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**PACIFIC**  **TELESIS**  
Group - Washington

**ORIGINAL  
FILE**

January 8, 1993

Donna R. Searcy  
Secretary  
Federal Communications Commission  
Mail Stop 1170  
1919 M Street, N.W., Room 222  
Washington, D.C. 20554

Dear Ms Searcy:

Re: *CC Docket No. ~~90-314~~*

On behalf of Pacific Telesis Group, please find enclosed an original and six copies of its "Reply Comments" in the above proceeding.

Please stamp and return the provided copy to confirm your receipt. Please contact me should you have any questions or require additional information concerning this matter.

Sincerely,



Enclosures

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List A B C D E



Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

_____ )	GEN Docket No. 90-314
In the Matter of )	ET Docket No. 92-100
)	)
)	RM-7140, RM-7175, RM-7617,
)	RM-7618, RM-7760, RM-7782,
Amendment of the Commission's )	RM-7860, RM-7977, RM-7978,
Rules to Establish New Personal )	RM-7979, RM-7980
Communications Services )	)
)	)
)	PP-35 through PP-40, PP-79
)	through PP-85
_____ )	)

REPLY COMMENTS OF PACIFIC TELESIS GROUP

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## SUMMARY

Pacific Telesis Group demonstrates in these Reply Comments that Local Exchange Companies can make valuable contributions in Personal Communications Services and should be eligible for PCS licenses. Those who argue against LEC eligibility fail to recognize LEC strengths, such as the economies of scope pointed out in the Office of Plans and Policy Paper, "Putting It All Together: The Cost Structure of Personal Communications Services". Any fears about letting LECs compete on an equal basis are groundless; many safeguards exist against discrimination or cross-subsidization by LECs.

We recommend that three PCS licenses be awarded in each Basic Trading Area. More licenses are not needed to ensure competition, and more than three licenses would not be economically viable. The national license schemes proposed by a few parties are contrary to Commission precedent, would produce no benefits, and involve inherent problems. For example, national licenses would limit diversity and innovation, and would increase the risk that the nation would be locked in to the wrong technology for PCS. The suggestions for involving other parties--in "consortia" or "tiers"--would

add regulatory burdens and would produce little benefit, since the national license operator would be the dominant overlord.

Telesis supports a spectrum award of 25 MHz for each licensee; the 10 MHz suggestion for LECs would be inadequate. The proposed award of only 20 MHz of spectrum for nonlicensed users is insufficient and should be increased substantially.

Finally, the Commission should encourage the industry to adopt a Common Air Interface to promote interoperability and roaming. An incentive can be provided by requiring the CAI before PCS systems can operate. Industry groups should also consider the needs of E911 service.

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REPLY COMMENTS OF PACIFIC TELESIS GROUP

I. INTRODUCTION

The excitement about Personal Communications Services continues to grow; over 160 parties filed comments in response to the NPRM. Pacific Telesis Group ("Telesis") has studied these comments and applauds their overall tone. Most, like Telesis, reject the national license scheme and the notion that 10 MHz of spectrum is sufficient to provide a viable PCS service.

Telesis's Reply Comments are written from its perspective as the parent of a leading PCS research and development company, Telesis Technologies Laboratory, and several potential PCS providers. Pacific Bell and Nevada Bell offer a compelling PCS vision--a mass market, low-power, low-cost service, taking advantage of existing infrastructures. PacTel Cellular is a major cellular player today, and its wireless experience will be invaluable in the PCS arena. Another subsidiary, PacTel Paging, is filing separate comments

on 900 MHz issues.

These Reply Comments will deal with the key issues raised by the NPRM and the other commenters:

- Local Exchange Companies can make valuable contributions to PCS and should be allowed to participate.
- Three PCS licenses will provide sufficient competition and will be economically viable.
- Local licenses should be awarded (such as those based on Basic Trading Areas). National licenses would provide no benefits and present several problems, such as locking in the wrong technology and limiting diversity and innovation.
- Each licensee should obtain 25 MHz of spectrum. More than 20 MHz are needed for nonlicensed services.
- The Commission should encourage the development of a Common Air Interface by the PCS industry. This can be done by requiring that this and other standards be developed before any PCS system can be operated.

## II. LECS SHOULD BE ELIGIBLE FOR PCS

Many commenters in addition to Telesis supported LEC eligibility to provide PCS. LECs can use their existing infrastructures and expertise to deploy PCS systems rapidly and with substantial cost savings. LECs should not be deprived of the opportunity to use modern technology and compete on an equal basis. These reasons for eligibility are valid and

compelling. The arguments of those who oppose LEC eligibility are invalid and should be rejected.

A. STRONG PUBLIC POLICY ARGUMENTS SUPPORT LEC ELIGIBILITY

1. The Office Of Plans And Policy Working Paper Gave Valid Reasons For LEC Eligibility

The Commission's Office of Plans and Policy issued a working paper by David P. Reed in November 1992, "Putting It All Together: The Cost Structure of Personal Communications Services" ("OPP Paper"). The OPP Paper is a thoughtful analysis of PCS provisioning, including use of economic models and discussions of economies of scale and scope.<sup>1</sup> While we disagree with a few of Mr. Reed's assumptions (as we discuss infra, Section III.A.2.), we believe the OPP Paper as a whole makes a major contribution to this docket. In particular, the OPP Paper gives several compelling arguments in support of LEC eligibility.

First, the OPP Paper concluded there are synergies between PCS and existing network services because of economies of scope--the services can be provided over one network instead of using separate networks (p. vi). These economies are shown on Figure 11 (p. 31). The OPP Paper compared the savings that could be obtained by using existing infrastructures of telephone, cable television, and cellular networks, and showed that the greatest savings would be provided by using telephone

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<sup>1</sup>Economies of scale refer to production or other advantages which lead to a decline in long-run average costs. Economies of scope, in contrast, are achieved by joint production, as opposed to producing each output separately.

networks. See Table 8 (p. 43). Indeed, Mr. Reed notes that additional economies of scope are likely to exist from the AIN, but he does not include them in his model (see Table 9, p. 45).

The cost savings noted by Mr. Reed will lead to lower rates for consumers in a competitive market. This analysis is entirely consistent with the Telesis mass-market vision of PCS (see our Comments at 9). Thus, the economies of scope for LEC provision of PCS will be even larger than he estimates. While these savings would be available to any PCS licensee using the PSTN, a LEC licensee is more likely to take advantage of them. In our view, this is the most compelling reason for LEC eligibility.

Second, the OPP Paper observed that the telephone network offers "the key strategic advantages of ubiquitous network presence for transport and switching facilities in addition to an advanced signalling network and intelligence nodes" (p. 32). Mr. Reed recognized that whether or not this infrastructure is fully utilized and developed to support PCS depends to a good extent on LEC eligibility. He concluded that "telephone companies would seem to be more likely to develop their infrastructure to efficiently support PCS if they are one of the PCS providers using the network" (p. 60). Again, this finding matches our view; see our Comments at 12.

The OPP Paper found that consumers "could benefit from allowing local telephone companies to hold PCS licenses if a large number of PCS licenses are issued" (p. ix). So long as there are adequate safeguards, "telephone companies should be

allowed to fully participate in PCS ...." (Ibid.)

2. Numerous Other Commenters Also Supported LEC Eligibility

Many commenters agreed that LECs should be permitted to obtain PCS licenses. The broad support for LEC eligibility was spread across a wide range of stakeholders, including LECs, manufacturers, an interexchange carrier, and state public utility commissions. The reasons given for LEC participation echo those stated in the Telesis Comments, including assistance in achieving the Commission's goals, desirability of using existing infrastructure, and fairness to the LECs.

Support from LECs included, among others, USTA (p. 8), GTE Corporation (p. 42), Roseville Telephone Company (p. 2), Lincoln Telephone (p. 3), and the Bell Operating Companies. Several manufacturers endorsed LEC eligibility (Rolm, p. 24; Interdigital Comm. Corp. ("Interdigital"), p. 16; Hughes Network Systems, p. 8; Northern Telecom ("NTI"), p. 28). Sprint said that LEC participation should only be prohibited if the LEC held an impermissible market interest (over 30%) in a cellular provider in the same area (pp. 10-13). The Illinois Commerce Commission (pp. 9-10), the Pennsylvania Public Utility Commission (pp. 8-9), and the New York Department of Public Service (p. 2) supported LEC provision of PCS services.

Telephone & Data Systems, Inc. ("TDS") explained that LEC participation is essential to meet the Commission's goals. TDS asserted that LEC participation will (1) lead to early deployment of PCS, (2) lower PCS costs, and (3) reduce PCS

risks (TDS, pp. 14-15). Interdigital expressed similar views, stating that LEC exclusion would "drastically curtail the full development of PCS" (Interdigital at 16). Roseville explained how LEC participation would advance the FCC's goal for a fast rollout of PCS. Roseville said LECs' resources, combined with existing networks, make it "clear that LECs will be able to provide the benefits of PCS to consumers much more quickly" than others (Roseville, p. 3).

Many parties mentioned the significant advantages of using the nation's existing telephone infrastructure. TDS said that

"by using existing landline links to switching offices, centralized provisioning and billing services and marketing, [sic] advanced intelligent network capabilities, LECs will be able to implement PCS capabilities quickly and without expensive duplication of established infrastructure" (TDS at 15).

This conclusion was supported by Prof. Wildman of Northwestern University: "LECs offer the strong likelihood of significant economies of scope ... [and] LEC participation may therefore make a valuable contribution to economic efficiency by reducing PCS costs ..." (Wildman Statement, p. 43). See also Roseville, p. 3 (LEC eligibility will promote the efficient use of the embedded wireline network).

Ironically, one of the most persuasive arguments in favor of LEC participation is contained in the comments of an opponent of LEC eligibility, CELSAT. CELSAT stated that LECs should be excluded because they "might have significant cost advantages" in providing PCS (CELSAT at 18). But, as the OPP

Paper also noted, these cost advantages are an important reason to permit LEC participation--they will lead to lower prices for consumers. And CELSAT misses the fact that the cost advantages will be available to other PCS providers who use the PSTN. See the Affidavit of Jerry Hausman attached to the Telesis Comments, at 11.

Rolm indicated that the LECs' extensive infrastructure is a compelling reason for LEC participation, and added that the LECs have established a standard of excellence, admired worldwide, for service performance (Rolm, p. 24). Bell Atlantic observed that excluding the LECs would be a "waste of national resources" (Bell Atlantic, p. 13). See also Lincoln, p. 6 (LECs are uniquely qualified).

The need to permit LECs to use new technologies was a further reason offered for LEC participation. GTE succinctly stated: "LECs need to have all technologies--including those that use spectrum--available to offer services desired by customers in the most cost-effective method" (GTE, p. 46). ALLTEL stressed the same point: "telephone companies should be permitted to provide communications services through whatever technologies are the most cost efficient and cost effective" (ALLTEL, pp. 8-9). Similarly, NTI noted that "the technology used to deliver PCS" can be "a cost effective alternative to copper and fiber technologies, in many cases, for local distribution" (NTI, p. 30). Prof. Wildman recognized that PCS is "another avenue for technological and service innovation" (TDS, Wildman at 42-43). In short, the Commission's charter

under the Communications Act to promote "a rapid, efficient, nationwide, and worldwide wire and radio communication service with adequate facilities at reasonable charges" is advanced by LEC participation in PCS.

Several advocates of LEC participation supported their positions with expert testimony. Prof. Steven S. Wildman of Northwestern University concluded that "the public's interest in PCS will be best served if LECs are allowed to be full and equal participants" (TDS, Wildman, p. 4). Jerry A. Hausman, MacDonald Professor of Economics at MIT, explained economic support for LEC eligibility as part of the Telesis Comments. Bell Atlantic submitted the affidavit of noted regulatory economist Alfred E. Kahn, author of The Economics of Regulation and former New York PSC Chairman. Prof. Kahn recommended that "no incumbent service provider be excluded" (Bell Atlantic, Kahn, p. 8).

Clear and persuasive reasons were given by the many parties who advocated LEC participation. These parties demonstrated that the Commission's goals for PCS can be best reached with LEC participation. Opponents, however, gave no new or persuasive reasons to exclude LECs.

B. The Arguments Of Those Opposing LEC Eligibility Are Invalid

The parties who oppose LEC participation roll out the same tattered arguments they always use in trying to exclude LECs from entering new businesses: discrimination and cross-subsidy. Their fears are contradicted by experience and can be

addressed by safeguards. Only the United States Department of Justice ("DOJ") offered any economic support for this position; we show below that DOJ's analysis is speculative and flawed. There is no need to deprive the public of the benefits which LECs can bring to the development of PCS.

1. LEC Participation Will Not Hinder Competition

Some opponents take the extreme view that any LEC participation will hinder PCS competition. For example, Cox Enterprises, Inc. ("Cox" at 17) and PCN America ("PCN" at 6) oppose all LEC involvement in PCS.<sup>2</sup> This position is contradicted by the many LEC and Public Utilities Commission comments that show LEC dedication to PCS development and the contributions LECs can make. See our discussion above, Section II.A., and our Comments at 10-11.

Furthermore, these opponents provide no support for their claims that LECs will be guilty of hindering PCS competition. Any concerns they may have about discrimination and cross-subsidy can readily be met using tested safeguards, as we discuss below, Section II.B.4.

The fact that, in the future, PCS will probably compete with wireline services (see Cal. Pub. Util. Comm'n Comments at 6) is a reason to permit LEC participation, if the Commission wants to maintain the long-term health and viability of the nation's LECs. LECs must be permitted to compete on an

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<sup>2</sup>Cox would only permit LEC participation in places where LECs cannot use their inherent advantages, i.e., outside of their franchise areas.

equal basis, using new technologies that their customers desire.

2. PCS Participation By LECs With Cellular Affiliates Will Not Hinder Competition

Other parties take a less extreme, but still erroneous, position. These parties, such as American Personal Communications ("APC"), DOJ, Comcast PCS Communications, Inc. ("Comcast"), and Corporate Technology Partners, assert that LECs with cellular affiliates should not be eligible for PCS licenses in their affiliate's cellular license areas.<sup>3</sup> These parties claim that dual ownership of cellular and PCS licenses will inhibit competition, but they are mistaken.

First, as we explained in our Comments, a LEC affiliate's cellular spectrum is not available for use by the LEC (see Telesis Comments at 15-17). The Commission's cellular rules required structural separation for the BOCs (47 C.F.R. 22.901), and therefore all BOC-affiliate cellular systems were designed and built without use of the BOC network, switches, and other infrastructures. If BOCs are eligible for PCS licenses, they will not be able to combine their PCS systems with any cellular system that they may be affiliated with.

Second, there are several problems with DOJ's analysis on this issue (see DOJ Comments at 23-30). DOJ assumes a

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<sup>3</sup>This argument, however, may have no application to Pacific Bell and Nevada Bell. On December 11, 1992, the Telesis Board of Directors authorized the separation of Telesis's wireless businesses from its other businesses. If the separation occurs, Pacific Bell and Nevada Bell will not have any cellular affiliates.

market of five competitors: two cellular and three PCS. It excludes FleetCall, an SMR, as a competitor, but FleetCall has stated that it will compete with cellular.<sup>4</sup> Thus, for cities like San Francisco and Los Angeles, where FleetCall will provide service, the competitive analysis should consider six providers, not five. See Hausman Affidavit at 15.

Moreover, DOJ's position is tentative and speculative, with neither examples of problems in other industries nor convincing economic reasoning. DOJ says a merger reducing the number of firms from five to four "could, under some circumstances, increase the potential for coordinated interaction" (emphasis supplied) (DOJ, p. 26). Ownership of multiple PCS and cellular licenses "may substantially increase concentration" and that such acquisitions "could retard the emergence of [a] diversified and competitive market" (emphasis supplied) (DOJ, p. 28). The analyses of Professors Hausman and Wildman in contrast, contain economic reasoning and examples of competition under similar conditions; they are much more definitive and persuasive.

DOJ acknowledges that, even if its analysis "suggests an acquisition might be anticompetitive, the Department would still permit that acquisition if it was reasonably necessary to achieve significant net efficiencies" (DOJ, p. 27). But DOJ then concludes that the Commission's award of a certain amount

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<sup>4</sup>FleetCall SEC Registration Statement Form S-1 filed Oct. 17, 1991, at 7: "The Company will compete with established cellular operators in its effort to attract mobile telephone customers, dealers, and resellers ...."

of spectrum to each licensee will imply that there will be no efficiencies to be gained from additional spectrum (DOJ, pp. 27-28). This cursory discussion of potential efficiencies misses the mark. DOJ considers the possible efficiencies of combining two amounts of spectrum (cellular and PCS), but ignores the substantial efficiencies which can be obtained between PCS and wireline providers.

As previously discussed, numerous comments and the OPP Paper rebut the DOJ's analysis and show that significant economies can be achieved by LEC provision of PCS. For example, Prof. Wildman concludes that "LECs offer the strong likelihood of significant economies of scope" and that those cost savings should be treated as efficiencies under the DOJ's Merger Guidelines (TDS, Wildman, p. 42).

Similarly, Prof. Hausman analyzes the application of the Merger Guidelines to this situation. He notes that the Guidelines identify two ways in which competition may decrease. The first is the result of unilateral action by a single firm which causes prices to rise. Such unilateral action "cannot plausibly happen with PCS" because, with six competitors (two cellular, one ESMR, three PCS), the four providers other than the LEC and its cellular affiliate (one cellular, one ESMR, and two PCS) will not face capacity restrictions, and therefore customers will be able to find economical alternative sources of supply (Hausman Affidavit at 15). The second is the result of coordinated interaction leading to higher prices. Hausman states that, in a market with two cellular providers, an ESMR

provider, and at least two other PCS providers in addition to the LEC, "coordinated interaction seems very unlikely" (Ibid.). Thus, the Merger Guidelines should not preclude a LEC from being a PCS licensee in an area served by a cellular affiliate.

Finally, critics of LEC participation fail to recognize that a LEC licensee, without the structural separation requirements that were mandated with cellular licenses, will be more likely to provide a service for mass-market customers than has been the experience with cellular. For example, Pacific Bell's PCS concept, set out in its request for a Pioneer's Preference, is a low-power, low-cost, broadly available service which would not be capable of providing uninterrupted vehicular service. Thus, Pacific Bell's PCS offering will be a differentiated competitive service. Bell Atlantic (p. 9), Comcast (p. 8), Lincoln (p. 4) and US West (p. 24) all demonstrate that PCS will be different from cellular.

3. Pacific Telesis Group, Pacific Bell, And PacTel Corporation Are Actively Promoting PCS

Some commenters state that LECs should be excluded because they are not committed to PCS. Personal Communications Network Services of New York, Inc. ("PCNS-NY") claims LECs won't have the incentive to develop PCS (p. 20). Corporate Technology Partners ("CTP") says LECs will waste spectrum (p. 22). MCI asserts that LECs will not promote PCS (p. 27). Our actions, however, rebut these spurious claims.

First, our Telesis subsidiary, Telesis Technologies Laboratory ("TTL"), has done significant research work on PCS

under five Experimental Licenses, and has filed seven detailed Progress Reports with the Commission. TTL has made significant PCS contributions in the areas of radio propagation, spectrum sharing, economic modeling, in-building PCS, consumer PCS, and CDMA, and its research efforts continue. A major field trial with paying customers is scheduled for 1993 in San Diego. Pacific Bell and PacTel have both filed requests for a Pioneer's Preference, based in part on TTL's work, which detailed their distinctive PCS visions; in contrast, MCI and CTP did not request preferences and we are unaware of any contributions by these firms that have advanced PCS knowledge. TTL has spent over \$20 million to date in furtherance of PCS through field research and experimentation; there is no doubt about our commitment to PCS. We're pleased to stand by our deeds and not just our words.

4. Critics' Concerns About LEC Discrimination And Cross-Subsidy Are Invalid

LEC opponents dredge up the fears of discrimination and cross-subsidy as reasons to exclude the LECs. These worn arguments are trotted out at every opportunity to preclude LECs from entering new businesses or using new technologies. Cox (p. 18), Comcast (p. 15), MCI (pp. 26-27), PCNS-NY (pp. 21-23), and Viacom International, Inc. ("Viacom," p. 19) each raise these issues. Experience shows that these concerns can be addressed; the Draconian remedy of exclusion is not necessary.

First, those same arguments were made against wireline affiliate participation in cellular systems. The Commission rejected them; "an across-the-board prohibition on the entry of wirelines into the cellular market is not warranted."<sup>5</sup>

Cellular's experience has confirmed the Commission's judgment. Non-wireline cellular providers have flourished. The largest cellular provider--McCaw--is a non-wireline company.

Second, since the Commission's cellular orders, the Commission has developed a comprehensive set of non-structural safeguards, In the Matter of Computer III Remand Proceeding, CC Docket No. 90-623, Report and Order, 6 FCC Rcd 7571 (1991). Those safeguards are specifically targeted to prevent discrimination and cross-subsidization in enhanced services. They were carefully and methodically developed, after nearly seven and one-half years of exhaustive deliberation, and all interested parties had ample opportunity to participate. They can be readily modified, if necessary, to apply to LEC provision of PCS.

Experience has shown those safeguards work. PCNS-NY claims they have not, but it fails to support its argument with anything more than a reference to two articles on ONA (p. 22). Other similar claims are equally lacking in support. As we show below, the Commission's carefully-crafted safeguards have been effective.

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<sup>5</sup>Cellular Communications Systems, Report and Order, 86 F.C.C. 2d 469 at 486 (1981).

For example, Pacific Bell has been providing voice mail services under these safeguards since 1989. The service has been tremendously successful and now boasts over 500,000 voice mail boxes. No third party has filed a formal complaint at the Commission about discrimination or cross-subsidies by Pacific Bell. Two informal complaints were filed by parties who did not understand the Commission's Customer Proprietary Network Information ("CPNI") rules; those informal complaints have been resolved. A handful of complaints filed at the California Public Utilities Commission ("CPUC") have also been resolved. After an audit by the CPUC's staff, Pacific Bell agreed to a refund of moneys spent in the development of voice mail. Meanwhile, competition in the California voice mail market is robust, especially for business customers.

Many parties--MCI, ANA, and cable companies are just a few--oppose the BOCs' enhanced services like voice mail. These opponents, who have the human and financial resources to monitor BOC activities, supplement the oversight role of the Commission. They have grown in number and strength since the cellular orders in 1981 and divestiture in 1984. They do not hesitate to "call the police" at the slightest "fender bender" and demand a jury trial. Any discriminatory or predatory practices occurring on a harmful scale would be open and obvious to consumers, competitors, and regulators alike. The absence of any credible complaints by these parties is further evidence that the safeguards are working. Similarly, the LECs'

PCS competitors will be vigilant to prevent or put an end to any improper practices by LECs.

Additionally, and equally importantly, wireless interconnection to the wireline network has been firmly established. In 1981, at the time of the cellular orders, there was no standard for wireless interconnection. Cellular carriers and others now have extensive experience with interconnection. That experience provides standards and benchmarks against which future interconnection can be measured. These parties will be able to detect any degradation in the quality of the PCS interconnection services they receive. Again, the LECs will not be permitted to discriminate in providing access and interconnection for PCS.

Some opponents claim that non-structural safeguards, such as the Commission's Part 64 rules, are ineffective (PCNS-NY at 22). It is true that cost accounting standards cannot always be applied with absolute precision. However, the Commission's response to these difficulties has been to overcompensate the ratepayers. The Joint Cost rules allocate to the unregulated sphere (e.g., enhanced services) not only all the incremental costs of unregulated activities, but also a portion of regulated services costs as well. As unregulated services grow in proportion to regulated services, costs previously borne by regulated services are shifted to unregulated services, such as information services. In short, the Joint Cost Order indirectly forces the RBOCs to price certain of their unregulated services above true economic cost.

Under this cost allocation regime (like that of most state commissions), there is no serious danger that subsidies will flow the other way. Similar rules can be expected for PCS.

The key question is not whether regulation will prevent every form of misconduct that might be envisioned, but whether it will help to restrain any effort to discriminate or cross-subsidize. And the answer to that question is clear. In reviewing the Joint Cost Order, the D.C. Circuit observed that the Commission's accounting safeguards are "reasonably designed" to prevent cross-subsidization, Southwestern Bell Corp. v. FCC, 896 F.2d 1378, 1379 (D.C. Cir. 1990), and that benchmark comparisons allow the Commission to regulate the RBOCs with "greater ease." 900 F.2d at 299. Furthermore, the Commission and 23 states have now adopted some form of incentive regulation, such as price caps, for the LECs. In these jurisdictions, the LECs will have even less incentive to cross-subsidize by shifting costs onto the regulated sector; in fact, the LECs will have every incentive to reduce costs (thus increasing profits) in their regulated activities. And the Ninth Circuit concluded that, due to the Commission's ONA policies, "technologies for ensuring equal access have improved, and may be effective in preventing discrimination in ways not feasible in the past." California v. FCC, 905 F.2d 1217, 1233 (9th Cir. 1990).

Moreover, LEC opponents ignore the inherent prescriptive force of regulations. There need not be a policeman on every corner to ensure that the vast majority of

citizens obey the law.<sup>6</sup> As long as the rules are reasonably clear, and there is some element of supervision and potential sanction, a prudent business organization is not likely to flout the law. The decisions on PCS will be made by risk-averse business executives, reviewed by auditors, implemented by scores of employees who are free to report to the authorities if they suspect improprieties, scrutinized by state and federal regulators, and publicized by the press. At a minimum, such misconduct is not likely to occur either on a wide scale or with any frequency and, hence, is not likely to create risks to the market that outweigh potential competitive benefits. No one builds a career by creating serious legal problems for his company. In short, litigation costs, regulatory sanctions, adverse publicity, disfavor in the legislature, and potential civil and criminal penalties are sufficient to make business managers refrain from improper action.

The public policy arguments advanced by numerous parties favor LEC participation. Bell Atlantic puts those reasons succinctly; "no other group of companies in the United States is as well positioned in terms of infrastructure, financial means, and telecommunications expertise to provide successful, economical PCS" (Bell Atlantic, p. 13). If the LECs are precluded, as Northern Telecom says, we run the risk

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<sup>6</sup>Private litigation is, of course, a backstop to government enforcement efforts, and treble damages in antitrust litigation are well calculated to deter anticompetitive behavior.