Mandating that incumbent LECs provide loop-port combinations at cost-based prices would be likely to harm current CLEC switch providers significantly. It also would be likely to reduce substantially CLEC switch investment in the future. Where CLECs have proven that competitive switches can be successfully deployed, the Commission would risk significant consumer harm by adopting policies that would deter additional investment.

5. Conclusion

As noted above, drawing the geographic boundaries of switch markets is complex, especially given the innovations that have greatly increased the geographic reach of switches. The ease with which switches can be acquired and installed indicate that self-provisioning is an option throughout the country.

At a minimum, it is clear that in at least Zones 1 and 2, CLECs have demonstrated that they can successfully deploy switches and self-provision switching services. CLEC competitive opportunities would not be impaired without mandatory unbundling of switching in these areas. The potential harm to continued investment in competitive facilities from unbundling is substantial. There is no pro-consumer reason for the Commission to mandate cost-based pricing of incumbent LEC switching in these areas.

In Zone 3, the Commission must carefully weigh any specific evidence of CLEC impairment against the relative ease with which switching facilities can be extended to those areas or installed in those areas.

D. Loops

In the *First Report and Order*, the Commission established a blanket requirement that incumbent LEC loops of all types in all locations be provided at cost-based prices. The Commission reached this result by limiting its examination to whether there were alternatives to

incumbent LEC loops within the incumbent LEC network. *First Report and Order* at 15694-95. The Court has required the Commission to look beyond incumbent LEC networks. When the Commission does so, it will discover that alternatives to incumbent loops do exist. These alternatives vary across geographic markets and customers. The only way to meaningfully evaluate these competitive alternatives is on a market-by-market basis.[60]

This section deals only with traditional local loop products. Loops for advanced services are dealt with in the Advanced Services section above.

1. The Markets for Loops

The Commission defined loops as providing a transmission path connecting the network interface device at a subscriber's premise to the main distribution frame located in an incumbent LEC central office.[61] *First Report and Order* at 15691. However, not all loops are equal and they do not belong in the same product market. The Commission did not address geographic market definition at all. As all loops are not equal, neither are all geographic areas. The Commission must define markets for loops that reflect demand and the substantial variation in competition across the country.

a. Loop Product Markets

[60] The *Second FNPRM* raises the issue of subloop unbundling "at the remote terminal or at other points in the incumbent LEC's network. *Second FNPRM* at ¶ 33. Unbundling related to the provision of advanced services is addressed above in the Advanced Services section. Without a context to address other sub-loop unbundling, BellSouth will reserve its comments for the reply cycle.

[61] Adopting this definition of a local loop obviously excludes other ways to provide the identical functionality of connecting subscribers to switches. A wireless local loop or telephony-capable cable loop do not, and never will, "provide a transmission facility between a distribution frame, or its equivalent, in an incumbent LEC central office" and a consumer's premises. The Commission may continue to use this definition only as long as it fully weighs the competitive alternatives to the incumbent local loop. These would include at least wireless fixed local loop technology, cellular and PCS service and cable telephony facilities.

Loops vary from the most basic 2-wire analog loop used to provide traditional residential voice service to DS1 and higher capacity loops serving large business users. Transmission capabilities of loops range from basic 56 kpbs analog loops to 1.544 Mbps DS1 and higher. The *Merger Guidelines* test for defining product markets would clearly separate 2-wire analog loops from 4-wire loops. Larger businesses tend to use high capacity loop products. Mass market customers generally use traditional 2-wire analog loops.

The Commission has consistently recognized a distinction between larger businesses and mass market telecommunications needs. *AT&T/Teleport Order* at 15247; *Bell Atlantic/NYNEX Order* at 20016; *UNE Fact Report: Local Loops* at 2, n. 8(collecting citations). Incumbents are "facing increasing competition from numerous new entrants ... that are building facilities as they seek to provide services to larger business customers." *AT&T/Teleport Order* at 15250 and n. 85 (recognizing that it is easier for CLECs to enter the larger business market).

Demand considerations and competitive reality require the Commission to translate this local service distinction into the loop facilities that underlie the service. Although the line may fairly be drawn in more than one place, it must continue the Commission's long-established separation between larger businesses and the mass market. Perhaps the best approach would be to draw the line to separate 2-wire loops from 4-wire and higher capacity loops. This would generally separate larger businesses from small business and residential users that rely almost exclusively on 2-wire loops.[62]

Consistent with Commission practice, these two markets will be referred to as the larger business market and the mass market.

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[62] This facility-based distinction would not stand in the way of providing increased capacity over the 2-wire loops through xDSL technology. The loop would remain a 2-wire loop. To the

b. Loop Geographic Markets

The market evidence is compelling that geography matters in addition to type of cutomer in the provision of alternative facilities to incumbent local loops. It appears to be universally recognized that CLECs are successfully connecting larger business customers to their networks without incumbent loops. CLECs can and do extend fiber facilities directly to customer premises. *UNE Fact Report: Local Loops* at 3, n. 12 (collecting examples). Within the top 30 MSAs, CLECs have deployed nearly 30,000 miles of fiber. *Id.* CLECs are present in all but one of the top 150 MSAs, and serve in excess of 350 Basic Trading Areas. *Id.* CLEC local loops reach into nearly 15 percent of all commercial office buildings in the country. *UNE Fact Report: Local Loops* at 3. Just as businesses are clustered in urban areas and business parks, CLEC have built and extended local loops in those areas and anywhere else business customers are concentrated. *Id.* at 3-9.

Local loops provide a point-to-point service connecting a customer to a particular network. As noted earlier, the Commission's practice is to aggregate point-to-point markets into larger geographic areas based on the similarity of the competitive choices available within those areas. Geographic market distinctions between large urban, small urban and rural areas would provide a reasonably accurate line.

BellSouth would again suggest that the best approach would be to adopt and apply the three zone approach the Commission adopted in the *Special Access Order* and the *Switched Transport Order*, as discussed in detail in the Transport section above. These three zones generally correspond to big city, small city and rural areas. Attachment B (State maps with

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extent DSL technology is used to deliver high capacity services to larger businesses in place of traditional higher capacity service, the Commission can revisit this distinction.

Zones). The Commission has already found that these zones reflect competitive telecommunication realities and the underlying costs and traffic densities that drive them.[63] Adopting these zones would provide the basis for consistent approach to determining where local elements should be unbundled.

The presence today of cable telephony networks coupled with cable operators' public commitments to its broad and rapid deployment across the country raise an additional geographic market definition issue. In areas where cable telephony is offered, essentially all consumers within the cable operator's franchise have or will have that competitive choice available to them.[64] In Atlanta, all 850,000 homes passed by Media One's cable facilities will be able to choose cable telephony service by January of 2000.[65] Cable telephony will be broadly available throughout the country in short order.

Under its traditional approach to defining geographic markets, the Commission must treat as a geographic market the franchise area of cable operators offering cable telephony service. Cable offerings are bounded by franchise areas. Within those areas, consumers share two of the same choices for local telephony. Cable franchise areas where cable telephony service is offered meet the *Merger Guidelines'* test for constituting a separate geographic market.

2. Competitive Providers And Facilities

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[63] *In the Matter of BellSouth Telecommunications, Inc. Revised Zone Density Pricing Plan*, Order, 11 FCC Rcd 13806 (1996).

[64] Upgrading cable facilities is generally done on a piecemeal basis. During the upgrading process, cable telephony services are available only in discrete parts of an operator's territory.

[65] Cable telephony is available in various other large and small metro areas throughout BellSouth's territory as discussed below.

The following subsections discuss competitive providers and facilities based on the product and geographic market conclusions reached above. The sections are grouped by product market. The business market is treated first, then the mass market.

a. Larger Business Market Competitive Providers And Facilities

Many firms are competing today for the *local* telecommunications dollars of larger businesses. *AT&T/Teleport Order* at 15257-8 (larger business market "has a large number of market participants"). The Commission has chosen not to attempt to gather facts on the number of business lines CLECs serve over their own facilities.[66] Although market shares are hardly determinative, the market share ranges presented in the *UNE Fact Report: Local Loops* put CLEC shares in the areas where they have chosen to focus at impressive levels. The competitive reality is that "CLECs as a group [have] achieve[d] in less than two years after the Telecom Act what it took MCI and other alternative long-distance carriers over 10 years to achieve during the 1970s and 1980s." *See,* J. Grubman, et al., Salomon Smith Barny, *CLECs Surpass Bells in Net Business Line Additions for First Time*, May 6, 1998.

CLECs are providing local connections to larger business customers over both fiber and wireless facilities. CLECs have installed thousands of miles of local fiber connections, reaching all but one of the top 150 MSAs and 350 BTAs. *UNE Fact Report: Local Loop* at 3-10. Once installed, fiber capacity can be upgraded by installing electronics to carry huge amounts of traffic as demand warrants. CLECs often connect fiber facilities directly to business customer premises. *Id.* at 3.

Wireless technology provides a quick and cheap alternative to fiber connections. *UNE Fact Report: Local Loop* at 10-14. Wireless local loop (WLL) systems can be activated within

[66] *Local Competition Survey* at 3.

90-120 days. *Id.* at 10 and notes 21-23 (collecting cites). WLL also supports high capacities. *Id.* at 11 n.26. A key advantage of WLL technology is that it does not involve large sunk costs. Lucent explains that "[w]ireless allows you to redeploy access facilities on a large scale without losing a large share of embedded investment." F. Dawson, *Are Clouds Clearing Over Wireless Local Loop?,"* Inter@ctive Week, Mar. 2, 1998; *Third CMRS Report* at App. F, F-1 ("WLLs can be launched in much smaller segments than wireline systems"). One WLL provider has estimated that it "has to sell only 10 lines to breakeven on a point-to-multipoint system," W. Schaff, *Taking Stock: No Strings Attached,* Information Week, Feb. 22, 1999, while its average customer orders 20 lines. J. Dix, *High Fliers*, Network World, Apr. 26, 1999.

WLL spectrum covers the country, at minimum reaching throughout every Zone 1 and Zone 2 area in BellSouth's serving territory. *UNE Fact Report: Local Loop* at 12 Table 1. An active "wholesale" market for local loops provided over wireless systems has emerged. Carriers like WinStar and Advance Radio Telecom have signed various agreements to provide local loop services to other CLECs in markets across the country. *UNE Fact Report: Local Loop* at 12 Table 1. Other carriers have chosen to simply acquire smaller firms that have wireless spectrum lock, stock and barrel, endorsing the technology with their investment dollars.[67]

b. Mass Market Competitive Providers And Facilities

Competitive provision of alternatives to residential loops is not so advanced, but is catching up rapidly as cable telephony comes on line. Cellular and PCS service have been steadily marching towards direct competition with the wireline network. If still not there today,

[67] AT&T acquired BizTel, giving it coverage 95 of the top 100 markets. *UNE Fact Report: Local Loop* at 12, Table 1. Sprint has several hundred million dollars in WLL spectrum. *Id.* MCI WorldCom acquired CAI Wireless and other wireless carriers giving MCI WorldCom enough spectrum to cover 50 percent of the country. R. Blumenstein, "*MCI, Seeking Deals, Doubles Allowed Stock,*" Wall Street Journal, May 21, 1999.

they will be there shortly as prices continue to fall. Wireless local loops are already being market tested in some areas.

The Commission has found that "numerous" cable MSOs are making cable telephony "available to a large number of customers in many markets" today. *Annual Assessment of the Status of Competition in Markets for the Delivery of Video Programming*, Fifth Annual Report, CS Docket No. 98-102, FCC 98-335, ¶ 59 (rel. Dec. 23, 1998)(*Fifth Annual Report*); *UNE Fact Report: Local Loop* at 17-20 and Table 7. In Atlanta, all 850,000 homes passed by Media One's cable facilities will be able to choose cable telephony service by January of 2000. In BellSouth's region, cable telephony is currently being offered in dozens of cities, including Atlanta, Georgia and Birmingham, Alabama. Attachment C provides a partial list of cities in several states in BellSouth's region that have cable telephony offerings today or that will have by the end of this year. Consumers in these areas have a substitute to the wireline telephony loop today.

Far more will have a substitute tomorrow or soon thereafter. AT&T's cable investments are a $90 billion endorsement of cable telephony. AT&T is actively involved in upgrading cable facilities to carry telephony and can reach at least 25% of the country's households through directly controlled systems. Alliances with Time Warner and Comcast expand that reach dramatically -- beyond the reach of any two of today's Bell companies.

Digital technology allows cellular and PCS services to provide a functional equivalent to wireline service. The sole remaining question today is when the continuing downward trend in wireless pricing will put it in full head-to-head competition with wireline local service. At this point, wireless connections will provide a complete substitute for the wireline local loop. The Commission has already found that "wireless and wireline technologies are increasingly competing for a single pool of minutes-of-use.... [W]ireless providers can compete for local

access by creating pricing plans that encourage their customers to use mobile phones as substitutes for wireline phones."[68] Wireless providers are aggressively selling pricing plans that compete for today's single pool of minutes-of-use. *UNE Fact Report: Local Loop* at 22-25 (describing pricing plans described by AT&T as aimed at "mak[ing] your wireless phone your only phone"). This is occurring not just in large cities, but in smaller ones as well.[69]

3. Will An Efficient CLEC's Meaningful Opportunity To Compete Be Impaired Without Access to Incumbent LEC Loops at Cost-Based Prices

Given the distinctions between the larger business market and the mass market, whether unbundling of the local loop is necessary to avoid impairing an efficient CLEC's meaningful opportunity to compete is considered separately for each.[70]

a. Business Loops and Impairment

The competitive reality in the business market is that CLECs are successfully competing by using alternatives to incumbent loops. Many CLECs are competing in the market and CLECs have gained a substantial share in a short time. Local competition, at least in the larger business

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[68] *In the Matter of Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993 and Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services*, Third Report, 13 FCC Rcd 19746, 19817 (1998) (*Third CMRS Report*).

[69] "Fixed Wireless Service Launched in South Carolina," *Telecommunications Reports*, April 19, 1999 at 25 (Hargray Communications Group launched wireless local loop service in Beaufort, S.C.)

[70] The fact that section 271 requires Bell companies to provide unbundled transport to obtain long distance relief is hardly evidence that transport should be unbundled under section 251(d)(2)'s necessary and impair standard. Unlike section 251, section 271 does not mandate unbundling at cost-based prices. Congress clearly intended that an additional CLEC entitlement to cost-based prices could be created only after the -separate section 251(d)(2) requirements were met. Also, since all section 251 UNEs must be unbundled under checklist item 2, checklist item 5 would be redundant if Congress had intended a particular outcome for transport under section 251(d)(2). BellSouth will continue to make unbundled local loops available under section 271's requirements even where the Commission does not order unbundling the loop at cost-based prices under section 251(d)(2).

market, is ahead of the pace at which long distance competition developed. There is no better evidence than this that CLEC opportunities to compete would not be impaired without access to the incumbent local loop at cost-based prices, at least in Zones 1 and 2.

CLECs are using both fiber and WLL technology to connect larger businesses to their networks. Both present competitive alternatives to incumbent LEC loops used to provide service to larger businesses today. The fact that CLECs have installed thousands and thousands of miles of fiber in 149 out of the top 150 MSAs and are present in 350 of the country's 487 BTAs and have connected nearly 15 percent of the commercial buildings in the country to their networks suggests that there are no impediments to installing fiber and hooking up larger business customers.

The Court directed the Commission to also consider the ability of firms to self-provision alternative facilities. The evidence presented here shows that self-provisioning in this market is routine. The government's *Merger Guidelines* adopt a two year time horizon for assessing the ability to self-provision (entry). The *Merger Guidelines* judge that entry or expansion that occurs within two years is timely enough to prevent competition from being impaired. Looking ahead two years, CLEC alternatives to incumbent loop facilities will be even more widespread. Given the pace of their fiber builds over the last two years, two years from now CLEC fiber could reach a very substantial percent of larger business customers in Zones 1 and 2.

The competitive implications of WLL deserve close analysis. As outlined earlier, competition analysis considers firms that can enter a market within a year without substantial fixed costs as being in the market, and the facilities they could install as offering present competitive alternatives. *Merger Guidelines* at § 1.32. WLL systems can be activated in 90-120 days, well under a year. Substantial fixed costs are not incurred because the systems are

"modular, scalable, movable." *UNE Fact Report: Local Loop* at 10-11 (footnotes omitted).[71] WLL spectrum essentially covers the country. The government's standard competition analysis would conclude that WLL spectrum provides a present competitive alternative to incumbent loops for larger businesses. The fact that a CLEC-to-CLEC wholesale market for WLL capacity exists supports the competition analysis.

At least in Zones 1 and 2, CLECs turn to their own fiber and WLL facilities to provide service to larger business customers. WLL and fiber have been and can be deployed in a timely enough fashion to avoid impairing an efficient CLECs "meaningful opportunity to compete." The lack of larger business customers in Zone 3 areas has contributed to reduced CLEC fiber build outs. If the evidence shows that WLL technology cannot provide an alternative to incumbent loops for the larger business market in Zone 3 areas, the Commission may find that CLEC opportunities to compete have been impaired without unbundled access to incumbent loops for larger business customers (4-wire and higher capacity loops).

b. Mass Market Loops And Impairment

CLECs have two potential alternatives to the incumbent mass market local loop. Where cable facilities have been upgraded to provide telephony, there can be no doubt that there is an alternative to the incumbent local loop and consumers are benefiting from the competition Congress expected. Mandating access to the incumbent local loop in these areas is not appropriate under the impair standard and will not benefit consumers.

First, failing to unbundle the loop will not impair a CLEC's meaningful opportunity to compete. Two competing wires into the home provide competing alternatives to CLECs wishing

[71] Nextlink illustrates one way this works. Nextlink establishes initial connections to larger business connections over WLL because of its speed. It then connects fiber to the facility, and

to provide residential service. The possibility that cable operators may adopt closed systems and refuse to provide facilities to other CLECs is a private business decision. If cable operators take that path, CLECs may argue that the decision impairs their opportunity to compete, and they might be right. However, it is not a failure to unbundle the telephone loop that might impair the ability of CLECs to compete, it is the business and regulatory strategy of the cable operators that might. There is no sense in allowing cable companies to create the potential for impairment by refusing to sell access, then rewarding them for their refusal by imposing a costly regulatory handicap on their facilities-based competitors.[72]

The second reason not to require cost-based unbundling of the local loop where cable telephony provides an alternative is that the consumer benefits of providing such access are far from certain. The focus of imposing any unbundling requirement under section 251 must be consumer, not competitor, welfare. Antitrust law acknowledges that unless the owner of an essential facility is also a monopolist in an end user market, establishing a legal sharing requirement is more likely to benefit competitors than consumers and so is not consistent with consumer welfare goals.[73] *MCI Communications Corp. v. AT&T Corp.*, 708 F.2d 1081, 113-33 (7th Cir. 1982), *cert. denied*, 464 U.S. 891 (1983); *Hausman and Sidak Affidavit* at ¶ 96. Any objection that this could lead to only two firms competing for residential telephony subscribers is

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shifts the WLL to the next customer. W. Schaff, *Taking Stock: No Strings Attached*, Information Week, Feb. 22,

[72] Where the local loop is not unbundled under section 251, CLECs would continue to have access to Bell company unbundled loops at market prices under section 271.

[73] Although cost-based unbundling of the local loop might allow more firms to provide residential service, the possibility seems decidedly theoretical. CLECs have not demonstrated any interest in serving the residential market despite the availability of cost-based local loops today. The very substantial costs of the investment disincentives created by cost-based unbundling and administering the unbundling regime seem very likely to outweigh the theoretical competitive benefits of unbundling in areas where competition from cable telephony exists.

simply a competitor not a consumer welfare complaint. The Commission has found that two-firm markets for residential telephony service perform competitively. *AT&T Reclassification Order*, 11 FCC Rcd at 3271, 3356 (AT&T and MCI were the presubscribed long distance carriers for nearly 90 percent of residential access lines). At a minimum, wireless service presents a vibrant competitive fringe equivalent to the competitive long distance fringe that existed at the time AT&T was declared non-dominant.

In addition, the Commission has already found that "wireless and wireline technologies are increasingly competing for a single pool of minutes-of-use." *Third CMRS Report*, 13 FCC Rcd at 19817. Wireless service is available throughout BellSouth's serving territory. Wireless prices continue to fall. Innovative one-rate-type pricing plans bundle local, intraLATA toll and long distance service with calling features in ways that provide offerings as attractive as any wireline phone service. Entry analysis conducted under a *Merger Guidelines*-type analysis would highlight the ability of wireless firms to further compete by lowering prices and building and expanding facilities. Just as WLL for larger business provides a fast vehicle for entry that does not carry with it substantial fixed costs, wireless service provides the same for the mass market. A thorough analysis of wireless service may require wireless providers to be counted as present market participants under the government's *Merger Guidelines*.

Should the record in this proceeding demonstrate that wireless alternatives to the mass market loop do not yet provide efficient CLECs a meaningful opportunity to compete, the established trend in wireless pricing suggest that it will provide an alternative in the not-too-distant future. In light of this trend, any mass market loop unbundling requirement should come with a clear sunset provision. The unbundling requirement should expire at the end of two years,

or upon evidence of additional that wireless service is providing an alternative to incumbent loops, at least in Zone 1 and Zone 2 urban areas, whichever occurs sooner.

4. The Effect Of Mandatory Unbundling at Cost-Based Prices On Investment in The Local Loop

As set out in the *Jorde, Sidak and Teece Affidavit*, cost-based unbundling under section 251(d)(2) creates disincentives to both CLEC and incumbent LEC investment in the unbundled facility and assets that compete with it. Creating a CLEC-entitlement to a cost-based incumbent LEC local loop will reduce CLEC incentives to invest in alternatives. This seems likely to especially affect the development of wireless alternatives to the local loop.

A cost-based unbundling obligation will also reduce incumbent incentives to invest in upgrading the local loop. The potential effect of this disincentive on consumers is especially troubling in light of the need to invest in local loop technologies to compete with cable providers. Under the Commission's current cost-based pricing rules, incumbents would shoulder all the risk of investing in the local loop but enjoy none of the potential benefits. *Id.* This disincentive to investment establishes a regulatory obstacle to providing advanced services over the local telephony loop. Given the freedom from similar unbundling requirements of cable operators offering directly competing services, this policy also tilts the playing field. None of this serves consumers.

5. Conclusion

Failing to unbundle incumbent local loops will not impair CLEC service offerings to larger businesses in Zones 1 and 2 or to mass market users where cable telephony is offered. Because larger businesses are generally served by 4-wire or higher capacity loops and mass market users are served by 2-wire loops, the Commission should find that in Zones 1 and 2, 4-

wire and higher capacity loops would not be unbundled, and that in areas served by cable telephony, 2-wire analog loops would not be unbundled.

E. Signaling Networks And Databases

Signaling networks and databases facilitate the routing of telephone calls between switches. *First Report and Order* at 15723-24. Signaling networks, including incumbent signaling networks, interconnect. *First Report and Order* at 15738. However, current switch technology requires each local switch to link to one signaling network. Incumbent LEC switches are connected to their own signaling networks. Thus, when a CLEC takes unbundled local switching from an incumbent, the incumbent LEC provides signaling, using its databases, over its network. In its earlier analysis of signaling, the Commission did not look outside incumbent LEC networks to determine if alternatives were available. *First Report and Order* at 15740.

A look at the market shows that there are alternatives to incumbent LEC signaling networks and that there are no impediments to self-provisioning. Signaling and databases are provided in a nationwide market. *UNE Fact Report: Signaling And Call-Related Databases* at V-1. Where a CLEC uses its own local switch, it is free to link its switch with any of several alternative signaling networks. There are at least eleven signaling network alternatives to connecting to incumbent LEC networks, at least six of which provide facilities-based service nationwide. *Id.* at 2-4 and Table 1. Several of these network providers aggressively market signaling services and database services including LIDB, customized databases and local number portability, to CLECs. *Id.* at 3-6. There are no significant barriers to further entry into this market. *Id.* at 5-6.

An efficient CLEC would have a meaningful opportunity to compete without unbundled access to incumbent LEC signaling where switching is not obtained from the incumbent. CLECs

with their own switches can self-provision their own signaling networks and databases or obtain access to alternatives providers.

F. Operator Services and Directory Assistance

The Commission made no attempt to examine whether there were competitive alternatives to incumbent LEC operator services, directory assistance services and their associated databases. *First Report and Order* at 15774. The fact that several CLECs, including AT&T, MCI and Frontier, and the Department of Justice insisted that Operator Services (OS) and Directory Assistance (DA) services be separated from the incumbent's local switch so that CLECs could provide their own OS and DA services strongly suggested that alternatives to incumbent LEC services were available in 1996. *Id.* at 15772-73. The facts show that CLECs are looking to competitive suppliers rather than incumbent LECs for OS and DA services. A decision not to unbundle these services could in no way impair an efficient CLECs meaningful opportunity to compete.

1. The Markets for Operator Services and Directory Assistance

Operator services are "any automatic or live assistance to a consumer to arrange for billing or completion, or both, of a telephone call." *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, Second Report and Order and Memorandum Opinion and Order, 11 FCC Rcd 19, 392, 19,448 ¶ 110.

Directory assistance service "allows subscribers to retrieve telephone number of other subscribers." *Application of BellSouth Corporation, et al. for Provision of In-Region, InterLATA Services in Louisiana*, Memorandum Opinion and Order, 13 Fcc Rcd 20,599.

Both of these products are provided in a nation-wide geographic market. Service providers routinely deliver operator services and directory assistance from national calling

centers. *UNE Fact Report: Operator Services And Directory Assistance* at IV-9-10. If a provider in one region of the country attempted to raise price above competitive levels, buyers (CLECs in this case) could simply to turn to providers located in other regions.

2. Competitive Providers And Facilities

Many CLECs in BellSouth's region have not ordered operator services or directory assistance services from BellSouth. CLECs have been obtaining these services from alternatives sources. CLECs regularly self-provision operator services and directory assistance services, or turn to any of several national wholesalers of such services. AT&T and MCI, the largest CLECs, provide their own national directory assistance service through a combination of self-provisioning and outsourcing. *Id.* at IV-1-2. AT&T, MCI and Sprint provide operator services on a nation-wide basis using a variety of toll-free access numbers. *Id.* Smaller CLECs either provide their own operator services and directory assistance services, *UNE Fact Report: Operator Services And Directory Assistance* at IV-2 Table 1, or purchase wholesale services from alternative providers, *Id.* at IV-5 Table 3. Internet-based services and CD-ROM based services provide additional sources of alternative supply. *Id.* at IV-3 Table 2.

There are several independent alternative providers of substitutes for incumbent LEC operator services and directory assistance services. Teltrust, for one, can "supply nationwide origination and termination services with a variety of live agent and automated network platform services, configured to each client's needs. Teltrust Website <www.teltrust.com/network /index.htm>. InfoNXX provides "a true alternative to telephone company directory assistance." InfoNXX Website <www.inofnxx.com/national.htm>. *See UNE Fact Report: Operator Services and Directory Assistance* at IV-4.

These firms all have access to current databases. They can obtain directory listing information from a variety of independent sources. *Id.* at IV-8-9. Aside from listing information, the key ingredients operator services and directory assistance providers need are employees, a call center location, computers and telephone lines. These assets are easily obtained in the open market. One of the leading independent providers of operator services and directory assistance services states the obvious when it explains that there is an "absence of substantial barriers to entry in the call completion, national directory assistance, third-party verification and calling card services markets." Teltrust, Inc., SEC Form S-1 A, July 8, 1998.

The upshot is that alternative providers now provide many competitive alterntives to incumbent LEC operator services and directory assistance services across the nation. *UNE Fact Report: Operator Services and Directory Assistance* at IV-6-7. AT&T, MCI WorldCom, Sprint, Excell and TelTrust are leading providers of these services.

3. Will An Efficient CLEC's Meaningful Opportunity To Compete Be Impaired Without Access To Incumbent LEC Operator Services and Directory Assistance Services At Cost-Based Prices?

There is no case to be made that incumbent LEC operator services and directory assistance services meet section 251(d)(2)'s impair standard. CLECs have turned to alternatives, and have competed successfully with those alternatives. CLECs can and do self-provision operator services and directory assistance services. CLECs can and do turn to independent alternative providers of the services. There are no barriers to entry into the market. Competition is flourishing among a broad range of market providers.

There are no grounds on which to base a finding that an efficient CLEC's meaningful opportunity to compete would be impaired without access to unbundled incumbent LEC operator

services and directory assistance services. CLECs would still have a guarantee of access to incumbent LEC directory listings under section 251(b)(3).

4. Conclusion

Operator services and directory assistance services should not be unbundled under section 251(d)(2).

F. Advanced Intelligent Network Platforms And Software

BellSouth's advanced intelligent network (AIN) platform and the application software BellSouth develops to run on that platform should not be subject to unbundling under section 251(d)(2). AIN platforms are available from several suppliers in the open market. Any CLEC can acquire an AIN platform and the service creation environment tools that allow the development of customized software applications. Because CLECs are free to invest in obtaining AIN platforms and self-provision AIN services, efficient CLECs have a meaningful opportunity to compete without access to an unbundled BellSouth platform.

BellSouth has invested heavily in developing proprietary applications software that runs on its AIN platform. This software provides advanced calling and network operations features. This application software is generally developed internally at BellSouth. The software is all proprietary, and BellSouth has received patents on many developments.

Although the facts suggest that there is no reason to allow CLECs unbundled access to BellSouth's AIN platform at all, if any such access is permitted, access to BellSouth's internally developed applications software should not be mandated. Unbundled access to proprietary elements should be granted only if the element is necessary. The market for telecommunications innovation is broad and deep. Equipment manufacturers, software developers and carriers are all free to invest in innovation, including innovation on AIN platforms. Forced sharing of

innovative offerings would simply dampen incentives to invest in developing new services. *Jorde, Sidak and Teece* at ¶¶ 30-40, 47-50.

VII. COMBINATIONS OF NETWORK ELEMENTS

The Commission's requirement that network elements combined in an incumbent network be provided in a combined fashion applies only where the combined network elements have all met the standards of section 251(d)(2). Thus, the Commission's rule would not require, and could not require, incumbents to provide a combination of a section 251(d)(2) element with a piece of the network that did not meet that standard.

The Court clearly understood this to be the case when it concluded that its remand of Rule 319 with explicit instructions to the Commission to impose a "limiting" standard on unbundling "may render the incumbents' concern on [combinations] academic." Slip Op. at 26.

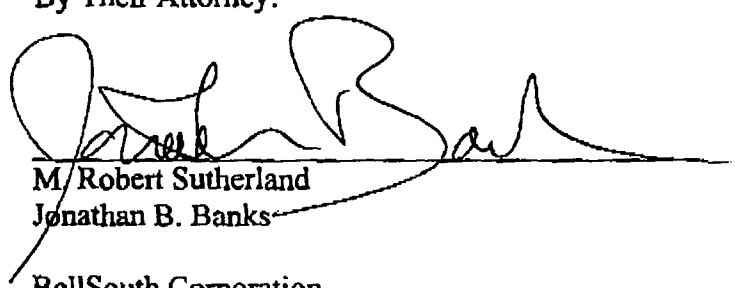
VIII. CONCLUSION

Through careful, fact-based application of section 251(d)(2)'s rational, limiting standards the Commission can craft a pro-consumer approach to unbundling that will be consistent with Congress's pro-competitive, deregulatory intent for the Act. By carefully limiting unbundling, the Commission can ensure that competition will flourish instead of regulation and that CLEC and incumbent LEC incentives to invest will in providing telecommunications and advanced services will not be reduced by regulation.

Respectfully submitted,

BELLSOUTH CORPORATION
BELLSOUTH TELECOMMUNICATIONS, INC.

By Their Attorney:



M. Robert Sutherland
Jonathan B. Banks

BellSouth Corporation
Suite 1800
1155 Peachtree Street, N.E.
Atlanta, GA 30309-3610
(404) 249-2207

Date: May 26, 1999

Collocation Costs per Wire Center

Collocation Space:

Non-recurring Charges:

$ 3,850.00	Application Fee	
$ 60,000.00	Space Preparation Fee	
$ 9,000.00	Space Enclosure	200 sq. ft.
$ 800.00	Additional Engineering Fee	
$ 2,750.00	Cable Installation	1 Entrance Cable
$ 76,400.00	Total non-recurring	

Recurring Charges:

$ 1,500.00	Floor Space	200 sq. ft. in Zone A
$ 250.00	Power	50 A
$ 13.35	Cable Support Structure	
$ 1,763.35	Total recurring	

	DS0	DS1	DS3	Total
Typical Collocation Space (low):	1200	30	3	
Equivalent DS0:	1200	720	2016	3936
Equivalent DS1:	50	30	84	164
Typical Collocation Space (high):	1200	84	5	
Equivalent DS0:	1200	2016	3360	6576
Equivalent DS1:	50	84	140	274

Recurring:

$ 0.45	Collocation Space / DS0 (low)
$ 0.27	Collocation Space / DS0 (high)

Non-Recurring converted to recurring:

$ 0.16	Collocation Space / DS0 (low)	@10 yrs over 12 mths
$ 0.10	Collocation Space / DS0 (high)	@10 yrs over 12 mths

Collocation Equipment:

			Qty	
$ 4,500.00	Lucent R2-84-R	DSX-1 Panel	3	1500
$ 13,000.00	NEC RC-28D	M13 Multiplexer	5	2600
$ 6,200.00	ADC 4H-24	DSX-3 Panels	1	6200
$ 2,500.00	DPS KDA864	Remote Alarm Unit	1	2500
$ 300.00	Lucent LSC2U-24	LG-X Panel	1	300
$ 1,200.00	Lucent DDM2000	OC-12 ADM	1	1200
$ 5,000.00	Lucent Lineage	BDFB	1	5000
$ 96,000.00	Nortel ntzh11dc	Access Node DLC	4	24000
$ 128,700.00				

Non-Recurring converted to recurring:

$ 0.27	Collocation Eqpt / DS0 (low)	@10 yrs over 12 mths
$ 0.16	Collocation Eqpt / DS0 (high)	@10 yrs over 12 mths

Collocation Costs per Wire Center

Collocation Cross Connects:

Recurring Charges:

$	0.50	4-wire (1st cross connect) @ $.50	1
$	8.00	DS1 (1st cross connect) @ $8.00	1
$	72.00	DS3 (1st cross connect) @ $72.00	1

Non-recurring Charges:

$	19.20	4-wire (1st cross connect) @ $19.20	1
$	155.00	DS1 (1st cross connect) @ $155.00	1
$	155.00	DS3 (1st cross connect) @ $155.00	1

Non-Recurring converted to recurring:

$	0.16	4-wire/X-conn ($19.20/10 yrs/12 mths)
$	1.29	DS1/X-conn ($155.00/10 yrs/12 mths)
$	1.29	DS3/X-conn ($155.00/10 yrs/12 mths)

POT Bay Charges:

Recurring Charges:

$	1.20	4-wire @ $1.20	1
$	1.20	DS1 @ $1.20	1
$	8.00	DS3 @ $8.00	1

[redacted]

	Recurring	NRC
Collocation Space:		
Application Fee		$3,850
Space preparation fee		$60,000
Space enclosure		$9,000
Add'l Engr. Fee		$800
Cable Installation		$2,750
Floor space	$1,500	
Power	$250	
Cable Structure	$ 13.35	
TOTAL	$1,763	$76,400
Per DS1 Total	$10.75	$465.85
Collocation Equipment:		$128,700
Per DS1		$784.76
Collocation cross connects:	$8.00	$155.00
add'l		
POT Bay charges:	$1.20	
Per Line	**$19.95**	**$1,406**
NRC spread over 5 yrs. @ 11.25%	**$30.74**	
TOTAL PER Line	**$50.69**	

[redacted]

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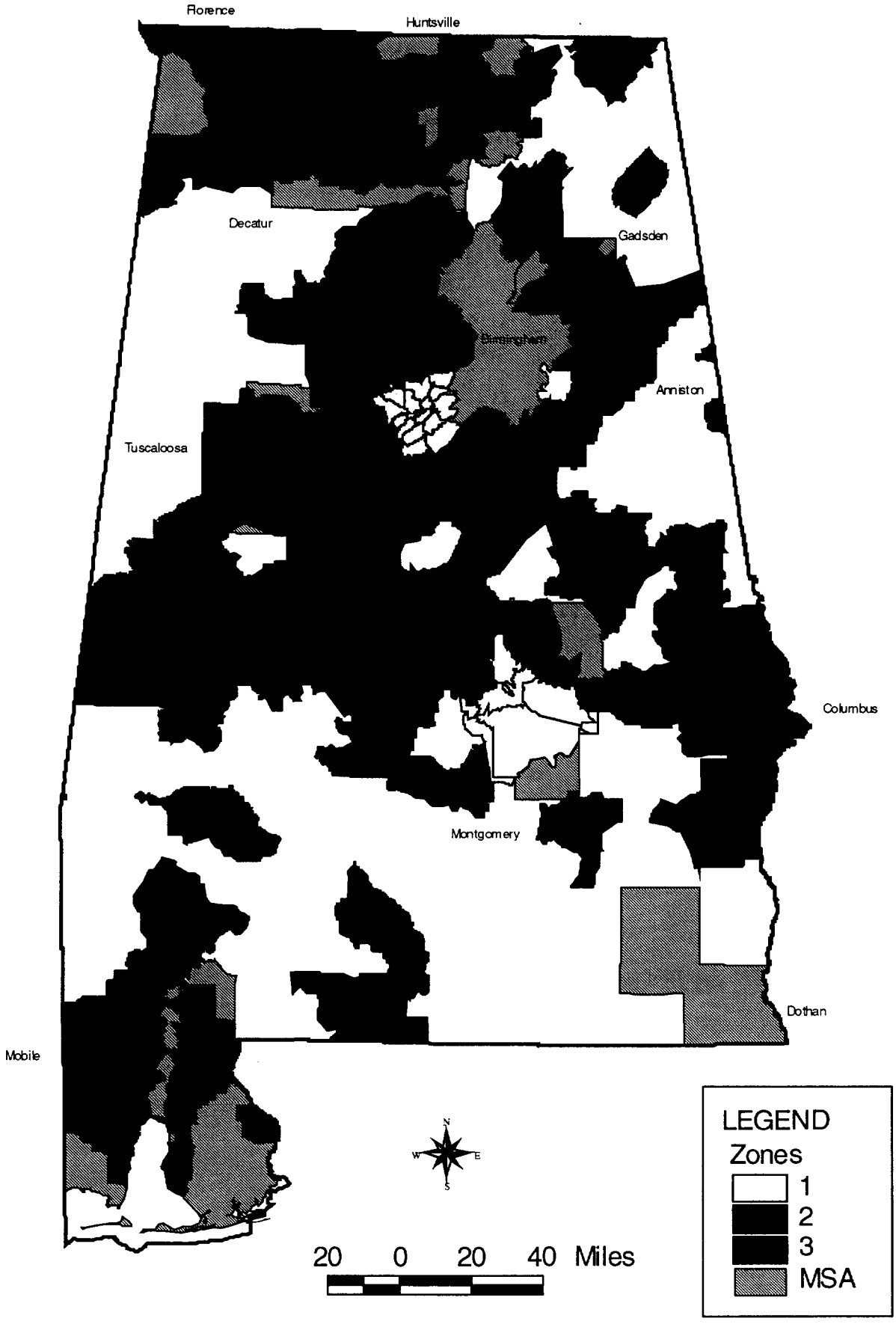
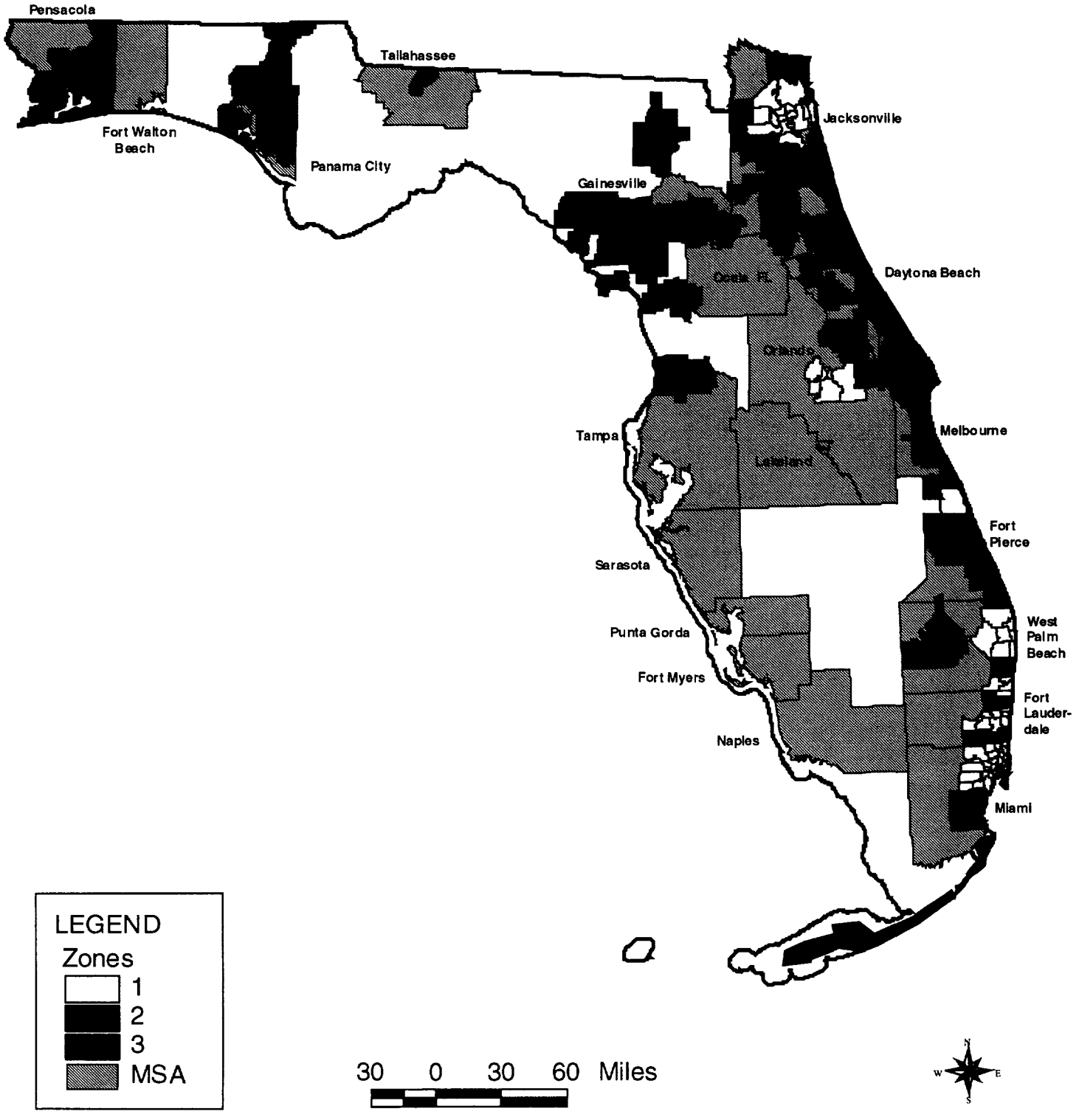
ALABAMA

Zone Distribution in Relation to MSAs



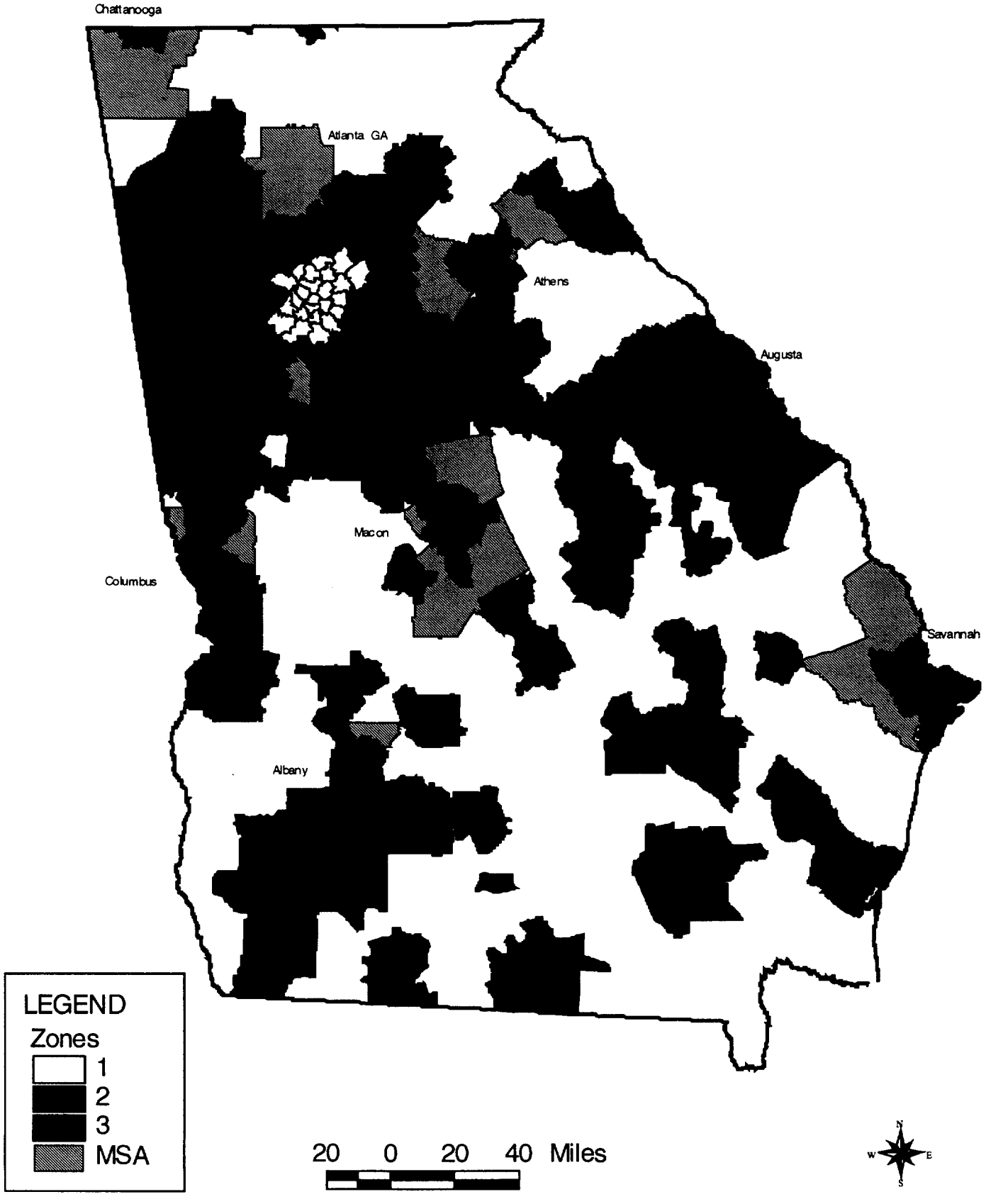
FLORIDA

Zone Distribution in Relation to MSAs



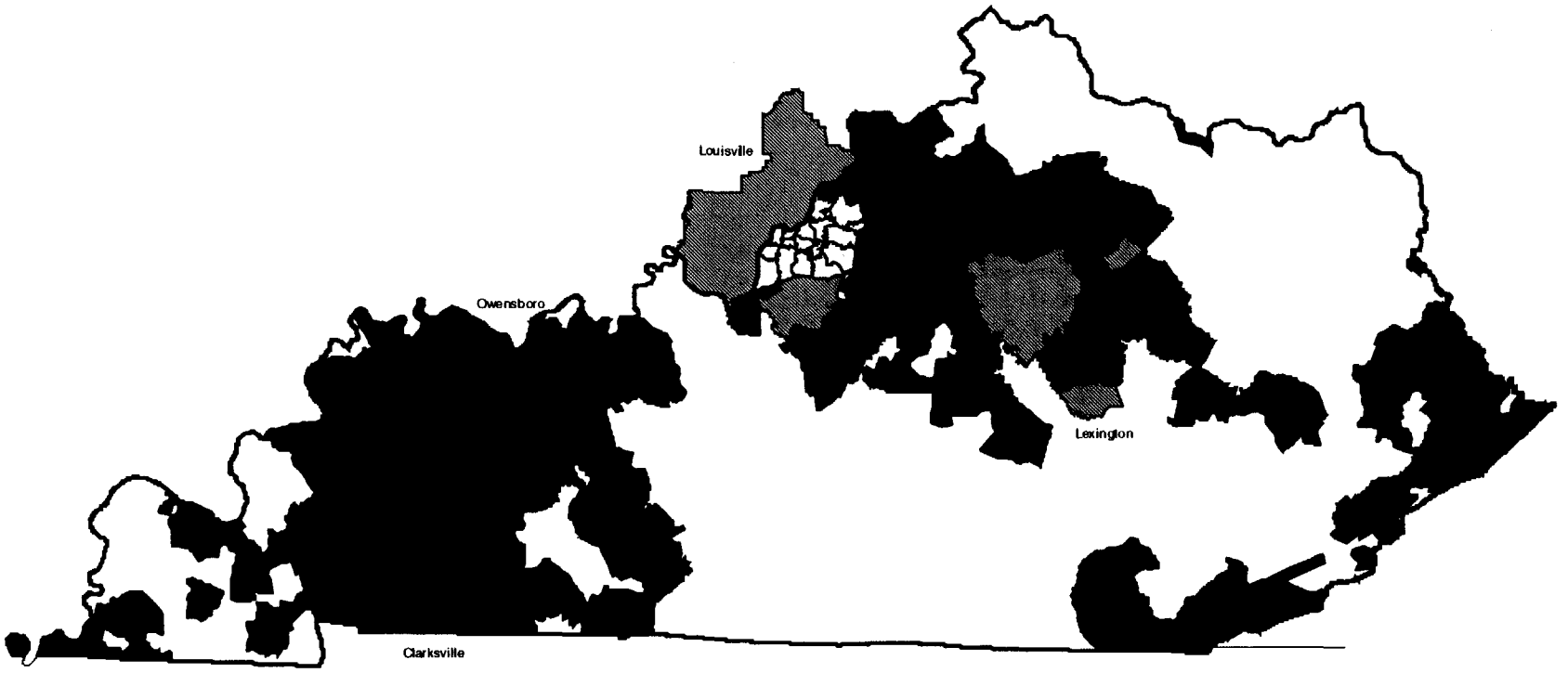
GEORGIA

Zone Distribution in Relation to MSAs



KENTUCKY

Zone Distribution in Relation to MSAs



LEGEND

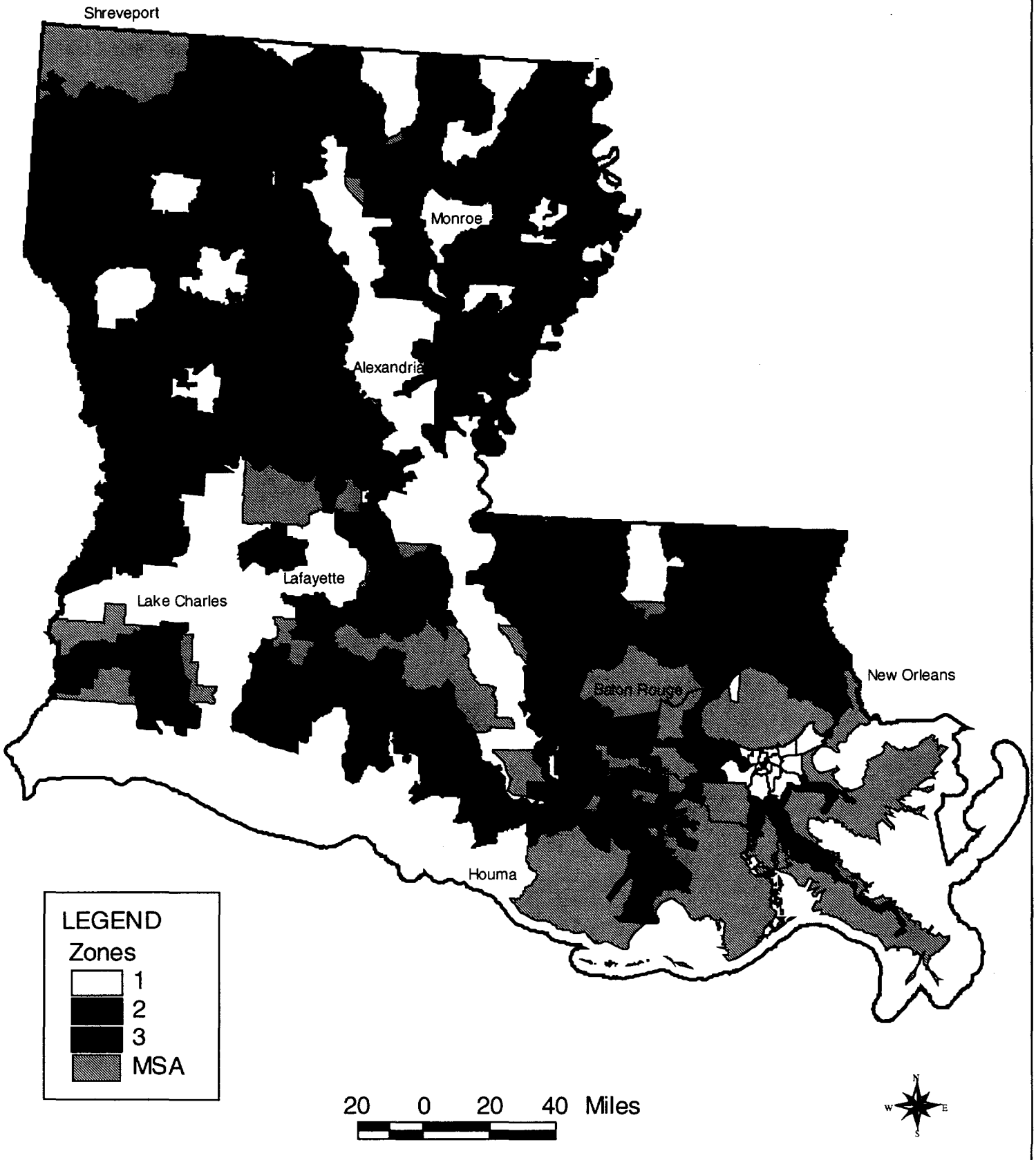
Zones
- 1
- 2
- 3
- MSA

60 0 60 120 Miles

N
W E
S

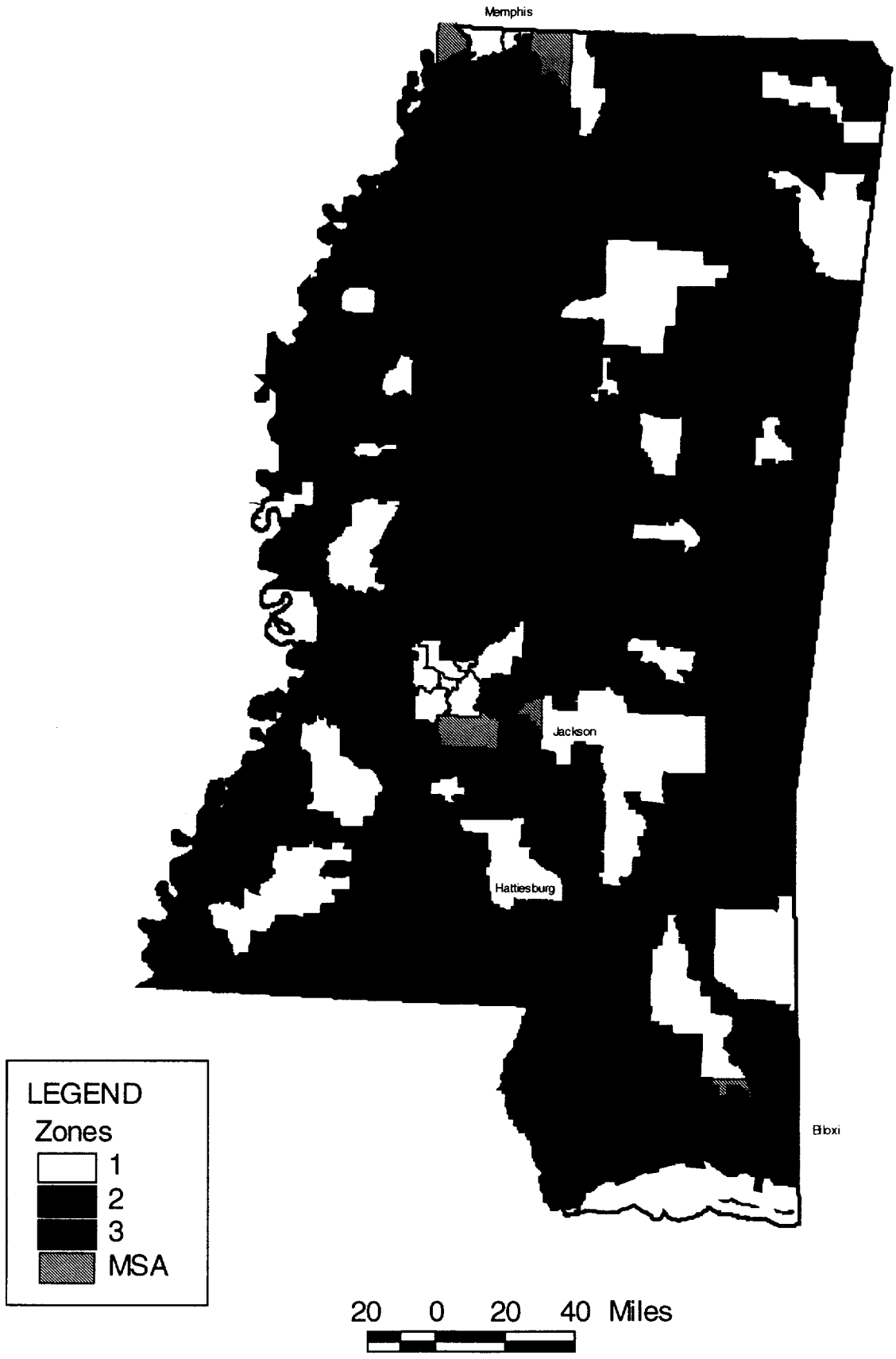
LOUISIANA

Zone Distribution in Relation to MSAs



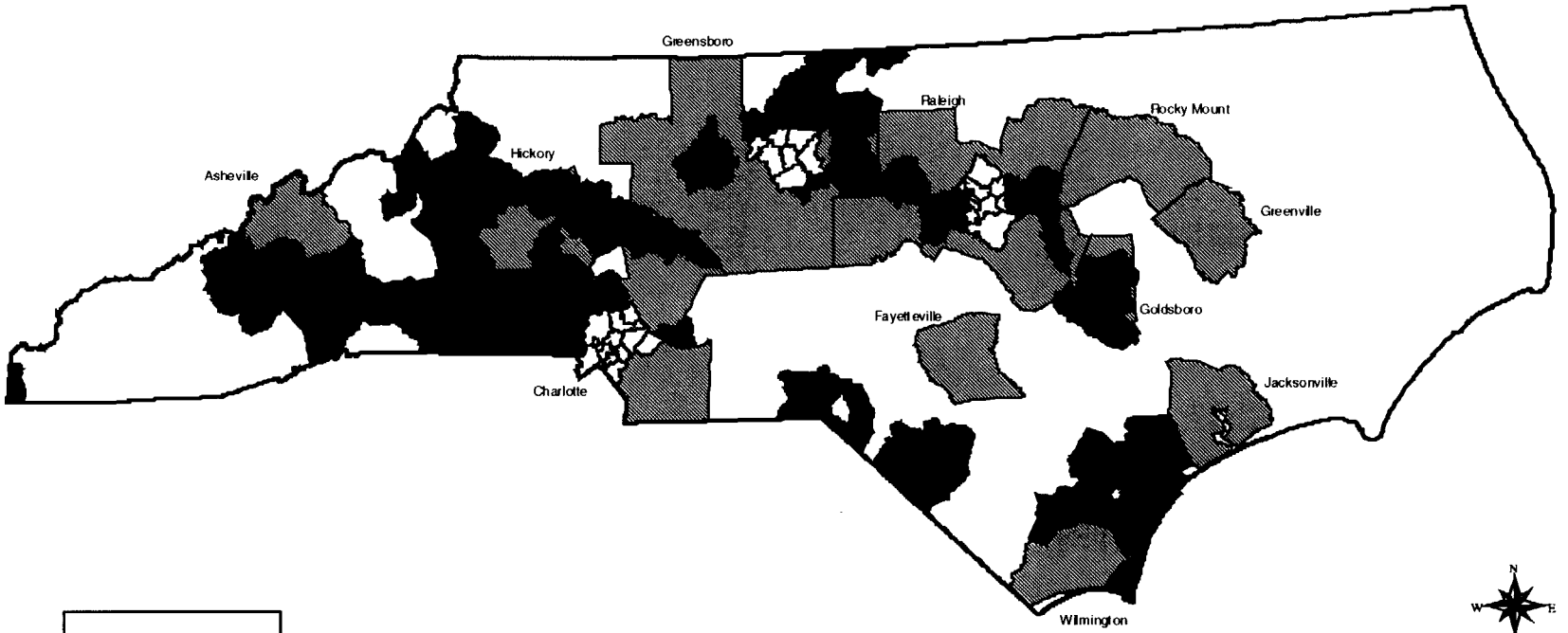
MISSISSIPPI

Zone Distribution in Relation to MSAs



NORTH CAROLINA

Zone Distribution in Relation to MSAs



LEGEND

Zones

1

2

3

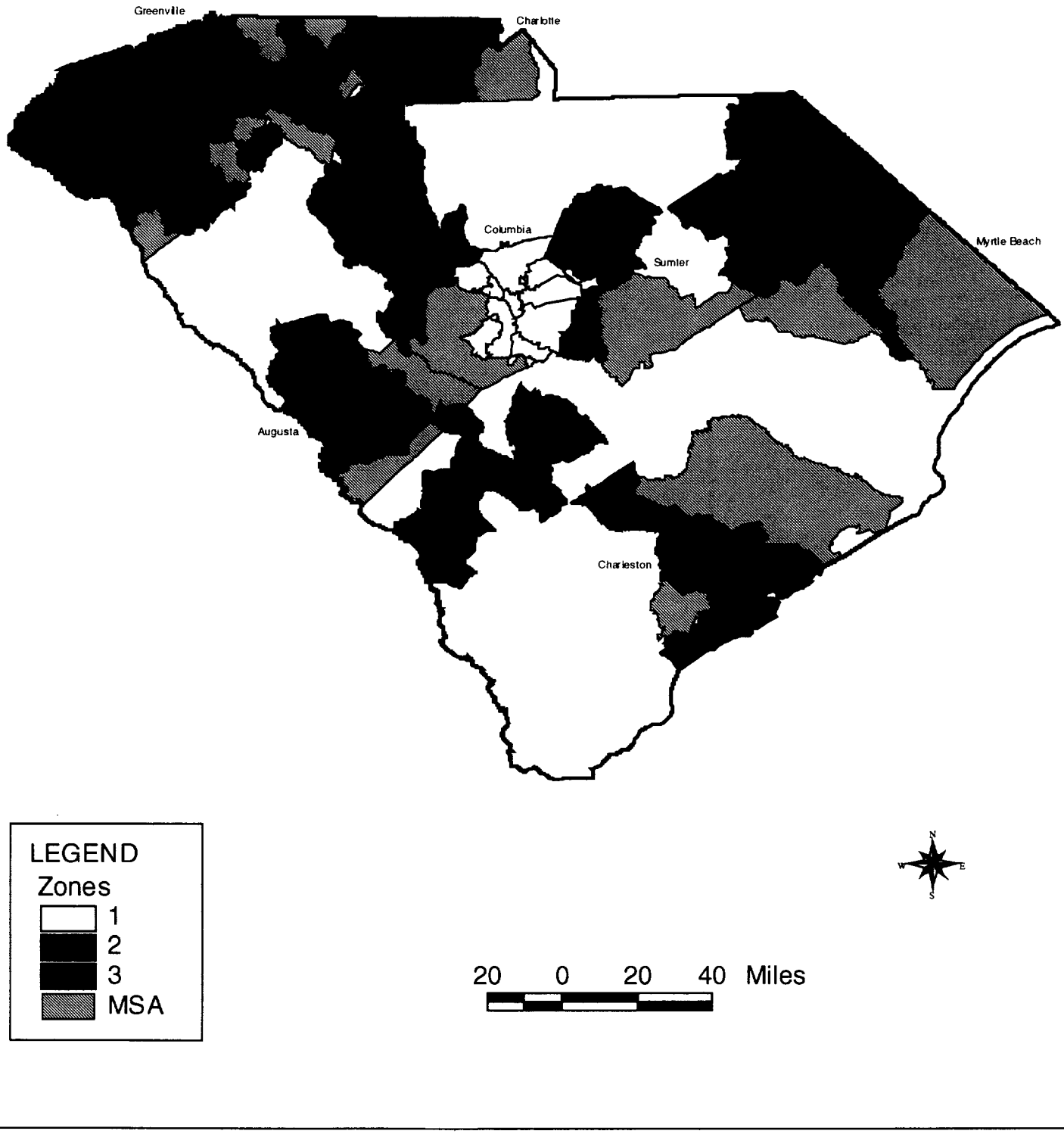
MSA

70 0 70 140 Miles

ATTACHMENT B
Page 7 of 9

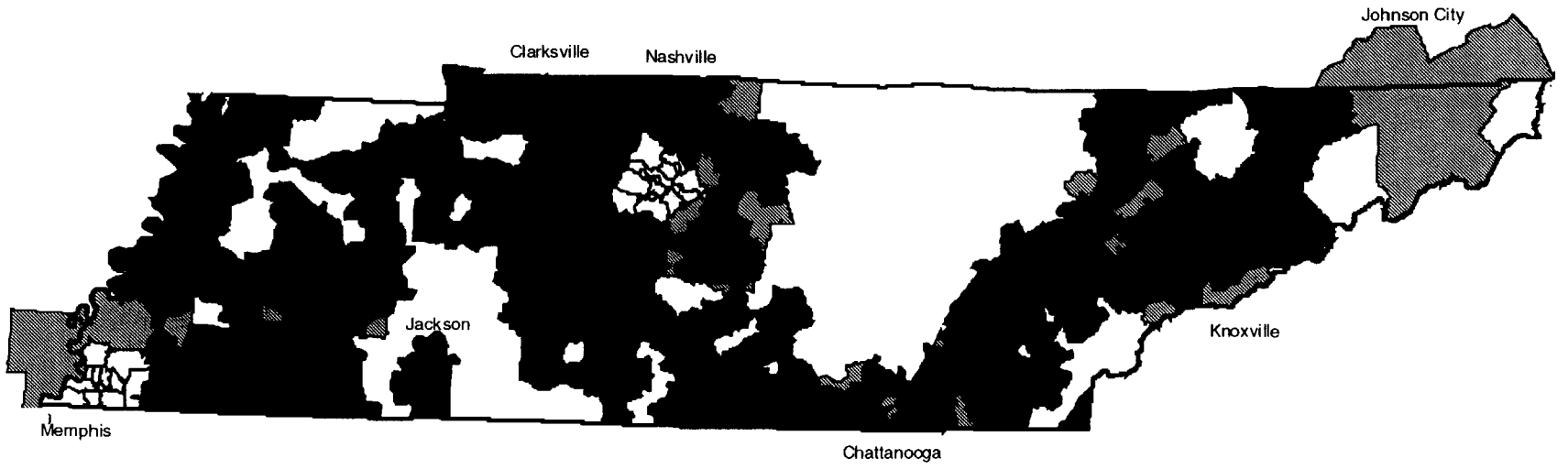
SOUTH CAROLINA

Zone Distribution in Relation to MSAs



TENNESSEE

Zone Distribution in Relation to MSAs



LEGEND

Zones

1

2

3

MSA

60 0 60 120 Miles

ATTACHMENT B
Page 9 of 9

Cable Telephony Available by EOY 1999
Alabama

CITY
Athens
Birmingham
Birmingport
Cordova
Dora
Ensley
Forestdale
Fort Deposit
Gardendale
Graysville
Gurley
Homewood
Hoover
Hueytown
Huntsville
Irondale
Madison
McCalla
Meridianville
Mobile
Montgomery
Pinson
Prattville
Prichard
Saraland
Semmes
Tarrant
Theodore
Theodore
Tuscaloosa
Vestavia Hills
West Blocton

Cable Telephony Available by EOY 1999
Florida

POST OFFICE NAME

Atlantic Beach
Gainesville
Green Cove Springs
Jacksonville
Jacksonville Beach
Middleburg
Neptune Beach
Orange Park
Panama City
Panama City Beach
Saint Augustine

Cable Telephony Available by EOY 1999
Georgia

POST OFFICE NAME

Acworth
Atlanta
Avondale Estates
Clarkston
Decatur
Duluth
Kennesaw
Lithonia
Marietta
Norcross
Smyrna
Stone Mountain
Tucker

Cable Telephony Available by EOY 1999
Louisiana

CITY

Avondale
Bastrop
Benton
Blanchard
Calhoun
Chalmette
Columbia
Coushatta
Delacroix
Downsville
Doyline
Dubach
Farmersville
Greenwood
Gretna
Haughton
Kenner
Lafitte
Lake Catherine
Laplace
Logansport
Luling
Mansfield
Metarie
Minden
Monroe
New Orleans
Oil City
Pointe a la Hache
Poydras
Ruston
Shreveport
Sterlington
Yscloskey

Cable Telephony Available by EOY 1999
South Carolina

CITY
Charleston
Charleston Heights
James Island
John's Island
North Charleston
Summerville

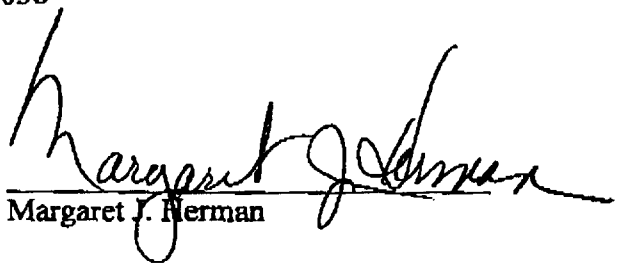
CERTIFICATE OF SERVICE

I hereby certify that I have this 26th day of May, 1999, caused a copy of the foregoing **COMMENTS** to be served by hand-delivery to all parties to this action addressed to the following:

Magalie Roman Salas
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Janice M. Myles
Common Carrier Bureau
Federal Communications Commission
445 12th Street, S.W.
Room 5-C327
Washington, D.C. 20554

ITS
1231 20th Street, N.W.
Washington, D.C. 20036



Margaret J. Herman