Incidental Paper

Judicial Reqirements for the Apportionment of Joint Costs

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THE ECONOMIC PROBLEM

One of the goals of economic regulation is to set utility rates at a level that approximates utility costs.[1] When monopoly power exists, the unregulated marketplace may produce prices greatly in excess of cost. Such rates inhibit consumption and distort consumer buying patterns while allowing the utility to earn monopoly profits. Regulation attempts to correct this market failure by introducing a new factor--the administrative agency--into the supply and demand equation. The agency tries to make the monopolist behave like a competitor in order to ensure that properly priced service is provided to the public.[2]

Although the purpose of regulation may appear simple, the practice of regulation is not. For example, when a utility provides more than one service, costs are often incurred which cannot be attributed to a single service. Railroad tracks are used for both passenger and freight service; telephones are used for both local and long distance calling. When setting rates, regulators apportion these "joint costs"[3] among the utility's services. But because joint costs are not caused by a single service, the formula chosen to allocate them is economically arbitrary.[4] As a result, ratemaking becomes an exercise in policy and is far less objective than we might imagine. Indeed, the rule that utility rates should reflect cost loses much of its meaning once we realize that cost can be defined in a number of ways.[5]

This paper examines Supreme Court opinions dealing with the joint cost problem. Cases are sparse, and in many instances, the Court's analysis is flawed from the standpoint of the economic theories of 1980. Yet it is worthwhile to examine these cases because of changes occurring in the telephone industry. Cost allocation procedures in telecommunications were devised in an era without competition.[6] The fact that the industry now contains participants with divergent interests increases the possibility of litigation over costing issues. It is therefore relevant to consider how courts have reacted to cost allocation disputes in the past. And while many of the cases lack force today,[7] they help explain why courts may be hesitant to become embroiled in telecommunications costing controversies in the future.

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JUDICIAL ATTITUDES

Allocating the Costs of a Single Carrier

Joint Costs and the Railroad Industry: 1898 - 1930

In 1898, the Supreme Court declared that the lawfulness of rates prescribed by a state "for the transportation of persons and property wholly within its limits must be determined without reference to the interstate business done by the carrier, or to the profits derived from it."[8] Thus, in Smyth v. Ames, the Court held that a statute fixing railroad rates within Nebraska was unconstitutional[9] because most of the railroads affected by the rate schedule could not recover their operating expenses on intrastate traffic; the revenues of the other railroads, while higher, did not represent a "fair return" on the "fair value" of the carriers' intrastate property.[10] Although the State contended that the railroads remained profitable due to excessive interstate revenues, the Court based its decision on the limited jurisdiction of the Nebraska legislature:

> It is only rates for the transportation of persons and property between points within the State that the State can prescribe; and when it undertakes to prescribe rates not to be exceeded by the carrier, it must do so with reference exclusively to what is just and reasonable, as between the carrier and the public, in respect of domestic business. The argument that a railroad line is an entirety; that its income goes into, and its expenses are provided for, out of a common fund; and that its capitalization is on its entire line, within and without the State, can have no application where the State is without authority over rates on the entire line, and can only deal with local rates and make such regulations as are necessary to give just compensation on local business.[11]

Implicit in this analysis was the assumption that a means existed for confining the State to its proper role. The Court may have recognized that cost allocations were required before intrastate profits could be determined. But since the controversy did not involve the mechanics of allocation, the opinion did not address that issue.

Two years later, the Supreme Court did examine--and reject--a popular method of allocating joint costs. Chicago, Milwaukee & St. Paul Railway v. Tompkins[12] was another case arising out of an intrastate rate order. The Supreme Court's opinion did not disclose how the South Dakota legislature calculated the rates in question, so it is unclear whether the analysis employed at the ratemaking level coincided with the treatment of the lower court on review. What *is* clear is that the trial judge improperly rejected the railroad's confiscation claim. First, the judge "proceeded upon the theory that a comparison of the actual gross receipts of the company from its South Dakota local business with those which it would have received if the rates prescribed by the defendants had been in force was sufficient to determine the question of the reasonableness of these latter rates . . ."[13] He made such a comparison for the four years prior to the commencement of the lawsuit. According to Justice Brewer, this approach was wrong because "it is obvious that the amount of gross revenues from any business does not of itself determine whether such business is profitable or not."[14] If expenses were sufficiently high, a slight drop in revenues could force the carrier to provide the service at a loss.

Ignoring such logic, the trial judge divided the intrastate receipts for each of the test years into the intrastate rate base for each of those years in order to obtain the "earning capacity"[15] of intrastate service; he then repeated the procedure using the revenues that would have been generated had the disputed rate order been in effect.[16] And, making a second mistake, the judge miscalculated the rate base. He decided that "the true way to determine the value of the property which could be regarded as employed in local business was by dividing the total value [of the property in South Dakota] in the same proportion that existed between the amount of gross receipts"[17] from interstate business and intrastate business. Since the rate base was linked to revenues, the projected reduction in intrastate receipts was nearly offset by a reduction in the "value" of the intrastate property. As a result, the drop in earning capacity was insignificant and the rate order was sustained.

Justice Brewer attacked the "fallacy"[18] in this reasoning. He did not mention the fact that the trial judge had apportioned all of the railroad's property (including that which might be attributable solely to intrastate or interstate service) according to the gross revenues method. Instead, he criticized the results of the lower court's calculations:

> [A]lthough the defendants' schedule would have reduced the actual receipts 15 percent on the passenger and 17 percent on the freight business, the earning capacity for the last year was diminished only one tenth of one percent. Such a result indicates that there is something wrong in the process by which the conclusion is reached. . . . Suppose the total value of the property in South Dakota was $10,000,000 and the total receipts both from interstate and local business were $1,000,000, one half from each. Then, according to the method pursued by the trial court, the value of the property used in earning local receipts would be $5,000,000, and the percent of receipts to value would be 10 percent. The interstate receipts being

> unchanged, let the local receipts by a proposed schedule be reduced to one fifth of what they had been, so that instead of receiving $500,000 the company only receives $100,000. The total receipts for interstate and local business being then $600,000, the valuation of $10,000,000, divided between the two, would give to the property engaged in earning interstate receipts in round numbers $8,333,000, and to that engaged in earning local receipts $1,667,000. But if $1,667,000 worth of property earns $100,000 it earns six percent. In other words, although the actual receipts from local business are only one fifth of what they were, the earning capacity is three fifths of what it was. And turning to the other side of the problem, it appears that if the value of the property engaged in interstate business is to be taken as $8,333,000, and it earned $500,000, its earning capacity was the same as that employed in local business--six percent. So that although the rates for interstate business be undisturbed, the process by which the trial court reached its conclusion discloses the same reduction in the earning capacity of the property employed in interstate business as in that employed in local business, in which the rates are reduced.[19]

Turning to operating expenses, Justice Brewer viewed the situation from another perspective:

> The testimony discloses that the operating expenses of the entire system during each of the four years were over 60 percent of the gross receipts. If the cost of doing local business in South Dakota was the same as that of doing the total business of the company, then the net earnings of that local business would not exceed 40 percent of the gross receipts. Reduce the gross receipts 15 percent. . . it would leave only 25 percent of the gross receipts as what might be called net earnings, to be applied to the payment of interest on bonds and dividends on stock. But the testimony shows that the cost of doing local business is much greater than that of doing through business. If it should be 85 percent of the gross receipts (and there was testimony tending to show that it was as much if not more) then a reduction of 15 percent in the gross receipts would leave the property earning nothing more than the expenses of operation. . . . [Thus,] without a finding as to the cost of doing the local business it is impossible to determine whether the reduced rates prescribed by the defendants were unreasonable or not.[20]

Brewer rejected the trial judge's excuse that he was unable to determine operating expenses. If the judge "meant simply that [he] could not determine that fact with mathematical accuracy . . ., it is undoubtedly true, but there are many things that have to be determined by court and jury in respect to which mathematical accuracy is not possible."[21] The case was therefore remanded for a calculation of the proper cost figures.[22]

Thirteen years later this analysis was repeated in the Minnesota Rate Cases.[23] Unlike the courts in the previous cases, the lower court held that the proposed railroad rates (both passenger and freight) were confiscatory. In reversing, the Supreme Court again pointed to the impropriety of apportioning property on the basis of gross revenues. Although the State argued that "a division of the value of the property according to gross earnings is a division according to the 'value of the use,' and therefore proper", Justice Hughes thought it "clear that the value of the use is not shown by gross earnings. The gross earnings may be consumed by expenses, leaving little or no profit."[24] Moreover, "[t]he value of the use, as measured by return, cannot be made the criterion when the return itself is in question."[25] For the first time the Court emphasized the circularity inherent in using past revenues to determine future rates and, ultimately, future revenues:

> If the return, as formerly allowed, be taken as the basis, then the validity of the State's reduction [in rates] would have to be tested by the very rates which the State denounced as exorbitant. And, if the return as permitted under the new rates be taken, then the State's action itself reduces the amount of value upon which the fairness of the return is to be computed.[26]

Instead, it was necessary to divide the property independently of revenues, and the basis for division "must be found in the use that is made of the property. That is, there should be assigned to each business, that proportion of the total value of the property which will correspond to the extent of its employment in that business."[27] Hughes admitted that difficulties might arise when making an apportionment between passenger and freight service, since use was generally assessed in different terms--ton-miles for the former and passenger-miles for the latter.[28] But he was confident that, "after assigning to the passenger and freight departments respectively, the property exclusively used in each, comparable use-units might be found which would afford the basis for a reasonable division with respect to property used in common."[29] This statement was significant because it indicated that the costs attributable to a specific service should be assigned to that service, in contrast to the Court's silence in Chicago, Milwaukee & St. Paul Railway v. Tompkins,[30] where the trial judge had failed to isolate the costs attributable to a specific jurisdiction. Moreover, the Chicago decision had focused on the major apportionment--between the intrastate and interstate jurisdiction--without considering the need to further apportion costs within a jurisdiction before fixing passenger and freight rates. In the Minnesota Rate Cases, the Court did not expressly state that it was extending the earlier policy, but its language suggested that a jurisdictional apportionment alone was insufficient.

The two cases were similar in an important respect, however. Both were "negative" in nature. Neither specified an apportionment formula, although the Minnesota opinion introduced a vague "use" requirement.[31] At their narrowest, they merely chastised lower courts for improperly reviewing rate orders. The immediate consequence of each was that in the first case, the rates remained suspect and a new trial was necessary (because the lower court had affirmed the rate order), and in the second, the rates were upheld (because the lower court had overturned the rate order). Of course, even though state legislatures were not told formally to abandon the gross revenues method of allocating joint property, the message was the same. Nevertheless, at this point, the Court's emphasis was on criticizing judges rather than scrutinizing the ratemaking process.[32]

During the remainder of the decade the Supreme Court failed to announce a formula for calculating rates in the presence of joint costs. Yet it did make explicit what the Minnesota Rate Cases had implied: a single, jurisdictional apportionment of joint costs would not satisfy the due process requirements of the Fourteenth Amendment. In 1915, in Northern Pacific Railway v. North Dakota,[33] the Court held that all intrastate rates must (so far as possible[34]) contain a fair share of the joint costs apportioned to the intrastate jurisdiction. In effect, three levels of allocations were required. First, after isolating the costs attributable to a specific jurisdiction, the regulatory authority would apportion the remaining joint costs between the jurisdictions. Next, the authority had to take the costs allocated to its jurisdiction and divide them between the freight and passenger departments. (Once again, there would be costs incurred exclusively by each department, in addition to joint costs.) And finally, as the

Northern Pacific case made clear, the services within each department required apportionments as well.

The third level struck at the heart of the intrastate rate structure, introducing a factor not present in the earlier cases. These earlier cases had challenged the overall rate of return in the intrastate jurisdiction. In this case, the Court held that the rates for transporting a specific commodity--coal--were confiscatory.[35] It also focused its criticism on the ratemaking authority rather than the lower court, even though the latter had approved the rate order.[36]

According to the rule enunciated by Justice Hughes, there was "no doubt that, in determining the cost of the transportation of a particular commodity, all the outlays which pertain to it must be considered."[37] These outlays included "so-called 'out-of-pocket costs,' or 'actual' expenses, and other outlays which are nonetheless actually made because they are applicable to all traffic, instead of being exclusively incurred in the traffic in question."[38] For the first time,[39] the Court viewed the joint cost problem in the context of operating expenses rather than property values.[40] But while its analysis extended the reach of its earlier decisions by requiring a finer degree of apportionment than was previously thought necessary, the general notion of apportionment was certainly not new. As a result, it seemed clear that "[t]he outlays that exclusively pertain to a given class of traffic must be assigned to that class, and the other expenses must be fairly apportioned. It may be difficult to make such an apportionment, but when conclusions are based on cost the entire cost must be taken in account."[41] The coal rates, which comfortably exceeded out-of-pocket costs, nevertheless failed to satisfy this test.

The Supreme Court's opinion did contain some limiting language, however. As long as an apportionment was fair, joint costs need not be divided equally among services.[42] Moreover, the Court continued to emphasize the ratemaking freedom of state legislatures:

> The legislature, undoubtedly, has a wide range of discretion in the exercise of the power to prescribe reasonable charges, and it is not bound to fix uniform rates for all commodities or to secure the same percentage of profit on every sort of business. There are many factors to be considered--differences in the articles transported, the care required, the risk assumed, the value of the service, and it is obviously important that there should be reasonable adjustments and classifications. Nor is its authority hampered by the necessity of establishing such minute distinctions that the effective exercise of the ratemaking power becomes impossible. It is not bound to prescribe separate rates for every individual service performed, but it may group services by fixing rates for classes of traffic.[43]

The admonition against "minute distinctions" was consistent with earlier Supreme Court pronouncements on the meaning of confiscation. In 1895, in St. Louis & San Francisco Railway v. Gill,[44] a railroad had argued confiscation on the ground that costs on a portion of its road exceeded the rates allowed by the state legislature. In rejecting that claim, the Court had relied on the profitability of the entire line, holding that a "company cannot claim the right to earn a net profit from every mile, section, or other part into which the road might be divided, nor attack as unjust a regulation which fixed a rate at which some such part would be unrenumerative. . . ."[45]

This holding was not reversed by the Northern Pacific case. In the words of one commentator:

> The rule. . . that each service must pay its own costs, should be understood in this sense: that each service which can conveniently be treated as distinct must pay its own costs. Almost any service which is treated for ratemaking purposes as a single division of a utility company's business might conceivably be subdivided into different services differing more or less in the cost of performing them. . . . In the interest of simplicity and practicability, the subdivision of services must, as it does, stop somewhere; and its stopping somewhere hardly derogates from the principle that each service must pay its own costs.[46]

But despite these limitations, Justice Hughes' analysis was flawed in several respects. First, Hughes incorrectly equated the lack of an apportionment (or the failure to provide "substantial compensation in addition to cost"[47]) with cross-subsidization. That is, he could not conceive of an economic justification for North Dakota's decision to transport coal at apparently preferential rates. As writers later noted, however, a rate based on out-of-pocket costs is not necessarily unreasonable in the sense of imposing a burden on other services.[48] This is especially true if the rate applies to business that would be lost if a higher rate were imposed; in that case, remaining services would still be forced to cover all of the joint costs. And if the rate is set slightly above out-of-pocket costs, revenues will help defray the joint costs, thereby benefitting the other services. It was wrong, then, to assume that the railroads actually suffered because of the rate structure.[49] If revenues from all services covered the joint costs and provided a sufficient return on investment (a situation the Court viewed as irrelevant), the railroads would not have been harmed. Nevertheless, the Court attached no significance to the fact that the joint costs "would still have been incurred had the particular commodity not been transported."[50] It did not wish to consider the effects of abandoning the service: "[Coal] has been transported; the common carrier is under a duty to carry, and the expenses of its business at a particular time are attributable to what it does carry."[51]

A related problem with Hughes' analysis was the inability to recognize the arbitrariness of the apportionment process. The reference to "entire cost"[52] was unfortunate because it implied that the cost of a service could be objectively isolated from the mass of expenses incurred by a railroad. Thus, the Court tried to rely on common sense--by arguing that rates below (or slightly above) cost deprived a carrier of a reasonable profit and were unlawful--but failed to realize that the force of its argument depended upon a specific (and dubious) interpretation of "cost." The fact that "the carrier may [not] be required to charge excessive rates to some in order that others might be served at a rate unreasonably low"[53] did not provide an independent justification for the rule enunciated by Hughes.

Finally, the "affirmative" aspects of the opinion were unhelpful. Hughes did not offer any standards for determining a "fair apportionment"[54] of the joint costs and the "substantial compensation in addition to cost"[55] which was required of a lawful rate. He merely wrote that the lower court had apportioned the costs after making a "detailed analysis."[56]

The Northern Pacific rule was applied in a number of subsequent cases, the most important of which, Norfolk & Western Railway v. Conley,[57] required an apportionment of joint expenses between the passenger and freight departments of a railroad. As in all of the apportionment cases discussed in this section, the Supreme Court's decisions revealed differing conceptions of "law" and "fact." As a matter of "law," the Court reiterated that ratemaking bodies must consider the cost of transport before fixing rates. The determination of cost involved the gathering of information--"facts." What the Court failed to realize was that the fact-finding process was not an objective one, since the necessarily arbitrary nature of cost allocations permitted the authorities to manipulate the legal requirement (subject to the holdings in the Minnesota Rate Cases and Northern Pacific Railway v. North Dakota).

Nor was the "factual" issue one which the Court wished to confront. In 1919, Justice Brandeis affirmed a lower court finding of confiscation and wrote, "For the present, at least, the question what formula the trial court should adopt presents a question, not of law, but of fact; and we are clearly unable to say that the lower court erred in adopting the method there pursued."[58] Brandeis' opinion in Groesbeck v. Duluth, South Shore & Atlantic Railway stressed the technical nature of cost allocations. Despite "much patient study and the exhibition of great ingenuity"[59] by railroad accountants, the Interstate Commerce Commission, and state commissions, "no wholly satisfactory method has yet been devised. . . . The science of railroad accounting is in this respect in process of development; and it may be long before a formula is devised which can be accepted as satisfactory."[60]

This discussion rejected the notion that the Supreme Court should adopt an apportionment formula. Instead, the Court would continue to play a negative role, for "it is much easier to reject formulas presented as being misleading than to find one apparently adequate."[61] According to one commentator, the Groesbeck holding was clearly distinguishable from the holding in the Minnesota Rate Cases because the Court did not encounter a "palpably fallacious"[62] apportionment by the trial judge. (A cynic might say that the more complex the formula used, the less intense the Court's desire to investigate.) As a result, the Supreme Court expected the "science of accounting" to make detailed ratemaking decisions. Indeed, Brandeis did not even describe the allocation formula adopted by the lower court.[63]

The Court's unwillingness to delve further into the intricacies of cost apportionments is not surprising, given the admixture of highly technical elements in the subject, and not undesirable, given the quality of some of its analysis. In the earlier cases, the Court felt compelled to intervene because of the seeming clarity of the lower courts' errors and because ratemaking remained in a formative stage. It should be remembered that many of the cases discussed in this section involved rates that were established by state legislatures on uncertain grounds.

But as the ratesetting process became more of a haven for experts, the impetus for judicial intervention lessened. Thus, even though the Court continued to hear rate cases throughout the 1920s and continued to reject cost allocations,[64] those decisions added nothing to the basic rules announced in the preceding decades. And as the Court entered the 1930s, the increasing expertise, on the federal level, of the Interstate Commerce Commission provided another reason for judicial deference[65]--an attitude by no means limited to the railroad industry.[66]

Joint Costs and the Telephone Industry: 1922 - 1935 [67]

Prior to 1922, the cost allocation cases decided by the Supreme Court dealt exclusively with the railroad industry. Much interest had developed in this area, primarily because discriminatory practices by railroads heightened the need for effective regulation.[68] In contrast, commentary on the telephone industry was not extensive,[69] and although state regulators (and, to some extent, state courts) attempted to deal with cost issues,[70] involvement at the federal level was less common.

The institutional structure of the telephone industry, as well as the nature of the service being provided, differed from conditions in the railroad industry and promoted weak intervention. These differences obscured the fact that telephone service, like transportation, experiences a high degree of joint costs.[71] From 1910 until 1934, the regulation of interstate telephone rates came under the jurisdiction of the Interstate Commerce Commission. ICC regulation was ineffectual, mainly because the Commission had no authority to compel the filing of tariffs and could act only on the basis of complaints. Such action was unlikely (in contrast to administrative intervention in the railroad industry), since "[i]ndividual monetary incentive was so largely absent. . .that no individual user of the service could fairly have been expected to bear the large costs necessarily incident to the prosecution of a telephone rate case."[72]

As for intrastate regulation, state and federal courts occasionally reviewed the local rates set by state authorities. The Supreme Court did not mandate the apportionment of telephone company costs until 1930,[73] but it was generally assumed that the Minnesota Rate Cases[74] required a separation of interstate and intrastate property and expenses.[75] In Cumberland Telephone & Telegraph Co. v. Louisiana Public Service Commission[76] and Southern Bell Telephone & Telegraph Co. v. Railroad Commission,[77] federal district courts told complaining carriers to make an apportionment before they alleged that intrastate telephone rates were confiscatory. No formula was specified, however, and there was no express requirement that the regulatory authorities apportion costs before fixing the rates.[78]

Indeed, even if state commissions wanted to make apportionments, the structure of the telephone industry undermined fact-finding efforts. One writer has noted that state authorities tried to avoid telephone rate cases because of the complexity of the rate-setting process.[79] Their attitude does not prove that railroad cases were any less complex, but telephone regulators did encounter a form of industrial organization not common in the railroad industry: the holding company. The American Telephone & Telegraph Company (AT&T) dominated and managed the country's telephone network. State jurisdiction was limited to the intrastate[80] operations of AT&T's local operating subsidiaries.[81] States lacked jurisdiction over the subsidiaries' interstate operations[82] and, more significantly, the operations of AT&T's Long Lines department, which provided the bulk of interstate telephone service.

Such a restriction of state authority was not new. Yet it was complicated by the fact that AT&T and its subsidiaries, while extensively interrelated _in substance_, were separately organized _in form_. AT&T argued that the legal separation between parent and subsidiary meant that state regulators also lacked jurisdiction over the relationship between the corporations. It denied the states access to information that would enable them to determine whether contractual payments by the subsidiaries to AT&T (covering equipment, supplies, research activities, and financial advice[83]) and payments by AT&T to the subsidiaries (covering certain toll expenses incurred by the local companies[84]) were reasonable. Determining whether the latter imposed a burden on local service would require an investigation of the interstate toll business. An investigation was not possible and, in effect, state regulators became prisoners of the AT&T corporate structure.[85]

Given this background, it is not surprising that the first Supreme Court case to deal with cost allocation issues failed to note the parallels between the telephone and railroad industries. In 1922, in _Houston v. Southwestern Bell Telephone Co._,[86] the Court ruled on the reasonableness of intrastate rates without invoking the apportionment doctrine developed in the section Joint Costs and the Railroad Industry: 1898-1930. One of the issues in the case involved the "settlements" that AT&T paid to the Houston exchange as compensation for certain toll costs incurred by the local company.[87] The lower court found that the carrier was unprofitable because intrastate rates were too low. The City, however, argued that if 60 percent of the revenues from toll calls originating in Houston were allocated to the exchange (instead of the current 25 percent[88]) the carrier would have earned a reasonable profit. In other words, the division of revenues, not the intrastate rates, was responsible for the company's financial distress. The Supreme Court viewed the 25 percent allocation as "reasonably sufficient"[89]--in part because the figure was one customarily approved by state commissions[90]--and held that the rates set by the City were confiscatory.[91]

The Court's acquiescence in the division of revenues was significant for several reasons. First, the Court did not require that the company's expenses and property be apportioned between intrastate and interstate service before it determined the sufficiency of the revenues attributed to each jurisdiction. Since settlements were theoretically linked to cost allocations (it was necessary to calculate the operating company's costs before determining the extent of its reimbursement from toll revenues), the Court must have assumed that the payments constituted a reasonable approximation of those costs.[92] And since the lower court had relied on the settlements formula in determining intrastate costs, it was not necessary to inquire into the accuracy of its calculations. Yet the Supreme Court failed to explain how AT&T and Southwestern Bell arrived at the 25 percent figure, except to note its prevalence elsewhere. As a result, it is unclear whether the Court felt that a "scientific" basis for the division existed, or whether its approval rested primarily on the City's failure to prove its position.[93]

The case also had confusing implications for telephone rate-making theory. Under the board-to-board method of calculating intrastate rates, the entire cost of the local exchange network was recovered through local exchange rates. Toll rates covered only those costs exclusively attributable to interstate service, even though long distance callers had to use the exchange network in order to gain access to the toll network. To state this conslusion another way, all of the joint costs incurred by local and long distance service were allocated to the former. The station-to-station method of apportionment shifted some of the joint costs to the interstate jurisdiction. Exchange service accounted for a lower share of the company's total costs than under the board-to-board method. Both of these procedures--known as "separations"--had intellectual support, but, in practice, the board-to-board method prevailed until the 1940's. From the mid-1940's to the early 1980's the station-to-station method prevailed. The "access charge" processes under active consideration as of early 1981 amount to revisiting the spirit of board-to-board methods.[94]

According to one commentator, the settlements in the Houston exchange were based on board-to-board separations.[95] The revenues transferred to the operating company covered expenses that were attributable solely to toll service, such as the salaries of extra operators who made the long distance connections. The payments did not defray the joint costs of telephone equipment and exchange plant. The Supreme Court, however, construed the revenue division as "compensation for the use made of the local plant in rendering long distance service"[96] and apparently assumed that the station-to-station method had been followed. Nevertheless, "[t]he practical effect of the decision, whatever the intentions of the Court may have been, was to sustain the board-to-board principle of separations."[97]

The separations issue was not put directly before the Supreme Court until 1930.[98] Then, in the landmark case of Smith v. Illinois Bell Telephone Co.[99], the Court moved back into the mainstream of the earlier apportionment cases and recognized that cost problems in the railroad industry had their counterparts in telecommunications. Seven years earlier, the Illinois Commerce Commission had decided to reduce certain intrastate rates. A federal court subsequently held that the new rates were confiscatory.[100] Although the confiscation claim was not resolved until 1934,[101] the Smith opinion contained sweeping language that even today influences apportionment procedures in the telephone industry.

The Supreme Court's analysis focused on the fact that neither the Commission nor the District Court had apportioned the property, expenses, and revenues of the company before assessing the rates. The District Court supported board-to-board separations in principle, but thought that the result would not differ (and would be easier to calculate) if the confiscation issue were resolved on the basis of the total property owned by Illinois Bell in Chicago.[102] This property included equipment used solely for interstate service, but the court emphasized that less than one-half of one percent of calls originated by subscribers resulted in interstate toll calls. The company's books also revealed a higher return on total (i.e., local and toll) Chicago business than on total intrastate business, so that rates which were confiscatory under the former standard were definitely confiscatory under the latter. But as Chief Justice Hughes wrote, it was impossible to claim that interstate service was insignificant because of the number of calls initiated "without considering other factors of time and labor entering into the relative use."[103] Nor could the matter be resolved "by assuming a rate of return from the total Chicago business as compared with a rate of return from the intrastate business. . . , as such an assumption would beg the point in issue."[104] That is, the returns were based on cost allocations that the lower court had decided not to verify and which formed the central dispute in the case.

In rejecting the District Court's approach, the Supreme Court emphasized the need for jurisdictional separations. As it had in Smyth v. Ames,[105] it emphasized the limited authority of the rate-making body: "The separation of the intrastate and interstate property, revenues and expenses of the company is important not simply as a theoretical allocation of two branches of the business. It is essential to the appropriate recognition of the competent governmental authority in each field of regulation."[106] And abandoning the approach taken in the Houston case, the Court criticized the judicial approval of the division of toll revenues between AT&T and its subsidiary, indicating that the ICC was not bound to accept the division:

> In disregarding the distinction between the interstate and intrastate business of the company, the court found it necessary to pass upon the fairness of the division of interstate tolls between the American and Illinois companies. The court held that the division was reasonable and the appellants contest this ruling. But the interstate tolls are the rates applicable to interstate commerce, and neither these interstate rates nor the division of the revenue arising from interstate rates was a matter for the determination either of the Illinois Commission or of the court in dealing with the order of that Commission. The Commission would have had no authority to impose intrastate rates, if as such they would be confiscatory, on the theory that the interstate revenue of the company was too small and could be increased to make good the loss. The interstate service of the Illinois Company, as well as that of the American Company, is subject to the jurisdiction of the Interstate Commerce Commission, which has been empowered to pass upon the rates, charges, and practices relating to that service. . . . The proper regulation of rates can be had only by maintaining the limits of state and federal jurisdiction, and this cannot be accomplished unless there are findings of fact underlying the conclusions reached with respect to the exercise of each authority. In view of the questions presented in this case, the validity of the order of the state commission can be suitably tested only by an appropriate determination of the value of the property employed in the intrastate business and of the compensation receivable for the intrastate service under the rates prescribed.[107]

In addition to imposing an allocation requirement, the Supreme Court considered the types of procedures that would satisfy the new rule:

> While the difficulty in making an exact apportionment of the property is apparent, and extreme nicety is not required, only reasonable measures being essential. . . , it is quite another matter to ignore altogether the actual uses to which the property is put. It is obvious that, unless an apportionment is made, the intrastate

> service to which the exchange property is allocated will bear an undue burden--to what extent is a matter of controversy. We think that this subject requires further consideration, to the end that by some practical method the different uses of the property may be recognized and the return properly attributable to the intrastate service may be ascertained accordingly.[108]

The preceding quotation has been interpreted as mandating the station-to-station method of separations.[109] The reference to uses[110] certainly suggested that exchange property could not be allocated to the intrastate rate base alone. On the other hand, the extended discussion of jurisdictional boundaries also led some commentators to believe that the Court's primary purpose was to delineate the power of the states vis-a-vis the ICC.[111] According to one writer, "The Constitutional basis for the requirement was unimpeachable; the state commissions could have no jurisdiction over a business properly regulated by the Interstate Commerce Commission."[112]

Indeed, several aspects of the case pointed to the predominance of jurisdictional questions. As noted earlier, the Court not only required that state regulators make cost apportionments but also criticized regulators and lower courts for considering the fairness of the division of interstate toll revenues. The latter was an issue for the ICC to resolve. Additionally, the Court discussed the reasonableness of the license contract between AT&T and Illinois Bell.[113] Although the integrated nature of the Bell System did not "alter the fact that the Illinois business [was] to be treated as a segregated enterprise,"[114] the regulatory authority should look at AT&T's costs in providing services under the contract and then determine the "reasonable amount which should be allocated in this respect to the operating expenses of the intrastate business of the Illinois Company. . . ."[115] The Court ordered the lower court to make such findings but did not reveal the weight to be given to the cost data. Nor did it explain how cost should be determined.[116] Instead, the Court focused on the need to devise intrastate rates that properly reflected intrastate costs; developing those costs was of secondary importance.

Similarly, the Court ordered findings on the alleged excessiveness of Western Electric's profits.[117] It indicated that the Smith case did not involve the "abuse of intercorporate relations,"[118] but stated that Western Electric's profits were relevant in determining the reasonableness of expenditures made by the local company.

The Court's resolution of both the license contract and equipment issues--permitting states to regulate indirectly the relationship between AT&T and the other components of the Bell System--was announced in an era when holding companies were viewed with distrust, and helped remove one of the greatest impediments to the effective regulation of intrastate telephone rates.[119]

Setting aside the jurisdiction questions, however, it is clear that the Court's reference to the mechanics of apportionment cannot be ignored. As in the Northern Pacific[120] case, the Justices believed that the allocations would produce an "objective" cost figure. They eliminated the major problem (the lack of an apportionment) without realizing that the remedy they chose was itself problematic. Although the Court, years earlier, had condemned the circularity of apportioning joint costs on the basis of gross revenues,[121] it could not see the circularity inherent in allocating joint costs on the basis of use. Since rates, to some degree, determine use, past rates would help determine future rates. The link is indirect and its significance depends upon the elasticity of demand, but it cannot be denied.[122] Moreover, the Court did not specify the precise nature of the use requirement. The opinion was widely read as mandating the apportionment of exchange plant on the basis of its "relative use"[123] between local and long distance calling, but, as the railroad cases had shown, use might be determined in a number of ways.[124]

The ratemaking implications of the case were complicated even more by the 1934 decision in Lindheimer v. Illinois Bell Telephone Co.[125] The failure to separate Illinois Bell's property and expenses presumably meant that the intrastate rate of return was higher than the District Court had initially found, since fewer costs were allocable to intrastate service.[126] But when the District Court considered the case on remand, it allocated exchange revenues as well as costs to the interstate jurisdiction. As a result, the rate of return remained unchanged.

In reviewing the case a second time, the Supreme Court reported that the Illinois Commission objected "to the separation of revenues, insisting that certain revenues were improperly assigned to the interstate, instead of the intrastate business."[127] Its opinion did not address the issue further. Instead, it pointed to the fact that the "difficult task [of apportioning property] was so well performed that no question is now raised as to the allocation of property to the intrastate and interstate services . . ., the allocation being made on the basis of use. Nor is there dispute with respect to the separation of expenses."[128] The Court did not discuss the precise method used by the District Court, however.

Despite the favorable language, the Supreme Court reversed the lower court and permitted the rates to go into effect. It noted that the "actual experience of the Company is more convincing than tabulations of estimates."[129] The District Court's calculations showed that existing as well as proposed rates were confiscatory; yet the company was not challenging the current rates and its financial health was excellent. The Supreme Court rejected most of the statistical evidence because "[e]laborate calculations which are at war with reality are of no avail."[130] Looking at the other evidence, it held that the invalidity of the proposed rates had not been satisfactorily proved. Thus, the jurisdictional separations which were so crucial in Smith (and which were still viewed as crucial in Lindheimer) failed to play a determinative role in the ultimate evaluation of the rate order.[131]

The fact that the separations language in Smith had no practical effect lends force to the argument that the Supreme Court's intent was to set jurisdictional limits rather than select a ratemaking theory. Additional evidence was provided a year later, in West v. Chesapeake & Potomac Telephone Co.[132] The figures calculated by the District Court included both intrastate and interstate business, but the parties stipulated that the former represented 85 percent and the latter 15 percent of the total. Those percentages were applied to revenues as well as costs, and the Supreme Court did not question the procedure. It did not indicate how the 85:15 ratio was chosen or require that the District Court conduct its own investigation instead of adopting the parties' determination. So long as some type of cost apportionment was made, it appeared that the Court would not intervene in the process.

Whatever the rationale behind the Smith and Lindheimer decisions, the Court's behavior did not result in a uniform ratemaking policy at the state level. As of 1938, the "basis upon which separation [was] to be developed [remained] to be determined."[133] Many states interpreted Smith as requiring station-to-station separations of costs,[134] but some read the Court's silence in Lindheimer as mandating revenue allocations as well.[135] The revenue allocations were justified on the ground that the exchange rate contained an "access charge" for long distance calling, so that exchange revenues (like costs) contained a toll component.[136] Given the fact that state regulators had no jurisdiction over long distance rates, their attitude was not entirely irrational. A telephone company recovered its costs from two sources: 1) the exchange rate; and 2) AT&T (through the division of toll revenues). Since long distance rates were still set on the board-to-board basis, the revenues received from AT&T did not offset any of the costs of the local exchange plant. If the exchange rate were reduced, on the ground that it should no longer account for all of the exchange costs, the company would fail to recover the costs allocated to the interstate jurisdiction (unless long distance rates were increased or lower exchange rates stimulated demand to the point where revenue gains from new subscribers offset the costs removed from the intrastate jurisdiction). The states which allocated revenues along with costs seemed to think it was better to manipulate the numbers and maintain the status quo rather than force a change at the federal level.

The problem discussed above was stressed in the only separations case to reach federal court in the period following Smith and Lindheimer. Although Southwestern Bell Telephone Co. v. San Antonio[137] reflected the confusion over the interpretation of those decisions, the Supreme Court refused to review the ruling of the Court of Appeals for the Fifth Circuit. The latter recognized the practical difficulty of requiring a state to apportion exchange plant when long distance rates were set on the board-to-board basis:

> If the toll rate for the communication be fixed so as to cover the use of the exchange property so apportioned to the toll business, the owner will be compensated for the use of all his property when exchange rates are likewise fixed on a basis of the apportionment. But if one ratemaking body apportions the exchange property together with its expense and maintenance and the other does not, the inconsistency may result in serious injustice. . . . The required apportionment has many practical difficulties which might be mitigated by legislation or by conference and agreement among the rate-making bodies.[138]

The Fifth Circuit went on to emphasize the Supreme Court's failure to adopt a specific ratemaking theory. In Smith, "the court went no further than to say that by some practical method the different uses of the property should be recognized and the return properly attributable to each service should be ascertained."[139] In Lindheimer, "an allocation on the basis of use was. . .reached in the trial court so satisfactory that no exception was taken, but the exact formula does not appear, and the Supreme Court passed no judgment on it."[140] The Supreme Court's unwillingness to supply a conclusive answer, as well as the lack of "direct legislation. . .and specific action by the rate-making bodies concerned,"[141] led the court to conclude that "it was the managerial right of the company to initiate a mode of dealing with the situation, but subject to control by the rate-making bodies and subject to the criticism of the court."[142] The company advocated board-to-board separations, in line with the establishment of toll rates. While the District Court had the right to disagree, it also had the responsibility to devise a better formula before rejecting the company's calculations.[143] Given the implications of adopting station-to-station separations, the court placed a heavy burden on the lower court.

The lack of uniformity which upset the Fifth Circuit did not survive the FCC's entry into the separations arena. The FCC began investigating separations procedures in 1941; although it never issued a decision in the Docket 6328 proceeding, AT&T adopted the station-to-station theory of ratemaking for interstate services in 1943.[144] Since that time the separations process has evolved into a policy tool for reducing pressures to increase intrastate rates. While couched in the "relative use" language from the Smith opinion, changes in the separations formula have enabled regulators to transfer rising intrastate costs to the interstate jurisdiction during periods when technological improvements reduced interstate costs.[145]

The policy development of separations does not, however, render insignificant the Supreme Court's pronouncements in this area.

The Court has never reviewed the separations procedures devised by the states, the telephone industry, and the FCC.[146] Those procedures continue to rely (although nominally, perhaps) on the analysis presented in the Smith decision. Thus, the Court's impact has been important and remains so today.

This impact has been positive and negative. As in the railroad cases discussed in the section Joint Costs and the Railroad Industry: 1898-1930, the Court focused heavily on the jurisdictional need for cost allocations and (while setting some guidelines) preferred to let other bodies work out the mechanics of a precise formula. In one respect, the telephone cases revealed much less than the railroad cases: the Court was never asked to decide whether individual services within a state should be self-sustaining, as it had been in the Northern Pacific case.[147] Overall, however, the Court's analysis remained consistent in attributing more meaning to the ratemaking process than an economist would. Although the Court was correct in recognizing the need for cost apportionments, it never discussed the arbitrariness of apportioning the local exchange plant--the costs of which are usage-insensitive--on the basis of use.

Judicial Deference and the Ratemaking Process: 1934 - Present

For the Supreme Court, the 1930's was a decade of increased deference to administrative decision making.[148] Even the telephone cases, which saw the Court discussing the limits of state regulation, failed to involve a great deal of judicial activism: the Justices identified a ratesetting problem, but the ultimate solution--a separations formula--was devised by the industry, the states, and the FCC (and was never subject to judicial review).[149] Since that time the Court has expressed even less interest in the joint cost problem. Indeed, Smith remains the last case to impose a requirement in this area.

In several cases, the Court has actually permitted rates to go into effect despite the lack of a cost apportionment. The exception was first stated in 1934, in Illinois Commerce Commission v. United States,[150] a case which involved an ICC order removing a disparity between certain intrastate and interstate railroad switching rates in Chicago. Justice Stone wrote:

> Where the conditions under which interstate and intrastate traffic move are found to be substantially the same with respect to all factors bearing on the reasonableness of the rate, and the two classes are shown to be intimately bound together, there is no occasion to deal with the reasonableness of the intrastate rates more specifically, or to separate intrastate and interstate costs and revenues.[151]

This rule provided the ICC with a much-welcomed shortcut. If it were reasonable to assume that intrastate and interstate costs were the same, then a separations requirement would entail a waste of time and money. The same principle was later applied to the Federal Power Commission in 1945, in Colorado Interstate Gas Co. v. Federal Power Commission,[152] an opinion sustaining a rate reduction ordered by the Commission to apply to the company's interstate rates. Construing the Natural Gas Act of 1938, Justice Douglas concluded that the Minnesota and Smith holdings were inapplicable in determining the costs of regulated and unregulated gas:

> [T]he rule fashioned by this Court for use in those situations was not written into the Natural Gas Act. Congress indeed prescribed no formula for determining how the interstate wholesale business, whose rates are regulated, should be segregated from the other phases of the business whose rates are not regulated. Rate-making is essentially a legislative function. . . . Congress, to be sure, has provided for judicial review of the Commission's orders. . . . But that review is limited to keeping the Commission within the bounds which Congress has created. When Congress, as here, fails to provide a formula for the Commission to follow, courts are not warranted in rejecting the one which the Commission employs unless it plainly contravenes the statutory scheme of regulation. . . . A separation of properties is merely a step in the determination of costs properly allocable to the various classes of services rendered by a utility. But where, as here, several classes of services have a common use of the same property, difficulties of separation are obvious. Allocation of costs is not a matter for the slide-rule. It involves judgment on a myriad of facts. It has no claim to an exact science. . . . But neither does the separation of properties which are not in fact separable because they function as an integrated whole.[153]

Once again the Supreme Court held that "the appropriateness of the formula employed by the Commission in a given case raises questions of fact, not of law."[154]

The preceding discussion is important for several reasons. First, by stating that the Natural Gas Act did not require the FPC to follow the holdings in the separations cases, the Court indicated that those rulings were not constitutionally compelled. If due process required that rates be based on a full apportionment of costs between jurisdictions, Congress could not, by its silence, erase that requirement.

Second, the Court also suggested that its intervention in earlier cases was designed to fill an administrative and legislative void. In none of the cases did the Court tread on the expertise of a federal agency attempting to enforce a complicated regulatory scheme enacted by Congress. Even then the Court's intervention was limited, since the Justices might have decided that the apportionment issue was so significant that the parties deserved a precise judicial resolution of the controversy.

But the Court also recognized that judges are not economists or accountants.[155] The rise of federal agencies, whose existence evidences a Congressional intent to delegate certain decisions to expert bodies, and whose broad policymaking powers influence state as well as federal policy, gave the Court even more of a reason to withdraw from the regulatory arena. As the Court stated in 1942, in Board of Trade v. United States:[156]

> The process of rate-making is essentially empiric. The stuff of the process is fluid and changing--the resultant of factors that must be valued as well as weighed. Congress has therefore delegated the enforcement of transportation policy to a permanent expert body and has charged it with the duty of being responsive to the dynamic character of transportation problems.[157]

The Court thought that the resolution of the issue in the case (dealing with discrimination in the grain rate structure) "had to rest on informed judgment. And judgment in a situation like this implies, ultimately, prophesy based on the facts in the record as illumined by the seasoned wisdom of the expert body."[158]

The deferential attitude present in the foregoing cases extends to most of the Supreme Court opinions[159] dealing with the railroad and energy industries since the mid-1930's.[160] If the holdings in these cases are not confined to the specific industries and fact situations in which they arose, then they have important implications for the regulation of telecommunications as well--namely, the FCC's adherence to the separations language in the Smith opinion may no longer be required. As a result, the Commission may be able to devise new methods for allocating costs in an era when competition is undermining old procedures, without relying on the relative use standard announced by the Supreme Court over 50 years ago.

The case frequently viewed as the epitome of judicial deference to the expertise of regulatory agencies is Federal Power Commission v. Hope Natural Gas Co.,[161] decided in 1944. In announcing that a rate order would be reviewed solely on the basis of its impact ("Under the statutory standard of 'just and reasonable' it is the result reached not the method employed which is controlling.")[162] the Court put to rest a long-standing controversy over the "correct" means of valuing a utility's rate base.[163] More generally, the Court's pragmatic emphasis on the end result (Would the agency's order permit the company to operate effectively?) rather than the procedures for deriving the result (What formula generated the rates?) severely limited the scope of review of regulatory decisions. Those decisions were the "product of expert judgment" and accordingly carried a "presumption of validity."[164] The judiciary should intervene if an order was so flawed that a non-expert observer could recognize that a mistake had occurred. But apart from those rare occasions, the division of functions between courts and agencies would be served best if the former deferred to the latter.[165]

Although Hope did not involve joint cost apportionments, its reasoning explains the Supreme Court's failure to consider allocation issues in other energy cases. In the Permian Area Rate Cases,[166] for example, the Court sustained maximum area rates imposed by the FPC for natural gas production in the Permian Basin. The order differed from previous rate orders in two respects: 1) rates were applied industry-wide rather than for individual producers;[167] and 2) rates were used as a means of providing incentives for exploration. A higher rate applied to "new" gas than to other gas, including previously committed reserves ("old" gas) and gas produced in association with oil ("associated" gas).[168] For the sake of administrative simplicity, the FPC did not apportion the costs of associated gas between the joint products, gas and oil. It decided that the costs attributable to gas were probably less than the cost of old gas and applied the same rate to both.[169]

In approving this approach, the Supreme Court noted that "Congress has entrusted the regulation of the natural gas industry to the informed judgment of the Commission, and not to the preferences of reviewing courts."[170] Area rates were permissible so long as the agency had representative evidence that cost characteristics were uniform across the industry.[171] As to the joint cost issue raised by associated gas, "[t]here is ample support for the Commission's judgment that the apportionment of actual costs between two jointly produced commodities, only one of which is regulated by the Commission, is intrinsically unreliable."[172] The Court stated that the Commission was entitled to give weight to the administrative importance of a simplified rate structure.[173] It was also "cognizant of the forceful argument that the computation of rates from costs is ultimately circular"[174] because rates determine future investment and, hence, future costs.

The Court's analysis in the Permian Area Rate Cases is at the opposite extreme of the earliest apportionment cases. The Court recognized the arbitrariness (and circularity) of apportionments, deferred to the best judgment of an administrative agency, and allowed considerations of administrative convenience and policy to color ratemaking decisions.[175] The costing aspect of ratemaking became less important because of the imprecise nature of any such determinations. A reliance on experts has also come to dominate the Court's approach in the railroad industry. In 1947, the Court affirmed an ICC order altering interstate rates in different geographic regions and stated:

> The appraisal of cost figures is itself a task for experts since these costs involve many estimates and assumptions and, unlike a problem in calculus, cannot be proved right or wrong. They are, indeed, only guides to judgment. Their weight and significance require expert appraisal.[176]

The Court's analysis in New York v. United States was flawed in one respect, however: it continued to rely on the cost definition announced in Northern Pacific Railway v. North Dakota,[177] which required that all rates contain an apportionment of costs not attributable to a specific service.[178] Thus, while regulators had discretion in interpreting cost studies and the Court generally would not second-guess those interpretations, the Northern Pacific holding still set a floor for constitutionally proper rates.

This limitation was removed in 1953 in Baltimore & Ohio Railroad v. United States.[179] In that case the ICC set maximum rates for carrying certain kinds of fresh vegetables from points in Texas to several other states. The Court rejected the railroads' claim that the rates were confiscatory, since there was no claim that the rates would force any of the railroads to operate its entire business at a loss, or even carry all fresh vegetables at a loss: "The carload rates prescribed are but minor alterations in a vast, complex network of rates that apply to fresh vegetable shipments throughout the Nation."[180] The Court attempted to distinguish the Northern Pacific case,[181] but the overall effect of its ruling was to enable agencies to further attenuate the link between rates and some conception of "cost." On the one hand, the Court did not reveal an in-depth understanding of economics; it did not argue that the rates were compensatory because they exceeded out-of-pocket costs,[182] but concluded, instead, that the noncompensatory nature of the rates was unimportant so long as the railroads earned a profit overall.[183] But on the other hand, the decision gave the ICC more flexibility in prescribing rates. And it again revealed the Court's willingness to recognize the policy aspects of ratemaking:

> The many factors that have to be considered in rate cases [demonstrate] the absolute necessity for considerable flexibility in ratemaking. For not only are fair decisions as to vegetable rates vital to the welfare of farmers and whole sections of the country; the health and well-being of the Nation are involved.

> Moreover, Commission power to adjust rates to meet public needs is implicit in the Congressional plan for a nationally integrated railroad system. . . .[184]

The Court found within the Interstate Commerce Act implicit authority for the ICC's actions. It viewed such authority as sufficient to overcome constitutional challenges to the practice. Should the FCC alter separations procedures (or should Congress amend the Communications Act so as to affect cost decisions) similar reasoning may well dictate judicial review of the changes. Indeed, as the following section reveals, policy issues have played a statutory--and judicially approved--role in another area of railroad ratemaking where cost issues arise.

Allocating the Costs of Several Carriers

The preceding sections of this paper have dealt with cost allocations in the context of a single carrier--telephone or railroad, for example--providing several services. In reality, cost issues are more complex. The telephone industry contains over 1,000 operating companies, a fraction of which comprise the Bell System and transmit the bulk of the country's telephone service. When an "independent" telephone company provides local service and AT&T's Long Lines provide long distance service, it is necessary to allocate toll revenues among the companies. Indeed, the allocation process actually consists of a nationwide pool of toll revenues that are distributed among the various providers of telephone service.[185] Since long distance rates are averaged in order to provide support to low-density, high-cost routes,[186] revenues are distributed without a precise link between costs and earnings on any given route. The same principle applies to the long distance revenues allocated to Bell operating companies by AT&T.

In an analogous context, several railroads often join together to transport a single shipment of freight.[187] The means of allocating revenues to the railroads differs from that chosen in the telephone industry. Revenues are distributed on a route-by-route basis and for each route the rate is apportioned among the participating carriers.[188] Here, too, the link between revenues and costs is not always great. The "divisions" process, which begins as a type of private contact among railroads, can be prescribed by the ICC.[189] The Interstate Commerce Act requires the ICC to consider, among other things, the efficiency with which the carriers are operated, the importance of the transportation to the public, and the revenue needs of the carriers.[190] If necessary, a railroad may receive more (or less) through divisions than its cost of operating a route would indicate.

This approach has been upheld in a number of cases. These cases do not focus on cost allocations and the joint cost problems experienced by the railroads but stress the ICC's flexibility in prescribing divisions. Thus, in 1923, in the <u>New England Divisions Case</u>,[191] the Supreme Court held that divisions could be based on the financial needs of weaker carriers in order to maintain an adequate transportation system, so long as the shares to other carriers were not confiscatory. Similarly, in <u>United States v. Abilene Southern Railway</u>,[192] the Court held that "[r]elative cost of service is not the only factor to be considered in determining just divisions."[193]

Moreover, evidence can be taken on a group basis if there is adequate support for the conclusion that the information is representative of the group.[194]

According to one commentator writing in 1937, the divisions process "reveals an increase in the scope of the Commission's power and a change in emphasis as to objectives, reflecting a tendency to treat the problem as one affecting not only the individual carriers involved but also the public in general, because of the importance of apportionment to the statutory objective of maintaining an efficient national transportation system."[195] This broad public policy approach, expressly grounded in the Interstate Commerce Act, provides another reason for expecting legislative or administrative changes in the telephone industry to receive judicial approval.

As noted earlier,[196] cost allocation procedures in telecommunications are indirect mechanisms of policy that are tied to the formal language of the _Smith_ decision. If the FCC decides to abandon that language, divisions cases and the transportation statute upon which they rely would provide a useful argument in favor of a direct recognition of policy, at least insofar as _methods_ are concerned. However, so long as the statute governing telecommunications continues to divide jurisdiction over telecommunications between the federal government and the states, that aspect of the _Smith_ decision which requires _some_ way of recognizing which costs belong under what jurisdiction will remain pertinent.

NOTES

THE ECONOMIC PROBLEM

1. See 1 A. Kahn, The Economics of Regulation (1970), for a detailed discussion of economic regulation.

2. It has been suggested that agencies go even further and price some services below cost in order to guarantee their availability to the public. For a discussion of "cross-subsidization" as well as some examples, see Posner, "Taxation by Regulation," 2 Bell J. Econ. 22 (1971).

3. See A. Kahn, note 1 supra at 77-83.

4. See Cunningham, "The Separation of Railroad Operating Expenses Between Freight and Passenger Services," 31 Q. J. Econ. 209 (1917), for a description of various formulas used to apportion railroad costs. According to one commentator, it was possible for the regulatory body to "select a theory with any result it desires." Note, "Economic Aspects of the Judicial Apportionment of Joint Costs," 29 Colum. L. Rev. 643, 650 (1929).

5. This problem has long been recognized. In 1916, one commentator pointed to the arbitrariness of the apportionment process and argued that the phrase "cost of service" was a misnomer. Olmstead, "Do 'Cost of Transportation' Exhibits in Railroad Rate Cases Show Cost?" 63 Annals 214 (1916). When regulators made cost allocations they worked backwards--first deciding "how much of the total expense it is just and fair and reasonable that a given traffic should bear" and then labelling the result "cost." Id. at 218. The decision was a "matter, not of fact, but of policy." Id. See also Hamilton, "Cost as a Standard for Price," 4 Law & Contemp. Probs. 322 (1937).

6. See section Joint Costs and the Telephone Industry: 1922-1935 infra.

7. See section Judicial Deference and the Ratemaking Process: 1934 - Present infra.

JUDICIAL ATTITUDES

8. Smyth v. Ames, 169 U.S. 466, 541 (1898).

9. Smyth was the first case in which the Supreme Court reached such a conclusion. In previous cases the Court had refused to second-guess the ratemaking procedures of state legislatures, reasoning that if rates "[have] been improperly fixed, the legislature, not the courts, must be appealed to for the change." Peik v. Chicago & N. W. R.R., 94 U.S. 164, 197 (1877). See also Munn v. Illinois, 94 U.S. 113 (1877); Chicago, B. & Q.R.R. v. Cutts, 94 U.S. 155 (1877); 1 H. Spurr, Guiding Principles of Public Service Regulation 177 (1924). In Stone v. Farmers' Loan & Trust Co., 116 U.S. 307, 331 (1886), the Court had admitted that the "power to regulate is not a power to destroy. . . . Under pretense of regulating fares and freights, the State cannot require a railroad corporation to carry persons or property without reward; neither can it do that which in law amounts to a taking of private property for public use without just compensation, or without due process of law." However, the dispute in that case did not require a review of specific rates. Twelve years later, the Smyth decision opened the way for numerous suits alleging that states had fixed "confiscatory" rates in violation of the due process clause of the Fourteenth Amendment.

10. The "fair value" discussion in Smyth, see 169 U.S. at 546-47, proved to be the most important part of the opinion. Rate base valuation is beyond the scope of this paper, but it should be noted that the problems associated with joint cost allocations are similar to (and in many ways inextricably linked to) the larger problem of calculating the value of the property devoted by a utility to intrastate or interstate use. In determining a utility's rate base, the regulator has two tasks. First, the ratemaking authority must decide how to value the property in its jurisdiction. In Smyth, the Supreme Court held that the regulator should consider a variety of factors (including reproduction costs), without specifying the weight to be attached to each. See id. Once the method has been chosen, the property to be valued must be selected; if the utility has incurred joint costs in providing services in more than one jurisdiction, an apportionment between jurisdictions is required.

The first task preoccupied courts and commentators in the decades following the Smyth decision. The vagueness of the Supreme Court's standards also provoked extensive criticism, especially when lower courts began to focus on reproduction costs as the primary determinant of the rate base. Rate base calculations were attacked for their arbitrariness, as were the results of joint cost allocations (perhaps because the former were at the heart of public utility regulation, they also received the most attention). See, e.g., Missouri ex rel. S.W. Bell Tel. Co. v. Public Serv. Comm'n, 262 U.S. 276, 289-312 (1923) (Brandeis, J., concurring); J. Bauer, Transforming Public Utility Regulation 24-65 (1953). Noting the interrelationship between fair value and joint costs, one commentator wrote:

> The proper division of property value. . .does not readily admit of scientific analysis. Valuation, at best, is merely a series of approximations. It is more a matter of judgment than of mathematical formulas. . . . Hence, to endeavor to obtain an approximation on the basis of other approximations merely widens the margin of possible errors and may lead to ridiculous results.

Sakolski, "Railroad Operating Expenses and Property Values," 22 J. Accountancy 101, 107-08 (1916). Finally, in Federal Power Comm'n v. Hope Natural Gas Co., 320 U.S. 591 (1944), the Supreme Court held that the valuation of the rate base is unimportant so long as the rates established by the regulatory authority enable the company to operate successfully, attract capital, and compensate its investors. Today, then, the most memorable part of Smyth--the phrase "fair value"--is a matter of historical significance only.

11. 169 U.S. at 541-42.

12. 176 U.S. 167 (1900).

13. Id. at 174.

14. Id.

15. Id. at 176.

16. The lower court assumed (and the Supreme Court did not disagree) that the level of service would have remained the same. In reality, one suspects that it would have increased (to what degree is a matter of speculation), given the drop in rates.

17. 176 U.S. at 175.

18. Id. at 176.

19. Id. at 176-77.

20. Id. at 177.

21. Id. at 178. However, a determination based primarily on the general belief that intrastate service was more costly to operate than interstate service would not be sufficient. See Minnesota Rate Cases, 230 U.S. 352, 462-66 (1913) (company had failed to maintain accounts showing relative costs of interstate and intrastate business but argued that the latter was more than twice as expensive as the former).

22. The Supreme Court admitted that, as a court of equity, it could ascertain the costs itself. But it was careful to draw a line between the proper roles of appellate and trial courts. The role of the former was to decide whether the evidence was sufficient to support a decision rendered in another forum, not to decide what the evidence was. This case was therefore one where "there should be a full and clear finding of the facts by the trial court." 176 U.S. at 179. Moreover, the Supreme Court suggested that an expert (a "master") be selected to make the necessary computations and preliminarily assess the evidence. Id. at 180. Its suggestion reflected the burden that ratemaking had placed on the legal system. See generally Comment, "Rate Litigation--Fact Determination by Judicial Guesswork," 40 Yale L. J. 81 (1930).

It should be noted that the Court's decision to remand was not based on deference to the regulatory authority, an attitude present in later cases. See section Judicial Deference and the Ratemaking Process: 1934 - Present infra. This case did not involve the policymaking freedom or expertise of state legislatures in railroad matters. The narrower question was whether the relevant evidence had been introduced at trial. The Court held that it had not been.

23. See note 21 supra.

24. 230 U.S. at 459 (emphasis in original).

25. Id. at 461.

26. Id.

27. Id.

28. Id. See Cunningham, note 4 supra, for a description of these (and other) apportionment methods.

29. 230 U.S. at 461. This remedy would not end the circularity, however. Rates help determine use--which would determine rates. The significance of the relationship depends upon the elasticity of demand (as well as the particular use formula employed). For example, if demand is relatively inelastic (that is, insensitive to changes in price), then the amount of joint costs incorporated into a rate will not have a great impact on use. But if demand is relatively elastic, the apportionment process will have a far greater impact on use, because increasingly higher rates will lead to increasingly greater reductions in demand. The Court, however, seemed unaware of this problem.

Hughes' optimism was also interesting given the Court's recognition, earlier in the opinion, of the imprecise nature of ratemaking. Discussing rate base valuation, Hughes wrote that the ascertainment of "fair value" is "not constrained by artificial rules. It is not a matter of formulas, but there must be a reasonable judgment having its basis in a proper consideration of all relevant facts." Id. at 434. The Court apparently believed that apportionment was a problem requiring less "judgment" than the broader rate base issue.

30. See p. 5 supra.

31. See text accompanying note 27 supra. This requirement was not an unambiguous one. Many formulas were possible, each providing different allocations. See Cunningham, note 4 supra.

32. For two cases applying the Minnesota holding, see Missouri Rate Cases, 230 U.S. 474 (1913); Allen v. St. L., Iron Mt. & S. Ry., 230 U.S. 553 (1913). In Wood v. Vandalia R.R., 231 U.S. 1 (1913), the Court again detected improper cost allocations in a lower court's confiscation analysis. The trial judge compared the railroad's total expenses with its total revenues (in the three preceding years) and then applied those ratios to freight revenues in order to determine the cost of carrying freight. The cost figure exceeded the revenues that would have been earned had the new rates been in effect. Justice Hughes rejected this analysis:

> It is plain. . .that it does not follow from the mere fact that the total operating expenses of a railroad, or of a division of a railroad, bear a given relation to the entire receipts of that road or division, that the cost of transportation in the case of a particular class of traffic bears the same relation to the revenue derived from that class.

Id. at 5. Absent any evidence that the ratios were the same, the lower court had failed to supply a ground for invalidating the rate order.

33. 236 U.S. 585 (1915).

34. See pp. 11-12 infra.

35. The Court drew a distinction between the scope of the inquiry here and in the earlier cases:

> When the question is as to the profitableness of the intrastate business as a whole under a general scheme of rates, the carrier must satisfactorily prove the fair value of the property employed in its intrastate business and show that it has been denied a fair return upon that value. With respect to particular rates, it is recognized that there is a wide field of legislative discretion, permitting variety and classification, and hence the mere details of what appears to be a reasonable scheme of rates, or a tariff or schedule affording substantial compensation, are not subject to judicial review.

236 U.S. at 604. The discretion was not without limit, however:

> [W]here it is established that a commodity, or a class of traffic, has been segregated and a rate imposed which would compel the carrier to transport it for less than the proper cost. . . , and thus the carrier would be denied a reasonable reward for its service . . . , it must be concluded that the State has exceeded its authority.

Id.

36. The lower court determined that the rates were non-compensatory, id. at 590-92, but upheld the State's order because there was no showing that the deficit under the rates had rendered the entire intrastate return unreasonable. Id. at 594-95.

37. Id. at 596.

38. Id.

39. The problem was alluded to in Chicago, M. & St. P. Ry. v. Tompkins, note 12 supra, 176 U.S. at 178. See also note 21 supra.

40. Some of the expenses incurred by a railroad are separately caused in theory but prove difficult to assign in practice. For instance, deterioration of a roadbed is caused by the continued use of the road (in addition to general conditions such as weather). The Court's analysis did not distinguish these separable costs from costs which are truly joint. Yet it may be desirable to apply different apportionment rules to them. An easy way of dealing with the separable costs is to assume that they are incurred in proportion to readily known expenses. But if this test is applied to the joint costs, one is "apt to overlook the fact that the ascertainment of separable costs is a search for facts, while the allocation of joint costs involves a determination of policy. The two problems should not be confused." Hale, "Commissions, Rates, and Policies," 53 Harv. L. Rev. 1103, 1127 (1940).

41. 236 U.S. at 597.

42. Id.

43. Id. at 598-99. Presumably, any groupings would have to be rational. Otherwise, the State could hide the cost of carrying coal in the costs of other, unrelated commodities. See "Carriers--State Regulation of Railroad Rates--Segregation," 63 U. Pa. L. Rev. 551, 553 (1915).

44. 156 U.S. 649 (1895).

45. Id. at 665-66. For a later case applying Gill, see Puget Sound Traction Lt. & Power Co. v. Reynolds, 244 U.S. 574 (1917), where the Court refused to allow a street railway to discontinue an unprofitable route because total revenues were adequate and routes had traditionally been operated as part of a unified system.

46. Edgerton, "Value of the Service as a Factor in Rate Making," 32 Harv. L. Rev. 517, 532 (1919) (emphasis in original). See also Hale, note 40 supra, at 1119.

47. 236 U.S. at 596.

48. See Hale, "Non-Cost Standards in Rate Making," 36 Yale L. J. 56, 57-58 (1927); Note, "The Cost of Service and Confiscatory Rates," 28 Harv. L. Rev. 683, 683-84 (1914).

49. Indeed, even if the rates did impose an undue burden on other services, it is difficult to see how the rates could be held to violate the Constitutional rights of the railroads who brought the lawsuit:

> It certainly makes no difference to a railroad whether the costs of hauling coal are paid by shippers of coal or of wheat. Even if the latter have constitutional rights against 'exorbitant' wheat rates. . . , they were not parties to the suit, and could receive but problematical benefit from the decision, which might at most open the way to a legislative reduction of their rates at some uncertain time in the future.

Hale, note 40 supra, at 1118-19, n.45.

50. 236 U.S. at 596.

51. Id. The Supreme Court's annoyance may be traceable to two factors. First, the Court obviously believed that the railroads were losing money because of the rates, and thus concluded that a benign interpretation of the State's action was merely an attempt to obscure this fact. Second, the State's justification for the order seemed to emphasize the interest of the coal industry rather than the interest of the railroads, although in reality the two may have been the same: "In substance, the argument is that the rate was imposed to aid in the development of a local industry and thus to confer a benefit upon the people of the State." Id. The Court assumed that the State was "using" the railroads in order to benefit other interests.

52. See note 41 supra.

53. 236 U.S. at 598.

54. See note 42 supra.

55. See note 47 supra.

56. 236 U.S. at 590. See also id. at 592.

57. 236 U.S. 605 (1915). Although "the State is under no obligation to secure the same rate of return from each of the two principal departments of business, passenger and freight. . . the State may not select either of these departments for arbitrary control." Id. at 609. See also Banton v. Belt Line Ry., 268 U.S. 413 (1925); Vandalia R.R. v. Schnull, 255 U.S. 113 (1921); Brooks-Scanlon Co. v. Railroad Comm'n , 251 U.S. 396 (1920). The Vandalia case is interesting factually because it grew out of an earlier case decided by the Court. See Wood v. Vandalia R.R., note 32 supra. In 1913, the Supreme Court upheld intrastate railroad rates and reversed a lower court's finding of confiscation. In the second case, individuals sued the railroad to restrain it from increasing the earlier rates, which had been set in 1906. This time, the Court reversed a judgment for the plaintiffs and remanded the case for consideration in accordance with the Northern Pacific decision.

58. Groesbeck v. Duluth, S.S. & Atl. Ry., 250 U.S. 607 (1919).

59. Id. at 614.

60. Id. at 615.

61. Id. at 614-15. Of course, this attitude did not mean that carriers could merely allege impropriety and expect the Court to reject apportionment formulas. Such a "purely negative attitude" on their part would be viewed unfavorably. Rowland v. Boyle, 244 U.S. 106, 108 (1917).

62. Note, "Economic Aspects of the Judicial Apportionment of Joint Costs," 29 Colum. L. Rev. 643, 647 (1929).

63. See 250 U.S. at 615 n. 1. Groesbeck should be remembered for more than its deferential language on apportionment, however. Substantively, the case might be construed as providing another exception to the apportionment requirement announced in the Northern Pacific case. The rates in controversy, ultimately held to be confiscatory by the Supreme Court, had been established by the Michigan legislature for intrastate passenger service. In attempting to justify the rates, the State argued that sleeping car, parlor car, and dining car services should be treated as separate operations (primarily because they were unprofitable) and that no part of the loss on these services should be taken into consideration in determining whether the

passenger fare was confiscatory. See id. at 613. Indeed, passengers who opted for the services paid a fee in addition to the normal passenger rate. The Court rejected this argument because "these services have been well-nigh universal for more than a generation; and the charges for them are substantially uniform throughout the country. It would be practically impossible, as it would be obviously unwise, for a railroad. . .either to discontinue the services or to increase the charges to cover the cost of the particular service on its line." Id. at 613-14. The effect of its reasoning was to require passenger rates to subsidize discrete services that were already the subject of a separate charge, a result that led one commentator to conclude: "[T]here are at least some circumstances in which rates. . .must exceed cost sufficiently to make up for the loss inevitably incurred in rendering other groups of service." Hale, note 40 supra, at 1124. He noted, however, that the degree of overlap between customers who were subsidized and those forced to bear some of the costs was probably high; in no case had the Supreme Court decided whether rates which failed to remunerate a company for unrelated losses were confiscatory.

64. See, e.g., Chicago, Milw. & St. P. Ry. v. Public Utils. Comm'n, 294 U.S. 344 (1927); Northern Pac. Ry. v. Department Pub. Utils., 268 U.S. 39 (1925); see also note 57 supra.

65. See section Judicial Deference and the Ratemaking Process: 1934 - Present infra. However, in 1930 the Supreme Court did construe an Act of Congress so as to prevent the ICC from wielding limitless power in the costing area. In Ann Arbor R.R. v. United States, 281 U.S. 658 (1930), railroads challenged a Commission order condemning existing rates for the transport of certain fruits between California and points East. The Commission based its order on the Hoch-Smith resolution, passed by Congress in 1925, which required it to take industrial considerations into account when setting rates. In particular, the resolution pointed to the "existing depression in agriculture" and directed the ICC to effect "such lawful changes in the rate structure of the country as will promote the freedom of movement by carriers of the products of agriculture affected by that depression. . . ." Id. at 665. The Supreme Court nevertheless rejected the rates on the ground that they failed to satisfy the rule set forth in the Northern Pacific case. It concluded that the resolution did not purport to invalidate previously cost-based rates; indeed, if Congress' words "are intended to require that rates be reduced to some uncertain level below that standard, they give rise to a serious question respecting the constitutional validity of the paragraph of which they are a part." Id. at 669.

66. See sections Joint Costs and the Telephone Industry: 1922-1935 and Judicial Deference and the Ratemaking Process: 1934-Present infra.

67. This section draws heavily from J. Sichter, _Separations Procedures in the Telephone Industry: The Historical Origins of a Public Policy_ (1977).

68. For a survey of the early economic literature, see Locklin, "The Literature on Railway Rate Theory," 47 _Q. J. Econ._ 167 (1933); Lorenz, "Cost and Value of Service in Railroad Ratemaking," 30 _Q. J. Econ_. 205 (1916).

69. See e.g., Outerbridge, "Lower Telephone Rates for New York City," 53 _Annals_ 66 (1914). Interest in telecommunications had risen by the 1930s, however. _See, e.g.,_ J. Herring & G. Cross, _Telecommunications_ (1936); E. Baird, _Telephone Rate Making_ (1934); Sickler, "A Theory of Telephone Rates," 4 _J. Pub. Util. & Land Econ._ 175 (1928); Bauer, "An Example of Futility in Present Methods of Public Utility Regulation," 15 _Amer. Econ. Rev._ 586 (1925).

70. _See generally_ J. Sichter, note 67 _supra_, at 15-59; E. Baird, note 69 _supra_. _But see_ pp. 17-18 _infra_.

71. The costs of the subscriber's telephone, the local loop that connects the subscriber to the central office, and part of the central office where calls are switched are usage-insensitive. These costs will be incurred regardless of the number of calls initiated by the subscriber, the duration of the conversations, and the distance called.

72. Wheat, "The Regulation of Interstate Telephone Rates," 51 _Harv. L. Rev._ 846, 47 (1938).

73. _See_ pp. 20-25 _infra_.

74. 230 U.S. 352 (1913). _See_ pp. 7-8 _supra_.

75. See Sichter, note 67 _supra_, at 45-46. In practice, however, many states adopted the expedience of accepting the interstate rates as adequate, and then deducting interstate revenues from the company's total costs within the state in order to determine the intrastate revenue requirement. _Id._ at 46.

76. 283 F. 215 (E.D. La. 1922).

77. 5 F.2d 77 (E.D.S.C. 1925).

78. Thus, in the _Cumberland_ case, note 76 _supra_, the plaintiff's failure to make an apportionment was fatal to its claim. In contrast, the plaintiff in the _Southern Bell_ case, note 77 _supra_, made the apportionment and prevailed.

79. J. Bauer, Transforming Public Utility Regulation 337 (1950). In most states rates were extensively increased after World War I and remained largely unchanged from the mid-1920's until the end of World War II. Id. at 337-38.

The complexities of the telephone industry proved equally troublesome when rate orders were reviewed. See St. Joseph Stock Yard Co. v. United States 298 U.S. 38, 88-92 (1936) (Brandeis, J., concurring); Comment, "Direct Regulation of the American Telephone & Telegraph Co." 48 Yale L.J. 1015, 1019 n.29 (1939) ("Telephone cases are used as horrible examples by commentators on the ratemaking process."); F. Frankfurter, The Public and Its Government 95 (1930). Following the decision in Smyth v. Ames 169 U.S. 466 (1898), courts in general proved themselves ill-equipped to handle the problem of rate base valuation. See J. Bauer, supra, at 61-64; Comment, "Rate Litigation--Fact Determination by Judicial Guesswork," 40 Yale L. J. 81 (1930).

80. These operations included both local and intrastate toll services.

81. For simplicity's sake, this discussion does not include the interrelationship between AT&T and "independent" telephone companies, although the issues are largely the same.

82. Until 1926, the operating companies provided some interstate service. See J. Sichter, note 67 supra, at 27.

83. These "license fees," set at 4½% of gross operating revenues until 1926 and reduced to 1½% thereafter, drew sharp criticism. See, e.g., Comment, "The Servicing Function of Public Utility Holding Companies," 49 Harv. L. Rev. 957, 982-83 (1936). Since AT&T provided the equipment (manufactured by its unregulated subsidiary, Western Electric) under essentially monopolistic conditions, there was no guarantee that the fees paid by the operating companies corresponded to Western Electric's costs. Indeed, the license fees may have enabled AT&T to earn excessive profits. The operating companies would recover the fee as part of their revenue requirements, while Western Electric would earn high--and unregulated--profits on equipment sales. Additionally, it should be noted that an increase in the operating company's gross earnings would also increase its payments at AT&T, even if the latter's costs remained unchanged.

84. See J. Sichter, note 67 supra, at 27-30 & 47-50. See also pp. 18-20 infra.

85. Throughout the 1920's some states rebelled and tried to exert authority over AT&T. Their attempts usually failed. See J. Sichter, note 67 supra, at 53-59.

86. 259 U.S. 318 (1922).

87. Since the settlements process actually consists of the division of a nationwide pool of toll revenues among many telephone companies, the issues it poses are also treated in the section Allocating the Costs of Several Carriers. The Houston case is included in this section, however, because it signified the first time the Supreme Court dealt (although obliquely) with the interrelationship between interstate and intrastate telephone service.

88. This percentage--known as the "originating commission"--was the standard amount contained in the settlements contracts between AT&T and its subsidiaries prior to 1925. See J. Sichter, note 67 supra, at 28. Additionally, the remaining revenues generated by interstate toll calls were prorated between Long Lines and the operating company in proportion to the circuit mileage supplied by each in completing the calls (determined by broad aggregates instead of being calculated on a call-by-call basis), since the interstate activities of Long Lines and the operating companies were often intermingled. Id.

89. 259 U.S. at 323.

90. That point should not have been significant, however. Since AT&T dictated the terms of all the arrangements, the uniformity among jurisdictions should not have surprised the Court. Indeed, if each jurisdiction were to approve the percentage merely by relying on the decisions of other jurisdictions, then only one independent examination of the practice would occur (the first decision issued). Such a result would clearly constitute an abrogation of responsibility by the regulatory authorities.

91. In addition, the Court rejected the City's argument that the case should be dismissed because AT&T had not disclosed its profits on the equipment provided to Southwestern Bell. It noted that Southwestern Bell had introduced evidence showing that the equipment was reasonably priced and could not be purchased elsewhere for less. Although AT&T's control of Western Electric and Southwestern Bell "required close scrutiny of the dealings to prevent imposition upon the community served by the Company," the City's evidence on that point was meager "while that of the Company was exceptionally full and complete. . . ." 259 U.S. at 323.

92. This was not true in practice, however. See J. Sichter, note 67 supra, at 29.

93. Although the Court spoke of the "formidable and very convincing evidence" supporting the division, 259 U.S. at 322, none of the evidence appeared to be based on a consideration of the cost characteristics of the telephone company. See id.; text accompanying note 90 supra. On the other hand, the Court also referred to the "meager and unsatisfactory" testimony introduced by the City, 259 U.S. at 322, without specifying the substance of the testimony.

Four years later, a federal district court applied an even more cursory standard of review to the settlements process. The parties in Pacific Tel. & Tel. Co. v. Whitcomb, 12 F.2d 279 (W.D. Wa. 1926), conceded that one of the complaining carriers received substantially less from AT&T than its cost of supplying toll service. But the court refused to hold the arrangement unconscionable because the contract was entered into voluntarily and "would seem to be sustained by the fact that it embodies the customary and usual method of adjustment adopted by the parties, dealing in the light of practical experience in such matters." Id. at 288. The court then cited the Houston case.

94. See J. Sichter, note 67 supra, at 35-43. Indeed, in the period before 1930, only one state commission (Kansas) attempted to enforce station-to-station separations, and its order was reversed by a state court. See id. at 42-43. The primary reason for support of the board-to-board method was practicability. See id. at 35. Moreover, regulators were hesitant to change established practices because they feared that separations procedures applied in one jurisdiction would not be applied in another. For example, if a state prescribed station-to-station separations but the ICC did not, the carrier might experience a revenue deficiency (actually, the ICC never interjected itself into the separations debate). See id. at 36-37. As for AT&T, it preferred board-to-board separations because toll service experienced some competition from the telegraph and mail, and because board-to-board separations minimized the settlements payments made to independent telephone companies which, at the time, were attempting to establish a competing long distance network. See id. at 25-26. The history and the political backdrop of station-to-station methods and the pressures toward reviving board-to-board ideas in "access charge" form are described in Oettinger and Weinhaus, Players, Stakes and Politics of Regulated Competition in the Compunications Infrastructure of the Information Industry (Draft), Harvard Program on Information Resources Policy, February 1981.

95. J. Sichter, note 67 supra, at 51.

96. 259 U.S. at 322.

97. J. Sichter, note 67 supra, at 51.

98. One year after the Houston decision, in Missouri ex rel. S.W. Bell Tel. Co. v. Public Serv. Comm'n, 262 U.S. 276 (1923), rate base valuation, not toll revenues, provided the primary issue before the Court. Finding local rates to be confiscatory, the Court also upheld the 4½% of gross revenues paid by the company to AT&T under its license contract. See note 83 supra. The Court discovered "nothing to indicate bad faith" and treated the matter as a question of business judgment properly exercised by the parties to the contract. 262 U.S. at 288-89.

99. 282 U.S. 133 (1930).

100. Illinois Bell Tel. Co. v. Moynihan, 38 F.2d 77 (N.D. Ill. 1930).

101. See pp. 25-27 infra.

102. See 282 U.S. at 147; 38 F.2d at 82-83.

103. 282 U.S. at 148.

104. Id.

105. 169 U.S. 466 (1898). See pp. 3-4 supra.

106. 282 U.S. at 148.

107. Id. at 148-49.

108. Id. at 151-52.

109. See J. Sichter, note 67 supra, at 66. But see E. Baird, note 69 supra at 22 (language may indicate a strong preference for station-to-station separations; however, the Court did not hold that this method is the only proper one since it merely reversed and remanded for further proceedings).

110. See text accompanying notes 103 & 108 supra.

111. See J. Sichter, note 67 supra, at 66-69.

112. Comment, "Direct Regulation of the American Telephone & Telegraph Co.," 48 Yale L.J. 1015, 1020 n.32 (1939). See also Hermann, "The Importance of the Opinion in Smith v. Illinois Bell Telephone Co.," 8 N.Y.U.L.Q. Rev. 478, 480 (1931).

113. By the time the Supreme Court's decision was rendered, AT&T had reduced license payments from 4½% of gross earnings to 1½%. See note 83 supra. The rates in controversy in Smith had been based on the higher amount, however.

114. 282 U.S. at 151.

115. Id. at 157.

116. One writer noted that the "problems of. . .apportionment which this holding raises are puzzling in the extreme." Lilienthal, "Recent Developments in the Law of Public Utility Holding Companies," 31 Colum. L. Rev. 189, 190 (1931). Those problems would arise from the fact that AT&T provided services--such as research and financial advice--to all of its subsidiaries. Allocating costs to particular subsidiaries would create apportionment issues similar to those encountered in jurisdictional separations.

117. 282 U.S. at 153.

118. Id. at 152.

119. See generally Note, "Smith v. Illinois Bell Telephone Co.: A Development in the Law of Public Utilities," 44 Harv. L. Rev. 833 (1931). See also p. 18 supra.

120. 236 U.S. 585 (1915). See pp. 9-13 supra.

121. See p. 7 supra.

122. See note 29 supra.

123. See text accompanying note 103 supra.

124. As a commentator wrote in 1931, the basis that "should be used for dividing the investment, revenues and expenses between the two classes of traffic is a nice problem of economics and accounting. The only clues offered by the Court are time and labor." Morehouse, "The Supreme Court Views the Economics of the Telephone System," 7 J. Land & Pub. Util. Econ. 103, 104 (1931).

125. 292 U.S. 154 (1934).

126. In the Smith decision, 282 U.S. at 151, the Court stated that "unless an apportionment is made, the intrastate service to which the exchange property is allocated will bear an undue burden. . . ." One would expect that the elimination of the burden would have a beneficial impact on the company's rate of return.

127. 292 U.S. at 156.

128. Id. at 155.

129. Id. at 163.

130. Id. at 165.

131. For a discussion of some of the implications of Lindheimer, see Note, "The Chicago Telephone Case: A New Technique in Rate Review," 48 Harv. L. Rev. 83 (1934).

132. 295 U.S. 662 (1935).

133. Wheat, "The Regulation of Interstate Telephone Rates," 51 Harv. L. Rev. 846, 868 (1938). See also Federal Communications Commission, Proposed Report--Telephone Investigation 752-54 (1938).

134. See, e.g., Re Wisconsin Tel. Co., 1931E P.U.R. 101, 124. In 1936, however, the Michigan Commission called the board-to-board method "the simplest, most logical, and least expensive method of apportioning expenses. . . ." Note, Apportionment, 15 P.U.R. (N.S.) 530-31 (1936). It indicated that it would continue to establish rates according to this principle until the Federal Communications Commission established rates on the basis of station-to-station separations.

135. As the Wisconsin Supreme Court noted, in reversing a commission decision which refused to allocate revenues, "The Supreme Court of the United States [in Smith] did not concern itself upon what basis intrastate rates should be determined provided they were compensatory." It merely said that "the intrastate business could not be made to bear a part of the expenses fairly attributable to interstate business. Wisconsin Tel. Co. v. Public Utils. Comm'n, 30 P.U.R. (N.S.) 65, 124 (1939). But, as the Louisiana Commission read Smith, an apportionment of revenues was "contrary to the intent" of that opinion. Louisiana Pub. Serv. Comm'n v. Southern Bell Tel. & Tel. Co., 8 P.U.R. (N.S.) 1, 23, aff'd, 8 P.U.R. (N.S.) 26 (1935). See also J. Sichter, note 67 supra, at 77-88.

136. One problem with justifying the existing rate structure on this ground was that people who never made long distance calls still paid the access charge.

137. 75 F.2d 880 (5th Cir.), cert. denied, 295 U.S. 754 (1935).

138. Id. at 884. The need for uniform action was first raised in a related context in West Ohio Gas Co. v. Public Utils. Comm'n, 294 U.S. 63 (1935). The Ohio Commission had adopted a new formula for allocating the utility's distribution costs. It thought that costs incurred in Lima, Ohio, should be borne in part by consumers in outlying communities served by the same company, and that expenses in those communities should be borne in part by the citizens of Lima. The net result was that the new rates in Lima (which were set by the City) covered only a fraction of the City's distribution costs. Unless other communities recalculated their rates, the company's rate of return would decline. Justice Cardozo wrote that "whatever territorial unit is adopted must be made use of consistently, and regardless of the consequences." Id. at 71. It is interesting that the Court did not recognize this problem in Smith and Lindheimer, which had been decided earlier.

139. 75 F.2d at 884.

140. Id.

141. Id.

142. Id.

143. Id.

144. See National Association of Regulatory Utility Commissioners, Separations Manual 5 (1971). For a description of the FCC proceedings, see J. Sichter, note 67 supra, at 111-29.

145. See A. Kahn, note 1 supra, 151 n.73 (1970). (1970).

146. See Sichter, note 67 supra, at 89-129.

147. See E. Baird, note 67 supra, at 194-95. At the same time Baird wrote (1934), commissions in New York and Pennsylvania had "clearly indicated that rates may be so fixed in some cities as to allow the earning of profits sufficiently large to make up for losses incurred in other cities." Id. at 37.

148. See Collins, "Trend of United States Supreme Court Decisions Affecting Rates of Public Utilities," 20 ABA J. 535 (1934). See also Lindheimer v. Illinois Bell Tel. Co., 292 U.S. 154 (1934); Mississippi Valley Barge Line v. United States, 292 U.S. 282 (1934); Los Angeles Gas & Elec. Corp. v. Railroad Comm'n , 288 U.S. 287 (1933).

149. See note 146 supra.

150. 292 U.S. 474 (1934).

151. Id. at 483-84. For another application of the rule, see Lone Star Gas Co. v. Texas, 304 U.S. 224 (1938).

152. 324 U.S. 581 (1938).

153. Id. at 589.

154. Id. at 590.

155. Since many of the early cases were remanded to lower courts (not regulatory authorities), one might question whether those judges were any more qualified to refine the ratesetting guidelines announced by the Supreme Court than the nine Justices themselves. There was an important distinction, however. The lower court judges presided at a trial, compiled a record, and perhaps most significantly, relied on experts to help analyze the rates. Their presence at the information-gathering level did permit them to acquire some expertise at the decision-making level.

156. 314 U.S. 534 (1942).

157. Id. at 546.

158. Id. at 547.

159. Lower courts have reacted similarly. See, e.g., Capital Transit Co. v. Public Utils. Comm'n, 213 F.2d 176 (D.C. Cir. 1953). In Cities Serv. Gas Co. v. Federal Power Comm'n, 155 F.2d 694 (10th Cir. 1946), a case involving a rate reduction ordered by the FPC, the plaintiff challenged the Commission's failure to separate properties used for regulated and unregulated gas. The FPC had determined costs through the use of a different method. The court wrote, "If some of the specific allocations appear to be illogical and unfair, they necessarily pose technical problems of accounting and finance upon which the administrative judgment has been declared virtually supreme. We shall not criticize that which we are powerless to correct." Id. at 705. The deference is not without limits, however. See Mississippi River Fuel Corp. v. Federal Power Comm'n, 163 F.2d 443 (D.C. Cir. 1947) (courts will not select cost formulas but commission must make clear its findings and conclusions); Payne v. Washington Metro. Area Transit Comm'n, 415 F.2d 901 (D.C. Cir. 1968) (cost studies must be made).

160. For an interesting decision not involving these industries, see United States v. John J. Felin & Co., Inc., 334 U.S. 624 (1948). In that case a packer refused to deliver pork to the government at World War II ceiling prices; the products were seized and the issue was the "just compensation" the government would have to pay for them. The Court reversed the Court of Claims' use of replacement cost (i.e., the cost of a live hog) as the value of the property because it overstated the packer's loss. The presence of joint products meant that the packer had been able to sell other parts of the hogs. The Court accepted the administrative determination of damages and noted that "any method of apportioning the total cost to the by-products is highly speculative." Id. at 634.

161. 320 U.S. 591 (1944).

162. Id. at 602.

163. See note 10 supra. See also Federal Power Comm'n v. Natural Gas Pipeline Co., 315 U.S. 575 (1942); Railroad Comm'n v. Rowan & Nichols Oil Co., 310 U.S. 573 (1940).

164. 320 U.S. at 602.

165. For more recent examples of judicial deference, see Federal Power Comm'n v. Conway Corp., 426 U.S. 271 (1976); Federal Power Comm'n v. Memphis Lt., Gas & Water Div., 411 U.S. 458 (1973).

166. 390 U.S. 747 (1968).

167. The FPC indicated that in hardship cases it would provide individualized relief, although it did not specify the circumstances in which relief would be given. Id. at 764.

168. See id. at 761-65.

169. See id. at 761.

170. Id. at 766.

171. Id. at 768-69. See also section Allocating the Costs of Several Carriers infra.

172. Id. at 804. "Economists have described these difficulties with repetitive pungency." Id.n.80.

173. Id. at 804.

174. Id. at 816 n.99.

175. For similar treatment, see Mobil Oil Corp. v. Federal Power Comm'n , 417 U.S. 283 (1974); Federal Power Comm'n v. Sunray DX Oil Co., 391 U.S. 9 (1968). In the Mobil case, the FPC had selected a means of allocating certain joint costs from ten possible formulas. Without criticizing the choice, the Court noted that the determination "is a policy choice having significant consequences for the industry." 417 U.S. at 318 n.51.

176. New York v. United States, 331 U.S. 284, 328 (1947).

177. 236 U.S. 585 (1915). See pp. 9-13 supra.

178. See 331 U.S. at 316.

179. 345 U.S. 146 (1953).

180. Id. at 149. R. Godbey, Revenue and Cost Allocations: Policy Means and Ends in the Railroad and Telecommunications Industries, 24-25 (1979), notes that railroad legislation explicitly permits the setting of rates to support weak suppliers as well as deserving consumers of railroad transportation.

181. Id.

182. See p. 12 supra. In a later case the Court remained suspicious of the economic benefits of permitting some rates to be based on out-of-pocket costs. See American Comm. Lines, Inc. v. Louisville & N.R.R., 392 U.S. 571 (1968) (upholding ICC decision to reject certain railroad rates based on out-of-pocket costs in order to preserve barge/truck competition).

183. This conclusion led commentators to announce that the Court had developed a new definition of confiscation which enabled the ICC to grant subsidies to different services. *See generally* Note, "Administrative Law: Railroad Rate Regulation: Rates Less Than Cost Upheld: Baltimore & Ohio R.R. v. United States, 345 U.S. 146 (1953)," 39 *Corn. L. Q.* 304 (1954); Comment, "Transportation of Commodity at a Loss Held Not Confiscatory Under Fifth Amendment," 101 *U. Pa. L. Rev.* 1228 (1954).

184. 345 U.S. at 149.

185. *See* Godbey note 180 *supra*.

186. *Id.* at 24.

187. *Id.* at 4-5.

188. *Id.*

189. *Id.* at 11; 49 U.S.C. §10705(b) (1976).

190. 49 U.S.C. §10705(b) (1976).

191. 261 U.S. 184 (1923).

192. 265 U.S. 274 (1924).

193. *Id.* at 284. However, the ICC could not reduce a railroad's share of the divisions merely because its earnings were high; it was necessary that other railroads be in need of revenue support. See *Brimstone R.R. & Canal Co. v. United States*, 276 U.S. 104 (1928).

194. *See, e.g., Baltimore & O.R.R. v. Aberdeen & Rockfish R.R.*, 393 U.S. 87 (1968); *Chicago & N.W. Ry. v. Atchison, T. & S.F. Ry.*, 387 U.S. 326 (1967); *Beaumont, Sour Lake & W. Ry. v. United States*, 282 U.S. 74 (1930).

195. Comment, "Division of Joint Rates and the Baltimore & Ohio Case," 46 *Yale L.J.* 811, 812 (1937).

196. *See* p. 30 *supra*.