

FEDERAL TRADE COMMISSION  
Washington, DC 20580

BUREAU OF ECONOMICS

September 29, 1987

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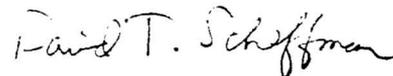
Dear Mr. Bardin:

We are pleased to respond to your invitation of April 21, 1987 to "comment on possible restrictive or anticompetitive practices" in the statutes governing the South Carolina Public Service Commission. These comments represent the views of the Bureaus of Competition, Consumer Protection, and Economics of the Federal Trade Commission, and do not necessarily represent the views of the Commission or of any individual Commissioner. The Commission, however, has voted to authorize the submission of these comments to you.<sup>1</sup>

In addition to the comments, we are including a copy of an FTC staff report on taxi regulations and would be pleased to provide copies of any of the other studies or materials cited in the comments. Should you have any questions about our comments, please contact staff economist John C. Hilke at (202) 326-3483.

I believe that both consumers and producers can benefit from your review of the SCPSC statutes.

Sincerely,



David T. Scheffman, Director  
Bureau of Economics

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<sup>1</sup> FTC staff provided comments to the Legislative Audit Council of South Carolina on two earlier occasions this year. On February 19, 1987, FTC staff commented on the "sunset" audit of the Boards of Optometry and Opticianry. On April 23, 1987, FTC staff commented on the sunset audit of the Boards of Podiatry Examiners, Occupational Therapy Examiners, Speech and Audiology Examiners, and Psychology Examiners.

**Comments of the Federal Trade Commission Staff**

to

**The Legislative Audit Council of the State of South Carolina**

on

**Possible Restrictive or Anticompetitive Practices in  
South Carolina's Public Service Commission Statutes <sup>1</sup>**

September 29, 1987

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<sup>1</sup> These comments represent the views of the Bureaus of Competition, Consumer Protection, and Economics of the Federal Trade Commission, and do not necessarily represent the views of the Commission or of any individual Commissioner. The Commission, however, has voted to authorize the submission of these comments. Questions concerning these comments may be directed to John C. Hilke, Federal Trade Commission, Bureau of Economics, at (202) 326-3483.

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## I. INTRODUCTION AND SUMMARY

The Federal Trade Commission staff believe that several features of South Carolina's Public Service Commission statutes are likely to have anticompetitive effects.

First, entry and price regulation is likely to be anticompetitive in six modes of transportation: trucking (Section IV), intercity buses (Section V.A.), many railroad lines (Section V.B.), and street railways, steamboats, and canal companies (Section V.E.). The same is likely to be true of regulation of telegraph services (Section VI.B.). Each of these industries has either disappeared from the economic landscape or now competes with other industries so that the potential for exercise of market power has been greatly reduced or eliminated. Moreover, these industries have already been substantially deregulated at the interstate level. In remaining instances where competition within or between transportation industries is determined to be insufficient, continued restraints on pricing are less likely to be anticompetitive than restrictions on entry.

Second, state authorization of local taxi regulations may result in anticompetitive effects. (Section V.D.)

Third, statutes banning railroad mergers may be anticompetitive because they may arbitrarily exclude consideration of competition between different modes of transportation. (Section V.C.)

Fourth, South Carolina may be able to prevent the regulation of public utilities, particularly electrical utilities, from becoming anticompetitive within the next several years by conducting periodically the kind of review in which it is now engaged. We believe that while local distribution of products and services provided by utilities seems likely to continue to exhibit major economies of scale that may justify regulation, production and wholesale distribution often do not now exhibit continuous economies of scale or may cease to do so in the near future. Continued reevaluation of the feasibility of deregulating utilities could enhance competition and benefit consumers through lower prices and improved services. (Section VI.A.)

Finally, some specific pricing and service provisions in the statutes are likely to be anticompetitive. These provisions are likely to discourage efficient pricing and contracting between buyers and sellers. (Section VII)

Section II of this comment reviews the interest and experience of the Federal Trade Commission staff in deregulation issues involving the industries that in South Carolina are regulated by the Public Service Commission. Section III provides an introduction to deregulation and competition issues. Sections IV, V, and VI present our analyses of the primary elements of the Public Service Commission statutes that we believe are anticompetitive. Section VII notes specific statutory provisions that we believe are anticompetitive.

## II. INTEREST AND EXPERIENCE OF THE FEDERAL TRADE COMMISSION STAFF

During recent years, the Commission staff has studied the effects of deregulation in many of the industries that in South Carolina are regulated by the SCPSC. In the trucking industry, the FTC staff has found that deregulation, at both the federal<sup>2</sup> and state levels, benefits consumers.<sup>3</sup> The Commission staff has also studied and commented upon recent deregulatory proposals in the railroad industry,<sup>4</sup> the intercity bus industry,<sup>5</sup> the taxicab industry,<sup>6</sup> and utilities.<sup>7</sup> These activities, coupled with our experience in

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<sup>2</sup> See "Comments of the Staff of the Federal Trade Commission on Pricing Practices of Motor Common Carriers of Property Since the Motor Carrier Act of 1980, Ex Parte No. MC-166," before the Interstate Commerce Commission (January 19, 1983); and Breen, D., Bureau of Economics of the Federal Trade Commission, Regulatory Reform and the Trucking Industry: An Evaluation of the Motor Carrier Act of 1980, submitted to the Motor Carrier Ratemaking Study Commission (March 1982).

<sup>3</sup> See "Statement of the Staff of the Federal Trade Commission on Economic Deregulation of Trucking to House and Senate Transportation Committees," provided to the Washington State Legislature (March 7, 1985).

<sup>4</sup> FTC staff commented on S. 447 (May 15, 1985) and H.R. 1140 (June 9, 1986), "The Railroad Antimonopoly Act of 1986."

<sup>5</sup> The FTC staff provided analysis on "Collective Ratemaking in the Intercity Bus Industry" for the Motor Carrier Ratemaking Study Commission (June 16, 1983); then Chairman James Miller III testified on the Intercity Bus Regulatory Reform Act (March 8, 1982) and the FTC staff prepared an analysis of the House version of the bill; the FTC staff commented on ICC Ex Parte No. MC-133, "Entry Flexibility -- Regular Route Passenger Service" (January 7, 1980); and the Commission filed in opposition to Section 5a Application No. 9 of the National Bus Traffic Association, Inc. in ICC Ex Parte No. 297 (Sub-No. 4), Reopening of Section 5a Proceeding to Take Additional Evidence (July 12, 1978).

<sup>6</sup> The FTC staff has submitted comments concerning taxicab regulation to city governments in Anchorage, Cambridge, Chicago, New York, San Francisco, Seattle, and Washington, D.C., as well as to the Alaska and Colorado legislatures. In 1984, the FTC issued administrative complaints against the cities of Minneapolis and New Orleans, challenging entry restrictions and price restraints imposed in these cities.

<sup>7</sup> Recent examples of utilities regulation comments include: testimony before the Federal Energy Regulatory Commission (FERC) on the purchasing practices of interstate natural gas pipelines, July 1, 1983; testimony before the Senate Committee on Small Business on "Competition by Utilities in the Energy Conservation and Home Appliance Field," November 3, 1983; comments to the Department of Energy and the Vermont Department of Public Service

enforcing the federal antitrust laws, have provided us with substantial experience in analyzing the potential competitive effects of deregulation.

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on exemptions to the National Energy Conservation Policy Act, December 17, 1984; comments to FERC on its "Proposed Rulemaking Regarding the Regulation of Natural Gas Pipelines After Partial Wellhead Decontrol," July 19, 1985; comments to the Federal Communications Commission concerning the Auctioning Licensing Act of 1985, October 29, 1986; comments to FERC on natural gas marketing affiliates, January 29, 1987; and comments to FERC in the Matter of Texas Gas Transmission Corporation, July 29, 1987.

### III. REGULATION OF SURFACE TRANSPORTATION AND UTILITIES

Several of the statutes now under review by the Legislative Audit Council limit the number of firms that may compete in particular markets or provide for rate regulation. Whatever the initial reasons for adopting such programs, entry and price regulation may benefit special interest groups who use regulation to exclude competitors, raise prices, and delay the introduction of more efficient technologies. Even where regulation is most economically justified -- in the case of natural monopolies<sup>8</sup> -- it has fallen considerably short of its ideal.

Entry and rate regulation can adversely affect consumer welfare for several reasons.<sup>9</sup> First, regulations are more likely to represent the interests of directly affected firms than those of consumers because the affected firms are likely to be better organized. Second, regulated firms may lack incentives to minimize costs or to innovate due to their inability

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<sup>8</sup> A natural monopoly occurs in a market where unit costs decline as the level of output from a single firm increases. Examples of industries commonly classified as natural monopolies include local natural gas, electricity, and water distribution, and local telephone services. Where natural monopoly conditions exist, industry-wide costs can be minimized by organizing the industry as a monopoly. A monopolist, however, may be able to charge higher prices and thereby earn higher profits by restricting the quality or quantity of its output, or may allow costs to be excessive. Regulation of price and quality has been offered as a remedy to preserve the cost efficiency of natural monopoly while eliminating the unfavorable pricing and quality problems.

<sup>9</sup> See, for example, Kolko, G., Railroads and Regulation, 1877-1916, Princeton, N.J.: Princeton University Press, (1965); MacAvoy, P., The Economics Effects of Regulation: The Trunkline Railroad Cartels and the Interstate Commerce Commission Before 1900, Cambridge, Mass.: MIT Press, 1965; Kahn, A., The Economics of Regulation, 2 vols., New York: Wiley and Sons, 1970; Stigler, G., "The Theory of Economic Regulation," Bell Journal of Economics and Management 3 (Spring 1971), pp. 3-21; Peltzman, S., "Toward a More General Theory of Regulation," Journal of Law and Economics 19 (August 1976), pp. 211-240; Olson, M., The Logic of Collective Action, Cambridge, Mass.: Harvard University Press, 1965; Owen, B., and R. Braeutigam, The Regulation Game: Strategic Use of the Administrative Process, Cambridge, Mass.: Ballinger, 1978; Johnson, B., Regulation of the Intercity Bus Industry: A Comparison of the Public Interest Theory and the Economic Theory of Regulation, Ph.D. dissertation, University of Virginia, 1985; Moore, T., "The Beneficiaries of Trucking Regulation," Journal of Law and Economics 21:2 (October 1978), pp. 327-344; and Moore, T., "Rail and Truck Reform -- The Record So Far," Regulation (November/December 1983), pp. 33-41; Rogowsky, R., and B. Yandle, eds., The Political Economy of Regulation: Private Interests in the Regulatory Process, Washington, D.C.: Federal Trade Commission, 1984.

to profit from cost savings and to the lack of competition. Third, the regulated firm may have incentives to overinvest or underinvest in unregulated businesses if the regulated rate of return diverges from the firm's actual costs of capital.<sup>10</sup> Finally, regulation can create prolonged lags in meeting new consumer demands or utilizing new cost-saving technology due to extended procedures often required to restructure rates.

As a result of these problems, the benefits of competition and the costs of regulation have become more apparent, and many governments have decided to reexamine the need for numerous regulations.<sup>11</sup> A major incentive to reevaluate regulation has been the realization that the high cost and low quality often characteristic of regulated services affect more than just the regulated firms -- they hurt consumers and undermine the competitiveness and employment potential of local industries that use these services.

Reexamination of rate, entry, and quality of service regulation is particularly timely in the area of transportation. Economists have accumulated compelling evidence that different modes of transportation can effectively compete with each other without most rate and entry restrictions. For example, although railroads may once have had monopoly power on many routes, they now face effective competition from trucks as well as barges, airplanes, buses, and/or pipelines on most if not all routes. Concerns about the effects of a substantial market position within one transportation mode (buses, trucks, trains, etc.) are, therefore, no longer as pertinent. There is increasing recognition of potential competition between utilities currently serving different areas, which could be facilitated by separating the local distribution network (which still appears to be a natural monopoly) from production and wholesale distribution and deregulating the latter.

It is with this background in mind that the FTC staff examined South Carolina's Public Service Commission statutes.<sup>12</sup>

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<sup>10</sup> This is known as the Averch-Johnson effect, after Averch, H., and L. Johnson, "Behavior of the Firm under Regulatory Constraint," American Economic Review 52 (December 1962), pp. 1058-1059.

<sup>11</sup> For a recent extensive review of empirical research about the effects of regulation, see Joskow, P. and N. Rose, "The Effects of Economic Regulation," Massachusetts Institute of Technology, Department of Economics Working Paper #447 (April 1987).

<sup>12</sup> South Carolina's statutes provide the PSC with general authority to determine rates and service characteristics and to bar discriminatory and unreasonable practices in the following industries: Gas, Heat, Water, Sewerage Collection and Disposal, and Street Railway Companies (Chapter 5 and Articles 4, 5, and 7 of Chapter 103 of the Code of Laws of South Carolina 1976); Telephone, Telegraph and Express Companies (Chapter 9 and Article 6 of Chapter 103); Radio Common Carriers (Chapter 11 and Article 6 of Chapter 103); Railroad, Street Railway, Steamboat and Canal Companies (Chapter 15 and Article 1 of Chapter 103); Electric, Interurban and Street

#### IV. TRUCKS

##### A. Introduction and Conclusions

The SCPSC regulates rates and service of intrastate trucking firms to serve the public interest under authority of Chapter 23 and Article 2 of Chapter 103 of the state's Code of Laws. We believe, however, that consumers benefit when trucking rates and entry are deregulated. Deregulation of both entry and rates in trucking at the national level and in several states has resulted in major increases in efficiency, lower transport rates, and greater availability of specialized services.

We do not believe there is an economic justification for supplanting competition with government regulation of trucking. There appears to be no viable natural monopoly or other market failure here. Many trucking routes evidently face strong competition from railroads, barges, pipelines, ships, and airplanes.<sup>13</sup> In addition, entry into many trucking services appears to involve relatively few financial or technical barriers or obstacles (other than regulations).<sup>14</sup> The council consequently may wish to consider recommending the elimination of rate regulation and entry restrictions in intrastate trucking.<sup>15</sup> By deregulating, many states have realized lower prices and increased individualized services that better meet shippers' needs.<sup>16</sup>

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Railways (Chapter 21); Motor Vehicle Carriers (Chapter 23 and Article 2 of Chapter 103); and Electric Utilities and Electric Cooperatives (Chapter 27 and Article 3 of Chapter 103).

<sup>13</sup> See Lewis, K., and D. Widup, "Deregulation and Rail-Truck Competition," Journal of Transportation Economics and Policy 16:2 (May 1982), pp. 139-149; Moore, T., "Rail and Truck Reform -- The Record So Far," Regulation (December 1983), pp. 33-41; Standard and Poor's, "Rail Piggyback Poses Serious Challenge," in Standard and Poor's Industry Surveys: Trucking Basic Analysis (January 17, 1983), pp. F108-109.

<sup>14</sup> See, for example, Breen, D., "Market Structure and Competition in Trucking," FTC Staff Working Paper #21 (September 1984).

<sup>15</sup> We do not oppose other forms of trucking regulation aimed at providing an appropriate level of "fitness" or safety. There may be market failure problems that justify some such regulations. We are not able, however, to comment on the appropriate level of such regulation.

<sup>16</sup> Kidder found that stringent enforcement of restrictions on entry in South Carolina deprived the state of the increase in service options enjoyed by both rural and urban intrastate shippers in Georgia and North Carolina. See Kidder, A., "Economic Consequences of the 1980 Motor Carrier Act on Freight Service to Rural Areas," in Kidder, ed., Conference on Regulatory Reform in Surface Transportation, Syracuse, N.Y.: Syracuse University/U.S. Department of Transportation, 1983.

Trucking deregulation may encourage the entry of new trucking firms and the formation of new jobs. It may also enhance the growth opportunities of firms that transport by truck within South Carolina, by reducing their costs and improving the quality of their distribution systems.

Because government sponsored rate setting has been an institution in the trucking industry for many years, it is possible that some trucking firms may continue to collaborate on setting intrastate rates. To discourage this legacy of regulation, it may be necessary to issue a clear statement that continued coordination of such rates is illegal.<sup>17</sup>

#### B. Arguments Advanced for Continued Regulation

Trucking regulation was originally intended to help protect the regulated railroads from the then-unregulated and expanding trucking industry.<sup>18</sup> It was also designed, in part, to support the trucking industry by restricting competition during the depression of the 1930s.<sup>19</sup> We believe that neither rationale has any validity in 1987.

Four major arguments are usually advanced by those who support trucking regulation today. The proponents argue that regulation is necessary to: (1) preserve service to smaller communities; (2) prevent "destructive competition;" (3) maintain safety; and (4) achieve efficiencies in making pricing decisions. However, on closer examination, we believe these arguments are neither accurate nor persuasive rationales for economic regulation of the trucking industry.

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<sup>17</sup> For a discussion, see Breen, D., "Antitrust and Price Competition in the Trucking Industry," Antitrust Bulletin (Spring 1983), pp. 201-225.

Experience in antitrust enforcement suggests that collusive activities, particularly through trade associations, are more likely to take place in industries that have been cartelized under government authorization in the past. See Scherer, F., Industrial Market Structure and Economic Performance, Chicago: Rand McNally, 1980, pp. 521-25; Fraas, A., and D. Greer, "Market Structure and Price Collusion: An Empirical Analysis," Journal of Industrial Economics 58:1 (1977), pp. 21-44; and Hay, G. and D. Kelley, "An Empirical Survey of Price Fixing Conspiracies," Journal of Law and Economics 17, pp. 13-38, particularly pp. 16 and 25-26.

<sup>18</sup> See Locklin, D., Economics of Transportation, Homewood, Ill.: Irwin, 1966, Chapter 31. Federal and numerous state laws followed the lead of Texas in requiring that many truck rates be no lower than rail rates.

<sup>19</sup> See Nelson, "The Changing Economic Case for Surface Transport Regulation," in Miller, ed., Perspectives on Federal Transportation Policy, Washington, D.C.: American Enterprise Institute, 1975). See also, Moore, T., "Rail and Truck Reform -- The Record So Far," Regulation (November/December 1983), pp. 33-41.

### Service to Smaller Communities

The first argument is that small communities will lose service if trucking is deregulated. Empirical studies in other states suggest that South Carolina's small communities will not lose service because of trucking deregulation.

Two studies conducted in the western United States found that, following federal deregulation of trucking, the quantity and quality of service for small towns remained essentially unchanged.<sup>20</sup> This result is consistent with the finding of an ICC study that small community trucking has never been subsidized by big city rates.<sup>21</sup> Because regulation has not forced cross-subsidization, *i.e.*, the setting of big city rates at a level needed to support small community rates that are set below costs, firms will not have financial incentives to refuse to provide service to small towns when prices are deregulated.<sup>2</sup>

Further support for the proposition that small communities will not be harmed comes from Florida's actual experience under deregulation. In a recent survey, 65 percent of the shippers in small communities in Florida, which has deregulated trucking, stated a preference for deregulation.<sup>22</sup> Indeed, deregulation may make it easier to provide flexible service to small shippers in rural areas.

There is even more specific evidence suggesting that small communities will not suffer under deregulation. A recent study by Professor Michael W.

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<sup>20</sup> Impact of Regulatory Reform on Shipper/Receiver Freight Service in Selected Rural Communities, 1982: A Second Followup Study, Washington, D.C.: U.S. Department of Transportation (March 1983). See also Statement of Reese H. Taylor, Jr., Chairman of Interstate Commerce Commission, Before the Surface Transportation Subcommittee of the House Committee on Public Works and Transportation on Implementation of the Motor Carrier Act of 1980 (November 7, 1985).

<sup>21</sup> An Evaluation of Charges That Regulatory Reform Will Degrade Small Community Motor Carrier Service, Washington, D.C.: Interstate Commerce Commission (March 1980).

<sup>22</sup> Freeman, J., "A Survey of Motor Carrier Deregulation in Florida: One Year's Experience," ICC Practitioners Journal, at 51 (Nov.-Dec. 1982). See also Bolton, S., R. Conn, and J. Smith, "Florida Motor Carrier Deregulation: The Immediate Effect of Sudden Deregulation from the Perspective of Shippers/Receivers in Small Communities," in Kidder, ed., Conference on Regulatory Reform in Surface Transportation, Syracuse, N.Y.: Syracuse University/U.S. Department of Transportation, 1983.

It should also be noted that in 1985 United Parcel Service decided to offer next-day service to every community in the U.S. (Highlights of Activity in the Property Motor Carriers Industry, Office of Transportation Analysis, Interstate Commerce Commission, Staff Report No. 10: (March 1986), pp. 9-10).

Pustay of Texas A. & M. University examined service to such communities. Under current Texas Railroad Commission (TRC) procedures, carriers cannot be compelled to serve communities at unremunerative prices.<sup>23</sup> Pustay found that common carriers were not reluctant to serve small communities and concluded that the overall pattern of service does not support the argument that regulation of intrastate trucking increases the level of service offered to small communities.<sup>24</sup> Pustay's study is one of many that refute the contention that the quality of service to small communities will deteriorate with deregulation. A recent extensive survey of shippers found that quality of service after federal deregulation had improved for 20.1 percent of respondents. Over 97 percent of the mostly rural shippers found that trucking service was at least as good before federal deregulation. Only two percent considered quality of service to be lower.<sup>25</sup>

### Destructive Competition

Another argument in support of continued regulation is that deregulation would inevitably lead to "destructive price competition." A major concern is that larger, better financed companies will drive out their competitors by selling at prices below average variable cost. When the weaker competitors are driven out, according to the argument, the remaining firms will raise their prices to supracompetitive levels, thus recouping their losses and increasing their profits. Another concern is that easy entry, barriers to exit, or declining demand will foster chronic excess capacity and the accompanying threat of destructive price competition, persistent pricing below costs. The destructive price competition will cause losses for all firms and result in deterioration of the quality of service.<sup>26</sup>

The conditions necessary for destructive competition to occur, however, do not generally apply to the trucking industry today. In the absence of substantial fixed costs and high barriers to entry or exit, attempts to engage in so-called predatory pricing would have little chance of achieving their goal and chronic excess capacity would be unlikely to develop.<sup>27</sup> The

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<sup>23</sup> Pustay, M., "Intrastate Motor Carrier Regulation in Texas," Logistics & Transportation Review 19 (1983), p. 141.

<sup>24</sup> This willingness to serve small communities suggested that such service was profitable. Pustay compared the service offered to small towns in states with a variety of types of trucking regulations (Texas, Ohio, South Dakota, and Florida), Pustay, supra note 23 at 159.

<sup>25</sup> Office of Transportation Analysis, supra note 22 at 30.

<sup>26</sup> See Locklin, supra footnote 18 at 653-654.

<sup>27</sup> See Matsushita Electric Industrial Co. v. Zenith Radio Corp., 106 S. Ct. 1348, 1357-1358 (1986); and Miller, J., "Economic Regulation of Trucking," in Report of the Economic Advisory Panel to the National Commission for the Review of Anti-Trust Laws and Procedures (Nov. 9, 1978).

Proponents of regulation have argued that setting up an extensive

trucking industry does not appear to be characterized by substantial fixed costs since trucks, the predominant asset,<sup>28</sup> are highly mobile and can be quickly transferred to other markets if a carrier faces overcapacity. Other assets, such as terminal space can be rented, rather than purchased, making them variable costs.<sup>29</sup> To the extent that barriers to entry are low, a carrier would be unable to later recoup the losses it sustained while engaging in predatory pricing. When the predator tried to raise its prices to supracompetitive levels, other firms would enter or re-enter the market, taking business away from the predator and pressuring prices back to competitive levels. Recently, the General Accounting Office joined the ICC, the Motor Carrier Ratemaking Study Commission, and the Department of Justice in concluding that predation is unlikely to occur as a consequence of trucking deregulation, and that there is no evidence of predatory pricing in markets that have been deregulated to date.<sup>30</sup> Similarly, if there are low barriers to exit, excess capacity should not persist even when demand declines.

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terminal network, which is required in the less than truckload (LTL) segment of the industry, constitutes a barrier to entry that raises the attractiveness of predation. However, a study by transportation economist Denis Breen indicates that competition along routes has increased with deregulation, as efficient LTL competitors expand route networks. Examining 248 city-pairs, Dr. Breen found that "the number of competitors per route increased between 1979 and 1981 for 179 of the 248 major routes despite the overall decline in the number of LTL firms." See Breen, "Market Structure and Competition in Trucking," FTC Bureau of Economics Working Paper #21 (September 1984). The larger market shares of LTL traffic for growing carriers result primarily from those carriers' expanding the number of terminals and places served, rather than from increasing concentration and market share in markets already served. See Office of Transportation Analysis, supra note 22 at 10.

<sup>28</sup> Even in the LTL segment, property accounts for only roughly 20% of assets. See Breen, supra note 17 at 213.

<sup>29</sup> The truck is not a fixed cost of doing business between any two points or in any state or region because it can readily be put in service on some other route or in some other area.

For a discussion of barriers to entry in less than truck-load carriage concluding that barriers to entry are only moderate in this segment of the industry, see General Accounting Office, Trucking Regulation: Price Competition and Market Structure in the Trucking Industry, Washington, D.C.: Government Printing Office, 1987.

<sup>30</sup> United States General Accounting Office, Trucking Regulation: Price Competition and Market Structure in the Trucking Industry, (February 1987), pp. 8-10.

## Safety

A third argument advanced against deregulation is that it will adversely affect trucking safety. Economic deregulation does not necessarily implicate reduced safety. Licensing, inspection, and enforcement of safety regulations can all be pursued independently of economic regulation. As the Wall Street Journal concluded in a recent editorial: "The way to improve truck safety is not to restore economic regulation but to do a better job of enforcing safety rules."<sup>31</sup> Recent federal legislation reflects this realization. In particular, the Commercial Motor Carrier Safety Act of 1986 requires written and road tests to exclude poor drivers, a national uniform commercial driver's license, and a national clearinghouse for records of commercial drivers.<sup>32</sup> In addition, DOT is expected to repeal the commercial zone exemption, which excuses locally driven trucks from federal safety inspections in many high density traffic areas, particularly in the Northeast.<sup>33</sup>

Although some advocates of regulation have sought to connect deregulation to decreases in safety, there is no necessary connection between the two and, as discussed below, the results of safety research are generally inconsistent with this hypothesis. Deregulation may in fact contribute to greater safety by ending route restrictions and stimulating more efficient operations that employ higher vehicle load factors, thus reducing the number of vehicle miles travelled to perform any given volume of freight transport. Regulation is associated with extra trips, such as empty back hauls.<sup>34</sup>

In addition to reducing inefficient freight movements, empirical evidence suggests that deregulation has not reduced safety on the more efficient freight movements that take place under deregulation. Indeed, an index of injury and fatality rates per vehicle mile in the interstate market shows a decline since deregulation.<sup>35</sup> Recent studies by academic economists who have addressed the safety issue have generally concurred that

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<sup>31</sup> "Unsafe Statistics," Editorial, Wall Street Journal (April 7, 1987).

<sup>32</sup> U.S. General Accounting Office, Trucking Deregulation: Proposed Sunset of ICC's Trucking Regulatory Responsibilities, Washington, D.C.: U.S. General Accounting Office, 1987, pp. 19-20; Wollack, "New Licensing Standards for Truck and Bus Drivers," Nation's Cities Weekly (November 10, 1986), p. 2(1).

<sup>33</sup> Kirkman, D., "U.S. Wants to Stiffen Safety Rules on Local Trucks, Buses, and Drivers," Washington Times (July 14, 1987).

<sup>34</sup> MacAvoy, P., and J. Snow, eds., Regulation of Entry and Pricing in Truck Transportation, Washington, D.C., American Enterprise Institute, 1977.

<sup>35</sup> Wall Street Journal, supra note 31. This index, based on DOT data, was calculated by Americans for Safe and Competitive Trucking.

deregulation has not reduced safety.<sup>36</sup> For example, researchers have found no connection between net operating income and accident rates as would be expected if more intense competition reduced safety.<sup>37</sup>

### Price Efficiencies

A final argument advanced against deregulation is that it will increase operating and transactions costs of many shippers. Without the motor carrier collective rate bureaus, shippers, according to this argument, will be unable to readily obtain price information, and for example, will have to negotiate individually for each segment of shipments requiring multiple carriers.<sup>38</sup> Experience with deregulation at the interstate level suggests that brokers and intermediaries will provide such information and coordination services, just as they provided similar services following the 1984 partial deregulation of interstate rates. And brokers and intermediaries will provide these services without the threat to competition inherent in collusive

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<sup>36</sup> A 1987 study by B. Weinstein and H. Gross ("Transportation and Economic Development: The Case for Reform of Trucking Regulation in Texas," Center for Enterprising, Southern Methodist University, 1987, p. 50) states:

Reported truck accidents for interstate motor carriers have shown an increase since 1984. But most of this increase is attributable to better reporting by the carriers rather than [to] a rise in accidents. In fact, in each of the four years following passage of the Motor Carrier Act, reported accidents were nine to twelve percent below the 1979 figures. Most important, injuries and fatalities from heavy truck accidents since 1980 have remained well below the pre-Motor Carriers Act figures for 1978 and 1979.

This is not to suggest that deregulation makes trucking safer; but evidence does not support the contention that deregulation makes trucking less safe.

The Weinstein and Gross results may explain why other studies have expressed concern about deterioration of safety after deregulation. Examples of such expressions of concern include Baker, "Does the Public Benefit from Deregulation?" Traffic World (February 9, 1987), pp. 83-89, and Glaskowsky, N., Effects of Deregulation on Motor Carriers, Westport, Conn.: Eno Foundation for Transportation, Inc., 1986.

<sup>37</sup> Corsi, T., P. Fanara, and M. Roberts, "Linkages Between Motor Carrier Accidents and Safety Regulation," Logistics and Transportation Review 20:2 (June 1984), pp. 149-164, particularly pp. 156-157; and Beilock, R., "Are Truckers Forced to Speed?" Logistics and Transportation Review 21:3 (September 1983), pp. 277-291.

<sup>38</sup> See, for example, Davis, G., and J. Dillard, "Financial Stability in the Motor Carrier Industry -- The Role of Collective Ratemaking," Transportation Research Forum 24:1 (1983), pp. 241-248, footnotes 20 and 27.

ratemaking. Interstate coordination and brokerage services are now offered by Roadway, Consolidated Freightways, Sun Carriers, and Leaseway Transportation Corporation,<sup>39</sup> among others. In fiscal year 1985, new brokers accounted for ninety-nine percent of the applications for new grants of operating authority from the ICC.<sup>40</sup>

### C. Benefits of Deregulation

The experiences in several states, including New Jersey, Florida, Wisconsin, Maryland, and Oregon, illustrate the benefits of deregulation. A study of trucking in New Jersey, for example, concluded that deregulation has worked well. Shippers were satisfied with the available service, rates were about 10 percent lower than they would have been under regulation, and the intrastate carriers survived and profited.<sup>41</sup>

Florida's experience is particularly interesting because deregulation occurred so quickly that truckers and shippers had no opportunity to prepare for it.<sup>42</sup> Nevertheless, according to a 1982 study,<sup>43</sup> 88 percent of shippers, as well as 49 percent of truckers, supported deregulation. Most shippers thought that service levels remained constant and that rate fluctuations had posed no difficulties. Only a few shippers converted to private carriage; many more such conversions would have been expected if "destructive competition" had resulted in a large reduction in the number of truckers.

A 1984 Department of Transportation study<sup>44</sup> found that 90 percent of Florida shippers believed that post-deregulation service was at least as good as service before deregulation, and 30 percent reported improved service. In addition, a majority of shippers (58 percent) perceived that deregulation had

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<sup>39</sup> Office of Transportation Analysis, supra note 22 at 4.

<sup>40</sup> Trucking firms must obtain ICC permission before initiating service in areas or between cities they do not already have permission to serve. Office of Transportation Analysis, supra note 22 at 12-13.

<sup>41</sup> Allen, B., "The Experience Under Unregulated Motor Carriage in New Jersey," in Kidder, ed., Conference on Regulatory Reform in Surface Transportation, Syracuse, N.Y.: Syracuse University/U.S. Department of Transportation, 1983.

<sup>42</sup> Florida regulation of trucks and buses ended abruptly after anticipated legislation to revise and continue regulation upon expiration of the regulations was not enacted.

<sup>43</sup> Freeman, supra note 22.

<sup>44</sup> Statement of Matthew V. Scocozza, Assistant Secretary for Policy and International Affairs, U.S. Department of Transportation, Before the Subcommittee on Surface Transportation, U.S. House of Representatives (June 20, 1984).

held down rates. Other studies report similar results.<sup>45</sup>

The consumer benefits obtained from deregulation at the state level have also been achieved at the national level. After partial federal deregulation, the number of grants of operating authority to carriers quadrupled, evidencing eased entry into the trucking business.<sup>46</sup> There also has been an increase at the national level in the number of independent rate

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<sup>45</sup> To measure the impact of deregulation on trucking prices in Florida, economists Blair, Kaserman, and McClave examined rates and shipment characteristics for 10 Florida intrastate carriers before deregulation and at three points in time after deregulation. Using more than 27,000 observations on individual shipments, they found that the deregulation of intrastate trucking led to a 15 percent average reduction in rates. See Blair, R., D. Kaserman, and J. McClave, "Motor Carrier Deregulation: The Florida Experiment," Review of Economics & Statistics 68 (1986), pp. 159..

The experience of other states confirms the evidence from New Jersey and Florida. For example, in Wisconsin, 67 percent of shippers were satisfied with deregulation, and only 6 percent were dissatisfied. Seventy-three percent said that rate information was just as readily available after deregulation as before. Carriers were evenly divided on the question of the benefits of deregulation. Those with increased profits tended to favor deregulation, while some of those opposing deregulation were upset about the loss of the asset value of their certificates of convenience and necessity, an inevitable one-time result of converting from a regulated to a free market. See Deregulation of Wisconsin Motor Carriers, Wisconsin Office of the Commissioner of Transportation (July 1983).

In Maryland, intrastate household goods movers are not regulated. A study conducted in that state in 1973-1974 revealed that the then regulated interstate household goods carriers charged 27 percent to 67 percent more than unregulated intrastate carriers. See Breen, D., "Regulation and Household Moving Costs," Regulation, (September/October 1978), p. 53.

Oregon deregulated the shipping of certain building materials in 1980. The results of this action were examined in two separate surveys by the Legislative Research Office of the Oregon Legislature. All parties surveyed agreed that deregulation increased the number of carriers in the market. According to one survey, almost all shippers and most of the truckers with prior authority to carry these products believed that trucking rates had decreased. None of the groups surveyed believed that there had been a general increase in rates as a result of deregulation.

<sup>46</sup> The Effect of Regulatory Reform on the Trucking Industry: Structure, Conduct, and Performance, Washington, D.C.: Office of Policy and Analysis, Interstate Commerce Commission (June 1981). See also Statement of Reese H. Taylor, Jr., Chairman of Interstate Commerce Commission, Before the Surface Transportation Subcommittee of the House Committee on Public Works and Transportation on Implementation of the Motor Carrier Act of 1980 (Nov. 7, 1985).

changes, with the vast number of observed changes being rate decreases.<sup>47</sup> From 1977-1982, as deregulation was first taking place, rates on interstate truckload shipments fell about 25 percent, and less-than-truckload rates fell about 12 percent. These declines occurred during a period of rising fuel costs (when prices might have been expected to rise).<sup>48</sup> A recent federal study found that regulated rates are higher than competitive rates, in large part because regulated firms are able to "pass through" cost increases automatically via general rate increases.<sup>49</sup>

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<sup>47</sup> Statement of Reese H. Taylor, Jr., Chairman of Interstate Commerce Commission, Before the Senate Committee on Commerce, Science, and Transportation (Sept. 21, 1983). See also Highlights of Activity in the Property Motor Carrier Industry, Washington, D.C.: Interstate Commerce Commission (March 1986).

<sup>48</sup> See Moore, supra note 9 at 39. Rates declined prior to the recessions of 1979-1980 and 1980-1981 (when prices might have been expected to fall with or without deregulation).

<sup>49</sup> Collective Ratemaking in the Trucking Industry, Washington, D.C.: Motor Carrier Ratemaking Study Commission (June 1, 1983). Evidence also indicates that regulated firms have less incentive to maximize efficiency.

## V. OTHER SURFACE TRANSPORTATION INDUSTRIES

### A. Buses

The SCPSC regulates entry, rates, and services in the intercity bus industry under authority of Chapter 23 and Article 2 of Chapter 103 of the Code of Laws. There is no reason, however, to believe that markets for intercity bus transportation would fail to operate efficiently without such regulation, because cars, limousine services, car pools, airplanes, passenger trains, etc., provide strong competition in personal transportation.<sup>50</sup> Intercity bus transportation also does not appear to exhibit major economies of scale that might justify rate regulation if competition from other forms of transportation were not prevalent.<sup>51</sup> Moreover, to the extent that most costs of serving a particular route are variable and entry and exit are easy (aside from regulatory requirements), there is no reason to fear systematic predatory pricing or other forms of "destructive" competition in the bus industry.<sup>52</sup>

Deregulation of buses at the national level and in many individual states may have helped to preserve the industry because many states evidently were failing to allow rates that covered costs or were requiring service on routes that did not allow bus transportation firms to recover costs at any price.<sup>53</sup> Although deregulation has been accompanied by

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<sup>50</sup> See Rastatter, E., and J. Walgreen, "Regulatory Reform of the Intercity Bus Industry," in Kidder, ed., Conference on Regulatory Reform in Surface Transportation, Syracuse, N.Y.: Syracuse University/U.S. Department of Transportation, 1983.

<sup>51</sup> Id. For additional economies of scale studies, see Franvel, F., H. Tanchen, and G. Gilbert, "Regulatory Policy and Economies of Scale in the U.S. Intercity Bus Industry," Transportation 11:2 (1986), pp. 173-187; and Viton, P., "The Question of Efficiency in Urban Bus Transportation," Journal of Regional Science 26:3 (August 1986), pp. 499-513.

<sup>52</sup> Id.

<sup>53</sup> Because forced subsidization of intrastate routes by interstate routes threatened the viability of the entire national bus system, the ICC was authorized by Congress to preempt some intrastate rate, routing, and entry regulations. See the Bus Regulatory Reform Act of 1982, 49 U.S.C. 10935. For discussion, see Oster, C. and K. Zorn, "Impacts of Regulatory Reform on Intercity Bus Service in the United States," Transportation Journal 25:3 (Spring 1986), pp. 33-42. To the extent that state regulation of intrastate buses has continued to force subsidization of some intrastate routes by interstate routes or other intrastate routes, deregulation will be accompanied by increases in fares and abandonment of routes that cannot be self-sustaining even at higher prices unless the state specifically subsidizes these routes.

discontinuations of service to some small communities, the rate of decline in rural bus services has not been appreciably different than it was before deregulation of interstate routes.<sup>54</sup> Deregulation has not generally resulted in loss of service to small communities where there is appreciable demand, and deregulation has precipitated changes in equipment and scheduling that may have preserved some bus routes that otherwise would have had to be discontinued.<sup>55</sup>

Because there appears to be no economically defensible reason to regulate entry and prices in this industry, and because deregulation of interstate and intrastate buses has proceeded with generally positive results in other parts of the country, we believe that the practice of continuing to regulate rates and entry in this industry in South Carolina is probably anticompetitive and detrimental to consumer welfare. The Council may wish to recommend eliminating regulation of intercity buses. If South Carolina believes that demand is too weak in some areas to attract a supplier, but that service should be provided in any case, it may be more efficient (and fairer to other bus passengers) for the state explicitly to subsidize such routes from general revenues.<sup>56</sup>

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An example of large economic losses imposed by state regulation is the route between Logan and Charleston, West Virginia. Trailways was forced to continue service for three years on this route with a 46 passenger bus carrying an average of 6 passengers. The estimated loss from this service was \$176,674. See Rastatter and Walgreen, supra note 50 at 444.

The recent financial failure of Trailways underlines the extent to which competition from other transportation modes reduces demand for bus transportation services. See "Leave the Driving to Us," Economist (June 27, 1987), p. 66; "Greyhound Lines to Take Control of Trailways Assets," Wall Street Journal (July 14, 1987), p. 16.

<sup>54</sup> See Oster, C., and C. Zorn, "Impacts of Regulatory Reform on Intercity Bus Services in the United States," Transportation Journal 25:3 (1986), pp. 33-42. See also Bailey, A., "Regulatory Reform and Rural Bus Service: Evidence from South Dakota," Socio-Economic Planning Sciences 20:5 (1986), pp. 291-298.

<sup>55</sup> Stage, W., "What Have Been the Effects of Deregulation on the Intercity Bus Industry in Florida?" paper presented at the Transportation Research Forum (October 29, 1982).

<sup>56</sup> Air and rail competitors of the bus industry have received significant direct government aid for facilities dedicated exclusively to their use. Airlines utilize government supported terminals and air traffic controllers. Amtrak rail passenger service receives an annual federal subsidy accounting for approximately 40% of its revenues. See "Outside Jobs Help Pay Amtrak Fare," Chicago Tribune (May 4, 1987), p. 4:1; Samuelson, R., "Cutting Amtrak's Rails," Washington Post (January 14, 1987), pp. F1 and F3. By contrast, bus operators receive little government subsidy other than use of roads provided by the government, and even here, the marginal social cost of bus use of these roads may be small.

## B. Railroad Rates and Services

The SCPSC regulates railroad entry, rates, and services under authority of Chapter 14 and Article 1 of Chapter 103 of the Code of Laws.

In most instances, the case for deregulating railroads parallels the case in trucking.<sup>57</sup> Until the late 1970s, most interstate and intrastate railroads were required to use inefficient pricing policies that virtually eliminated their incentives and ability to pursue new technologies and innovative services.<sup>58</sup> With deregulation of most rail services, the variety and efficiency of services has been greatly increased, real rates after adjusting for inflation have declined somewhat, and the financial viability of the railroads has been enhanced.<sup>59</sup> For example, railroad piggybacking<sup>60</sup> and fresh produce services were languishing until deregulation. Regulations had prohibited railroads from charging enough to cover the higher costs of providing these services. Without the revenues to finance better equipment and routing arrangements, railroads could not compete effectively with trucking firms on these types of shipments.<sup>61</sup>

Although competition among different transportation modes, as courts and the ICC explicitly acknowledge, is usually sufficient to prevent exercise of market power by railroads, there may be some routes and products that cannot be effectively served, at least in the short run, by alternative means or by competing railroads.<sup>62</sup> When such circumstances prevail in interstate routes, the ICC has developed and applied sophisticated but practical rate restriction guidelines. Several states that have deregulated most intrastate

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<sup>57</sup> Transportation analysts have found that deregulation of railroads was essential to the economic viability of railroads, especially since trucking regulations were relaxed during the same period. Lewis and Widup, supra note 13; and Phillips, L., "The Railroad Industry: The Road to Recovery," Business Economics 21:2 (April 1986), pp. 52-56.

<sup>58</sup> The problems imposed by outdated regulation of the railroads are discussed in Improving Railroad Productivity, Washington, D.C.: Task Force on Railroad Productivity, National Commission on Productivity, 1973.

<sup>59</sup> See Barnekov, C., "The Track Record," Regulation (January/February 1987), pp. 19-27; and Willig, R., and W. Baumol, "Using Competition as a Guide," Regulation (January/February 1987), pp. 28-35.

<sup>60</sup> Piggybacking involves transporting trucks or shipping containers by rail.

<sup>61</sup> See, for example, Moore supra note 9; and Phillips, supra note 57.

<sup>62</sup> In the longer run, excessive rates charged by railroads will lead to relocation of shippers or development of alternative means of transportation, such as slurry pipelines in the case of coal.

rail routes have also adopted similar continued pricing restraints on particular routes where market power might be expected.<sup>63</sup>

South Carolina's regulation of intrastate rail rates has been certified by the ICC as being consistent with the provisions of the Staggers Act and is therefore no longer likely to have anticompetitive consequences.<sup>64</sup> The Council, however, may wish to recommend that the statutes be revised to incorporate provisions paralleling those in the Staggers Act.<sup>65</sup> Alternatively, the Council might wish to suggest that South Carolina join other states in saving the costs of administering rail rate regulations by abolishing these regulations and giving jurisdiction to the ICC to regulate rates in any instances where market power may be present.<sup>66</sup>

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<sup>63</sup> Staff at the ICC have informed us that, in such cases, some states have retained their own administration of these provisions while others have shifted the responsibility and cost to the ICC.

<sup>64</sup> The Staggers Act is 49 U.S.C. 11501. The South Carolina Public Service Commission made the final modifications required for certification by the Interstate Commerce Commission on March 14, 1984 (Docket No. 81-219-T, Order No. 84-207).

<sup>65</sup> The state's regulations already reflect the provisions of the Staggers Act as part of the process of certification. Incorporating similar provisions in the statutes might facilitate the quinquennial process of renewing certification under the Staggers Act and avoid the possibility that anticompetitive rate regulations could be adopted by the SCPSC at some future date.

<sup>66</sup> Under the Staggers Act, the ICC may determine the reasonableness of rail rates in the case of captive shippers. The Staggers Act defines a captive shipper as one 1) that pays a rate that is higher than a threshold level -- currently 170-180 percent of railroad variable costs -- and 2) that is subject to railroad market dominance. (In the case of coal traffic, perhaps the primary product for which there are limited short-run transportation substitutes, less than 20 percent of railroad revenues comes from rates that exceed this threshold. See Ex Parte No. 347 (Sub-No. 1), Coal Rate Guidelines, Nationwide (August 8, 1985) p. 3.) The ICC has ruled that a railroad has market dominance if the shipper lacks both rail and nonrail transportation alternatives and faces neither product nor geographic competition. Geographic competition exists where a shipper of a commodity competes with other shippers of the same commodity that are located elsewhere. Product competition exists where a shipper of a commodity competes with sellers of other commodities that are substitutes for the shipper's commodity. See generally Ex Parte No. 320 (Sub-No. 3), Product and Geographic Market Competition (1985) [slip opinion at 2-6] for the history behind the present status of the rules for defining market dominance. The concept has been developed and refined in the Staggers Acts, a series of rulemakings, and court decisions. See Ex Parte No. 320, Special Procedures for Making Findings of Market Dominance, 353 I.C.C. 875, modified, 355 I.C.C. 12 (1976); Atchison, T. & S.F. Ry. v. ICC, 580 F.2d 623

The ICC's current procedures for evaluating market dominance are similar to those used by the FTC in antitrust investigations. Each agency determines the extent to which a seller or group of sellers has market power. All constraints on that power are taken into consideration.<sup>67</sup> In the case of a railroad, the ICC has correctly ruled that constraints on the price charged for shipping a particular product include competition between railroads, competition with other modes of transportation, competition from other products that could substitute for the product being shipped, and competition from producers of the same product located in other geographic areas.<sup>68</sup>

As the ICC has noted, the ideal pricing standard for assessing the reasonableness of a railroad's rates would be to require the railroad to set each of its rates equal to marginal cost. However, the ICC has recognized that in many instances marginal cost rates will not generate sufficient revenue to cover a railroad's total costs, including a normal return on investment.<sup>69</sup> This problem arises because, until a certain volume of traffic

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(D.C. Cir. 1978); Ex Parte No. 320, Special Procedures for Making Findings of Market Dominance, 359 I.C.C. 735 (1979); Section 202 of the Staggers Rail Act of 1980, Pub. L. No. 96-448, 94 Stat. 1895 (1980). The ICC's current guidelines for market dominance determinations were developed in Ex Parte No. 320 (Sub-No. 2), Market Dominance Determinations, 365 I.C.C. 118 (1981), aff'd sub nom., Western Coal Traffic League v. ICC, 719 F.2d 772 (5th Cir. 1983) (en banc), cert. denied, 466 U.S. 953 (1984).

Some refinements in these guidelines might be possible to better accommodate the economic principles on which they are based, but the determinations that would be needed to implement these refinements are likely to be both time consuming and costly relative to the potential gains in efficiency. See McFarland, H., "Ramsey Pricing of Inputs With Downstream Monopoly Power and Regulation: Implications for Railroad Rate Setting," Journal of Transportation Economics and Policy (January 1986), pp. 81-90.

<sup>67</sup> See "Statement of the Federal Trade Commission on Horizontal Mergers," Trade Reg. Rep. 546 at 76-79, 84-85 (June 14, 1982).

<sup>68</sup> The courts have generally upheld the ICC in its consideration of these forms of competition. Supra footnote 66.

<sup>69</sup> See Ex Parte No. 347 (Sub-No. 1), Coal Rate Guidelines, Nationwide (1985)[Slip op. at 7-9]. Total cost encompasses all costs, including the cost of the track and running the trains. Average cost is total cost divided by the number of units, for example, total costs divided by the number of train trips on a particular route. Marginal cost equals the increment in total cost attributable to an additional unit of output, the cost of running an additional train on a track in this example. If the price for each train trip equaled the marginal cost of the trip, the price would be less than the railroad's average cost, and the railroad would not earn enough revenue to meet its total costs. The difference in this illustration, would include, for example, the fixed costs of the rails.

is achieved, rail routes exhibit economies of scale: that is, the marginal cost of rail carriage is less than the average cost. Where this is true, rates must exceed marginal cost if a railroad is to cover total cost including a normal return.<sup>70</sup>

The Staggers Act requires that rates be set to permit railroads to earn "adequate" revenues. To satisfy this requirement, the ICC has developed a flexible regulatory concept known as "constrained market pricing."<sup>71</sup> Under this pricing scheme, railroad rates may not be lower than marginal cost. This prevents cross-subsidization of the carriage of one commodity out of revenues earned from excessively elevated rates on another commodity. Rates may not be higher than "stand-alone cost," which is the lowest cost at which a hypothetical efficient competitor of the railroad could serve the captive shipper. At rates below stand-alone cost, the shipper is better off being served by the railroad than by any competitor, assuming that such a competitor were in fact operating. Within the range set by marginal cost

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Common or joint costs also may present problems in adhering strictly to marginal cost pricing in the railroad industry.

When costs are common, that is two or more products share use of the same facilities, some allocation of the common costs is required to establish the marginal cost for each product. (For example, both cargo and passenger trains might make use of a particular station.) Such allocations may be difficult to make accurately.

When costs are joint, that is producing one product necessitates producing the other in fixed proportion, there is no economically definable marginal cost that can be attributed to one of the products. Some arbitrary allocation is required to designate marginal cost in this case. (For example, when a railroad hauls a manufacturer's railroad car painted with the name of a product, the railroad provides advertising exposure for that company as well as transporting the car, but these services cannot be separated. They are a composite unit and the costs of transporting the car and providing advertising exposure are joint.)

The zone of pricing flexibility can help accommodate the inherent indecisiveness in common and joint cost calculations while maintaining the marginal cost framework. For additional discussion, see Kahn, A., The Economics of Regulation: Principles and Institutions, New York: Wiley and Sons, Inc., 1970, pp. 79-83; and Ex Parte No. 347 (Sub-No. 1), Coal Rate Guidelines, Nationwide (1985).

<sup>70</sup> Keeler, T., Railroads, Freight, and Public Policy, Washington, D.C.: Brookings Institution, 1983, Appendix B. Keeler notes that many railroads also exhibit economies of scope, which reinforce the need for rates above marginal cost. Economies of scope are present when the average cost of rail carriage for one commodity decreases as the number of commodities carried increases.

<sup>71</sup> See Ex Parte No. 347 (Sub-No. 1), Coal Rate Guidelines, Nationwide (1985)[Slip op. at 4-5].

and stand-alone cost, rates can be based on the market demand for rail service.<sup>72</sup>

Constrained market pricing is a sophisticated but practical approach to the regulation of rates where railroads may have market power.<sup>73</sup> It can protect against the exercise of market power while minimizing any potential anticompetitive effects of adopting rate flexibility and does not stifle incentives to innovate.

### C. Railroad Mergers

The South Carolina statutes restrict railroad mergers that could benefit consumers as well as improve the competitiveness of local producers by reducing costs. Mergers are statutorily forbidden between railroads that can compete in serving any pair of destinations, even if there is costly excess capacity on both parallel routes because of competition from trucking firms.<sup>74</sup> The concern apparently is increased market power. In the presence of competition between different modes of transportation, however, concern about increased market power based on concentration of ownership in one mode of transportation (the rationale for restricting mergers) is no longer warranted.<sup>75</sup> Market share concentration in railroads, for example, will not lead to market power where trucks, planes, barges, and/or pipelines are viable alternative suppliers of transportation services. Absolute restrictions on railroad mergers, without assessment of actual competitive conditions, may impose higher cost on railroads and make them less able to

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<sup>72</sup> The ICC is encouraging actions on the part of railroads and shippers that will permit a closer approximation of rail rates to marginal costs. One example is the negotiation of mutually beneficial contract rates by railroads and shippers. Where the marginal cost of serving a particular shipper is low, a contract rate can be negotiated to pass on the cost saving to that shipper. A second example is the abandonment by railroads of routes with low traffic volumes that require cross-subsidization from higher rates on other routes.

<sup>73</sup> See Willig, R., and W. Baumol, "Using Competition as a Guide," Regulation (January/February 1987), pp. 28-35.

The ICC's decision in Omaha Public Power, in which rates of the Burlington Northern Railway were found to be unreasonable under the stand-alone cost standard, indicates that this pricing system can be responsive to the concerns of captive shippers. See Omaha Public Power District v. Burlington Northern Railroad, No. 38783 (Nov. 20, 1986). See also Arkansas Power and Light v. Burlington Northern Railroad, No. 36719 (May 13, 1987); San Antonio, Texas v. Burlington Northern Railroad Co., No. 36180 (Apr. 11, 1986); Commonwealth Edison Co. v. Aberdeen & Rockfish Railroad Co., No. 37891S (Aug. 8, 1986).

<sup>74</sup> See Code of Laws, Sections 15-17-720 through 15-17-780, particularly Section 15-17-740.

<sup>75</sup> See Section V.B. of these comments.

compete with other transportation industries, such as trucks, and less able to provide specialized services to shippers. These effects are likely to be detrimental to consumer welfare.

The existence of competition among different modes of transportation could be recognized by subjecting proposed mergers in this industry to review, perhaps by the state's attorney general, under modern antitrust merger criteria.<sup>76</sup>

#### D. Taxicabs

South Carolina currently authorizes local governments to fully regulate entry, prices, and services in the taxicab industry under Section 58-23-1510. Evaluations of local taxicab regulations conducted by the FTC staff and others have shown that many of these regulations, but not all, are anticompetitive.<sup>77</sup> Anticompetitive regulations in the taxicab industry raise prices and may reduce the quality of service. Cities with fewer restrictions on entry, on types of taxi services, and on minimum fares have generally experienced lower fares, shorter response times, and an increase in the number of cab hours of service than have cities with extensive restrictions.

We believe that there is no persuasive economic rationale for regulations restricting the number of cabs, nonconventional types of service (share-a-ride, dial-a-ride, jitney services), and minimum fares.<sup>78</sup> The radio dispatched taxicab market segment, the dominant type of cab service in most small to medium size cities,<sup>79</sup> has characteristics associated with effective competition. First, absent government restrictions on entry, barriers to entry appear to be low. Sunk costs are evidently low since cabs could be

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<sup>76</sup> See the "U.S. Department of Justice Guidelines," 2 Trade Regulation Reporter (CCH) Par. 4490, et seq (June 14, 1984) and "Statement of the Federal Trade Commission Concerning Horizontal Mergers," 2 Trade Regulation Reporter (CCH) Par. 4516 (June 14, 1982).

<sup>77</sup> For the FTC staff analysis and citations to other taxi studies, see Frankena M., and P. Pautler, An Economic Analysis of Taxicab Regulation, Washington, D.C.: Federal Trade Commission, 1984. (A copy of this study is enclosed.)

<sup>78</sup> There may be credible theoretical rationales for taxicab regulations pertaining to maximum fares, liability insurance, and safety. Other regulations, such as requirements to offer service or to maintain a minimum number of cabs in operation, may be justified on efficiency grounds to offset distortions created by other taxicab regulations, such as maximum prices on some trips that are lower than their costs. (Frankena and Pautler, supra note 77.)

<sup>79</sup> Wells, J., and F. Selover, "Characteristics of the Urban Taxicab Transit Industry, in Wells, et al., Economic Characteristics of the Urban Public Transportation Industry, Washington, D.C.: Institute for Defense Analysis, 1972, pp. 8-24.

shifted from one city to another if prices rose in one city.<sup>80</sup> (A cab also could also be converted to personal use.) Second, consumer price search is inexpensive. Consumers are able to search for the best fare by phone and cab companies can make their presence known to consumers by advertising and phone listings. Third, other modes of transportation or cabs from other jurisdictions can provide competition in some situations. In short, there are no market failures that would lead to a need for regulation of radio-dispatched taxicabs.

Local taxicab entry and minimum fare restrictions may have adverse effects on consumer welfare, as described above and in Section III.<sup>81</sup> Because local regulations that are authorized by a state may be exempt from antitrust scrutiny,<sup>82</sup> anticompetitive regulations may persist. The Council may wish to recommend that the South Carolina legislature rescind local authority to regulate taxicab entry and prices, thereby removing their antitrust immunity.

#### E. Moribund Transportation Industries

The SCPSC has authority to regulate entry, rates, and services of street trolleys, canals, and steamboats under Chapters 15 and 21 of the Code of Laws. Street trolleys, canals, and steam boats are now of little economic significance in large part because of strong competition from other modes of transportation<sup>83</sup> and regulations governing entry and pricing of these

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<sup>80</sup> If a firm can enter or leave a market without impediments and can recover all of its entry costs when it leaves (*i.e.*, there are no sunk or irretrievable costs), the market is said to be contestable. If a market is contestable, even transitory efforts to exercise market power can be readily undermined by "hit-and-run" entry. See Baumol, W., "Contestable Markets: An Uprising in the Theory of Industry Structure," American Economics Review 72:1 (March 1982), pp. 1-15.

<sup>81</sup> Supra note 9.

<sup>82</sup> See generally Town of Hallie v. City of Eau Claire, 105 S. Ct. 1713 (1985); Parker v. Brown, 317 U.S. 341 (1943).

<sup>83</sup> For a discussion of competition among different modes of transportation and subsequent shifts in market share over time, see for example, Locklin, D., Economics of Transportation, Homewood, Ill.: Irwin, 1966, Chapters 2 and 5. For more detailed accounts of these transportation modes in South Carolina, see The Columbia Canal Study, Columbia, South Carolina: W. Smith and Associates, 1979 (indicates that modern use of the canal has been primarily for power generation); Holis, D. W., "Costly Delusion: Inland Navigation in the South Carolina Piedmont," reprinted from Proceedings of the South Carolina Historical Association, 1968 (indicates that canals were commercially viable only prior to competition from railroads in the 1840s); Pogue, N., South Carolina Electric and Gas Company 1846-1964, Columbia, South Carolina: SCE&G, 1964; McQuillan, D., "The Street Railway and the Growth of Columbia, South Carolina, 1882-1936," unpublished masters

services, therefore, are likely to be unnecessary. Such regulations may also restrict competition where these forms of transportation are still in use or could be revived.<sup>84</sup> In view of widespread competition between different modes of transportation, advances in transportation technology, and the economic decline of these industries, the Council may wish to consider recommending that these provisions be eliminated.

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thesis, University of South Carolina, Columbia, S.C., 1975; Langley, A., Trolleys in the Valley, publisher unknown, 1972. The last three references above indicate that trolley service in South Carolina was terminated in the 1930s after more than a decade of decline due to bus and automobile competition.

<sup>84</sup> The risk of restrictive regulation of rates, entry, and service characteristics could discourage innovative services or rate structures that could revive use of these modes of transportation.

## VI. UTILITIES

### A. Electrical Utilities

The SCPSC regulates entry, rates, and services of electric and other utilities under authority of Chapters 5 and 27 and Articles 3, 4, 5, and 7 of Chapter 103. Regulation of electric utilities has traditionally been based on the fact that the industry was arguably a natural monopoly. Economies of scale in generation, transmission, and distribution of electric power coupled with high costs of transmitting electricity over large distances (more than a few hundred miles) made service to individual customers by multiple firms unlikely. Low cost transmission could permit competition despite economies of scale, but this was regarded as impracticable in the past.<sup>85</sup>

Rapid technical change affecting electric utilities, however, suggests that regulation of production and transmission of electricity may be unnecessary and anticompetitive in the near future. New technological developments in the production and transmission of electricity suggest that independent power producers may soon be able to compete effectively to serve distribution networks in both nearby and distant areas, thereby reducing or eliminating the natural monopoly aspect of electricity production and transmission that has been the rationale for regulation.<sup>86</sup> Such a

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<sup>85</sup> Penn, D., J. Delaney, and T. Honeycutt, Coordination, Competition, and Regulation in the Electric Utility Industry, Washington, D.C.: U.S. Nuclear Regulatory Commission, 1975.

<sup>86</sup> An example of supply from outside a service territory is Public Service of New Mexico's plan to build a coal plant in its own service territory dedicated to producing electricity primarily for southern California, an area outside of its service territory. Some states are encouraging co-generation (production of electricity in connection with some other activity such as manufacturing) and expansion of regional grids (net works of transmission lines that allow neighboring utilities to share power) ostensibly to increase reliability and energy efficiency, but both of these actually involve further separating distribution from production of power. See Business Week, "Is Deregulation Working?" (December 22, 1986), pp. 50-55; Pollack, A., "Non-Utility Electricity Rising," New York Times (August 12, 1987), pp. D1 and D3; Pollack, A., "Shopping Around For Electric Power," New York Times (August 13, 1987), pp. D1 and D5; and Rose, F., "Duke Power Is Considering Taking Over Idle Plant From Utility Sought by PG&E," Wall Street Journal (September 8, 1987), p. 36. Co-generation may be a form of competition from alternative energy sources. Some natural gas producers reportedly offer low enough rates to large industrial customers that the plants have an incentive to produce their own electricity and sell any excess rather than buy electricity from the local utility. See Paul, W., "Electric Utilities Push New Marketing Plans To Meet Competition," Wall Street Journal (September 15, 1987), pp. 1 and 23.

Organizing an industry as a combination of regulated and unregulated

system would permit consumer access to the lowest cost available power and encourage utilities to locate generating plants at the most efficient sites. While electric utility deregulation may be premature at this time, the Council may wish to alert the legislature to the anticipated deregulation opportunities presented by technological advances.<sup>87</sup> The Council might also wish to recommend that the SCPSC be requested to periodically evaluate utilities deregulation opportunities.

#### B. Telegraph Services

The SCPSC regulates telegraph entry, rates, and services under Chapter 9 and Article 6 of Chapter 103 of the Code of Laws. Abundant competition from alternative forms of rapid message delivery services, such as express mail, electronic mail, computer networking over telephone lines, and regular telephone communication, however, probably make regulatory concern about market power in telegraph services unnecessary.<sup>88</sup> To the extent that regulation actually changes telegraph rates or entry, it is likely to be anticompetitive because it may inhibit innovation and restrict competition between different modes of telecommunications. The Council may wish to recommend that telegraph services be deregulated.

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firms at different stages of production is not a new concept. In South Carolina, for example, several natural gas pipelines are able to compete to supply local gas utilities that in turn operate the house-by-house natural monopoly networks of pipes in the state. An ongoing FTC staff analysis of Form 2 reports submitted by natural gas companies to the Federal Energy Regulatory Commission (FERC Form No. 2: Annual Report of Natural Gas Companies (Class A and Class B), Washington, D.C., Federal Energy Regulatory Commission, 1983) indicates that there are at least four potential bidders (separate companies with pipelines passing through the area or within 100 miles) to supply natural gas to utilities in each of South Carolina's standard metropolitan statistical areas (SMSAs). Similar competition occurs between natural gas producers in supplying pipelines. See Braeutigam, R., "The Deregulation of Natural Gas Pipeline Industry," in Weiss, L., and M. Klass, eds., Case Studies in Regulation: Revolution and Reform, Boston: Little, Brown and Co., 1981; and MacAvoy, P., Price Formation in Natural Gas Fields: A Study of Competition, Monopsony, and Regulation, New Haven, Conn.: Yale University Press, 1962.

South Carolina also has released wholesale distributors of water from rate regulation. See section 58-5-40.

<sup>87</sup> We understand that the SCPSC statutes are reviewed every six years.

<sup>88</sup> See Brock, The Telecommunications Industry, Cambridge, Mass.: Harvard University Press, 1981, particularly Chapters 2, 4, 7, and 10 for economic models and the history of competition between alternative electronic communication technologies. See also Sorkin, The Economics of the Postal System, Lexington, Mass.: Lexington Books, 1980, Chapter 7; and Irwin, Telecommunications America: Market without Boundaries, Westport, Conn.: Quorum Books, 1984, Chapter 6.

## VII. SPECIFIC PROVISIONS IN THE STATUTES

Several specific South Carolina statutes explicitly restrict the variety of services that transportation or utility firms can provide, thereby increasing costs unnecessarily or discouraging innovation. The Council may wish to recommend that these provisions be modified or eliminated.

### Distortions in Carload and Less-Than-Carload Rates

Section 103-38 forbids charging more for less-than-carload (LTC) lots than for carload lots. Because less-than-carload lots may cost more to route, monitor, and handle, regulations dictating that LTC lots be priced no higher than carload lots may force railroads to abandon some LTC traffic or to reduce LTC service in some other way to compensate for increased costs and lower prices. Consequently, this provision has the potential to reduce quality of service for LTC lots.<sup>89</sup>

### Grain Surcharge Rates Unrelated to Costs

Section 103-50 mandates that shippers pay a 20% rate surcharge on grain movements that include cleaning and grading of the grain, but it is not clear that the cost of cleaning and grading is uniformly equal to 20% of normal rates for any given shipping distance. Consequently, this provision will likely give railroads incentives to compete through excessive services (if costs are less than 20% of normal prices) or to skimp on services (if costs exceed 20% of normal rates). Alternatively, this provision might distort normal prices as railroads tried to make the average combined fare equal to costs. Adjustments in service to meet particular shippers' needs are also excluded by this fixed surcharge provision.

### Restrictions on Transfers of Ownership of Motor Carriers

Section 103-155 makes it illegal to transfer ownership of a trucking firm's route authority without permission of the SCPSA. Transfers are generally economically unobjectionable and may increase efficiency and competition. Hence the Council may wish to recommend that this provision be limited to the safety and market power considerations that are applied to all motor carriers. Elimination of trucking route certification would also make this provision moot.

### Rail Prices Fixed Regardless of Demand

Section 58-17-1870 requires that railroads fix the price for transportation of melons before the season and offer this fixed price regardless of demand. The intention of the statute is apparently to protect

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<sup>89</sup> If railroads attempted to discriminate against LTC shippers, arbitrageurs could organize LTC lots into carload lots and thus frustrate the discrimination.

melon growers against opportunistic price increases after the growers have incurred most of the costs of production. However, because of competition from trucks, concern about opportunistic price increases against melon growers by railroads may be unfounded. Also, this provision places the entire risk regarding fluctuations in the volume of melons shipped on the railroads. Faced with this legislative constraint, railroads may have incentives to set rates high enough to cover the contingency that the crop will be so large that costly extra equipment will be required. If the crop is instead normal or smaller than normal, so that extra equipment need not be used, contract rates may be higher than they would have been without this regulation. If a problem of opportunism really exists, a better solution might be to allow the railroads to negotiate contracts with farmers before the season. Such contracts could call for higher prices only when the railroad's costs are higher.

#### Matching Service Costs to Prices

Sections 58-17-1970 through 58-17-1990 require that a railroad's prices differ only on the basis of the distance of the haul and the type of cargo being carried. This provision, while intended to avoid discrimination, may actually require discrimination in some cases if services that cost less to provide must nonetheless be priced the same as high-cost services. Costs might differ for a variety of reasons that are unrelated to the distance and the cargo, such as, for example, different operating conditions on different lines, different degrees of variation in demand on different lines, different equipment requirements, etc. These sections also exclude temporary introductory or promotional rates and "meeting competition" from other modes of transportation.

#### Storage Charges

Section 58-17-2020 allows the SCPSC to fix storage charges for railroads irrespective of the costs of providing this service. This provision may cause distortions or perverse incentives whenever the established rates differ from the actual costs. The value of alternative uses of storage space is likely to change frequently and unpredictably. Hence, regulated rates are unlikely to match competitive rates. For example, if a harvest is particularly good, demand for storage is likely to be high. Maintaining low regulated storage rates may deprive those who have the greatest demand (are willing to pay the most) for storage facilities of access to them.

#### Maximum Delivery Time Regulations

Section 58-13-110 specifies maximum delivery times for shipments by railroads once a shipper requests "rapid" delivery. Railroads are required to provide rapid delivery upon request. There is no provision allowing higher rates on these rapid delivery requests and no provision permitting lower rates for shippers who promise to forego their legal right to rapid delivery.

The rapid delivery requirement may impede competition between different modes of transportation. In particular, some shippers may be interested in the very lowest cost delivery possible and would be willing to

forego the quick service option, if the price were lower. Railroads may not be able to compete for this low price business because their rates must be high enough to cover the possibility that some shippers will request free rapid delivery that costs the railroads more to provide. Without the rapid delivery requirement (or with an option allowing shippers to forego the right to rapid delivery) the railroads could offer a lower rate that could increase competition between trains and other forms of transportation.

#### Supply Cost Considerations Excluded from Reassignments of Service Areas

Section 58-27-650 forbids consideration of rates in assigning service territories to utilities. This provision prevents use of information that could be useful in making service area reassignments. The competitiveness of South Carolina industries and the welfare of South Carolina consumers is improved when lower cost utility service is substituted for higher cost service. In fact, one way to encourage efficiency by utilities is to permit competition for transfers of consumers in contestable areas based on lower costs of service.

#### Accounting for Unrelated Investments

Section 58-27-1030 requires regulated utilities to keep separate books for unregulated activities related to appliance sales. We believe that this provision is intended to prevent utilities from subsidizing unrelated businesses at the expense of their utility customers.<sup>90</sup> Although, the section in question contains language designed to prevent utilities from excessively investing in the sale of appliances, this provision is probably too narrow to curtail adverse effects generally. A broader provision requiring separate accounting for all activities not directly related to production and distribution of electricity might provide better control of cross-subsidizations of this type without preventing cost savings associated with the joint production of regulated and unregulated goods.

#### Excessive Liability

Section 58-17-950 makes owners of the common stock of some railroads liable for the obligations of these railroads up to an amount greater than

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<sup>90</sup> Extensions of business into unregulated areas such as this have been the focus of considerable attention. The primary concern is known as the Averch-Johnson effect: when the allowed rate of return for a regulated firm exceeds the cost of capital by even a small amount, the firm has an incentive to enlarge its rate base e.g., by investing in unregulated businesses and including these investments in its rate base. This creates a cross-subsidization from utility customers to the customers of the unrelated business and accompanying distorted prices and misallocated resources in both markets. See Averch and Johnson, supra note 10.

the value of their investment.<sup>91</sup> This provision increases the risk of owning these particular rail stocks and thereby increases the cost of equity capital for these firms. If this provision still applies to any currently operating firms, it may be so unusual that some investors may be deceived about the level of risk that they are assuming. This provision appears to be unnecessarily restrictive and potentially anticompetitive.

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<sup>91</sup> Investors are liable for the value of their investment plus five per cent of the par value of the issue. Normally, common stock investors are liable up to the value of their investment. Section 85-17-950 applies to railroads incorporated under the Constitution of 1868 and prior to the adoption of the Constitution of 1895.

## VIII. CONCLUSION

We believe that several features of South Carolina's Public Service Commission statutes are likely to have anticompetitive effects, and the Council may wish to propose that these features be revised or eliminated.

First, entry and rate regulation of telegraph and transportation services is likely to stifle competition both within and between industries. Conditions within these industries make it unlikely that market power or predatory behavior will be present. Where regulation of entry and rates has been relaxed or rescinded, consumers have generally benefited. For the few rail routes where market power may still be a potential problem, rate restrictions that preserve both pricing flexibility and the incentives to innovate may be used effectively.

Second, impending changes in technology, particularly for electric utilities, may allow competition in utilities markets heretofore regulated as natural monopolies. To avoid prolonged application of current regulations when technological changes make deregulation preferable, states such as South Carolina may benefit from periodically reviewing the justification for continued rate and entry regulations for utilities.

Third, continued restrictions on mergers between railroads, without regard for competition from other modes of transportation, may be anticompetitive and detrimental to consumer welfare. Mergers may reduce costs and increase efficiency in the railroad industry. When railroads' costs are higher than necessary, they are unable to provide either optimal services for shippers or strong competition to other modes of transportation.

Fourth, unrestricted grants of state authority to local governments for regulation of taxicab services may shield anticompetitive restrictions on entry, prices, and types of taxicab services offered.

Finally, specific pricing and service requirements in the SCPSC statutes may discourage efficient contracting for transportation and utility services, thereby increasing costs and/or reducing competition.