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BALANCING COMPETITION AND
UNIVERSAL SERVICE: THE ROLE OF
THE REGULATOR FIVE YEARS AFTER
THE TELECOMMUNICATIONS ACT

by

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EXECUTIVE SUMMARY

The Telecommunications Act of 1996 articulated a vision that included robust competition in all areas of telecommunications, as well as a strong commitment to universal service principles. Five years after passage of the Act, this vision is far from being realized. This report suggests that the intentions of the Act have not been realized because the Act requires regulators to follow two divergently opposed paths. They are to both encourage the development of competition and to maintain, and even expand, universal service. Regulators have not crafted an approach capable of attaining both of these goals, because the basic assumptions underlying these two goals are inherently contradictory. While competition is driven by economic efficiency, universal service is built on principles of social equity. As a result, when regulators adopt policies to encourage the realization of one goal, they risk impeding the progress of the other. The challenge for regulators is to determine how far one goal can be realized before irreparably harming the achievement of the other.

Regulation has traditionally been a process of balancing divergent interests. In the wake of the Act, the balance regulators must now attain is between the demands of competition and those of universal service. Various models are available to regulators as they seek a viable balance. Five potential models include: (1) a social equity model; (2) a market entry model; (3) a quality of service model; (4) a technology-push model; and (5) an antitrust model. This report examines the potential impact of each of these models on the achievement of both competition and universal

service. A social equity model is more likely to tilt the balance in favor of the realization of universal service at the expense of competition; while a market entry model is more likely to tilt the balance toward the achievement of competition. While an antitrust model would tend to favor the development of competition rather than universal service, the impact of a quality of service or a technology-push model would depend upon the specific parameters adopted for each model.

Rather than seeking one model that can attain a perfect balance between competition and universal service, this report suggests that it may be more effective to view possible regulatory strategies as tools in a long-range plan that at times emphasizes the development of competition and at other times focuses on expanding the scope of universal service. This report suggests a two-phase regulatory approach. The first phase emphasizes the development of competition and the maintenance of the existing definition and level of universal service. The second phase focuses on monitoring new and competitive services to determine whether they should become part of the universal service definition. Since universal service is an evolving definition, this two-phased approach can become a long-range strategy which can be repeated as new services develop and the definition of universal service expands accordingly. Adoption of such a strategy may enable regulators to realize the dual goals envisioned by the Telecommunications Act.

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FOREWORD

Five years after passage of the landmark Telecommunications Act of 1996, many observers are concerned that much remains to be done to meet the goals of the Act. It is well worth while to take a deep breath and analyze from the 30-000 foot level alternative models for realizing the Act's intentions. Dr. Bernt has carefully considered the difficult balancing act that regulators must accomplish to try to make the Act work and arrived at thoughtful, thought-provoking conclusions.

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Introduction

February 8, 2001, marks the fifth anniversary of the signing of the Telecommunications Act of 1996. After five years of Federal Communication Commission (FCC) and State commission proceedings, court interventions, and Congressional hearings, the vision articulated in the Act is far from being realized. The Act set forth an ambitious agenda for telecommunications, as the very title of the legislation suggested: “ An Act to promote competition and reduce regulation in order to secure lower prices and higher quality service for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies.”

In addition to the promise of competition in all areas of telecommunications, the Act also expressed a strong commitment to the maintenance and expansion of universal service, with affordable rates for all, despite location and economic status. Five years after passage of the Act, the incumbent local exchange carriers maintain a virtual monopoly of the local market.¹ There is little evidence of facilities-based local competition, with most new entrants providing service through interconnection and unbundled elements. Cable providers haven’t entered the local service market, concentrating instead on deploying cable

¹ According to a recent *New York Times* article, only 3 percent of residential and small business consumers are served by a carrier other than an incumbent local telephone company. See Seth Schiesel, “For Local Phone Users, Choice Isn’t an Option,” in *The New York Times on the Web*, November 21, 2000, (<http://www.nytimes.com/2000/11/21/business/21PHON.html>).

modems for data access. Regional Bell Operating Company (RBOC) entry into the interLATA market remains a distant promise in most states.² Instead of an expansion of new entrants, there is industry consolidation and a proliferation of mergers. Progress in the area of universal service has been decidedly mixed. While classrooms have been wired, there is still no resolution to the question of how to handle high cost support for rural carriers, and there has been little effort to expand the existing definition of universal service.

If the intentions of the Act have not been fully realized it may be because the Act asks regulators to follow two inherently contradictory paths. On the one hand, the Act seeks robust competition in all areas of telecommunications; on the other hand, it requires dedication to a strong universal service policy. Even after five years of effort, regulators do not appear to have crafted an approach capable of accomplishing both objectives.

The dual goals of competition and universal service give the Act a Janus-like quality. The Act looks to both the future and the past.³ While competition is yet to be developed, universal service for basic dial-tone telephone service has been realized for a vast majority of Americans.

² As of January 2001, only New York and Texas had an RBOC actually providing interLATA service, with Verizon serving New York and SBC serving Texas. SBC had just received FCC approval to begin to offer interLATA service in Kansas and Oklahoma.

³ Milton L. Mueller, Jr. notes that, while Congress and the White House heralded the Act as looking toward the future, its universal service provisions codify the past. See, *Universal Service: Competition, Interconnection, and Monopoly in the Making of the American Telephone System* (Cambridge, MA and Washington, D.C.: The MIT Press and The AEI Press, 1997), 170.

Congress, in drafting the Act, may have been looking toward a rosy future of vibrant competition, but Congress also expected that the future would include an expansion of the universal service achievements of the past. The underlying assumptions of the Act's plan for universal service—affordable rates and comparability between rates and services in urban and high cost areas—are a continuation of past universal service policies. A complicating factor is that these policies were based on monopoly regulation, which regulators traditionally have regarded as the bedrock upon which universal service policy was built. In the future envisioned by the Act, the role of the regulator is to maintain, and even expand, universal service, but to do so in a competitive environment.

Regulators are faced with a significant challenge if the next five years under the Act are to show greater results.⁴ It is by no means clear which regulatory approach, if any, can realize both the goals of competition and those of universal service. Indeed, it is possible that a regulatory approach that encourages the development of competition may inhibit the successful attainment of universal service, or that, conversely, regulatory provisions to strengthen universal service may impair the realization of a competitive marketplace. The relationship between monopoly and universal service was well understood; the relationship between competition and universal service is not yet clear. If competition

⁴ Although there has been a good deal of unhappiness with the Telecommunications Act, and some have called for it to be rewritten or greatly amended, the chances of Congress doing so in the near may be slim. For example, in his remarks at a NARUC meeting, FCC Chairman Kennard noted that he would caution those wanting to rewrite the Act, citing the time it took to draft the Act in the first place ("'New Paradigm' for Cable Modem Access," in *TR Daily*, November 15, 2000 (<http://www.tr.com/online/trd/2000/>)).

and universal service prove to be incompatible goals, regulators, in effect, will have to decide how much of each goal can be attained without irreparably harming attainment of the other. In effect, regulators will have to maintain a balance between the attainment of competition and the maintenance and expansion of universal service in order to realize Congress's intentions in drafting the Act. The challenge for regulators will be to select an approach, or combination of approaches, that will be the most successful in achieving that balance.

Regulators can choose from several possible strategies in seeking to realize the goals of the Act. Indeed, the Act points to possible strategies or models. The Act's inclusion of universal service provisions, interconnection rules, and technology deployment goals suggest such regulatory approaches as a social equity model, a competitive entry model, and a technology push model. This report will analyze several strategies to assess their potential impact on both the development of competition and on the maintenance and expansion of universal service. The strategies that will be examined include:

- Social equity model
- Quality of service model
- Market entry model
- Technology push model
- Antitrust model

The purpose of this analysis is to assess how well these strategies meet the needs of regulators in the post-Telecommunications Act environment.

The Goals of Competition and Universal Service

A key feature of the Telecommunications Act is that it decouples monopoly from universal service. For most of a century, monopoly has been at the center of universal service policy. In return for an exclusive franchise, the monopoly provider was required to offer ubiquitous service and to charge rates that were averaged geographically and across service categories. The Act requires the end of monopoly, but also the continuation of universal service. Regulators must devise new ways to assure that universal service goals are met, and must do so in ways that will not inhibit the development of competition.

Theoretically, the development of competition should enhance universal service. If competition results in lower prices, better quality, and innovation, all subscribers should potentially be better off. If, however, competition results in unserved areas and higher prices for basic services, some subscribers will be harmed. Because the development of competition in telecommunications is a relatively recent phenomenon, there is little definitive evidence to prove whether competition is helpful or harmful to universal service. With so many nations now opening their telecommunications markets to competition, however, the experiences of those nations can be examined in order to determine whether the introduction of competition has had any impact on the availability and pricing of basic telephone service. A recent study by Barros and Seabra, using data accumulated by the OECD for the period from 1990 to 1992, suggests that there is not yet sufficient data from which to draw conclusions. Barros and Seabra attempted to gauge the effect of competition on service density and affordable pricing in twenty-four OECD

nations.⁵ Finding no clear patterns in the data, they determined that “there is no definite conclusion as to whether competition is harmful or beneficial to the universal-service objective.” The authors found the effects of competition on telephone density to be “indeterminate, with the results ranging from negative to non-significant impact,” and they found “no clear downward pressure on prices” following the introduction of competition. However, the authors also noted that “both detractors and supporters of competition in telecommunications markets can put forward ‘evidence’ in favour of their positions.”⁶

In an earlier U.S.-based study, Frank Wolak posited that competition would lead to rate rebalancing and, therefore, higher local service rates and lower long distance charges. He attempted to model the impact of such rate rebalancing on consumer spending, and so, by extension, on universal service. Using consumer expenditure data gathered by the Bureau of Labor Statistics from January 1988 through February 1991, Wolak found that rate rebalancing would result in “little loss in consumer welfare and little, if any, reduction in the fraction of

⁵ The OECD, or Organisation for Economic Co-operation and Development, is an organization whose member states share information regarding trade and development. The data Barros and Seabra used was gathered from the OECD membership during 1990-1992. Those 24 countries included Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the UK, and the US. By 1996, the OECD had grown to 29 nations.

⁶ Pedro P. Barros and M. Carmo Seabra, “Universal Service: Does Competition Help or Hurt? *Information Economics and Policy*, 11 (1999), 59.

households connected to the local telephone network.”⁷ Despite Wolak’s optimistic conclusions, his findings include some disquieting patterns that suggest that competition may undercut universal service goals. As Wolak noted, his results “do not overturn the conventional belief that local service price increases more than proportionately burden low-income (or in our case low total-expenditure household), and older-headed households.”⁸ Indeed, Wolak’s findings show that those who would bear the greatest burden of rate balancing brought about by competition would be households headed by older individuals, urban households, households with children, households headed by non-whites, and households headed by non-college graduates.⁹ If affordable rates for all is a necessary element of universal service, these findings suggest that competition may hamper universal service policies.

If studies of available data yield no definitive results regarding the potential impact of competition on universal service, an analysis of the underlying principles and assumptions of both competition and universal service may provide useful insights regarding the possible relationship between these two approaches to telecommunications. While there are varying degrees of competition,¹⁰ in all competitive markets, decisions are,

⁷ Frank A. Wolak, “Can Universal Service Survive in a Competitive Telecommunications Environment? Evidence from the United States Consumer Expenditure Survey.” *Information Economics and Policy*, 8 (1996), 166.

⁸ *Id.*, 201.

⁹ *Id.*, 197-198.

¹⁰ See, for example, William G. Shepherd, *The Economics of Industrial Organization: Analysis, Markets, Policies*, 4th ed. (Upper Saddle River, NJ: Prentice Hall, 1997), 1-97, for a discussion of the various forms and degrees of

(continued...)

at least in theory, guided by considerations of economic efficiency. Service providers are free to enter and exit the marketplace in response to signals regarding cost, price, quality, and demand. They can compete with one another on the basis of price, quality, or innovation. Service providers are free to choose the products they will offer and the service areas in which they will offer them, and they are free to charge prices that reflect the cost of providing those services. This is the type of telecommunications marketplace that Congress envisioned when drafting the Act.

Unlike competition, universal service is based on the premise that specific services should be made available to specific categories of subscribers in order to meet specific social policy goals. Because ubiquitous residential telephone service has been deemed to be a social good, U.S. regulators have utilized such methods as rate averaging, pricing cross-subsidies, and exclusive franchises to require that service be provided to all subscribers, regardless of terrain or population density, at rates that are deemed “affordable” by the vast majority of subscribers. The actual costs of providing service have not been the basis for deciding whether or where services should be provided, nor have the actual costs of providing service been reflected in the prices charged to subscribers.¹¹ The Act does away with the concept of an exclusive franchise, but it retains the other elements that have traditionally been part of universal

¹⁰ (...continued)
competition.

¹¹ There have been instances in which providers have refused to serve areas because of unusually high costs, but those instances have been the exception.

service. Consumers in high cost and rural areas, as well as low-income consumers, are to be provided with services that are “reasonably comparable” to those provided in urban areas, and these services are to be provided at prices that are “reasonably comparable” to those charged in urban areas. A subsidy mechanism is to be developed to keep universal service rates “affordable.”¹² This is another aspect of the telecommunications marketplace envisioned by Congress when drafting the Act.

There is an obvious tension between the underlying premises of a competitive marketplace and the assumptions governing a universal service policy. If serving a high-cost or rural area results in rates that are not “affordable” to a sufficient number of subscribers, providers in a competitive marketplace would be free to leave that area unserved. The assumptions of a competitive marketplace would argue that it is the function of the market to determine which areas should be served and at what cost and level of quality. Allowing market forces to prevail will result in the most efficient allocation of resources, as two proponents of competition have very eloquently argued:

Competition is, after all, the best means of eliminating excess profits; of allocating resources to their most efficient use; of forcing firms to produce goods of the highest quality at the lowest cost, in amounts consumers want; and of stimulating the generation and introduction of technological innovation.¹³

¹² Telecommunications Act of 1996, Pub. L. 104-104, Section 706, 11 Stat. 253, reproduced in the notes under 47 U.S.C. Section 254(b)(1)-(4).

¹³ John H. Shenefield and Irwin M. Stelzer, *The Antitrust Laws: A Primer* (continued...)

Eloquence aside, a reliance on competition could potentially leave consumers in high-cost and rural areas unserved, either because potential service providers would avoid the area, choosing to provide service in more lucrative venues, or because service providers would charge rates that few subscribers could afford.

On the other hand, universal service policy would require a service provider, or providers, to serve the high-cost or rural area, and to charge affordable prices, in return for subsidy payments or some other consideration. This intervention in the name of universal service does impede the objectives of a competitive marketplace. The existence of a subsidy may send erroneous signals to potential service providers, encouraging them to expend resources that could be more efficiently utilized in other service areas or on other services. Generating subsidies by, in effect, taxing other services skews the relationship between prices and costs in other service areas and for other services.

While it is too early to determine whether the development of competition and the maintenance of universal service are incompatible goals, it is not too early to posit that there is a good deal of tension between these two approaches to the telecommunications marketplace. Decisions that are made for competitive purposes may contradict decisions that are made for reasons of universal service. This leaves regulators in an interesting and challenging position, especially since the Act requires that the post-Act telecommunications environment include both robust competition and a strong commitment to universal service.

¹³ (...continued)
(Washington, D.C.: The AEI Press, 1993), 12.

The Role of Regulation as a Balancing of Interests

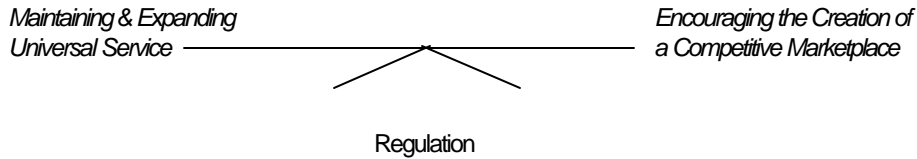
The title of the Act makes reference to a reduction in regulation. As competition develops, certain aspects of regulation—price regulation, for example—will become increasingly unnecessary; however, because the Act includes a fairly specific universal service agenda, there will continue to be an important role for regulators. Not only will regulators continue to play a role in assuring the maintenance of universal service, they will continue to fulfill what has been an important regulatory function: the balancing of divergent interests. Regulators, however, will perform an even more complicated balancing act; in addition to balancing the divergent interests of specific constituencies, they will serve as the balance between two potentially divergent policy objectives: the achievement of competition and the maintenance and expansion of universal service.

A major function of regulation has always been to balance conflicting interests. In a rate-of-return environment, the regulator serves as a balance between the interests of stockholders and subscribers by seeking to set rates that will generate an appropriate return on stockholder investment while at the same time providing reasonably priced services for subscribers. In a regulated monopoly, the regulator serves as the balance between buyer and seller that would be provided by a competitive marketplace. Sellers in a competitive marketplace are pushed to efficient pricing and quality service in order to remain viable in the market. Absent competition, the regulator controls the monopolist's pricing and service quality in order to maintain a balance of interests between the monopoly provider and the subscriber.

In the post-Act environment, regulators will no longer find it necessary to balance the interests of buyers and sellers as competition replaces monopoly, or to balance the interests of stockholders and subscribers as rate-of-return regulation becomes an increasingly rare phenomenon. Regulators, however, will continue to play a critical role by finding a balance between the demands of a competitive marketplace and the requirements of a universal service policy. If competition could develop without affecting universal service, or, if, conversely, universal service could be nurtured and expanded without affecting the development of competition, the regulatory role would be a simple one. Regulators would adopt strategies to fully accomplish both goals. However, as is clear from an examination of competition and universal service, the two are based on vastly different assumptions and expectations, and the two are inextricably intertwined. Regulators are faced with a difficult dilemma. The Act does not allow regulators to choose the accomplishment of one goal and not the other; it requires that both be addressed. In order to do so, regulators must decide how much of each goal can be accomplished before the achievement of the other goal is irreparably affected.

The regulator's role in the new telecommunications environment can be symbolized as a fulcrum upon which the potentially divergent goals of universal service and competition are balanced. (See Figure 1.) If unfettered competition would undermine universal service and, conversely, if a vigorously enforced universal service plan would inhibit the development of competition, it is up to the regulator to adopt strategies that control the excesses of either approach.

Figure 1. Regulatory Balance
in the Post-Telecom Act Environment



Weighing the Impact of Possible Strategies

Regulators can choose from a variety of models or strategies in deciding how to proceed in the new telecommunications environment. The Act itself points to several potential strategies. The Act includes a definition and plan for universal service, suggesting a social equity strategy for guiding the development of the new telecommunications marketplace. Also included in the Act are requirements for interconnection, resale, and access to unbundled network elements, suggesting a market entry approach. Section 706 of the Act deals with the deployment of advanced telecommunications technologies, suggesting a technology-push strategy. And, finally, in Section 254, the Act includes quality as a requirement for universal service, suggesting a quality of service approach. The considerable number of mergers that have occurred in the wake of the 1996 Act could lead to a reliance on antitrust proceedings as a preferred strategy for responding to the new environment.

Since the regulatory challenge in the new telecommunications marketplace is to balance the achievement of competition and universal service, the effectiveness of these potential strategies is dependent upon their potential impact—positive or negative—on the attainment of ubiquitous affordable service on the one hand, and on the development of an economically efficient competitive marketplace on the other. The effectiveness of each of these regulatory models can be gauged by examining their potential impact on the key elements that make up a successful universal service policy or an effective competitive market. The key elements of universal service include:

- Social equity-driven decisions
- Ubiquity of service
- Affordable pricing
- Constraints on market entry and exit
- Specified type, quality, and range of service

While the key elements of competition entail:

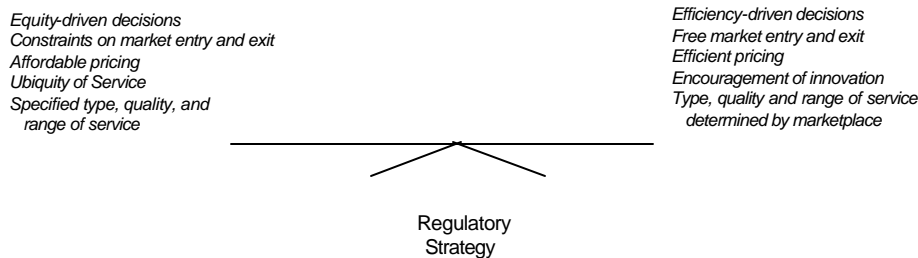
- Efficiency-driven decisions
- Free market entry and exit
- Efficient pricing
- Type, quality, and range of service determined by the marketplace
- Encouragement of innovation

It should not be surprising that some of the key elements that make up universal service are in direct contradiction with those required by competition.

If the key elements of universal service and competition are combined with the regulator's symbolic role as a fulcrum upon which divergent interests are balanced, the difficulty of the regulatory balancing act is clear. (See Figure 2.) If the regulator wishes to encourage the development of a competitive marketplace, he or she must adopt strategies that will lead to efficient pricing, free market entry and exit, and efficiency-driven decision making; yet, these elements of a competitive marketplace are directly counter to the underpinnings of a universal service policy. In order to maintain a regulatory balance between competition and universal service, the regulator must decide how far to encourage ubiquity of service at the expense of potential innovation; or how far to encourage affordability at the expense of efficient pricing.

There may be no one regulatory strategy that strikes a perfect balance between competition and monopoly; however it may be useful to analyze five potential regulatory models (a social equity model, a quality of service model, a market entry model, a technology push model, and an

Figure 2. Regulatory Balance Between Achieving Key Elements of Universal Service or Competition



antitrust model) to determine just how close each can come to achieving a viable balance.

Social Equity Model

The Telecommunications Act sets forth a surprisingly detailed plan for universal service at the federal level for both consumers and institutional users. Carriers can receive subsidy payments for serving high-cost areas if they agree to provide a specific list of services to all interested subscribers in a specified service area; all interstate telecommunications carriers are to contribute to the fund from which subsidy payments are to be generated. At the institutional level, schools, libraries, and rural health care providers are to receive discounts on telecommunications services and access to advanced services; service providers are to be reimbursed for these discounts from a central fund to which all carriers contribute. Except for stipulating that all intrastate telecommunications carriers are to contribute to state universal service funds, the Act does not require the states to duplicate federal action. Indeed, the provisions of the Act allow the states to draft universal service plans specific to their own needs and conditions:

A State may adopt regulations not inconsistent with the Commission's rules to preserve and advance universal service. Every telecommunications carrier that provides intrastate telecommunications services shall contribute, on an equitable and nondiscriminatory basis, in a manner determined by the State to the preservation and advancement of universal service in that State. A State may adopt regulations to provide for additional definitions and standards to preserve and advance universal service within that State only to the extent that such regulations

adopt additional specific, predictable, and sufficient mechanisms to support such definitions or standards that do not rely on or burden Federal universal service support mechanisms.¹⁴

So long as states assure that state-level universal service provisions are supported by state funds, state regulators can choose to be more aggressive in crafting a universal service plan.

If regulators are the fulcrum upon which the potentially conflicting needs of universal service and competition are balanced, then it is important to analyze the implications that an aggressive universal service policy would have for that balance. The very existence of a set of subsidized services that are required by social equity goals would keep the telecommunications marketplace from being totally competitive; however, the extent of that set of subsidized services has significant implications for just how competitive the telecommunications marketplace can become. Pursuit of a rigorous social equity model can substantially hamper the development of competition.

As is shown in Figure 2 above, the key elements of universal service include equity-driven decision making, ubiquity of service, affordable pricing, constraints on market entry and exit, and a specified type, quality, and range of service. A regulatory approach that seeks maximum realization of these key element would weight the regulatory balance heavily in favor of universal service goals at the expense of competition. At the core of universal service is the selection of a list of services that are deemed so essential that they should be made available to all, regardless of population density, terrain, or financial status of the

¹⁴ 47 U.S.C. Section 254(f).

subscriber. The more extensive that list of services, the more social equity, rather than economic efficiency concerns, will drive the deployment of services.

The Act specifies that universal service is “an evolving level of telecommunications services” that is periodically redefined by the FCC, upon advice from a Joint Board; in defining the “services that are supported by Federal universal service support mechanisms” the FCC is to take into account a variety of considerations, including how essential the services are to education, public health, or public safety, whether a “substantial majority” of residential customers have subscribed to the services, and how extensively the services are being deployed by carriers.¹⁵ The Act further allows the FCC to designate schools, libraries, and rural health care providers as eligible for Federal universal service support.¹⁶ At the consumer level, the Act constrains the FCC to some market considerations; services should be defined as part of universal service if they are already being subscribed to by a majority of residential users. At the institutional level, the Act gives the FCC more leeway; no reference is made to market considerations. The Act is mute regarding the basis upon which the states define those services eligible for state universal service support. Theoretically at least, the states can define universal service without reference to market forces.

If the definition of services eligible for universal service support is extensive, the regulatory balance in Figure 2 will be tipped more decisively toward equity-drive decision making and away from efficiency-driven

¹⁵ 47 U.S.C. Section 254(c)(1)(A)-(D).

¹⁶ 47 U.S.C. Section 254(c)(3)

decisions. Services would be provided in regions in which it would be difficult to make an economic case for their provision, either because of low population density or terrain considerations. The balance will also be tipped more decisively in favor of the other key elements shown in Figure 2. Since a major component of universal service is the willingness of carriers to provide specific services to all interested subscribers in a designated service area in return for regulatory considerations like subsidy payments, the more extensive the list of services, the greater the constraints on market entry and exit. An extensive list of required services can represent a significant barrier to entry because few carriers will be technically or financially equipped to offer an extensive range of services;¹⁷ this would reduce competitive entry into the provision of services designated as universal service elements. Once carriers begin to provide universal service, they are constrained from relinquishing those services without significant regulatory intervention; not only is this a market exit constraint, it can also be an entry barrier to carriers concerned about their ability to exit a market if it proves to be technically or financially burdensome.

Services designated as universal service elements are to be provided at affordable prices, regardless of underlying costs, with any shortfalls being made up through subsidy payments. If a large number of

¹⁷ An extensive list of services may not represent as significant a barrier to entry for carriers who are reselling the incumbent carrier's services or are using unbundled network elements to provide their own services. However, even for these carriers, an extensive list of required services would increase administrative and logistical costs. If the ultimate goal of a competitive policy is to encourage the establishment of facilities-based carriers for all services, including those services that fall under the universal service definition, expanding the list of universal service elements could represent a major barrier to the attainment of that goal.

services are designated as universal service elements, pricing for an extensive array of services would be based on social equity considerations, rather than on efficient pricing principles. The greater the number of services defined as eligible for subsidy payments, the larger the fund that must be generated from carrier contributions. Recovery of those funds can affect the provision of other services. Most carriers currently recover contributions to universal service funds explicitly through surcharges billed to their customers. The current surcharges are relatively insignificant in size; however, large surcharges could lead to customer disaffection with a carrier, and could also potentially affect a customer's ability to purchase other services. If a carrier decides to recover its universal service contributions implicitly through the pricing of other services, increasingly large contributions to the universal service fund would inhibit the efficient pricing of those services.

A key element of universal service is ubiquity. An ambitious universal service approach would require the ubiquitous provision of a wide range of services, and would probably do so at the expense of innovation. If regulators define a wide range of services to be provided ubiquitously, with a guarantee of subsidy payments for those areas in which affordable prices do not cover costs, carriers could elect to concentrate their resources on providing those services rather than on developing new service offerings. Ubiquity would become a trade-off for innovation. In defining a slate of services as comprising universal service, regulators specify not just the type of services, but also the quality of services to be provided. An ambitious universal service program would therefore result in the type, quality, and range of services being defined by policy considerations, rather than by the marketplace.

How far a universal service program would tip the balance away from competition is dependent upon how expansively universal service is defined. In effect, the more services that are designated as being components of universal service, the smaller the range of services that is allowed to develop on a competitive basis. If the key elements of competition are efficiency driven decision making; free market entry and exit; efficient pricing; innovation; and the freedom of consumer choice, through the marketplace, to determine the type, quality, and range of services, an aggressive universal service policy would inhibit those elements from developing in a large percentage of the telecommunications marketplace. Indeed, if applied to a large percentage of the marketplace, universal service requirements regarding quality and range of service, pricing, market entry and exit, and ubiquity, could direct resources away from competitive services.

Crafting a regulatory approach that will not tip the regulatory balance too far in favor of universal service goals is a matter of degree. If the universal service net is thrown too widely over the telecommunications landscape, the result could be harmful to the attainment of competition in a significant portion of the market.

Market Entry Model

If an aggressively implemented social equity model would tilt the balance away from the attainment of a competitive marketplace, a regulatory approach focused almost exclusively on a market entry model could tilt the balance heavily in the other direction. Much of the Act deals with the steps needed to open the local network to competition. In effect,

the Act outlines a market entry strategy in which the incumbent local exchange carriers are required to unbundle their networks, provide interconnection to their facilities, and offer their services for resale by competitors. As with the universal service provisions, the Act allows the states latitude in formulating their own approach to furthering competition, as long as Federal goals are not impeded:

Nothing in this part precludes a State from imposing requirements on a telecommunications carrier for intrastate services that are necessary to further competition in the provision of telephone exchange service or exchange access, as long as the State's requirements are not inconsistent with this part or the Commission's regulations to implement this part.¹⁸

There is nothing in the Act that precludes state regulators from taking a highly pro-active stance in furthering the development of a competitive marketplace for telecommunications. If regulators choose to adopt such a strong stance, there are significant implications for the achievement of universal service goals.

Figure 2 lists the key elements of competition as being efficiency-driven decisions; free market entry and exit; efficient pricing; the encouragement of innovation,;and market determination of service range, type, and quality. Regulators could, in aggressively seeking to realize these key elements, inhibit the attainment of universal service goals. A major priority for regulators wishing to encourage the movement from monopoly to competition is to eliminate as many barriers to entry as possible for potential competitors. Such a priority would presuppose

¹⁸ 47 U.S.C. Section 261(c).

several strategies. For example, regulators would place few requirements on carriers seeking a certificate to provide service; this would preclude requiring new entrants to serve under-served areas or to provide specified services in order to receive certification. Regulators, wishing to encourage competition for a specific service, would be less likely to define that service as part of universal service so that the competitor would not be discouraged by the prospect of having to provide that service ubiquitously and at “affordable” prices. As a result, two potential universal service strategies would be impeded.

A major strategy for regulators hoping to encourage competition is to allow new entrants total freedom to determine where they wish to provide service and which services to provide. In other words, a lack of regulatory intervention would encourage efficiency-driven decision making and would allow the type, range and quality of service to be determined by consumer choice. New entrants would naturally target services and service areas yielding the most potential profit; this means that new entrants would be most likely to target business customers, high-income subscribers, densely populated serving areas, and low-cost serving areas. The areas that would be avoided by new entrants would be the very areas that are the concern of universal service policies.

If efficient pricing is a key element of competition, regulators seeking to enhance pricing efficiencies would seek to avoid pricing distortions. One way to do so would be to keep the amount of subsidy contribution required of all telecommunication providers to a minimum. This would mean the curtailment of those services requiring subsidy payments by limiting the number and range of services defined as universal service elements. In theory at least, carriers could use the

financial resources they would expend in contributing to a universal service fund to provide new and innovative services. New entrants would, therefore, be encouraged to provide new services in service areas economically capable of supporting these services, rather than supporting a wide range of affordable services ubiquitously provided.

While a lack of regulatory intervention for new entrants is one pro-competitive strategy, a regulatory strategy designed to facilitate a competitor's use of, and interconnection with, the incumbent carrier's network is another pro-competitive strategy. At the state level, regulators can vigorously enforce the competitive outline provided by the Act by aggressively requiring the incumbent to provide collocation, interconnection at any feasible point in the network, unbundled network access, and heavily discounted wholesale pricing for resold services. There are potential implications for universal service from this pro-competitive strategy since the incumbent network is, at least at this point, the major provider of universal service as it is currently defined. An ambitious collocation, interconnection, and access policy could have the effect of creating two tiers of services: a very basic set of universal services provided largely by the incumbent network and a set of more advanced services provided by new entrants using portions of the incumbent network to provide these services in the most lucrative service areas.

Just as the impact of a universal service strategy on the development of competition is a matter of degree, so is the impact of a pro-competitive policy on the attainment of universal service goals. The current universal service policy is a legacy of the old monopoly system; the basic services now defined as comprising universal service are, for

the most part, the components of residential local service that had been provided at averaged, and therefore affordable, rates to 94 percent of U.S. households. Whether the range of services designated as universal service is expanded, or whether the list is, for all practical purposes, frozen at current levels will depend on how aggressively pro-competitive policies are pursued and if they are pursued with little regard for universal service concerns. A pro-competitive strategy that is aggressively pursued will, in order to be maximally effective, seek to keep the list of universal service elements short, and to keep the requirements for carriers to provide services that are deemed necessary for social equity, rather than economic, reasons to a minimum.

Quality of Service Model

While an ambitious social equity model and an aggressively followed market entry model represent two extreme ends of the spectrum, with each tilting the regulatory balance heavily in its own favor, the impact of other models is not so immediately apparent. An example of one such model is a quality of service approach. A quality of service approach is not a new concept. The Act, in defining universal service, states that “Quality services should be available at just, reasonable, and affordable rates.”¹⁹ A study conducted by The National Regulatory Research Institute in 1998 found that 45 states and the District of Columbia employed some form of service quality regulation, at least for incumbent

¹⁹ 47 U.S.C. Section 254(b)(1).

carriers.²⁰ State commissions could adopt quality of service as a major regulatory tool; the implications of such an approach for the regulatory balance between universal service and competition would depend upon the specific parameters selected.

In adopting a quality of service model, regulators would have to decide whether to apply quality of service standards to all providers or only to the incumbent, define quality of service standards, determine how to monitor and collect data regarding compliance, and select an enforcement mechanism. The more rigorously defined the standards, cumbersome the monitoring process, and onerous the enforcement mechanism, the more the quality of service model would tilt the regulatory balance away from the attainment of the key elements of competition. If the quality of service standards are very specific and far-reaching, the standards, rather than the marketplace, would be determining such matters as service type and quality. Decisions regarding how services are provided would potentially be made on policy grounds rather than on underlying economic considerations. However, the balance would not necessarily be tilted toward the attainment of universal service goals.

Stringent standards applicable to all service providers could represent a significant barrier to entry. Potential competitors might not have the personnel or technical resources to deliver the level of quality required, and so would be discouraged from entering the market.²¹

²⁰ Michael Clements, *Quality-of-Service and Market Implications of Asymmetric Standards in Telecommunications*, NRRI 98-24 (Columbus, OH: National Regulatory Research Institute, 1998), p. 1.

²¹ Uri Ronnen argues that minimum quality standards can result in an increase in consumer benefits, notably by increasing price competition, but only if
(continued...)

Quality standards could also discourage innovation, one of the key elements of competition. Fearing that “a regulator will raise the minimum standard once an innovation has been discovered,” a firm may decide not to innovate because such “regulatory actions reduce the profitability of innovation.”²² By requiring a specific level of quality for specific services, regulators could also inhibit innovation by requiring the use of resources to meet minimum standards for one service rather than the use of resources to develop and provide innovation.

Quality standards would not necessarily infringe upon pricing efficiency. If prices are targeted to cover costs, including any costs associated with meeting quality standards, pricing efficiency would be retained. However, if subscribers would be satisfied with lower quality standards at lower prices, policy decisions rather than customer choice would be driving service quality provision. Services could also, because of the increased costs created by minimum standards, become less affordable for some subscribers. The more onerous and time consuming the monitoring and enforcement procedures associated with the quality of service model, the higher the cost of providing service and, therefore, the higher, and less affordable, the price of service. It is possible for affordability to be defined as a quality standard; if that is the case, pricing efficiency would be impeded as prices are targeted to meet some specified level of affordability rather than to recover relevant costs.

²¹ (...continued)

the standards are set appropriately. If standards are set too high, fewer firms will enter the market. See “Minimum Quality Standards, Fixed Costs, and Competition,” *Rand Journal of Economics*, Vol 22, No. 4, (Winter 1991), 504.

²² John W. Maxwell, “Minimum Quality Standards as a Barrier to Innovation,” *Economics Letters*, 58 (1998), 355.

Including affordability as a service quality standard would create a significant disincentive for offering the specific service because there would be no subsidy mechanism in place to make up any shortfall that would result if affordable prices were below cost. A subsidy mechanism is only in place for universal service elements; if affordability were defined as a service standard outside of the universal service definition, subsidy payments would not apply.

Quality standards could potentially affect ubiquity of service. If a minimum standard is defined as being ubiquitous service throughout a designated serving area, then quality standards could, on the one hand, encourage ubiquitous service by requiring it. On the other hand, ubiquity could be a barrier to entry for a potential new competitor who would not be able to meet that requirement.

The implications of a quality of service model for universal service or competition are totally dependent upon the range of services to which the standards are applied. If quality of service standards are stringently applied to services that are not part of universal service, the effect would be to impede the development of competition for those services. Such standards would be barriers to entry and would be disincentives for innovation. The quality of service standards would not necessarily advance universal service goals if those goals are to advance the deployment of all services to as many subscribers as possible. Barriers to entry would inhibit ubiquity of service and the increased costs of monitoring and enforcement would drive costs and prices up. Quality of service standards could advance universal service goals if they are defined as part of universal service. If that is the case, then the social equity model discussed above would apply. Subsidies would be available

to carriers to assure that they provide a specified level of quality ubiquitously and at affordable rates. If service quality standards are defined as part of universal service, they would tilt the regulatory balance toward universal service. If service quality standards are applied to services that are not defined as components of universal service, their potential impact on the balance between universal service and competition would depend on how extensively they are applied.

Technology-Push Model

In an increasingly competitive and deregulated environment it is difficult for regulators to employ a technology-push model. When regulated monopoly was the rule, regulators could use the exclusive franchise to require the monopoly carrier to provide a specific technology. Regulators, for example, required the provision of direct distance dialing and touch tone service. In a regulated environment, it was also possible to introduce new technological offerings. It could be argued that cellular service resulted from an aggressively implemented technology-push model. The FCC defined the service, determined the market structure, and selected the service providers. In the new competitive telecommunications environment, that level of regulatory involvement is no longer possible. Section 706 of the Telecommunications Act requires the FCC and state commission to “encourage the deployment on a reasonable and timely basis of advanced telecommunications to all Americans” and to do so by utilizing “price cap regulation, regulatory forbearance, measures that promote competition in the local telecommunications market, or other regulating methods that remove

barriers to infrastructure investment.”²³ The Act envisions a technology-push model that emphasizes the reduction of regulatory barriers, rather than regulatory intervention. It would seem that such a technology-push model would tend to tilt the regulatory balance toward competition; however, the situation may not be quite so simple.

It is instructive to look at the FCC’s recent report regarding the status of advanced technology deployment.²⁴ In that report, the FCC lists a series of actions it has taken to encourage the deployment of advanced technologies: virtually all of the actions involve opening up the incumbent’s network to competitors through stronger collocation rules or through line sharing requirements, the auctioning of LMDS licenses, and the streamlining of international submarine cable licensing procedures to encourage competition.²⁵ The report, however, also points to the use of universal service remedies as a way to encourage deployment, including an increased commitment to the E-rate, consideration of whether high-cost universal service support should be expanded to encourage advanced telecommunications capability, and consideration of creating a universal service mechanism to promote deployment of broadband services.²⁶ It is perhaps not surprising that the FCC is looking at the expansion of universal service provisions as a tool for encouraging the

²³ 47 U.S.C. Section 157.

²⁴ Federal Communications Commission, *Deployment of Advanced Telecommunications Capability: Second Report*, Washington, D.C., August 2000. (*Second Report*).

²⁵ *Id.*, 95-99.

²⁶ *Id.*, 100-103.

deployment of advanced services. In many ways, modifying the universal service provisions is the only way regulators can intervene to give some active direction to service deployment. In contrast, the pro-competitive provisions of opening the incumbent network and auctioning off more spectrum place the regulator in a passive role.

If regulators employ a technology-push model that only employs pro-competitive strategies, the regulatory balance will tilt very strongly in the competitive direction for the advanced services whose deployment is being encouraged. Strengthening collocation requirements and network unbundling, encouraging resale, and auctioning off additional spectrum encourage market entry and facilitate efficiency-driven decision making. Because carriers are most likely to pursue entry opportunities that offer the most potential for profit, new entrants are most likely to gravitate to the most lucrative of markets. This means that low-cost areas, business customers, and high-income subscribers will be the targets of deployment. High-cost areas, sparsely populated regions, and low-income residential subscribers will not be the beneficiaries of such purely pro-competitive, technology-push strategy.

Regulators can employ a technology-push approach that utilizes universal service strategies. Advanced technologies can be defined as part of universal service, at least at the institutional level. Such a strategy would, at a minimum, expand the scope of deployment and the level of affordability for schools, libraries and rural health care facilities. Efforts to go beyond the institutional level would be premature, at least at the Federal level, since a majority of residential consumers do not subscribe to advanced services. However, the states could have greater latitude. Efforts to encompass advanced services as part of the definition of

universal service at the consumer level would potentially impede the development of competition in advanced services. Requirements for ubiquitous provision of the services in a designated service area would serve as a barrier to entry. The support needed to keep the prices of advanced services at an affordable level, especially in the early stages of service deployment, would result in a large contribution from all telecommunications providers, and so, potentially, to less efficient pricing of all services. Regulatory intrusion into the development of advanced technologies through a universal service strategy could also have the effect of discouraging innovation. By selecting a specific set of services, regulators would be determining how economic resources should be expended. In effect, regulators would be picking a winner, instead of allowing the marketplace to dictate innovation.

The selection of an effective technology-push strategy requires the same kind of balancing of interests that regulators in general must seek in the new telecommunications environment. If a purely pro-competitive strategy is adopted, universal service concerns will not be addressed and the balance will be heavily weighted toward the attainment of competitive goals with little or no progress being made toward the achievement of universal service objectives. New entrants will emerge; innovations will be introduced, but issues such as affordability and ubiquity of service will be ignored. On the other hand, a technology-push model based on universal service strategies may expand the services that are provided as a basic level of service for all, but the development of competition will be impeded. Requiring affordable prices and ubiquitous service for advanced technologies, especially before such technologies are widely deployed, will discourage market entrants and inhibit innovation.

Antitrust Model

The Telecommunications Act did more than establish new guidelines and objectives for telecommunications, it also has prompted a growing number of mergers, both horizontally and vertically. RBOCs are merging with one another; telephone companies are acquiring wireless companies; cable companies are merging with Internet providers. All of these mergers awaken the specter of market power and collusion. In the wake of these mergers, it may appear that the best regulatory approach is to rely on U.S. antitrust laws to discipline the marketplace. Regulators could allow the Federal Trade Commission, the Department of Justice, states attorneys general, and any private parties believing themselves to be damaged by antitrust activities, to enforce the provisions of the Sherman and Clayton Acts to stop specific anti-competitive behaviors.

Antitrust laws, and the enforcement of those laws, have as their main focus the prevention of anti-competitive behaviors such as the exercise of market power, collusion, or price fixing. Antitrust laws are not concerned with such social policy goals as the attainment of universal service; indeed it has been argued that social policy goals, such as income redistribution for example, cannot be achieved through antitrust laws.²⁷ Reliance on antitrust activities as a major strategy for realizing the goals of the Act is problematic because the FCC and the state commissions do not play a significant role in matters of antitrust. After

²⁷ Robert Pitofsky argues that non-economic concerns such as social goals do not play a useful role in antitrust matters because they cannot be achieved through antitrust interpretation. "The Political Content of Antitrust," 127 U. Pa. L. Rev. 1051 (1979), reprinted in part in Andrew I. Gavil, ed. *An Antitrust Anthology* (Cincinnati, Ohio: Anderson Publishing Co., 1996), p. 400-404.

passage of the Telecommunications Act, the role of the FCC and the state commissions was significantly reduced in an area of antitrust concern: mergers and acquisitions. The Act eliminated provisions in the Communication Act of 1934 that had given the FCC the authority to hold public hearings regarding proposed mergers or acquisitions between telephone companies; to solicit comments from state commissions regarding proposed mergers or acquisitions, and to function as a final authority regarding the approval of such mergers.²⁸ The Act also amended Section 7 of the Clayton Act which had exempted mergers that had been approved by the FCC from antitrust provisions.²⁹ Prior to the passage of the Act, the FCC was essentially able to preclude antitrust considerations for mergers that the Commission deemed to be in the public interest. In effect, the Act placed mergers under competitive scrutiny, rather than under “public interest” scrutiny.

Despite Section 601 of the Telecommunications Act, the FCC has continued to play a role in merger review. As FCC Commissioner Michael Powell has pointed out, the Communications Act gives the FCC authority to determine whether the transfers of radio licenses are in the public interest and gives the Commission the authority to approve the transfer of

²⁸ The 1996 Act, in 47 U.S.C. Section 601(b)(2), repealed 47 U.S.C. Section 221(a), which, in addition to providing for public hearings and state commission comment, provided the following:

If the Commission finds that the proposed consolidation, acquisition, or control will be of advantage to the persons to whom service is rendered and in the public interest, it shall certify to that effect; and thereupon any Act or Acts of Congress making the proposed transaction unlawful shall not apply.

²⁹ 47 U.S.C. Section 601(b)(3) amended Section 7 of the Clayton Act (15 U.S.C. Section 18) by deleting the FCC from the list of agencies which could exempt mergers from antitrust proceedings.

lines from one common carrier to another.³⁰ The FCC has used this authority to play a role in merger review by imposing conditions, such as aggressive interconnection requirements, on the parties to proposed mergers and acquisitions. However, the use of merger review as a regulatory tool has met with resistance. Commissioner Powell has stated that, while the Commission should use its review authority to consider a merger's impact on "communications policies such as media diversity and universal service that are not appropriately considered by antitrust authorities," it should defer to the antitrust authorities in matters of competitive analysis or harm.³¹ Legislation has been introduced in Congress to limit the FCC's role in merger review to that of assuring that FCC rules are followed, rather than to gauging the competitive effects of the merger.³²

If the FCC is precluded from participating in such antitrust activities as merger review as a mechanism for encouraging competitive entry, it may be more important for the FCC to use merger review as a way to enhance and protect universal service. A total reliance on the antitrust laws as a regulatory strategy, with no universal service consideration, would weight the regulatory balance heavily in favor of the

³⁰ FCC Commissioner Michael Powell has made this source of authority clear in his testimony before the House of Representatives. See FCC Commissioner Michael Powell, "Opening Statement of Michael K. Powell, Commissioner, Federal Communications Commission, before the Subcommittee on Telecommunications, Trade and Consumer Protection of the House Committee on Commerce on The Telecommunications Merger Act of 2000," March 14, 2000, 1-2.

³¹ *Id.*, 4.

³² See for example H.R. 4019, "The Telecommunications Merger Review Act of 2000," 2d Session, 106th Congress, March 16, 2000.

attainment of competitive goals and would do little to advance the goals of universal service. Indeed, the very concept of universal service may be counter to the basic premises of antitrust considerations. Universal service, with its call for ubiquitous service and affordable pricing, is aided by market concentration and price fixing. Carriers providing universal service charge similar, subsidized rates; ubiquity of service favors carriers who exhibit some level of market concentration. Requiring that a list of services be provided as extensively as possible may actually encourage market dominance by a few providers. Subsidizing a list of services so that they can be provided below cost seems counter to the basic principles embodied by the antitrust laws. A reliance on antitrust as a primary regulatory model could curtail the list of services defined as part of universal service.

There are those who would argue against a reliance on antitrust laws as a sole strategy to attain a competitive marketplace because there is a sense that the antitrust laws have been ineffective.³³ Some have argued that the enforcement of antitrust laws have not resulted in the creation of competitive markets. The ad hoc quality of antitrust enforcement, which is applied on a case-by-case basis, does not lend itself to the creation of coherent policies. For all of these reasons, a reliance on antitrust as a primary regulatory strategy to balance the interests of universal service and competition does not appear to be a viable choice.

³³ Fred S. McChesney and William F. Shughart II argue that it is widely recognized that antitrust has been a failure. See "The Unjoined Debate," in *The Causes and Consequences of Antitrust: The Public-Choice Perspective*, ed. Fred S. McChesney and William F. Shughart II (Chicago: University of Chicago Press, 1995), 341.

A New Boundary

The above analysis suggests that no one regulatory strategy can strengthen universal service while at the same time encouraging the development of competition. Vigorous pursuit of either a social equity model or a market entry model would tip the regulatory balance grossly in favor of achieving one goal, while inhibiting the attainment of the other. A total reliance on antitrust enforcement would appear to serve the interests of competition, with no consideration for universal service issues. Indeed, the role of regulators in antitrust enforcement and prevention is so unclear, and the antitrust process itself is so ad hoc, that it offers little promise as a vehicle for a coherent regulatory regime. The efficacy of a quality of service model or of a technology-push model for universal service or competition would depend greatly on the parameters selected. Each approach could be tilted strongly in favor of attainment of either goal, to the detriment of the other. A strongly enforced, wide-ranging quality of service model would be much closer to a social equity model than to a market entry approach. A quality of service model with minimal requirements and no emphasis on ubiquity of service or on affordable pricing would do little for the realization of universal service needs. A technology-push model that emphasizes open entry and a lack of regulatory oversight would encourage the development of competition, rather than the achievement of social equity concerns. Conversely, a technology-push model that emphasizes the deployment of technologies to targeted social groups at affordable prices would be guided by social equity concerns rather than by the requirements of a competitive marketplace.

A complicating factor for regulators seeking an effective strategy is that there are limitations on possible regulatory action on the one hand, and strong voices urging action on the other. On the one hand, the Act itself requires the FCC to preempt any state action that can be construed as anti-competitive.³⁴ On the other hand, there is a good deal of pressure to assure that universal service remains a firmly held policy objective. The NTIA's initiative "Closing the Digital Divide"³⁵ is one example of the emphasis on universal service by an agency outside of the FCC. Pressure from within the FCC itself to expand and strengthen universal service is exemplified in a recent speech by FCC Commissioner Tristani, in which she asks, "should the universal access to the telephone of the past century be extended to the technology of the digital century?"³⁶ While there are Congressional hearings to determine why competition is not developing fast enough, there are other voices demanding that universal service not just be maintained at its current level, but expanded to encompass Internet access and advanced technologies. Within these constraints and demands, regulators must decide how to respond so that both sets of interests are addressed.

³⁴ 47 U.S.C., Section 253(a) states that no State or local statute, regulation, or requirement may prohibit competitive entry for any interstate or intrastate telecommunications service, while Section 253(d) requires the FCC to preempt any such statutes, regulations, or requirements.

³⁵ See <http://www.digitaldivide.gov>

³⁶ FCC Commissioner Gloria Tristani, "Civil Rights in the Digital World," Keynote Address of Commissioner Gloria Tristani, Federal Communications Commission, before the Leadership Conference on Civil Rights, Washington, D.C., September 7, 2000 (Available at <http://www.fcc.gov/commissioners/tristani>).

Past regulatory experience may provide some valuable lessons for the future; one such valuable lesson may be the usefulness of boundaries. Regulators have used boundaries between “basic” and “enhanced” services to determine what should and should not be regulated. LATA boundaries have been used to restrict providers to specific types of services. The demarcation between local and toll services has been used to distinguish providers, pricing strategies, and service obligations. While the Act seems to have lessened the significance of some of these boundaries, in a very basic way, the Act has created a new demarcation line: the line between those services that fall within the parameters of universal service and those that do not.

The Act did, for all practical purposes, eliminate the boundary between interexchange carriers and local exchange carriers, allowing each type of carrier to move into the other’s territory. It also eliminated the barriers that kept telephone companies out of the cable industry and the cable companies out of telephony, and blurred the distinctions between wireline and wireless providers. The Act, however, created a new boundary. By so carefully articulating the provisions for universal service, the Act draws a substantial line between those services and all others. As a result of the Act, universal service is defined by regulators and is eligible for a subsidy. It is offered by a specified set of providers who must offer the services comprising universal service ubiquitously within a specified area and who cannot stop offering those services without regulatory approval. Once a service is defined as falling within the definition of universal service, it is subject to totally different regulatory treatment. Those services that are not part of the universal service definition face no such provisions. If a service is not defined as universal service, the most

important regulatory consideration under the Act is to enhance the probability that it will be competitively provided. As a result, perhaps the most important boundary has become that between services that are defined as universal service and those that are not.

This boundary suggests that these two categories of service—those that fall within the definition of universal service and those that do not—can be treated as separate sectors requiring different regulatory treatment and attention. In effect, the boundary between universal service and non-universal service services is a way to make sense of the telecommunications marketplace from a regulatory perspective. In approaching the services that currently fall under the definition of universal service, regulators must make sure that what has already been accomplished is not eroded. This would suggest a social equity strategy that utilizes subsidies, service areas for which ubiquitous service is required, constraints on exit from those markets, and current methods designed to keep subscribers on the network (*i.e.*, the Lifeline programs) for those services that fall on the universal service side of the definitional boundary. For all other services, the Act would seem to dictate a regulatory strategy focused on encouraging the development of competition. Such a strategy would stress free market entry and exit and forbearance from price or earnings regulation for services outside of the universal service definition.

A Two-Phased Regulatory Approach

While services that fall within the universal service definition can be approached with different regulatory strategies than those that fall

outside that definition, there still remains the question of how to maintain a balance between the over-arching goals of maintaining and expanding universal service on the one hand and encouraging competition on the other. As has been discussed earlier, if universal service is pursued vigorously, the achievement of competitive goals may suffer; and, conversely, competition may be achieved at the expense of universal service goals. Even though there may be a boundary between services that are designated as universal service and those that are not, they are all telecommunications services, and as such, offered by many of the same providers and, for all practical purposes, part of the same telecommunications marketplace.

The Act itself provides a possible connecting point between the seemingly conflicting goals of universal service and competition. The method that the Act prescribes for defining universal service is a nexus at which the goals of universal service and the workings of a presumably competitive marketplace meet. The definition of universal service cannot be expanded without reference to customer choice. The Act defines universal service as “an evolving level of telecommunications services.”³⁷ The Commission, with the advice of a Joint Board, is to periodically redefine universal service, and, when deciding whether to include a service within the definition, is to consider whether the service has, “through the operation of market choices by customers, been subscribed to by a substantial majority of residential customers.”³⁸ Before a service can qualify for Federal universal service support, it must first become so

³⁷ 47 U.S.C. Section 254(c)(1).

³⁸ 47 U.S.C. Section 254(c)(1)(C).

widely deployed and accepted by residential customers that it will be regarded as a necessity.³⁹

The evolutionary aspect of universal service suggests that merely preserving the level of universal service achieved prior to the Act, while vigorously encouraging the development of competition for other services, is not a sufficient regulatory strategy. The Act obligates regulators to expand the definition over time, but to do so only if services are widely deployed. Because the Act replaces traditional monopoly regulation with competition, regulators' best hope of encouraging innovation and widespread deployment of new technologies and services is through the growth and encouragement of competition in all areas of the telecommunications marketplace.

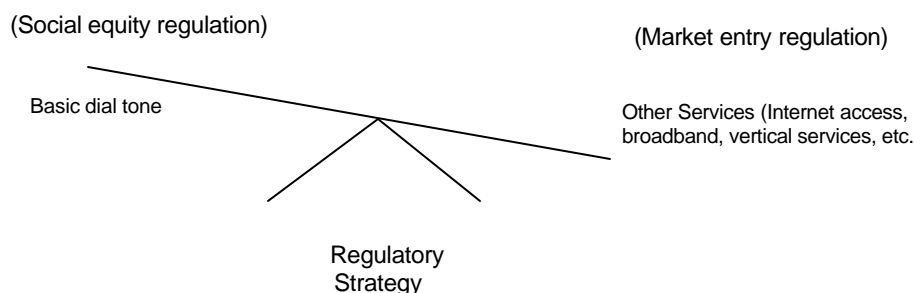
The regulatory balance between the conflicting goals of the Act can be guided by the evolving definition of universal service. Instead of seeking one regulatory strategy that can accomplish both universal service and competition, and instead of striving to maintain an even balance between the two goals, regulators may find it most effective to view possible regulatory strategies as tools in a long-range plan that at times emphasizes the encouragement of competition, and so constrains the expansion of the universal service definition, and that at other times focuses on augmenting the number of services falling under the universal service definition.

³⁹ In effect, the current listing of universal service elements meet this criterion. Basic dial tone residential service (along with access to the customer's choice of interexchange carrier, access to emergency services and access to directory assistance) which for all practical purposes comprises the current definition of universal service, is widely deployed and subscribed to by a vast majority of residential subscribers.

In the short term, it may be most effective to pursue a two-phased approach that concentrates first on encouraging competition and then turns to matters of universal service expansion. Because competition is still in the developing stage, and universal service for basic dial tone service has been largely achieved, the first phase of this approach would focus on encouraging competition while maintaining the current definition and level of universal service. The emphasis of regulatory concern would be to encourage new entrants; to eliminate entry and exit barriers; to allow the market place to determine prices, quality and range of services for innovative services and for new market entrants. For services falling outside of the definition of universal service, the emphasis would be on regulatory forbearance for the new entrants and on stronger requirements for interconnections, unbundling, and collocation for the incumbent network. State regulators, for example, could more aggressively use price cap baskets to move non-universal service services out from under price regulation. As is shown in Figure 3, during this phase, the regulatory balance would be tilted toward the development of competition, though attention would continue to be paid to maintaining universal service at its current level.

During the second phase of this approach, new and competitive services would be monitored to determine when, and if, they should become part of the universal service definition. Once part of the universal service definition, these services would be eligible for a subsidy, ubiquitously provided, and provided at affordable rates. In this way, broadband services and Internet access, upon being deployed to a substantial majority of residential subscribers, could be judged appropriate

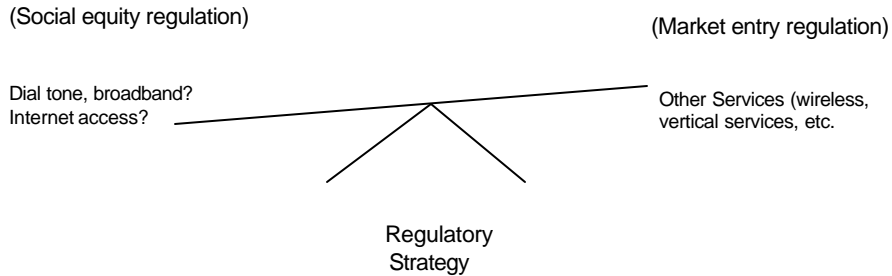
Figure 3. Regulatory Balance – Phase One



components of universal service.⁴⁰ The balance during this regulatory step would be tilted more strongly toward universal service (see Figure 4); however, care would have to be taken to assure that competition would not be unduly harmed by too aggressively expanding the range of universal service elements. Including all services that a majority of residential subscribers have adopted under the universal service definition would certainly harm competition. As was suggested earlier, the more services that are subject to subsidy and the more constraints on entry and exit for services, the greater the potentially detrimental impact on the development of competition in general. Regulators would need to exercise great care and deliberation to assure that the social utility of

⁴⁰ In addition to meeting the criterion of subscription by a “substantial majority” of residential customers, services must also be “essential to education, public health, or public safety,” must be deployed in public telecommunications networks, and must be “consistent with the public interest, convenience, and necessity.” 47 U.S.C. Section 254(c)(1)(A)-(D).

Figure 4. Regulatory Balance – Phase Two



expanding the definition of universal service would substantially outweigh the loss of some degree of competition.

The adoption of this two-phase approach would produce a seesaw effect of regulation, with an emphasis on competition encouraging the development of new services, followed by deliberations regarding the appropriate definition of universal service in the wake of technical innovation. Since universal service is an evolving definition, this two-phased approach could be a long-range strategy which can be repeated as new services develop and the definition of universal service expands to encompass those services determined to be eligible for inclusion. The cost of adding new services to the universal service definition is a concern for many states, and would of course need to be considered in deliberations on whether to add them.

Conclusion

The Telecommunications Act has placed regulators in uncharted territory by upsetting traditionally held assumptions. After decades during which the common assumption had been that monopoly was essential for the achievement of universal service, the Act decouples monopoly from universal service and requires regulators to both encourage the development of competition and preserve the interests of universal service. In order to achieve both of these goals, regulators may find it most effective to treat those services defined as universal service and those services that do not fall under the universal service definition as two separate regulatory sectors. For services defined as universal service, a social equity approach that stresses ubiquity of service, affordable pricing, and subsidy payments is most appropriate. For services outside of the universal service definition, a market entry approach that stresses free market entry and exit, efficient pricing, and innovation is most relevant.

The challenge for regulators is to maintain a workable balance between the universal service and the non-universal service sectors. An aggressive universal service policy that seeks to expand the definition of universal service extensively beyond the current definition of basic dial tone could have grave implications for the development of competition. In the same manner, an aggressive market entry model that seeks to keep the definition of universal service limited to, at best, basic dial tone would have a severe impact on the maintenance, much less the expansion, of universal service. The key appears to be the universal service definition itself. With its reliance on the workings of the residential telecommunications market, the process of periodically determining the

appropriate definition of universal service provides regulators with a barometer for determining when to emphasize the economic efficiency concerns of competition and when to focus on the social equity considerations of universal service.

To be effective in the telecommunications marketplace created by the Act, regulators must have a clear vision of what regulation is to achieve. Telecommunications during the past several decades has experienced an impressive expansion of new services, new technologies and new service providers. The current definition of universal service, however, comprises a small, and fairly rudimentary, portion of the increasingly robust and sophisticated telecommunications marketplace. A regulatory strategy that is committed to both competition and universal service can help assure that the number, variety, and sophistication of telecommunications services and innovations continues to grow, and that the services that comprise universal service expand accordingly. That is, in essence, the vision outlined in the Telecommunications Act.