are so savvy when dealing with the RBOCs, yet so easily misled when dealing with AT&T. Once again, the RBOCs and their witnesses fail to explain -- or even to acknowledge -- the fundamental inconsistency in the positions that they have taken here and elsewhere.

The reply affidavits of several RBOC witnesses take issue with our conclusion that there would be plentiful opportunities to discriminate through colorably legitimate business practices. Skrzypczak characterizes this entire class of discriminatory strategies as actions that "disadvantage interexchange competitors through non-cooperation in the adaptation of new technologies for use in interexchange services" (p. 5; see also the RBOCs' reply, p. 72). Similarly, Rivera, Firestone, and Halprin simply assume that "interexchange carriers are primarily concerned with lack of BOC cooperation in the development of network functions necessary to offer new *enhanced* services" (p. 12). As should be evident from the discussion in our first report and above, these characterization are excessively narrow. The practices that we have described are not confined to "non-cooperation" or to "new technologies."

Skrzypczak nevertheless goes on to label our conclusion "untrue as a general matter." He provides two justifications for rejecting our view. First, he states that "the developing technologies make any potential for discrimination... virtually non-existent" (p. 5). This view is contradicted by other experts in the relevant technologies (see e.g. the affidavit of Huels), and, as mentioned above, is inconsistent both with the views that RBOC witnesses in this proceeding (e.g. Hausman and Fisher) have expressed in other proceedings, as well as with the vision of telecommunications in the post-MFJ world described by still other RBOC witnesses in this proceeding (e.g. Alchian). Moreover, Skrzypczak is simply wrong in assuming that the course of technological development and implementation would be the same with and without the Decree, since the removal of the line of business restrictions would radically alter the economic incentives faced by the RBOCs.

Second, Skrzypczak takes exception to several examples of "non-cooperation" that were offered by AT&T and MCI (p. 5). He provides no response whatsoever to the examples of abuses discussed in our report, such as Centrex pricing (p. 76), or the development of one-number landline and cellular service (p. 78).[34] His discussion of ISDN is particularly telling. AT&T and Skrzypczak present very different interpretations of the events surrounding the implementation of ISDN. Perhaps AT&T's version of ISDN development is correct; perhaps Skrzypczak is correct; perhaps both accounts have elements of truth. The disagreement on this issue only serves to illustrate the point that it is very easy to put different spins on complex business decisions, and to characterize them in either favorable or unfavorable terms. It is also very difficult for third party observers (such as regulators) to arrive at the undistorted truth. This is precisely why regulation is ineffective at detecting and deterring discrimination through colorably legitimate business practices.

Another example of this same principle appears in the affidavit of Rivera, Firestone, and Halprin (RFH). In response to the argument that the Commission has "gutted" its ONA framework, RFH responded that "it simply recognized that fundamental unbundling was an evolutionary process to be implemented over time" (p. 21). RFH do not, however, describe the process by which the Commission reached this "recognition." To a large extent, the Commission must rely on statements of the RBOCs' experts as to whether something is technically feasible and/or cost-effective (just as the RBOCs would have DOJ and the Court rely on the testimony of Skrzypczak in this proceeding). The regulatory process is therefore highly imperfect. While the FCC can push, it cannot compel the RBOCs to do the impossible, and it cannot always recognize the difference between the possible and the impossible. ONA is yet another subject on which different parties have different opinions, and where the truth is very difficult for a third party -- even the FCC -- to assess. It therefore demonstrates the substantial latitude that the RBOCs inherently possess, even under a vigilant regulatory regime.

As explained in our first report (p. 80), the notion of colorably legitimate business practices entirely resolves what many RBOC witnesses regard as an inconsistency: the fact that successful

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[34]For other examples of documented abuses, see the discussion in our first report, pp. 99-101.

discrimination would require the RBOCs to engage in practices with consequences that are detectable to customers, but not to regulators, competitors, or the courts. Specifically (p. 80),

> "...the RBOCs will manipulate the terms and technical conditions of network access so as to create noticeable price and/or quality advantages for their own products, while cloaking this manipulation in the guise of colorably legitimate business practices. When competitors and/or regulators complain about observable differences in market offerings, the RBOCs will claim that apparent self-preference arises from unavoidable technical problems, considerations of cost, or competitive necessity. And they will provide testimony -- similar to the testimony that they have submitted in this proceeding -- that unintegrated firms simply cannot achieve the same efficiencies, or provide the same innovative offerings, as integrated firms."

In his reply affidavit, Skrzypczak simply repeats the claim that "successful discrimination would require that the RBOCs impair the quality of their competitors' services (or somehow favor their own) in a way that neither the competitors nor regulatory or other legal authorities would detect, but that customers would..." (p. 2; see also Rivera, Firestone, and Halprin, p. 9, and the RBOCs' reply, pp. 71-72). Yet none of the RBOC affiants makes any attempt whatsoever to refute the compelling logic of our argument.

It is instructive to consider Wilk's assertion that the BOCs do not "relentlessly seek monopoly profits by any means, legal or illegal" in the context of this discussion. Like the other RBOC affiants, Wilk writes as if behavior is always black and white, with no grey area in between. As we noted in our first report, "[i]n many instances, the responsible parties may even lack the objectivity and detachment necessary to recognize their actions as anticompetitive, and they may believe that they have acted out of legitimate business motives" (p. 94). The predictability with which the RBOCs will pursue their economic interests by pushing into the inevitable grey areas of the law -- and sometimes beyond -- is precisely why structural remedies are justified.

Rivera, Firestone, and Halprin (RFH) attempt in their reply affidavit to defend the efficacy of current regulations. However, they begin their discussion with the admission that "[r]egulatory requirements and enforcement tools are crafted to address specific problems, not to present global solutions" (p. 6). This is precisely the problem. Regulation is only effective in cases where there are clear and easily codified indicators for the existence of a violation. Room for abuse exists because too many potential discriminatory actions closely resemble actions that would be legitimate under other circumstances; consequently, these abuses do not lend themselves to useful codification.[35]

RFH then proceed to defend the current system by reviewing once again the structure of regulation, and by describing the FCC's *intent* (e.g. p. 8). While they assert their confidence that the FCC is "fully capable of ensuring that technological change does not outpace its competitive safeguards" (p. 9), this is evidently based on the mere fact that the FCC has issued new rules to cover new services. This fails to establish the efficacy of these new rules, particularly for a post-MFJ regime in which the RBOCs would have incentives to implement technologies chosen to make enforcement of the rules difficult.

RFH assert, with no proof and essentially no explanation, that, on the basis of their experience, "it is simply gross hyperbole to suggest that the BOCs can stonewall regulators by cloaking anticompetitive actions in a cloak of business legitimacy" (p. 46). As we have argued, there is more than ample precedent for this strategy, both before and after the Decree. Moreover, their reasoning is entirely circular: it amounts to the claim that regulators can identify abuses because RFH, as regulators, have never identified an abuse that they have failed to identify.

The position of RFH appears to be justified by blind faith in the "abundance of experience" that the Commission staff brings to their task.[36] RFH simply ignore the obvious fact that the RBOCs are nevertheless at an enormous advantage over the FCC and other regulators in terms of resources, general

[35]In cases where abuses are difficult to codify, the FCC's ability to "impose *ex ante* requirements... designed to prevent anticompetitive conduct before it occurs" (RFH, p. 49) is of little value. Such cases must be evaluated individually on an *ex post* basis.

[36]As an example of this, RFH write (p. 25): "Some opposing affiants attack the Commission's CPE regulations by contending that regulators are unable to distinguish between legitimate and retaliatory delays in providing network design information. Based on our substantial experience working at the Commission, we cannot agree that this is so." RFH do not, however, describe their criteria for distinguishing between legitimate and retaliatory delays. Nor do they explain their basis for believing that their criteria yield accurate judgments.

expertise, and knowledge of their own operations.[37] RFH assert that regulators can rely on the expertise of other market participants as well, but they concede that "[a]ny regulated entity can be expected to challenge regulatory changes that will adversely affect its interests" (p. 48) – a point which clearly applies with equal force to firms that are affected by the regulation of other firms. Thus, all too often, regulators confront an "our word against theirs" situation, where the truth of the matter is difficult to discern.

RFH argue that possible abuses regarding confidential information have been addressed in other contexts, and they cite the AT&T-McCaw merger. They ignore entirely the fact that, in addition to regulation, AT&T is also policed by a competitive equipment market, which is entirely capable of punishing offenders based on the mere *suspicion* of abuse, rather than proof of abuse. Consequently, AT&T had ample incentives to put in place and credibly enforce procedures to prevent improper disclosure.[38] The RBOCs would have no such incentives.

RFH also assert that regulation has now precluded all of the "blatant" abuses that prompted the Decree, and that, consequently, the Decree cannot be justified by appealing to more subtle forms of discrimination (p. 13; see also the RBOCs' reply, p. 67). This argument is factually and logically incorrect. Certainly, the Bell system's most blatant abuses received the most attention. However, this does not imply that more subtle abuses were absent. Indeed, one of the RBOCs' own witnesses has written elsewhere that the case against the Bell system was based on a broad range of allegations. In addition to the well-known refusals to interconnect, "allegations were made that intercity competitors, in obtaining interconnection from local operating companies, experienced delays, poor maintenance, inferior and

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[37]Although RHF claim that the FCC's budget increased by 63.7% between 1984 and 1996 (pp. 43-44 & n.95), a substantial fraction of this increase is "proposed" for 1996. RHF also concede that much of the increase occurred since 1993, and was considered necessary to enforce the Cable Television Consumer Protection and Competition Act of 1992. The increase in FCC staff since 1984 is much smaller, and is almost entirely attributable to the proposed increase for 1996. Finally, RHF have made no attempt to compare these figures to the growth in the resources of the RBOCs.

[38]See Robert D. Willig and B. Douglas Bernheim, "An Analysis of the Alleged Anticompetitive Effects of the AT&T-McCaw Combination," November 30, 1993, p. 46, submitted as Attachment C to AT&T's Opposition to Petitions to Deny and Reply to Comments, FCC File No. ENF-93-44.

erratic service, discrimination between competitors, and bad faith negotiations by AT&T."[39] Moreover, even if "subtle" abuses were less common prior to the Decree, this may only reflect the fact that there was less of a need for subtlety. At yet another level, the distinction between the "blatant" practices before the Decree and the "subtle" practices subsequent to the Decree is not so obvious. Even the blatant practices were defended as legitimate business decisions, motivated by concerns such as the need to protect the integrity of the network, or by the objective of universal service. These practices are now considered "blatant" only because particular defenses have been rejected. Other practices that create artificial advantages for the RBOCs may have equally "blatant" effects on competition, but may be viewed as subtle simply because certain defenses, such as the achievement of economic synergies, are still accepted.

In our first report, we took issue with RFH's claim that regulatory improvements implemented since the Decree are time-proven (pp. 80-81). We explained that the incentives for such abuses are either confined by the line of business restrictions to a narrow set of judicially selected markets (in the case of the RBOCs), or, as explained in section II.A, exist in muted forms (in the case of the non-RBOC LECs). Currently, the RBOCs have incentives to promote equal access (since this enhances interLATA competition and thereby stimulates the demand for local services), rather than impede it. Thus, the existing regulatory framework has not been tested in an environment with incentives for abuse of the same order of magnitude as those that would exist absent the Decree

In their reply affidavit, RFH mischaracterize this argument as follows (p. 40): "Some opponents of relief argue that, because the pre-divestiture Commission found it difficult to regulate the former Bell System, the Commission must be incapable of regulating the Bell Operating Companies today." In response to this straw man, they reiterate once again the many regulatory developments since the Decree. This is, of course, unresponsive to our argument. RFH do note in another context that the Commission's

[39] Paul W. MacAvoy and Kenneth Robinson, "Winning By Losing: The AT&T Settlement and Its Impact on Telecommunications," p. 15. <**complete cite>

regulations "have been tested over the last decade in market after market" (p. 50), but they do not come to grips with the point that the incentives for abuse in these "test" markets pale by comparison to the incentives that would exist absent the Decree. RFH falsely assert that our position would bar the RBOCs forever from equipment and long distance, since the absence of risk to competition could never be demonstrated (p. 51). On the contrary, the risk to competition will vanish once it is shown that market forces, and not regulators, are sufficient to discipline the RBOCs.

RFH also reiterate the severity of sanctions available to the FCC (pp. 44-45). They continue to miss the important distinction between the availability of sanctions, and the use of sanctions. As we explained in our first report (pp. 74-75), when discrimination is cloaked in colorably legitimate business practices, aggrieved parties must seek the help of regulators and the courts through protracted and costly litigation, the outcome of which is usually highly uncertain. Moreover, when motives are successfully obscured, regulators and the courts may offer little more than prospective relief, and are reluctant to impose substantial penalties. While regulators have occasionally imposed large fines on the RBOCs, the risk of this outcome in any given instance is small.

B. REGULATIONS DESIGNED TO PREVENT THE RBOCS FROM MISALLOCATING COSTS

> ***Conclusion #21:*** *Even under the best price cap schemes, some pernicious incentives usually remain. There is no evidence that, in practice, alternative forms of regulation typically eliminate all, or even most of the incentives for cost misallocation, and indeed there is some evidence to the contrary.*

In our first report, we agreed that "transitions from traditional rate-of-return regulation to incentive regulation or price cap regulation are usually positive developments" (p. 82). However, we qualified this remark by noting that "hybrid forms of incentive regulation may in some cases amount to *de facto* rate of return regulation" (p. 82). Pernicious incentives remain under even the best price cap schemes in part because price caps must be chosen for new non-competitive services, and for newly unbundled non-competitive services for which separate prices have not yet been established (p. 83). Incentives to misallocate costs also reappear when price caps are designed to allow for adjustments in the event of changes in exogenous costs,[40] or when new regulatory schemes have expiration dates (p. 83). The positive incentive effects of price caps may also be defeated by *ad hoc* adjustments based on *ex post* earnings experience (p. 84). We concluded that "a strong, albeit attenuated link between costs and rates persists even under prevailing forms of alternative regulation" (p. 84).[41]

In their reply affidavits, Hausman and Rivera/Firestone/Halprin (RFH) single out one of the issues noted in the preceding paragraph -- the treatment of new services -- and ignore the rest. In particular, Hausman asserts without factual support that regulators do not set prices for new services since the RBOCs lack market power in these services (p. 19). This is incorrect. While some new services are competitive, others aren't. And it is quite likely that, as progress is made in the effort to unbundle local services (e.g. through the implementation of ONA), many newly unbundled service components will be classified as non-competitive. RFH, on the other hand, acknowledge that the rates of new services may be regulated. but assert that "[t]he FCC's current methods of addressing new services are adequate" (p. 32). Yet they concede that the tariff filings for a new service that will later be included in a basket must be justified through cost data (also p. 32).

Hausman apologizes for the failure of regulation by arguing that "[n]o human undertaking, regulation included, is perfect" (p. 20).[42] He asserts without evidence that "most economists recognize that the price cap plans, while admittedly still retaining some elements of rate of return regulation, do substantially decrease any incentives for a BOC to cross subsidize," and he chastises us on the grounds that

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[40]As discussed in our first report (p. 83), provision that permit adjustments for exogenous costs facilitate the shifting of costs and risks to regulated activities, even if the RBOC truly has no control over changes in these costs.

[41]According to Spulber's reply affidavit (p. 37), we "concede that price caps greatly reduce the incentives for cost shifting and price caps are now being widely applied." See also the RBOCs' reply, p. 61. These are transparent mischaracterizations of our testimony.

[42]Similarly, Rivera, Firestone, and Halprin argue that "regulatory perfection is not the relevant standard," and accuse us incorrectly of applying this standard (p. 39).

"no amount of change is sufficient for [Bernheim and Willig] to recognize an improvement in economic conditions for competition" (p. 21).

Contrary to Hausman's rhetoric, we have not held regulation up to a standard of perfection. This is even apparent in the quotation from our first report that Hausman cites in this context (footnote 49, p. 20): we do not judge regulation according to whether incentives have been eliminated, but rather according to whether they have been "substantially curtailed." Although we certainly do not believe that "no amount of change is... an[] improvement," we do insist on evaluating alleged improvements on the basis of evidence. In contrast, Hausman and the RBOCs appear ready to recognize any change as a solution, regardless of whether they have any evidence to support this conclusion. Our conclusion -- that hybrid forms of regulation do not significantly improve incentives -- was based on evidence, which is certainly more than one can say about Hausman's bald assertions to the contrary. Ironically, this evidence was obtained from a regression analysis contained in the affidavit of McChesney -- an RBOC witness. As we noted on p. 85, these regressions show that

> "local rates are *slightly* lower in cities where the LEC is regulated by a hybrid incentive scheme, rather than with rate-of-return regulation, and *substantially* lower in cities where price cap regulation is present. Thus, McChesney's findings support the hypothesis that existing forms of incentive regulation do little to reduce the incentives for cost misallocation (or alter the incentives for cost reduction in any other way)."

Hausman misunderstands this argument completely. In responding, he writes that "Prof. Bernheim and Willig attempt to refute the usefulness of price caps because local exchange prices are lower in states which use price caps" (p. 21, footnote 50). This is simply incorrect. The key finding here concerns the effects of *hybrid* regulation, not price cap regulation.[43] Any form of incentive regulation is alleged to reduce local rates for two mutually reinforcing reasons: they may reduce incentives to shift

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[43]McChesney's regressions do not shed any light on the issue of whether price caps (rather than hybrid regulatory schemes) reduce incentives to shift costs since, precisely as Hausman notes in footnote 50, the differences in local rates between cities with price caps and cities with rate of return regulation may result from enhanced incentives to reduce costs.

costs, and (as Hausman notes in the same footnote), they may provide incentives to improve productive efficiency. If local rates are *not* substantially lower in cities where the LECs are subject to hybrid regulation than in cities with rate of return regulation, then neither of the alleged advantages of hybrid incentive regulation can be significant. This finding is important since, as noted in our original report, hybrid forms of incentive regulation are actually far more common than price caps. Specifically (p. 85):

> "in counting the number of states that have moved away from rate-of-return regulation, rather than to some specific alternative, the RBOCs and many of their witnesses tend to overstate the significance of regulatory reforms. It is therefore important to emphasize that price cap regulation in particular is not widespread. Indeed, Milgrom and Roberts (p. 18) concede that only seven states have adopted price cap regimes."

According to Rivera, Firestone and Halprin (RFH), in April of this year the FCC "indicated that, as a matter of general policy, it intends to purge its price cap regime to remove any rate-of-return elements. As a consequence, the Commission allowed the Tier I LECs to elect a no sharing option..." (pp. 28-29). The impact of this policy decision is limited since it does not affect the nature of regulation at the state level, and since, for the reasons explained in our first report, links between rates and costs tend to persist regardless of formal sharing arrangements (see pp. 83-84).[44] Perhaps more importantly, the policy decision is an implicit acknowledgment of the fact that hybrid forms of regulation, still so prominent at the state level, have not sufficiently reduced the incentives to shift costs.

Finally, we noted in our first report (p. 86) that, if (as the RBOC's claim) new regulatory developments have eliminated nearly all incentives for cost shifting, then it is difficult to explain why Wilk (original affidavit, p. 8) has "found the prevention of improper cross-subsidy to be an imperative of the greatest concern to all regulators and their staffs [he] has encountered" (emphasis added).

> ***Conclusion #22:*** *While improved regulatory oversight has probably helped regulators to identify instances of cost misallocation more effectively, existing safeguards remain highly imperfect. In*

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[44]For example, the FCC recently ordered the LECs to make an *ad hoc* adjustment in their price cap indices, labeling it a "one time reduction in rates," to compensate for higher-than-expected LEC earnings. In the Matter of Price Cap Performance Review for Local Exchange Carriers, First Report and Order, CC Docket No. 94-1, 60 Fed. Reg. 19526, released April 7, 1995.

addition to the practical problems associated with the identification and classification of costs, there are also inherent limitations on all cost allocation systems. Even with fool-proof monitoring and iron-clad, unambiguous rules of classification, cost allocation schemes cannot, as a matter of economic logic, prevent misallocations and cross-subsidization.

As we have demonstrated in section II.B, even if monitoring and rules of classification were perfect, this would not, as a matter of economic logic, prevent cost shifting and cross-subsidization. The key to this argument is the observation that cost allocation principles create incentives for the LECs to opt for inefficient technologies that inflate joint costs. This argument fundamentally undermines the efficacy of cost accounting systems, and overturns numerous specific claims of the RBOC witnesses.

Consider, for example, Farmer's assertion that "the FCC's rules provide a wide margin before any misallocation of costs would result in cross-subsidization," because "the fully distributed costs of nonregulated activities are substantially greater than long run incremental costs" (p. 3). Farmer's argument would, if correct, establish only that the fully distributed costs are greater than the long run incremental costs for the technology chosen by the RBOC. It does not establish that the fully distributed costs associated with the RBOC's chosen technology exceed the actual long run incremental costs for the unregulated service since, in the absence of the unregulated service, the regulated service might have been produced more efficiently with a different technology. Farmer has simply ignored the fact that the RBOC has an incentive to facilitate cost shifting by adopting inefficient technologies with larger joint costs.

Moreover, cost accounting systems are certainly far from perfect. Due to the complexity and sheer scope of the RBOCs' operations, it is virtually impossible to monitor activities on a sufficiently minute scale to identify many abuses. The complementarities between various activities renders the purpose of many expenditures ambiguous, and the allocation of these expenditures is necessarily subjective. Like tax systems, accounting systems inevitably have loopholes that can be found and exploited by those with sufficient monetary incentives. Regulators are unable to compete with the companies that they regulate in terms of resources or manpower, and the ability to obtain essential information is often limited in practice by the RBOCs' willingness to comply.

The case of training and recruitment costs exemplifies the principle that significant loopholes in cost allocation schemes are unavoidable. Farmer's latest comments on this subject are particularly telling (Farmer reply affidavit, p. 16-17):

> "[T]he FCC declined to address the allocation of "intangible benefits' such as personnel transfers when it adopted the joint cost allocation rules. It is inappropriate to attempt to recognize the intangible benefits of personnel transfers for the following reasons.
>
> - Training and recruitment costs, if applicable, are charged to expense when incurred under the FCC's USOA and generally accepted accounting principles because a direct future benefit cannot be established.
>
> - Attempting to measure the economic value of employees transferred would be fraught with subjective judgment."

In other words, because the comprehensive application of economically sound cost allocation principles would, in this instance, involve speculation and subjective judgement, the FCC has simply given up, leaving the door wide open to the kinds of cost shifting strategies described in the affidavits of Wilkins, Braunstein, and Goodlet, Weil, and Kelley.[45]

With respect to the adequacy of independent audits, Farmer takes issue with the relevance of one of the events identified in the GAO report. Yet his own characterization of this event (p. 22) is that the joint cost allocation rules, first implemented in 1988, remained vague and subject to various interpretations until the FCC issued its own interpretation *five years later*, in 1993. Likewise, Farmer assures us the FCC has, in the last few years, provided "explicit direction" to independent auditors addressing each of the concerns addressed in the GAO report (p. 22). Thus, even the most sympathetic reading of Farmer's reply affidavit leaves one with the impression that serious deficiencies in the independent audit process

[45]Farmer also asserts (p. 17) that transfers to and from unregulated affiliates might be offsetting. This ignores completely the obvious point that LECs have powerful economic incentives to tip such transfers in the direction of the unregulated affiliates.

remained until extremely recently. One is left wondering whether FCC "interpretations" and "explicit" directions are in practice sufficient to remedy the problems cited by the GAO, and Farmer offers no evidence on this point. Certainly, the notion that cost allocation schemes have been tested and have "proven out" through extensive experience during the post-MFJ period (as Rivera, Firestone, and Halprin would have us believe) cannot be accurate if major shortcomings have only recently been addressed.

Wilk defends the audit process as follows: "I do not believe that opponents can argue that auditing is largely or entirely ineffective... while also claiming that the results of audits establish BOC malfeasance or culpability" (p. 9). Contrary to Wilk's insinuation, there is no inconsistency here. In our original report, we addressed this view in the context of regulations designed to prevent discrimination (p. 102):

> "Regulation is neither perfect nor completely ineffectual. In most cases, it is probably capable of catching the most blatant instances of abuse. The fact that the process succeeds in catching *some* abuses tells us nothing about the *fraction* of abuses that are caught. On the contrary, the existence of successfully prosecuted abuses clearly proves that... existing regulations and antitrust statutes do not eliminate the incentives for anticompetitive conduct."

Wilk makes no attempt to refute the logic of this passage.

Wilk's latest comments concerning the NARUC audits also prove more than he intends. Consider the following passage (p. 15): "The Southwestern Bell audit included representatives from each of the states in which the company operates, as well as the FCC. The report's Preface characterizes the result as 'a historical milestone,' during which '[a]ll parties acted in good faith and were willing to compromise for the successful completion of this project.'" We are particularly struck by the fact that all parties acting in good faith, and showing a willingness to compromise, was considered an "historical milestone." Clearly, the exception proves the rule.

In addition, with respect to the same audit, Wilk notes that the auditors found compliance problems or shortcomings in two of six areas, and that "[i]n each instance, Southwestern Bell took issue with these findings and observations" (p. 16). Wilk is struck by the fact that "each issue is clearly specified in the report" (p. 16). We, on the other hand, are struck by the fact that, despite the alleged clarity both of the report and of the applicable allocation principles, there remained sufficient ambiguity for Southwestern Bell to mount a challenge. Indeed, according to Wilk, Southwestern Bell challenged the report's findings in *every* instance. Once again, we see a demonstration of the principle that firms are almost always inclined to defend their actions in the grey area of the law as legitimate business practices.

Conclusion #23: *Absent the Decree, efforts to police discrimination and cost misallocation through regulatory benchmarking (e.g. by making comparisons between RBOCs, or by comparing affiliate transactions to third party sales) would be ineffective.*

As we explained in our first report (pp. 90-91), because of significant differences between the RBOCs, regulatory benchmarking must allow for wide tolerances. Each RBOC would have an incentive to push the limits of regulatory tolerance, thereby changing the benchmark for all other RBOCs. Thus, progressive "ratcheting" of the benchmarks would defeat their usefulness. The RBOCs would also have incentives to differentiate their operations artificially to void comparisons.

Neither the RBOCs nor their affiants come to grips with the issue of benchmark ratcheting.[46] With respect to contrived differentiation, Rivera, Firestone, and Halprin observe only that "the Commission retains the authority to require an appropriate level of uniformity to enable benchmarking" (p. 35). But they also admit that the FCC must allow sufficient freedom to account for differing facilities, products, services, and output mix (also p. 35).

We also explained in our original report that the RBOCs can circumvent benchmarking of affiliate transactions to third party sales by voiding comparisons through artificial product differentiation (pp. 91-92). When comparisons are unavailable, regulators typically fall back on the fully distributed costs of the entity providing the product or service. But that practice simply transfers the cost misallocation problem to

[46]Rivera, Firestone, and Halprin discuss subversion of benchmarking through "collusive rigging" of CAMs, but this is not applicable to our argument, which envisions unilateral behavior.

the affiliated entry, which exacerbates the cost allocation problem if the affiliate is more widely diversified or less closely regulated than the LEC. We also noted that successful benchmarking of this kind would place upward pressure on equipment prices, thereby reducing the competitiveness of the equipment market.

Neither the RBOCs nor their affiants provide a substantive response to these criticisms of the procedures for benchmarking affiliate transactions. Rivera, Firestone, and Halprin simply repeat the rules governing affiliate transactions (pp. 38-39). Arrow and Carlton (p. 10) merely assert that "the potential problems identified by Bernheim and Willig do not seem to raise insurmountable issues." The only explanation offered for this conclusion is that "[r]egulators could readily observe equipment sales by integrated RBOCs to unaffiliated local exchange carriers" (p. 10), but this is exactly the point at issue.

C. ANTITRUST STATUTES

Conclusion #24: Existing antitrust statutes are unlikely to deter the RBOCs from engaging in subtle forms of discrimination and cost misallocation. Assertions to the contrary are based on naive preconceptions about the likely forms of RBOC abuses.

In our first report (pp. 93-96), we evaluated the assertion that the protections offered by the MFJ are redundant due to the existence of potential sanctions associated with antitrust statutes. While several RBOC witnesses had mentioned this hypothesis, it found its most complete articulation in the affidavit of Block. Our first report provided detailed criticisms of Block's analysis. We concluded that antitrust statutes would be insufficient to deter significant competitive abuses, absent the Decree. Block has submitted no response to our criticisms, and other RBOC affiants have simply reiterated the characteristics of potential sanctions, without coming to grips with the substance of our analysis.

V. EXPERIENCE WITH ADJACENT MARKETS

A. THE RECORD OF DISCRIMINATION AND COST MISALLOCATION, IN GENERAL

Conclusion #25: *The RBOCs' record in adjacent markets since the Decree vastly understates the risks to competition that would result from a removal of the line of business restrictions.*

As we explained in our first report, this conclusion follows from three separate considerations. First, since there is a powerful incentive to cloak abuses in colorably legitimate business practices, it would be naive to assume that all instances of anitcompetitive conduct have been detected and prosecuted, let alone prosecuted successfully. Second, the RBOCs' incentives to behave properly are currently much greater than they would be absent the Decree since, currently, misbehavior would undermine efforts to remove the Decree. Third, the activities currently permitted to the RBOCs are inherently unrepresentative of the activities that are forbidden to the RBOCs. The RBOCs have been permitted to engage in activities where the risks to competition are smallest. Neither the RBOCs nor any of there affiants have provided any arguments to refute these points.

Conclusion #26: *The RBOCs' record of documented abuses since the Decree is consistent with the strategy of disguising abuses as colorably legitimate business practices. RBOC rationalizations of these events do little more than document an ability to find and exploit grey areas in the law, and a proclivity to defend all of their actions as both legal and "in good faith."*

In our first report, we noted that instances of complaints against the RBOCs are plentiful, and that many complaints have been prosecuted successfully during the post-Decree period (p. 98-99). These abuses are catalogued in a number of sources, and have been acknowledged in a formal report by the House Committee of the Judiciary. We also described and evaluated three classes of typical RBOC responses to evidence of past abuses.

(1) The RBOCs typically dispute the factual circumstances of specific allegations even in cases where they were prosecuted successfully, arguing that their actions were nevertheless "in good faith," and justified by legitimate business interests. As we have explained (p. 99), this merely serves to illustrate the point that there is a wide grey area in the law, within which actions can be given different interpretations.

This grey area provides ample opportunities for abuses with colorably legitimate explanations. Whether the RBOCs actually acted in good faith in any particular situation is extremely difficult to determine. And even if they did, this merely establishes that the incentives for abuses are so strong, and the ambiguities in regulation so inherent, that, even with the best intentions, LECs cannot be trusted to operate in certain adjacent markets. We illustrated these points by describing the specific manner in which the RBOCs have disputed several documented instances of abuse (pp. 99-101).

(2) The RBOCs typically allege that the cumulative effects of alleged anticompetitive incidents is small relative to the size of the RBOCs' total operations (see our first report, p. 101). We have observed in our first report (pp. 101-102) that this argument is without merit, since (a) the RBOCs currently engage in relatively few unregulated activities, and these constitute a small fraction of their revenue (a situation which could change dramatically with the removal of the MFJ), (b) the consequences of the RBOC actions have been large relative to the affected markets (we described the case of MemoryCall as an example), and (c) the cumulative effect of all successfully prosecuted instances of abuse is a reliable measure of the scope of anticompetitive practices only if regulation catches most offenses, which it does not.

(3) The RBOCs argue that examples of successful prosecution prove the effectiveness of regulation (see our first report, p. 102). We have pointed out that this response is nonsense: the fact that an imperfect process catches some abuses tells us nothing about the fraction of abuses that are caught. Aside from reprising this argument in the context of cost allocation (see the discussion of Wilk's comment in section IV.B, above), neither the RBOCs nor their affiants attempt to refute the logic of our observation. However, this does not stop them from repeating the argument. In conceding the existence of abuse in the case of the MemoryCall example, Rivera, Firestone and Halprin (RFH) write (p. 17, footnote 25): "[T]his example entirely undercuts their point. BellSouth's alleged misconduct was detected, punished, and remedied. Consequently, it shows not that BOCs can discriminate but that they will be caught and punished if they try." By RFH's logic, the perfect effectiveness of regulation is tautological: any allegation

of abuse that is not successfully prosecuted is not an actual instance of abuse; thus, all actual instances of abuse are successfully prosecuted.[47]

B. THE EXPERIENCES OF GTE AND OTHER NON-RBOC LECS

> ***Conclusion #27:*** *Evidence on the non-RBOC LECs' behavior in adjacent markets vastly understates the risks to competition that would be created by the removal of the line of business restrictions. The RBOCs' incentives to leverage market power would be far greater than the existing incentives of the non-RBOC LECs. It is also likely that the RBOCs would have stronger incentives to misallocate costs.*

In our original report, we demonstrated that the incentives for the RBOCs to leverage market power into long distance would be far greater for the RBOCs absent the MFJ than for the non-RBOC LECs under the MFJ. This follows from our analysis of the role of terminating access, discussed above in section II.A.2. The RBOCs have much greater unilateral incentives to engage in discriminatory practices in large part because nearly half of long-distance traffic originating within the territory of an RBOC also terminates within the same RBOC's territory. In addition, absent the MFJ, the reciprocal benefits of discriminatory practices would be mutually reinforcing across the RBOCs.

The only attempt at refutation of this argument appears in the reply affidavit of Arrow and Carlton, who write that "this argument... merely reiterates the leveraging concerns of the MFJ -- which the GTE experience and other post-divestiture evidence refute" (pp. 8-9). It should be recalled that our analysis of leveraging explores in detail the role of terminating access, and demonstrates that access competition alone does not eliminate the concerns that motivated the MFJ. This can hardly be termed a reiteration of the standard "textbook" leveraging argument, and Arrow and Carlton's attempt to label it as such merely demonstrates their failure to understand the nature of the argument. Since the argument inherently distinguishes between situations in which a few, geographically disperse non-RBOC LECs can

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[47] See also our discussion of a similar comment by Wilk in the context of cost shifting (section IV.B, above).

offer long distance services, and the situation in which all LECs, including the large, geographically concentrated RBOCs can offer long distance services, it cannot be refuted by GTE's experience, or by the other evidence to which Arrow and Carlton refer.

Arrow and Carlton apparently base their conclusion on the following reasoning (p. 9):

> "[E]ven if the rewards from discrimination in providing network access were greater for RBOCs than other LECs, so too would be the risks of detection. Viewing originating and terminating access as separate events (as Bernheim and Willig do), discrimination in either bears a distinct and independent risk of detection. Thus, if regulators are equally capable of detecting discrimination in originating or terminating access, then the deterrent effect on RBOCs will be the same as for GTE and other smaller LECs."

This passage contains two fatal errors. First, it assumes that discrimination on both the originating end and the terminating end doubles the benefits of discriminating on the originating end alone (to match the doubling of the risk of detection). Even the most casual reader of our original report would realize that this assumption is erroneous. Again consider figure 1. Due to the assumed existence of an efficient bypass option, discrimination on the originating end alone would be entirely ineffective, and yield the RBOC no benefits whatsoever. Yet discrimination on both ends permits the RBOC to exercise market power and extract 20 cents per minute in economic rents. Thus, even if the risks of detection double, the benefits of discrimination increase by a far larger (in this case infinite) factor.

Second, even though originating access and terminating access are separate services, they make use of the same facilities. For this reason, discrimination on outgoing calls may already entail discrimination on incoming calls. This is certainly the position of another RBOC witness, who writes (Hausman reply affidavit, p. 27): "as was demonstrated in the Information Service Remand proceedings, a BOC does not have the technical ability to discriminate selectively against data transmission or terminating calls." In that case, the RBOCs and the non-RBOC LECs would not differ in terms of the nature of the discriminatory actions undertaken, and hence would not face different probabilities of detection; they would differ only in the benefits received from discrimination.

Our original report also established that the risks of incremental cost misallocation would be greater for the RBOCs than for the non-RBOC LECs (pp. 103-104). This conclusion followed from two observations: first, that the non-RBOC LECs are generally more diversified to begin with, and second, that, as far as opportunities for cost misallocation are concerned, there may be "decreasing returns" to diversification. We also demonstrated that the "decreasing returns" hypothesis is indirectly supported by the testimony of various RBOC witnesses. Neither the RBOCs nor their affiants attempt to refute this argument. Arrow and Carlton comment on the argument only as it applies to GTE, noting that (p. 8) long distance and equipment manufacturing -- lines of business which GTE exited -- "are traditionally thought most likely to offer cost shifting opportunities." This observation is certainly correct, and (as discussed below) terribly damaging to Arrow and Carlton's position in other contexts. However, it does not follow that long distance and equipment present the only opportunities for cost misallocation. Hence, by virtue of its greater diversification, GTE may still have had significantly lower returns (in terms of opportunities for cost shifting) to incremental diversification of any kind than would an RBOC.

***Conclusion #28:** GTE's decision to divest itself of Sprint and its manufacturing division sheds little if any light on the risks of market power leveraging and cost misallocation.*

Two affidavits accompanying the RBOCs' original submission (Arrow and Carlton, McChesney) contain the assertion that GTE's decision to divest itself of Sprint and its manufacturing division proves that GTE's ability to discriminate and/or misallocate costs must have been inconsequential. Our previous report exposed the fallacies in this argument.

First, we pointed out that GTE sold Sprint to United Telecom -- another non-RBOC LEC conglomerate (p. 106). Thus, "[a]t most, the transaction demonstrates that, assuming all else was equal, the opportunities to discriminate and misallocate costs were at least as important to United Telecom as to GTE."

In their response, Arrow and Carlton argue that the potential benefits from anticompetitive conduct are "likely to be greater to larger LECs" (p. 6), and they point out that GTE has more access lines than United Telecom.[48] This response ignores the fact that the actual gains from anticompetitive conduct depend on a variety of factors aside from the number of access lines, including the technological characteristics of the LEC's existing network, and the extent to which its management is willing to exploit grey areas of the law. In our first report, we observed that Sprint's long distance market share is currently in the neighborhood of 30% in areas served by United Telecom (p. 106) -- a figure that far exceeds Sprint's national market share -- and that United Telecom's local rates rose steeply after its acquisition of Sprint (p.116). Both observations are consistent with the view that GTE ceded Sprint to a company that was more able, or more willing to capitalize on the opportunities for competitive advantage (p. 106). Arrow and Carlton simply ignore these points.

Even if the potential benefits from anticompetitive conduct were greater to GTE than to United Telecom, this proves only that the difference between these benefits was smaller than other business considerations that may have motivated the transaction. This does not imply that the absolute benefits from anticompetitive conduct were small either for GTE or United Telecom. And, in light of our earlier comments, it most certainly does not imply that these benefits would be small for the RBOCs (since any benefits to the non-RBOC LECs vastly understate the potential benefits to the RBOCs).

Second, we argued in our original report that GTE's divestiture of its manufacturing division proves very little about the magnitude of the potential benefits from anticompetitive action, due to the circumstances under which GTE sold this division to AT&T. Arrow and Carlton respond (p. 7) by quoting the following passage from our report: "[t]he sale of GTE's manufacturing division to AT&T only establishes that the opportunities to behave in an anticompetitive fashion were less valuable to GTE than

[48]They also argue that cost shifting opportunities may have been greater for GTE than United Telecom because United Telecom was already more diversified. But they fail to acknowledge the obvious fact that all forms of diversification do not provide the same opportunities for cost shifting.

other considerations that may have motivated the transaction." They go on to suggest without explanation that this is similar to their own conclusion, perhaps indirectly implying that these "other considerations" could not have been too substantial. On the contrary, our report provided explicit reasons to believe that the economic significance of these other considerations was quite large due to the special circumstances that surrounded the transaction (pp. 106-107). Moreover, the available evidence indicates that acquisitions are generally motivated by the expectation of substantial economic synergies -- the combined value of merging firms typically rises by roughly 20% in takeovers.[49] Thus, while the transaction does place some upper bound on the benefits that GTE derived from anticompetitive actions associated with its manufacturing division, this in no way establishes that GTE's abuses were insignificant.

Third, we pointed out that, even if GTE did not engage in significant competitive abuses, this experience would not necessarily generalize to the RBOCs. Three separate reasons were provided for believing that the experience of GTE provides a conservative lower bound on the competitive risks associated with the elimination of the line of business restrictions (pp. 107-108): (1) the incentives to leverage market power would be much larger for the RBOCs than for GTE; (2) the incentives to misallocate costs may be larger for the RBOCs than for GTE, and (3) GTE's decisions may have been idiosyncratic, either because of special circumstances, or simply because different managers make different decisions, even given the same opportunities. We have already discussed points (1) and (2), along with Arrow and Carlton's responses, in the context of conclusion #27, above. With respect to (3), Arrow and Carlton merely assert (p. 8) that we provide "no evidence to explain why GTE's experience is misleading." This misses the point. GTE's experience provides only one observation on the behavior of an integrated LEC. Other companies may behave differently. Indeed, in discussing the potential efficiencies arising from integration, Arrow and Carlton make an identical argument: "GTE's lack of

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[49]Paul Asquith, "Merger Bids, Uncertainty, and Stockholder Returns," *Journal of Financial Economics* 11, 1983, pp. 51-83.

success in long distance and manufacturing does not imply that RBOCs also would be unsuccessful" (p. 10). By way of analogy, it would be imprudent for the FDA to approve the use of a new drug based on a clinical trial consisting of one individual. As all empirical economists recognize, it is impossible to attach any statistical confidence to an inference based on a single observation.

Fourth, we noted that, under the Arrow-Carlton-McChesney interpretation of the GTE divestitures, these events would also demonstrate that the highly touted advantages of vertical integration are inconsequential (otherwise GTE would not have abandoned them). We pointed out (p. 107) that this was implicitly acknowledged by Arrow and Carlton (on page 23 of their original affidavit), since they argued that the divestiture ruled out the existence of a "unique value" not otherwise available.[50] This is a logical quandary that the RBOCs and their affiants (including Arrow and Carlton) have simply chosen to ignore in their response.

Fifth, we argued that, even if the RBOCs' witnesses were correct in their assessments of GTE's experiences, they drew the wrong conclusions. Assuming hypothetically (as argued by the RBOC witnesses) that GTE did not engage in abusive practices, the divestitures would prove only that the combination of local exchange services with long distance and/or manufacturing was not profitable *in the absence of anticompetitive behavior*. Therefore, if GTE's experience is relevant (as Arrow-Carlton-McChesney claim), then either (a) the RBOCs would not engage in anticompetitive practices either, and would therefore either not integrate or remain integrated, or (b) the RBOCs would engage in anticompetitive practices, in which case they might integrate with significant harms to competition. Thus, under the Arrow-Carlton-McChesney interpretation of the GTE divestitures, "there is no upside associated with the removal of the line of business restrictions, but there is considerable downside risk" (p. 109).

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[50]We also pointed out that GTE's manufacturing divestiture is completely at odds with the Harris-Oliver-Scheffman view of equipment innovation: since GTE is the largest viable LEC partner for equipment manufacturers in the U.S., it should, under this view, be more integrated and do more R&D than foreign PTOs. Neither the RBOCs nor their affiants have explained this inconsistency.

Arrow and Carlton's response to this argument is nothing short of astonishing: "[GTE's] experience does not show that vertical integration makes sense only in the presence of anticompetitive conduct" because "GTE's lack of success in long distance and manufacturing does not imply that RBOCs also would be unsuccessful" (pp. 9-10) But there are only two possible reasons why the RBOCs might succeed where GTE failed. First, they might choose to engage in anticompetitive behavior, in contrast (as assumed here for the sake of argument) to GTE. Second, GTE's experience with integration might simply be idiosyncratic and unrepresentative. The first possibility implies the potential for significant abuses, while the second violates a central premise of the Arrow-Carlton-McChesney argument (that one can generalize from GTE's experience because GTE is representative).

Conclusion #29: The available evidence on GTE supports the view that GTE misallocated costs from long distance and manufacturing to basic local service.

The RBOCs' original submission included two affidavits (Arrow and Carlton, McChesney) that examined relative local exchange rate movements for the RBOCs and GTE in an attempt to test the hypothesis that diversification allows LECs to misallocate costs [51] In our original report, we demonstrated that the two affidavits were contradictory. Arrow and Carlton argued that the non-RBOC LECs were generally more diversified than the non-RBOCs, and increased their diversification still further between 1984 and 1992. Accordingly, they attempted to test for the presence of cost misallocation by examining data to determine whether the local rates of the non-RBOC LECs -- including GTE -- rose relative to the local rates of the RBOCs. In contrast, McChesney argued that GTE *reduced* its diversification during this period by divesting itself of Sprint and its manufacturing division. Using precisely the same logic as Arrow and Carlton, he then attempted to test for the presence of cost misallocation by examining data to determine whether GTE's local rates *fell* relative to the local rates of the RBOCs. Astonishingly, both affidavits nevertheless rejected the hypothesis of cross-subsidization.

[51] Arrow and Carlton also presented data on a number non-RBOC LECs besides GTE. We discuss their analysis of the other non-RBOC LECs below.

Our first report resolved this inconsistency. Arrow and Carlton's derived their empirical finding -- that GTE's local rates fell sharply relative to the RBOCs' rates -- using data superior to that used by McChesney.[52] However, Arrow and Carlton provided no analysis of the change in diversification specifically for GTE over the relevant time period. We pointed out that GTE not only became less diversified, but also divested itself of the very lines of business that are at issue in this proceeding (long distance and equipment). Thus, a decline in relative prices for GTE supports the view that GTE misallocated costs from long distance and/or equipment to local service.

Neither the RBOCs nor any of their affiants have made even a token attempt to resolve the blatant contradiction described above. Instead, the RBOCs have endeavored to sweep the issue under the rug by sponsoring a reply affidavit by Arrow and Carlton only, while avoiding any direct reference to McChesney's analysis.

Arrow and Carlton respond to our analysis in two ways. First, they argue (p. 3) that "the decline in GTE's diversification is relatively small over the period we examined. GTE's local exchange revenue rose as a share of total corporate revenue from 47 percent in 1984 to 51 percent in 1992." In making this argument, they retreat from their original position that the non-RBOC LECs, including GTE, became more diversified over this period. But more importantly, while these aggregate numbers suggest that GTE's long distance and equipment divestitures were, to some extent, offset by diversification into new areas, they tell us nothing whatsoever about the nature of these new areas. In fact, these new areas included such things as the acquisitions of Rotoflex, a British commercial lighting company, Systems Choice, Inc., the producer of a managed-care software package for HMOs and PPOs, and Choice Computer, a developer of computer software for the retail industry -- hardly ideal candidates for shifting costs to the local exchange. As we argued in our original report (p. 112),

[52] As we noted (B&W p. 111), even Arrow and Carlton criticized McChesney's data (Arrow and Carlton first affidavit, p. 20, ft. 17).