The Michigan telephone industry dates back to 1877, when an Ontonagon businessman installed a line between the Lake Superior port and his inland office. When other business owners requested a similar arrangement, the Ontonagon Telephone Company was created. Other local telephone companies were established around the state during the same year. In 1913 Michigan legislators gave the Michigan Public Service Commission (MPSC) power to regulate the industry.

Technological, economic, and political change resulted in lawsuits between American Telephone and Telegraph (AT&T)—the dominant, regulated telecommunications carrier in the United States—and the U.S. Department of Justice in 1949 and 1974. Settlement of the latter lawsuit, which was entangled in legal maneuvering until the early 1980s, created the modified final judgment in 1982. The agreement effectively ended AT&T’s monopoly in providing telephone services by separating its local and long-distance telephone service companies. Exhibit 1 depicts graphically how the industry looked before and immediately after the breakup and how it is evolving under deregulation.

The modified final judgement created the complex structure of the modern telephone industry by dividing the market into two pieces.

- The long-distance telephone market would be opened to competition.
- The local-telephone market would remain a publicly regulated monopoly.

The modified final judgement split AT&T’s local-exchange companies into seven regional Bell operating companies (RBOCs); it is these RBOCs (the so-called baby Bells), plus other local exchange carriers (LECs), that retained publicly regulated control over local telephone service.

The modified final judgement also created local access and transport areas (LATAs) within each state. The LATAs helped to draw a line between the LECs, which provided regulated local telephone service, and interexchange carriers (IXCs), which provided competitive long-distance telephone service.

- LECs were restricted to providing telephone service only within a LATA (intraLATA).
- Interexchange carriers, such as AT&T and Sprint, competed for all calls between LATAs (interLATA).
In 1991 Michigan overhauled its telecommunications law to reflect economic, political, and technological change. The Michigan Telecommunications Act of 1991 allowed more than one company to offer local telephone service in the same area, deregulated certain telephone services, and modified the MPSC’s role. The act included a December 1, 1995, sunset (expiration) provision, and revised legislation—the Michigan Telecommunications Act of 1996— took effect soon after. The 1996 act gives the MPSC increased responsibility to approve and oversee interconnection agreements (compacts between competitors that set out the fees and conditions whereby they may use each other’s equipment or resell each other’s services).

1996 and Forward
As the Michigan Telecommunications Act was being rewritten, telecommunications providers were lobbying Congress to engage in a comprehensive rewrite of federal Communications Act of 1934. In February 1996, just months after the new Michigan law was enacted, Congress passed its Telecommunications Act of 1996. Among the federal act’s major components are

- allowing RBOCs (baby Bells) to provide interLATA telephone service (1) outside of their home region at any time and (2) inside their home region upon meeting a 14-point competitive checklist;
- expanding the Universal Service Fund to provide discounts on telecommunications services to schools, libraries, and certain health care facilities;
- deregulating many cable television services by March 31, 1999, and allowing telephone companies to offer cable television service;
- increasing the number of radio and television affiliates that networks may own, removing all national limits on radio station ownership, and relaxing local limits on concentration of ownership; and
- making it a crime under the Communications Decency Act to use the Internet to (1) knowingly transmit obscene or indecent material to recipients younger than 18 and/or (2) knowingly send or display any message that depicts or describes patently offensive sexual activities or organs (this provision subsequently was declared unconstitutional by the U.S. Supreme Court).

Together, the new state and federal telecommunications acts have begun to restructure the Michigan telecommunications industry. In some instances, the federal act requires the MPSC and/or LECs to follow certain rules that go further than requirements under the Michigan act.

In January 1997, Ameritech became the first RBOC to file a request to offer intraregion long-distance service. To be certified as an IXC in Michigan, the MPSC and the Federal Communications Commission (FCC, the federal regulating agency), had to approve the request based on a schedule and criteria set out in the federal act. After withdrawing its first application, Ameritech re-filed its application twice more and was rejected both times. In its latest opinion, the FCC notes that Ameritech still had not provided competitors with nondiscrimi-
EXHIBIT 1. Evolution of Telecommunications Competition, Michigan Examples

Before the Breakup

Michigan Bell
GTE North

AT&T
Long Lines

After the Breakup

Ameritech
MCI
GTE North

AT&T
Sprint
Other

The Industry as It Is Evolving

natory interconnection agreements or access to Ameritech's billing, 911, and installation services (these are items on the 14-point competitive checklist mentioned above).

More than 94 percent of all Michigan households have a telephone, and the state is home to 39 licensed LECs and 34 licensed competitive LECs (CLECs) (but not all provide telephone service). While other companies—including cable television systems and wireless telephone providers—may begin offering local telephone service, the current players in Michigan's local telephone market are

- Ameritech, a RBOC and the state's largest incumbent LEC (ILEC), which dominates the Michigan market and operates 5.3 million telephone lines in the state;
- GTE North, the state's second largest ILEC, operating 700,000 lines;
- independent local telephone companies, operating 225,008 lines in total; and
- several CLECs, operating 200,000 lines in total.

As of December 1996, there are 88 companies in Michigan's long-distance telephone market. AT&T dominates with two-thirds of the market share (when measured by the number of lines), followed by MCI (with about 15 percent) and others.

Exhibit 2 displays the share of the Michigan local and long-distance markets held by the various companies (latest comparable data available).

**DISCUSSION**

By deregulating the telephone market and allowing competition, regulators and policymakers hoped to allow market forces to decrease prices, increase the number of new providers, and speed the deployment of new telecommunications services. But opening the local telephone market to competition will be a difficult process. Some challenges currently facing incumbents, competitors, and regulators—such as defining what constitutes sufficient competition and setting out new roles for regulators—are much the same as those faced by the long-distance telephone market after AT&T was broken up in the 1980s.

**EXHIBIT 2. Market Share of Presubscribed Lines Held by Michigan Local and Long-Distance Telephone Carriers**

<table>
<thead>
<tr>
<th></th>
<th>Local December 1997</th>
<th>Long Distance December 1996</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CLECs</td>
<td>Independents</td>
</tr>
<tr>
<td></td>
<td>3.3%</td>
<td>3.3%</td>
</tr>
<tr>
<td>Ameritech</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>82.4%</td>
<td></td>
</tr>
</tbody>
</table>

**SOURCE:** Securities and Exchange Commission company filings; Telecommunications Association of Michigan.

**NOTES:** (1) MCI and Worldcom's announced merger has not yet occurred. (2) AT&T does not release line counts by state. If market share is measured by minutes instead of use, AT&T's December 1997 national market share is 52.3%.

Appropriate Amount of Competition
The debate about how much competition is necessary before the MPSC, FCC, and U.S. Department of Justice certify an RBOC as a long-distance carrier is central to implementing the federal Telecommunications Act. AT&T, for example, was considered to have dominant market power until its market share dropped below 65 percent; only then was the long-distance market considered competitive and AT&T freed from most government regulatory oversight. In deciding at what point the local telephone market becomes competitive, regulators must balance the quantity and quality of existing and future competition against the market power of dominant, incumbent providers.

In its applications to be permitted to offer long-distance service to Michigan consumers, Ameritech argued that it was indeed in a competitive market because it had completed interconnection agreements with four other companies. Ameritech also pointed out that the federal Telecommunications Act requires Ameritech to resell the complete package of Ameritech services—including installation, repair, billing, directory listings, and value-added services such as voice mail, three-way calling, or caller ID—to any competitor at a 22 percent discount and to individually sell the seven largest components of this complete service at a 50 percent discount. Since the federal Telecommunications Act requires only that competition be available and possible, Ameritech argued that its interconnection agreements, resale of its complete service, and sale of individual service components each allow for full competition—all that remained was for a competitor to choose to enter the market.

Opponents of Ameritech’s application to become a long-distance carrier argue that interconnection agreements do not necessarily constitute the effective competition they believe the federal Telecommunications Act requires. Opponents point out that Ameritech’s competitors for local-exchange service have 200,000 lines compared to Ameritech’s 5.3 million. And while Ameritech’s total line count represents 82 percent of all telephone lines in the state, opponents note that Ameritech still controls about 96 percent of all telephone lines in its own service areas (that is, where it is the ILEC).

Getting Competing Companies to Work Together
Interconnection agreements between carriers often are only the start of the process. Implementing them—which often requires that all parties involved give to each other services of the same type and quality they give their own customers—is a source of friction between incumbent providers and competitors.

For example, in July 1997 Ameritech decided that calls from Ameritech customers to Internet service providers (ISPs) who use CLECs for their local telephone service were not local telephone calls. Because the typical local telephone call to connect to the Internet lasts much longer than a typical local telephone call to another person, Ameritech argues that Internet calls were tying up its local telephone network. Furthermore, Ameritech argues that local Internet telephone calls really are not local calls at all—they often are quickly transferred to a computer system outside the local calling area. Therefore, Ameritech argues, these calls are not eligible for reciprocal compensation (that is, the amount Ameritech pays to the CLEC for completing the Ameritech customer’s call). In February 1998, the MPSC found against Ameritech and ordered the company to pay the affected CLECs $6 million in fees that it had withheld since July 1997, plus interest and attorney fees. Ameritech has appealed the MPSC’s ruling to federal district court.

The CLECs say that in addition to the ILECs trying to manipulate the formal terms of interconnection agreements, they often push the informal terms to the limit as well. They say ILECs sometimes delay installation orders for competitors’ customers, delay upgrading the network telephone equipment used by the CLECs, and charge CLEC customers for services that the ILEC’s own customers receive for free. Some CLECs also argue that the endless ILEC legal challenges to laws and regulation needlessly delay the competitive environment for both companies’ customers.
Regulators, Courts, and Government
Nationwide, regulators and courts alike have begun interpreting specific provisions of both the state and federal telecommunications acts. In late 1997 a federal judge in Texas struck down a key part of the federal act—the prohibition on RBOCs entering the long-distance market until their local markets were opened to competition; the decision is being appealed, and the outcome will have a major effect. In addition to challenging the FCC's rules, ILECs and CLECs are taking their state public-service regulatory bodies' decisions and interpretations to court. Until all the actors have exhausted their initial regulatory and legal avenues to challenge and interpret both the state and federal telecommunications acts, and until the U.S. Supreme Court rules on what is likely to be several cases regarding the federal act, local-service telephone reform may seem to the consumer to be more court battle than market reform.

Units of government also must learn how to react to the new telephone market, especially as courts uphold, strike down, and interpret the law and regulations affecting it. Regulators are beginning to evaluate interconnection agreements that are in force, but they often find they do not have the human and financial resources to enable them to effectively investigate abuses or monitor implementation; moreover, the number of interconnection agreements being filed is growing. Parties to disputes resolved by public-utility regulatory bodies also complain about the speed at which the bodies move. Six months elapsed, for example, between when, as mentioned above, Ameritech stopped reimbursing CLECs for ISP calls and when the MPSC ruled against Ameritech. During the delay, Ameritech withheld $6 million in CLEC service fees. Now that Ameritech has appealed the MPSC's ruling in U.S. District Court, the resolution will be delayed further. One party to the dispute characterizes the resolution process to date as "slow, tedious, and expensive" for everyone involved.

Consumers and Local Telephone Rates
Telephone competition is bringing confusion and turmoil to consumers; popular culture is rife with derisive jokes about the number of telephone calls received during the dinner hour asking consumers to switch their long-distance service. But according to the Consumer Federation of America, competition in the local market still is a long way off. Since the federal Telecommunications Act passed in February 1996, 50 million Americans have changed switched their long-distance carrier, but only one million have switched local service providers. In Michigan, according to a February 1998 MPSC report, just under 4 percent of Ameritech's telephone lines were operated by CLECs in the Ameritech service territory; no CLECs operated at all in GTE's service territory.

In late 1997 Ameritech filed an application with the MPSC to raise local-service rates for some business and residential services by about 1.8 percent.
Ameritech contends that this is only the second rate increase for Michigan customers since 1984, even though the Michigan Telecommunications Act permits it to raise rates annually by a percentage equal to inflation (the rise in the consumer price index) minus one percent. Given the complex structure of the telecommunications industry and market, determining whether rates have increased or decreased over time is a substantial challenge. Exhibit 3 presents Ameritech’s local-service rates since 1985 in five Michigan cities.

Some observers applaud Ameritech for holding rates fairly steady over a 14-year period when inflation equaled a cumulative 46 percent; had rates gone up each year by the inflation rate, the Detrott would be paying $17.37 instead of $13.48 now. Others look at the same numbers and claim that they are evidence that Ameritech—much like other LECs—is not passing savings along to consumers; they note that technological change has decreased the real cost of some telephone services and, therefore, rates should have come down over the same period, even when adjusted for inflation.

Regardless of which interpretation of historical rates is correct (some say neither is, completely) supporters of competition point to the price decreases in competitive markets as a key benefit of deregulation. Michigan and Illinois, for example, both allow intraLATA competition, but in Michigan such competition is virtually nonexistent and in Illinois it is very strong. In 1997 the Michigan Competitive Telecommunications Provider Association (MCTPA) and the Michigan Consumer Federation both noted that Ameritech charges its Michigan customers $0.17 a minute for intraLATA calls, but its Illinois customers are charged only $0.10 for the first minute and $0.04 a minute thereafter.

But as is the case with local telephone rates above, determining whether rates are higher or lower is a more complicated task. While Ameritech grants that its per-minute intraLATA charges are higher in Michi-

(excludes state and federal taxes and federal end-user fee)

<table>
<thead>
<tr>
<th>Effective Date</th>
<th>Sault Ste. Marie</th>
<th>Traverse City</th>
<th>Lansing</th>
<th>Grand Rapids</th>
<th>Detroit</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 1, 1985</td>
<td>$8.80</td>
<td>$9.82</td>
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<td>$10.84</td>
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<td>July 1, 1987</td>
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<td>8.87</td>
<td>9.38</td>
<td>9.89</td>
<td>10.91</td>
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<tr>
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<td>8.07</td>
<td>9.09</td>
<td>9.60</td>
<td>10.11</td>
<td>11.13</td>
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<tr>
<td>April 1, 1990</td>
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<td>8.81</td>
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</tr>
<tr>
<td>May 29, 1992</td>
<td>7.84</td>
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<td>9.88</td>
<td>10.90</td>
</tr>
<tr>
<td>November 29, 1992</td>
<td>7.89</td>
<td>8.91</td>
<td>9.42</td>
<td>9.93</td>
<td>10.95</td>
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<td>October 12, 1995</td>
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<td>9.43</td>
<td>9.94</td>
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<td>8.92</td>
<td>9.94</td>
<td>10.45</td>
<td>10.96</td>
</tr>
<tr>
<td>June 10, 1996$</td>
<td>11.83</td>
<td>12.34</td>
<td>12.80</td>
<td>12.80</td>
<td>13.25</td>
</tr>
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<td>January 15, 1998</td>
<td>11.83</td>
<td>12.34</td>
<td>13.02</td>
<td>13.02</td>
<td>13.48</td>
</tr>
</tbody>
</table>

NOTES: (1) In 1992 Ameritech was authorized to include only 400 calls in its local flat-rate calling plan; each additional call costs $0.062. (2) Since 1985 a monthly federal end-user charge, currently $3.50, has been assessed on all residential customers; this adds to the consumer’s monthly rate but is not part of the rate imposed by the carrier. (3) All figures were calculated by subtracting any negative surcharges or temporary credits from the filed tariff.

$The rate change for Sault Ste. Marie, Lansing, and Grand Rapids reflects their reclassification into different rate groups rather than a change in the underlying rate. In other words, these cities were reclassified, their rates would not have changed.

$A monthly $2.43 charge for touch-tone service had been assessed until this date, when the amount was rolled into the general tariff.

SOURCE: Michigan Public Service Commission filings; calculations by Public Sector Consultants, Inc.
gan, it also points out that the average intraLATA call in Michigan costs only $0.58 while the average intraLATA call in Illinois costs $0.82. Furthermore, Ameritech argues that comparing intraLATA call costs between states is extremely difficult. Although Michigan and Illinois are roughly the same size (just over 55,000 square land miles), Michigan is divided into 5 large LATAs, while Illinois is divided into 14 smaller LATAs. Many of Michigan's intraLATA calls, therefore, would be long distance calls if they occurred in other states.

Conclusion
The local telephone market in Michigan is in the beginning of a long transition to full competition. But incumbents and competitors alike seem to agree that at the end of the process, the competitive market itself will best police interconnection agreements, services, and rates. Consumers will be able to choose among multiple providers; regulators and government will ease into a new role as “referees” in the new competitive environment; and telephone companies will define their service areas and tailor their offerings and prices to the marketplace’s needs and demands.

But in creating a competitive local-telephone market, regulators, telephone companies, and the courts should not underestimate the power of technological change. Elsewhere in the world, cellular telephones are replacing traditional wire-based telephone service for local markets (companies find it cheaper to install a single cellular tower that will serve an entire community than to install a wire to each home and business). In the United States, in contrast, cellular telephones generally are seen as a supplement to existing wire-based local service. As cable television and cellular telephone companies begin offering competitive local-telephone service, it will increase the competitive pressure on ILECs and CLECs to lower rates and provide additional services.

See also Consumer Protection; Internet and Computers.