However, there is no federal constraint against AT&T entering these markets. With the likely overturn of the RBOCs' interLATA restriction in the US Congress, the interexchange carriers are actively attempting to enter the intraLATA market on an equal access basis. (They already serve these markets, as noted in Section II, above, but customers must dial extra digits.)

It is anticipated that providing equal access for the interexchange carriers in the intraLATA market before the interLATA restriction is removed will cause severe financial losses for the RBOCs, which they will seek to offset with rapid and extensive local rate increases. Furthermore, the public interest improvement is only marginal. If the RBOCs charge exorbitant prices or fail to provide adequate intraLATA toll service, people can already use other carriers, at the comparatively minor inconvenience of dialing a few extra digits. Thus the current arrangement is sufficient to "keep the LECs honest" without further regulation and without requiring equal access. Once the interLATA restriction is lifted, however, the RBOCs have ample opportunity to recoup any lost intraLATA revenues in the interLATA market, and there is no reason to retain the restriction.

4. Pricing

As mentioned above, the general thrust of this entire approach is deregulatory, and most services are to be deregulated. This overall policy obviously makes the provisions

described above to introduce competition more effective, and the increase in competition allowed by these provisions provide competitive constraints on the prices companies can charge. Competition is complementary to decontrolling prices.

If a telephone company elects to file a regulatory reform program which includes price caps, initial price caps need be set only for single line business and residence services, including touch-tone, and for toll access. The price for other services generally will not be regulated. Many services are already competitive at the margins, and others are not essential and thus are controlled by the demand curve for them. Price regulation for services other than local exchange and toll access is generally unnecessary.

Since competition is not expected to be immediate or ubiquitous, however, there may be certain situations where regulation of other services may be required. If a user can make a showing that, for certain services, (1) the services are essential for residences and/or businesses, (2) there is no alternative supply for the service, and (3) the price has risen more rapidly than the price of single-line residential service, then the Commission may impose a price cap on such services.

This provision is meant to protect against abuses by the telephone companies in market niches where there is no effective competition and in which people rely on their services. An example might be alarm services in areas where competition has not yet appeared. These conditions are put in place with the

expectation that their very presence will preclude the need for their being implemented: a telephone company which understands this provision is unlikely to behave in a manner which will invite its invocation.

In addition, given the nature of the market, prices of unbundled loop, switch and trunk facilities offered for resale will not be deregulated. In fact, the prices for such services should to be offered under tariff filed with the Commission. If these prices were to be deregulated, the telephone companies could well price them at high levels in order to frustrate competitive entry.

Initial price caps for all affected services should start from current prices. Since some current prices--particularly rural residential rates--are below incremental cost, and there is no prospect of bringing them above that level immediately, there is no basis for comprehensive changes in rates. The current levels are, by definition, workable and acceptable, and there appears to be no particular reason to expend the necessary effort to revisit them all. Other components of the price-cap program will bring prices more in line with market levels over time, and there is no compelling need to make changes at the outset.

As noted earlier, the policy of not requiring massive cost studies at the outset of this plan supports the requirement that companies file infrastructure and regulatory plans. The two policies limit the burden on telephone companies while requiring

them to set out their plans and policies. We view the policies of requiring infrastructure plans and starting price caps from current prices as strongly complementary.

The general thrust of the price-cap program is to reduce access charges and increase local exchange rates over time, to get all prices above incremental costs and move them closer to competitive levels. To this end, local exchange rates and access charges, although both under price caps, have formulas with very different structures.

It is proposed that prices for all elements of intrastate access be reduced to interstate levels over a three-year period. After that, they should be maintained at parity with interstate levels. This is the first part of the rate rebalancing which is essential if a competitive market is to be established. The selection of interstate levels may seem arbitrary, but it has the merits of simplicity, rapid movement in the right direction, and avoidance of arbitrage. If, over time, interstate access charges drop further, then intrastate access charges will drop as well, and a great deal of the controversy surrounding access pricing will disappear.

In order to be sure that end users who are paying increases in local exchange rates, reap the benefits of access charge reductions, all carriers are required, during the transition period before access charges reach interstate levels, to flow all reductions in access prices, whether real or imputed, through to consumers in the form of lower toll rates.

It hardly needs stating that reducing the gap between intrastate and interstate access charges will enhance the measures designed to introduce competition and soon obviate some of the measures designed to prevent abuses of competition. State borders and LATA boundaries are regulatory constructs that do not correspond to costs of service. Unifying prices within and between these boundaries allows the common prices to approach costs over time. Delaying resale and bringing intrastate access charges down gradually are complementary policies.

Residential and single line business prices, which must increase to offset the reductions in toll and access revenues, will be capped using the following formula:

Price change = CPI - X + Y,

where:

CPI = Change in Consumer Price Index

X = National rate of productivity gain in telecommunications

Y = Factor to offset the loss in revenue due to reductions in access charges and the imputed access portion of intrastate toll provided by the LECs. It does not include revenue reductions due to market share losses. The Y factor is determined based on the total estimated change in revenue due to the reduction in real and imputed access charges during the following year.

In order to avoid "rate shock" for residential and single line business customers, the total annual increase is limited to $1.50 per line per month in each year of the three-year transition period unless a greater increase is authorized by the Commission. If the price increases for residential and single line business service are insufficient to offset the loss in revenue due to access charge reductions, then the Y factor can continue to be used as part of the price cap formula until a revenue balance has been reached. Once access prices reach interstate levels, and revenue neutrality has been reached, the Y factor need no longer be included as part of the price cap formula.

Anticipated revenue losses to the telephone companies from reductions in access charges and associated reductions in intraLATA toll revenues (the portion of LEC intraLATA toll revenues which are attributed to access charges) may be recovered by increases in local exchange rates--the essence of a rate-rebalancing program. Reductions in intraLATA toll revenues due to market share losses need not be made up by corresponding increases in local rates. This potion of the lost revenue is a result of competition, and not part of rate rebalancing.

Although most prices are decontrolled, it still will be required that prices for all services shall be no lower than LRIC. This is an antitrust standard in any event; it is to be used here to prevent predatory pricing by an incumbent or any other service provider with "deep pockets." Cost studies on

every service are not needed in order to determine that prices are above LRIC. It will be sufficient to perform cost studies in response to complaints, or specific allegations that certain prices are set below costs.

In the specific case of toll access, the access charges that are paid by interexchange carriers should be imputed as part of the cost of toll service offered by the telephone companies on a total service basis. This is in accord with the Efficient Component-Pricing Rule of Baumol and Willig (Baumol and Sidak, 1994, pp. 95ff).

Finally, the price cap formula should be reviewed every five years. Since there is some variation over time not only in industry productivity rates, but in the very nature of the cost inputs that a telephone company experiences, it is appropriate that the price cap formula be reexamined from time to time. In this case, the initial rate rebalancing will have been completed by the time of the first review, and a determination can be made whether further changes in that direction are warranted. It is not anticipated that this would involve adjusting rates, as would be done in a conventional rate case. Only the formula would be adjusted, controlling rate changes going forward from that time.

IV. Summary and Conclusions

The regulatory framework described above was proposed to a joint industry-legislative committee called the Kansas

Telecommunications Strategic Planning Committee. After much contentious discussion, it was adopted essentially as proposed, and will be recommended to the Legislature in its 1996 session, which starts in January.

The program, if followed, probably will be more deregulatory than any that has been proposed in the United States, or perhaps abroad. It removes regulatory constraints except where they are clearly necessary to protect the public or to make competition possible. It leaves most details to the industry to resolve, holding the Commission in reserve essentially as a referee. It does not force competition where it cannot naturally occur, nor does it attempt to inhibit the telephone company's ability to compete.

The plan can make these deregulatory recommendations because it relies on complementarities among parts of the plan to reinforce the overall plan. As noted above, the pricing plans facilitate competition, limits on immediate resale preserve universal service, and the infrastructure plans guarantee expanded services where competition cannot reach or at least will be delayed. Only in an integrated plan taking advantage of the many complementarities can such a leap be taken.

We have presented this program and emphasized its complementarities in the hope of advancing the discussion of deregulation to include explicit acknowledgment of these complementarities. We also believe this plan is a fair and

balanced program, which will have benefits for all industry participants and, most importantly, for businesses and consumers in Kansas. If so, it may serve as a model for other such plans.

Table 1

Region	Population Density, 1982 (people per square mile)	Per capita Income, 1992 (thousands of dollars)
Northeast	150	21
South-central	59	20
North-central	33	17
Southeast	28	16
Southwest	9	19
Northwest	6	18

Sources: US Census, County Data (Washington, DC: GPO, 1993); County Economic Vitality and Distress, 1993 Report Update (Topeka, KS: Kansas, Inc., September 1994).

Table 2

Region	Population Change, 1982-92 (percent)	Employment Change, 1983-93 (percent)
Northeast	12	27
South-central	5	14
North-central	-2	5
Southeast	-9	-5
Southwest	0	-5
Northwest	-12	-13

Source: County Economic Vitality and Distress, 1993 Report Update (Topeka, KS: Kansas, Inc., September 1994).

Table 3
The Kansas Plan

Objectives	
	Infrastructure Development and Access
	Promote Competition
	Preserve Universal Service
Plans and Processes	
	Mandatory Infrastructure Plans
	Universal Service Fund
Deregulation and Competition	
	Immediate Local Competition
	Negotiated Interconnection
	Deregulate IXCs and new entrants
	Access-Charge Pass-through
	Averaged toll rates
	Criteria for Entrants
	Delayed Resale, Unbundling
	Delayed IntraLATA Equal Access
	Until MFJ ends
Pricing	
	Price Caps for Residence, Small Business, and Access Charges Only
	Deregulate Other Prices
	Reregulate upon Complaint
	All Prices Stay Above LRIC
	Price Caps Start at Current Prices
	Residence and Small Business Formula: CPI - X + Y
	Access Charges to Reach InterLATA Levels in Three Years
	Review Formulae Every Five Years

References

Baumol, William J., and J. Gregory Sidak, Toward Competition in Local Telephony (Cambridge, MA: MIT Press, 1994).

Holmstrom, Bengt, and Paul Milgrom, "The Firm as an Incentive System, American Economic Review, 84: 972-91 (September 1994).

Kansas, Inc., County Economic Vitality and Distress, 1993 Report Update (Topeka, KS: Kansas, Inc., September 1994).

Kansas Corporation Commission, Telecommunications Infrastructure Study (Topeka KS: Kansas Corporation Commission, 1994).

Milgrom, Paul, and John Roberts, "The Economics of Modern Manufacturing: Technology, Strategy, and Organization," American Economic Review, 80: 511-28 (June 1990).

Milgrom, Paul, and John Roberts, "Complementarities and Fit: Strategy, Structure and Organizational Change in Manufacturing," Journal of Accounting and Economics, 19: 179-208 (March-May, 1995).

Mitchell, Bridger M., and Ingo Vogelsang, Telecommunications

Pricing Theory and Practice (Cambridge: Cambridge University Press, 1991).

NARUC (National Association of Regulatory Commissioners), NARUC Report on the Status of Competition in Intrastate Telecommunications (Washington, DC: NARUC, October 4, 1995).

New Jersey, State of, Opportunity New Jersey, Filed by New Jersey Bell as part of Docket TO92030358 filed with the New Jersey Board of Public Utilities, March 31, 1992, Adopted May 6, 1993.

OPASTCO (Organization for the Protection and Advancement of Small Telephone Companies), Keeping Rural America Connected: Costs and Rates in the Competitive Era (Washington, DC: OPASTCO, 1994).

Pennsylvania, State of, Petition and Plan of Bell Atlantic of Pennsylvania, Inc. for Alternate From of Regulation under Chapter 30, Docket # P-00930715, filed October 1, 1993, Approved with modification, June 28, 1994.

Teleport Communications Group, Effect of Resale on Facilities-Based Competition in the Local Exchange Market (New York: Teleport Communications Group, November 1995).

Temin, Peter, The Fall of The Bell System: A Study in Prices and Politics (New York: Cambridge University Press, 1987).

Tennessee, State of, FYI Tennessee Master Plan, Adopted by the Tennessee public Service Commission August 10, 1990.

U.S. Census, County Data (Washington, DC: GPO, 1993).