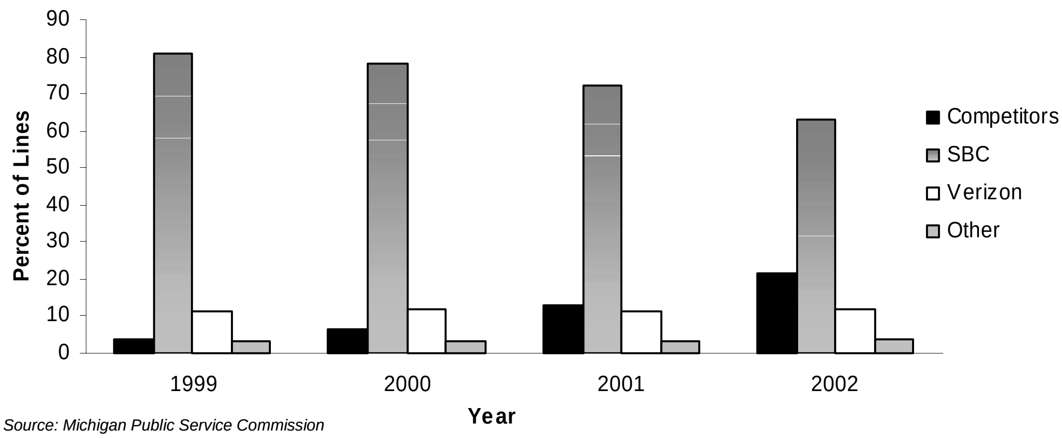
But even when a market is declared "open" based on the competitive checklist, an incumbent service provider can still be forced to provide subsidized access to its network. In other words, the market can be both "open" and uncompetitive at the same time.

By any measure, Michigan is a national leader in the number of local lines billed by competitors. Some 99 percent of Michigan zip codes now are served by at least two local providers.[20] More than 190 companies are currently licensed to offer local service.[21]

As illustrated in Chart 2, local service market shares have shifted dramatically in recent years. In 1999, SBC served 81 percent of all Michigan lines, but that share fell to 62 percent by the close of 2002. SBC's losses have been competitors' gains. The market shares of Verizon and small independents have remained virtually unchanged, but competitors' shares of the market grew from 4 percent in 1999 to 22 percent in 2002.

It would be a mistake to conclude that federal policy has spurred local competition.

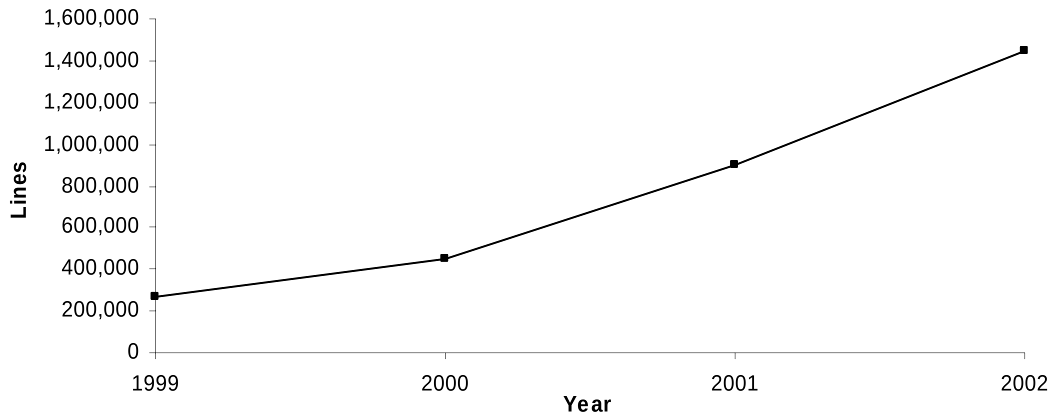
Chart 2: Changing Market Share in Local Calling



Source: Michigan Public Service Commission

As of March 2003, some 74 local service companies were competing in SBC's service territory, up from 66 in 2002.[22] Chart 3 illustrates the rapid increase in lines billed by competitors.

Chart 3: Rapid Increase in Competitors' Market Share



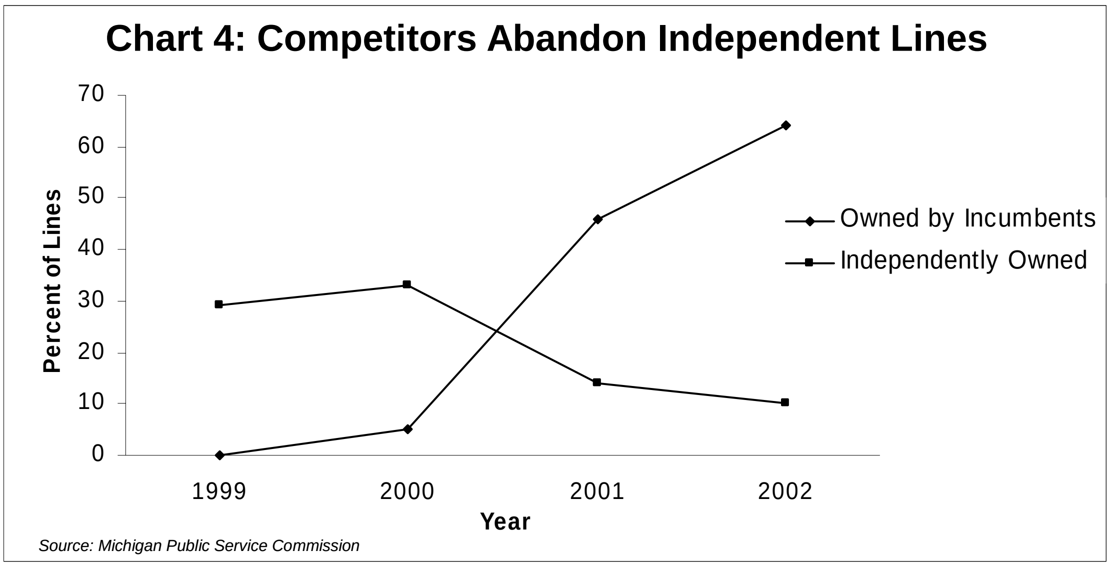
Source: Michigan Public Service Commission

Were competitors serving customers through independent facilities, such numbers would indicate robust market competition. But it would be a mistake to conclude that federal policy has succeeded in spurring local competition in Michigan.

The reality is that most of the actual telephone service billed by competitors in Michigan is actually provided by SBC facilities. According to MPSC data, an astonishing 89 percent of the lines billed by competitors in 2002 actually were serviced in whole or in part by an incumbent network, up from 62 percent in 1999.

As Chart 4 illustrates, there also has been a corresponding decline in the proportion of lines served by independent facilities. Competitors utilized their own facilities to service a mere 10 percent of their customers in 2002, down from 29 percent in 1999.

Most of the telephone services billed by competitors are actually provided by SBC.



The increase in the proportion of competitors' lines served by the incumbent network, and the corresponding decline in the proportion of competitors' lines served by independent facilities, is precisely the opposite of the outcome Congress intended.

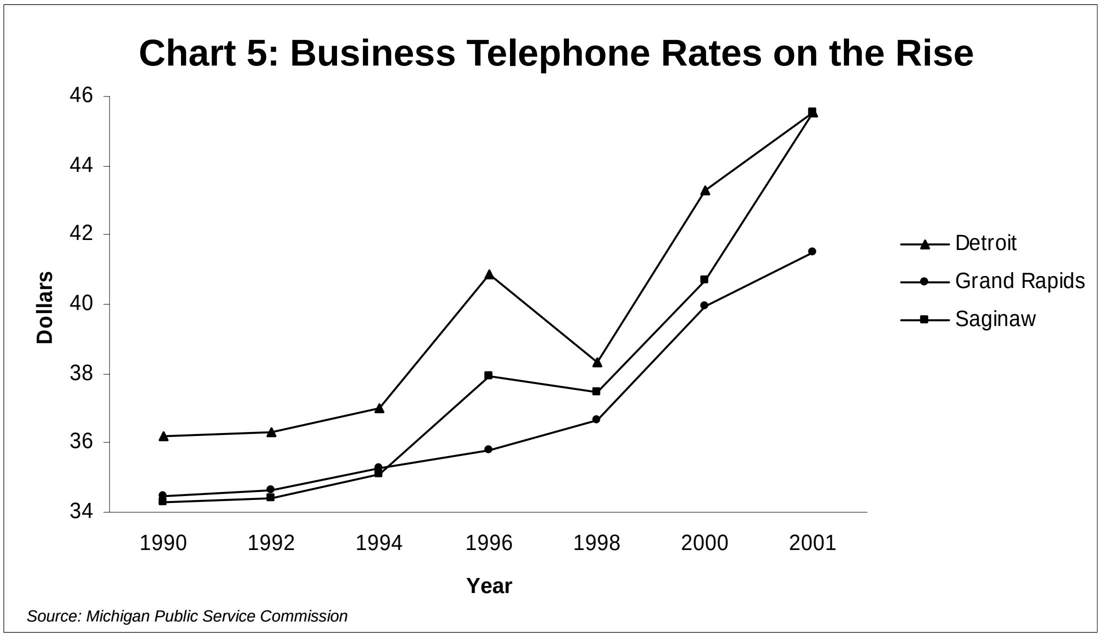
Northwestern University economist Debra J. Aron also has found that between March 2002 and March 2003, for every (net) new line competitors serviced via independent facilities, they added three lines dependent for service on an incumbent network.

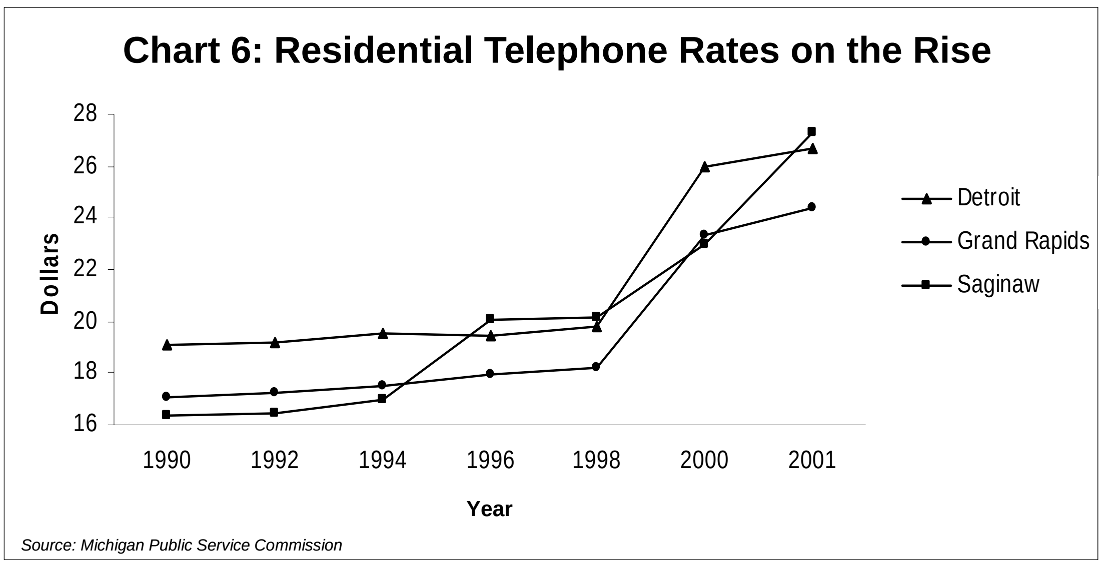
This reliance on incumbent networks has largely failed to stimulate new products or services, or even lower rates — the hallmarks of competition. Local telephone rates, which held steady in Michigan in the years preceding the 1996 telecom act, actually increased thereafter.

That competitors have shunned investment in independent facilities is hardly surprising. It would be economically irrational for any business to assume the capital expense and associated risk when a competitor such as AT&T can simply demand subsidized local network access for $14 a month, bundle in its long distance service, and resell the package for $49.95 retail.[23]

As explained by Verizon's John Thorne: "No company will invest billions of dollars to become a facilities-based broadband services provider if competitors who

Ubiquitous access subsidies only produce "completely synthetic competition."





have not invested a penny of capital nor taken an ounce of risk can come along and get a free ride on the investments and risks of others.[24]

Taken together, the evidence demonstrates that federal and state regulation of the wire line network has failed to produce the market competition envisioned by Congress. As the appeals court charged in striking down the FCC's impairment standard, ubiquitous access subsidies only produce "completely synthetic competition."

Summing up this failure, economist Robert Crandall of the Washington, D.C.-based Brookings Institution said: "Simply allowing other carriers to deliver the same service over the same facilities to the same customers at a greater social cost will not promote competition. The UNE platform is not stimulating the development of new local services.

Nor are the companies offering local service over the UNE platform using this network strategy to gain a toe-hold before moving ahead to build their own networks."[25]

The Costs of Failed Policy

One measure of the success or failure of a public policy is whether specific goals have been met. Just as important is assessing the costs of success or failure. In this case, regulations have imposed enormous economic and social costs that far exceed marginal benefits.

The forced access regime is a money-losing proposition.

As stated earlier, a multitude of factors contributed to the precipitous decline in telecom stocks beginning in 2000. But the regulatory actions of Congress and the FCC are among the factors most often cited by Wall Street analysts, economists and industry experts.

The essential problem is that the forced access regime is a money-losing proposition for incumbent wire line companies. According to Merrill Lynch analysts, "Regional Bell Operating Company profitability would be much improved if [they] were not required to resell local exchange service at TELRIC rates."

In the case of SBC, Michigan's largest local service provider, the access rates established by the MPSC are among the lowest in the nation. Consequently, for every line SBC is forced to subsidize, the company posts a loss.

In a 2002 study of Michigan rates, investment bank UBS Warburg concluded that SBC operating expenses exceeded access payments by more than $8 per line per month.[26] Merrill Lynch analysts pegged the loss at $6.10 per line per month.[27]

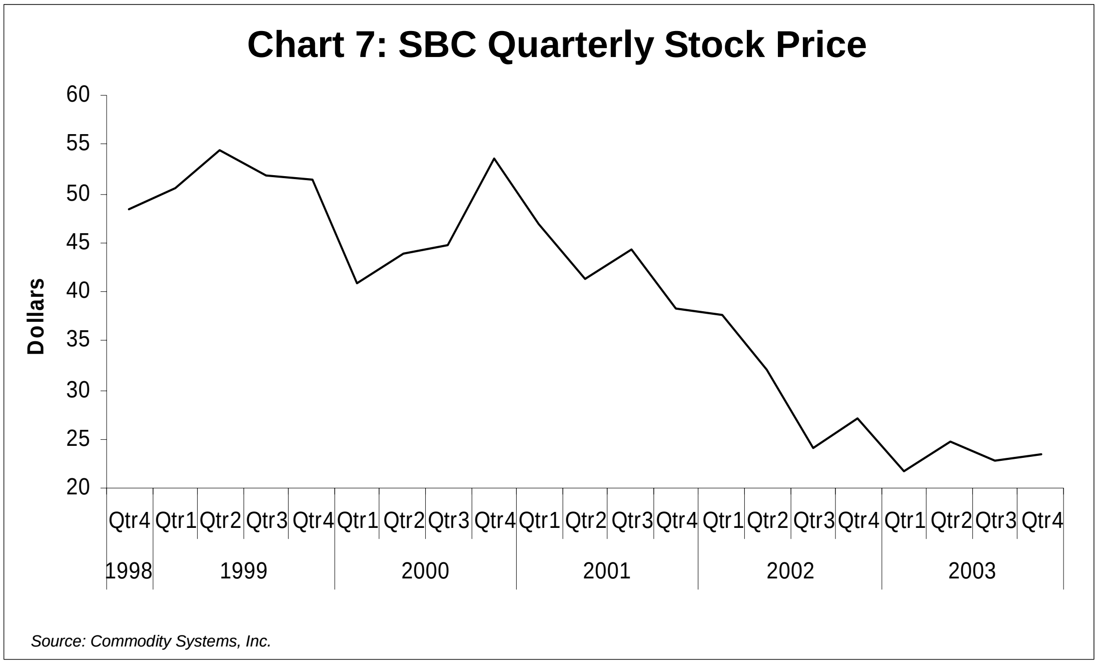
According to Stephen Pociask, president of TeleNomic Research, a Virginia consulting firm, incumbent service providers lose more than 50 percent of line revenue when a rival signs a customer, but shed only 20 percent of the service cost. Explains Pociask: "This divergence between price and costs leads to an absolute decline in cash flow and earnings for incumbents."

SBC's loss of operating revenue — totaling $416 million between 2001 and 2002 alone — has eroded the company's ability to invest in network upgrades and product innovation. And it has put downward pressure on its stock price, as Chart 7 shows.

SBC is not alone in hemorrhaging operating revenue. Four of the five largest telecom carriers have lowered capital expenditure targets as a result of revenue losses from forced-access subsidies.[28]

Securities analysts with the Precursor Group, a Washington, D.C.-based investment research firm, aren't shy about assigning blame. "The wire line telecom

Investors see little benefit in providing new capital so long as the government requires that incumbents subsidize their rivals.



sector," they note, "has fundamentally decoupled from the rest of the tech sector and from the economy, in large part because regulators managed competition policies. In contrast to the rising tide of tech enterprise demand, wire line telecom equipment capital expense budgets are sinking."

Investors see little benefit in providing new telecom capital so long as the government continues to require that incumbent service providers subsidize their rivals. Total capital spending declined from $100 billion in 2000 to less than $40 billion last year, according to Brookings Institution economist Robert Crandall. And in testimony before Congress in February, he warned that continued declines in capital spending could undermine the reliability of the telecom network.

"This decline in capital spending is clearly the most alarming aspect of the current telecom malaise for it portends a slowdown in the deployment of new technology and even the possibility of a degradation of traditional services if it continues," Crandall said.

Competitors, too, are strapped for cash in the wake of enormous losses in market capitalization — which declined from $80 billion in 2000 to $1 billion last year.[29]

Researchers Larry Darby, Jeffrey Eisenach, and Joseph Kraemer suggest that investors may have been overly optimistic about the benefits of subsidized access.

"There is little support for the notion that more aggressive regulation could have 'saved' the [wire line competitors] ... but some indication that firms and investors may have been influenced in their behavior by excessive reliance on regulatory incentives."[30]

The economic adversity has not been confined to telecom service providers. To the extent capital expenditures have been restricted, the entire chain of technology supply has been rattled, including software firms, chipmakers, fiber optic manufacturers and even Internet Service Providers.

As FCC Chairman Powell declared in his opposition to continuation of the forced-access regime: "Such regulatory calculus impedes the proper functioning of a market."

There were costs as well as benefits to being a state-sanctioned monopoly.

IV. Examining Arguments in Favor of Forced Access

Advocates insist that forced access to the incumbent network is necessary to create competition in local calling services. They prefer the term "fair access." But as the data in the preceding section indicate, this approach has not achieved the intended results. To avoid similar results in the future, it is instructive to examine some of the reasoning that has contributed to this policy failure.

Generally speaking, wire line competitors say they are entitled to network access because wire line facilities, built over decades as a state-sanctioned monopoly, would be too costly to duplicate. From this point of view, the network is more a public property than a private property. They argue that incumbents should not be allowed to exploit the advantages of having operated as a state-sanctioned monopoly, including a captive market and regulated rates of return on investment.

At its most elemental, this view of the access issue is less about competition than about the redistribution of telecom assets. Because the incumbents' market dominance was derived from government regulation, incumbents are obligated to share the network, according to the reasoning of access advocates.

It is certainly true that development of the incumbent network was facilitated by government-granted rights of way as well as by cost recovery. But it is also a fact that monopoly status carried a host of service requirements and prohibitions, as well as rate regulation that has kept residential phone bills artificially low for decades.

Simply put, there were costs as well as benefits to being a state-sanctioned monopoly. And while the wire line network continues to be a primary component of telecommunications, the technological changes overtaking the industry may well render it largely obsolete in the future. Public policy should not increase dependence on dated technology.

Telecom is indeed a capital-intensive industry. It would be costly to duplicate the existing network. But competition in telecommunications does not depend on a duplication of wire lines. Entrepreneurs in myriad industries have successfully challenged monopolies without relying upon government redistribution of assets.

For example, the U.S. Postal Service has long operated as a monopoly. But companies such as Federal Express and United Parcel Service, along with messenger services and a host of other private mail delivery options, built competing businesses without demanding access to Post Office facilities. Moreover, new technology, in the form of e-mail, has dramatically reduced the dominance of government mail delivery.

Competition should not depend on the regulatory seizure of private property.

The reality is that incumbent wire line companies have an incentive to serve as wholesalers of network access without government interference. As incumbents continue to lose lines to competing technologies, they must find new sources of revenue. But by imposing below-cost access rates, the government has reduced the incentive for incumbents and competitors to negotiate mutually beneficial access contracts.

Competition should not depend on the regulatory seizure of private property. While wire line competitors have spent years battling for ever-more access in Congress and courtrooms, wireless and cable firms have built alternative networks that pose a significant competitive challenge to wire line incumbents.

As this report documents, government regulation of the network has not produced the benefits proponents envisioned. Were forced access a viable competitive strategy, it is doubtful that hundreds of companies dependent upon it would have declared bankruptcy in the past three years. Even the Federal Communications Commission has acknowledged that forced access is not the optimal solution for competition in local calling. As the commission stated in 2000: "The greatest long-term benefits to consumers will arise out of competition by entities using their own facilities." Because facilities-based competitors are less dependent than other new entrants on the incumbents' networks, they have the greatest ability and incentive to offer innovative technologies and service options to consumers."[31]

Looking to government to solve problems created by government does not make for sound policy. The regulatory mistakes of the past cannot be repaired simply by reconfiguring regulation. It may not be "fair" that the incumbent networks once operated as state-sanctioned monopolies. But their market power will not be lessened by regulation that increases competitors' dependence on that very network.

V. Where Competition Thrives

The failure of state and regulatory policy to stimulate competition in wire line services does not mean that consumers lack for choices in local calling services. Seemingly by the day, affordable telecom technologies and new applications come to market.

Wireless

Wireless telephony presents the greatest competitive challenge to wire line service. Cellular subscriptions have increased from just 92,000 nationwide in 1984 to more than 140 million today.[32]

A primary factor driving this extraordinary growth was the decision by Congress to relax the FCC's grip on the broadcast spectrum. In the early 1990s, the FCC had restricted the number of wireless carriers to two per market. The 1993 Budget Reconciliation Act, however, forced the FCC to auction spectrum for up to six carriers per market. Consequently, by 2003, over 95 percent of the nation was served by at least three wireless services.[33]

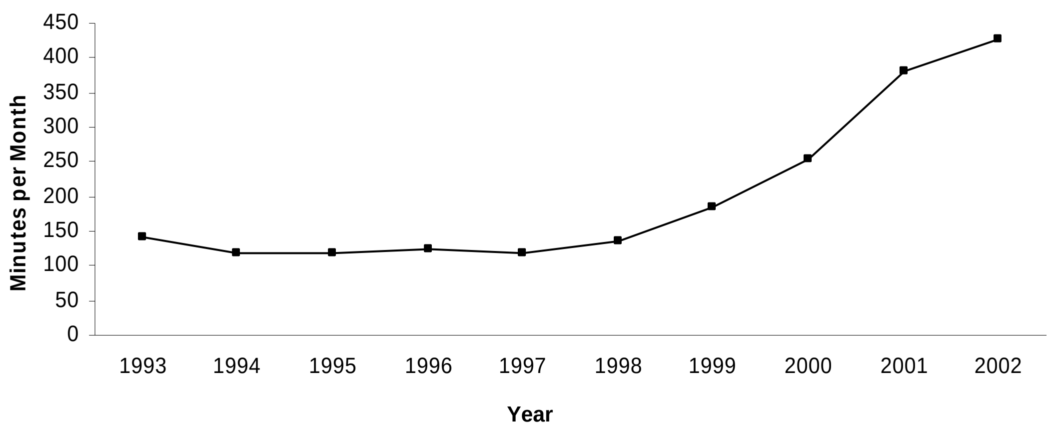
This growth is entirely due to wireless carriers competing in the open market to build their own networks, with none of the regulatory management of growth that has characterized wire line competition.

Opening the market dramatically lowered prices. The average revenue for wireless service dropped from 47 cents per minute in 1994, before the spectrum auctions, to 29 cents in 1998; 18 cents in 2000; and 11 cents in 2002. Simply put, the average price per minute for wireless service decreased by more than 75 percent in the seven years after Congress reined in FCC regulators.

During the same period, average monthly cellular usage by consumers rose from 119 minutes per month in 1994 to 427 minutes per month in 2002.

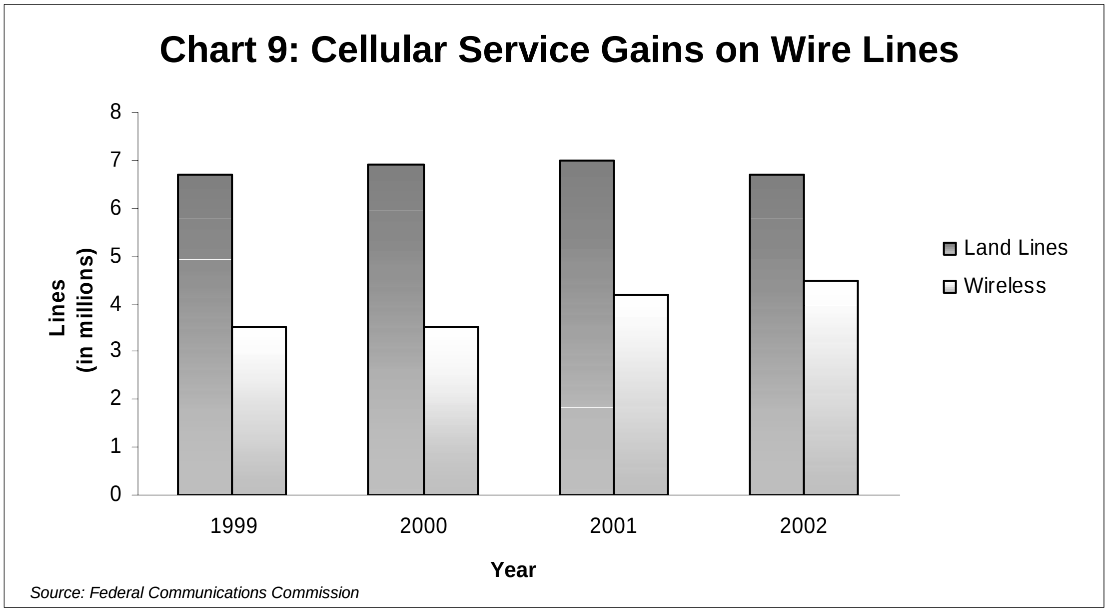
The explosive growth of wireless services has exposed the obsolescence of the regulatory distinction between local and long distance services. Free of the service restrictions imposed on local wire line services, AT&T Wireless in 1998 introduced a

Chart 8: Increased Use of Cellular Service



Source: Federal Communications Commission

Wireless telephony presents the greatest competitive challenge to wire line service.



Millions of Michigan consumers are exercising choice in telecom services.

flat-rate plan featuring unlimited local and long distance calling. Other wireless carriers quickly followed suit, and customers have been utilizing more minutes at an increasing pace.

These single-rate plans have allowed subscribers to avoid costly rates on intrastate calling that have long been used to subsidize the actual cost of local wire line services. Unlike the "synthetic competition" of the forced-access regime, cellular service provides consumers with an actual service alternative.

Millions of Michigan consumers have exercised their choice, as shown in Chart 9. The number of local wire lines statewide remained roughly constant between 1999 and 2002 despite 2 percent growth in Michigan's population and increased demand for fax and Internet lines. The lack of growth in wire lines can be explained by the increase in cellular subscriptions. There were 3.5 million wireless subscribers statewide in 1999, or slightly more than half the number of wire lines. By the end of 2002, wireless subscriptions had increased to more than 4.5 million, or two-thirds the number of wire lines.

If this trend continues, there will be more wireless subscribers than wire lines in Michigan by the close of 2007. This fact alone argues for elimination of the forced-access regime as unnecessary for providing consumers with choice.

Internet Telephony

Cable television companies and Internet Service Providers (ISPs) increasingly are adding telephony to their offerings. Cable telephony serves 33 million subscribers now, an increase of 33 percent since 2001.

Many cable firms initially invested in two-way transmission services to facilitate interactive programming and pay-per-view service. Upgrades to broadband for Internet access have made Internet telephony, known as Voice Over Internet Protocol (VOIP), more cost-effective.

Cable and Internet Service Providers enjoy a regulatory advantage over local wire line services because both have been relatively unregulated. Also, cable companies and ISPs can avoid interconnection charges imposed on wire line services if both parties connect to the call through the Internet.

Revenues from Internet telephony are projected to grow from $2.2 billion today to $160 billion in 2007.

Early VOIP was not commercially practical because placing a call required a third-party service to convert the digital transmission to voice. Via broadband, however, the conversion can now be accomplished through a simple adapter.[34] Features such as call waiting and caller ID are also available. Unlimited local and long distance calling are now priced around $40 a month.

Although VOIP currently accounts for only about 3 percent of calls worldwide, its market share is expected to grow quickly in the near future.[35] VOIP revenues are projected to grow from $2.2 billion in 2001 to $160 billion in 2007.

As with every technology, there are trade-offs. Because VOIP transmissions are digital, a single voice message can be easily transmitted to multiple destinations. But VOIP is also dependent on Internet access, which means that service could be more susceptible to power outages.

If left unregulated, most analysts regard VOIP as a viable option for consumers. But a recent court ruling threatens to inhibit broader rollout of the service. The Ninth Circuit Court of Appeals recently reversed the FCC's classification of cable as an information service, instead declaring it a telecommunications service obligated to provide network access to competitors.[36]

If upheld, the Ninth Circuit ruling threatens to skew investment incentives in cable telephony just as forced-access regulation has undermined wire line investment. This would be unfortunate given the fact that cable telephony, along with wireless service, offers real choice to consumers and real potential for innovation.

VI. Policy Recommendations

Most telecom law is dictated by federal statute, which complicates state-level reform efforts. The optimum reform would be elimination of the forced-access regime by Congress. However, the Michigan Legislature and the Public Service Commission can take steps now to improve the regulatory environment, particularly as the FCC devolves some authority to the states despite congressional intent.

The optimum reform would be elimination of the forced-access regime by Congress.

The Federal Communications Commission has authorized states to analyze whether market conditions warrant forced access. This requires the Michigan Public Service Commission first to define what geographic area constitutes a market. It will also be necessary for the commission to gauge the level of existing competition in each defined market to determine the feasibility of offering rival local calling services. In its deliberations, the MPSC should:

1. Adopt the definition of a "market" based on past FCC practice — the Metropolitan Statistical Area (MSA). If the Michigan Public Service Commission defines a market too narrowly or too broadly, the actual level of service choices available to consumers will be inaccurate. This would result in lax eligibility standards.

2. Account for the robust competition in wireless, cable and satellite telephony in determing the level of market competition. The commission should not restrict its analysis of market competition to the wire line network. To do so would be to ignore the fastest-growing segments of the telecom market. This would result in unjustified subsidies, continued market distortions and economic losses.

3. Set limits on competitors' use of forced access. Technological innovation can radically change market conditions in a short time. Competitors who take advantage of subsidized access should be required to undergo a periodic review of eligibility. Whether they make any attempt to invest in independent facilities, as Congress intended, should be taken into account.

The MPSC has announced its intention to review the below-cost rates paid to incumbents for use of their networks by competitors. In undertaking this review, the commission should:

4. Reinstate the original timetable for review. The delay recently imposed by the commission has serious negative economic repercussions for the incumbent networks.

5. Discard the flawed assumptions that understate the costs of operating the incumbent network. New rates must not impose a cost on incumbent service providers.

6. Factor in the advantages that a competitor would gain by building an independent network. To analyze only the costs of constructing new facilities would be to ignore the competitive advantages of a more modern, efficient network.

Lawmakers also have an important oversight role to play. The Legislature should:

7. Closely monitor the Public Service Commission to ensure that rates and standards do not undermine the economic viability and reliability of the wire line network.

The Michigan delegation to Congress should:

8. Encourage colleagues to use their power of appropriations to force the Federal Communications Commission to follow the intent of Congress in drafting regulations.

9. Recognize the failure of the forced-access approach, and work to end it through reform of the Telecommunications Act.

The Legislature should closely monitor the Public Service Commission.

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