

distribution of desired hours of daily work for short-haul drivers. This was based on two sets of data: the Hanowski, Wierwille, Garness, and Dingus focus group study of short-haul work patterns for determining the distribution of average hours of work per day; and Balkin *et al.* (Walter Reed Army Institute of Research) Field Study, which provided an estimate of the day-to-day variability in hours worked. Using the distribution of desired hours of daily work, the agency was able to estimate the number of times when the FMCSA option would limit a driver's work. The agency found that, compared to the current rules, the FMCSA option would reduce the hours that short-haul drivers could work by an average of 0.7 percent.

For some drivers, the rules would limit their working hours more frequently. Six out of 81 short-haul drivers (or about 7.5 percent) reported working an average of 13 hours per day or more, and the estimated impact on their work amounted to a reduction of 4.3 percent.³ The impact on a firm employing one of the most affected drivers would depend on whether the firm also has other drivers who are less severely affected by the rules. In the extreme, a firm whose drivers were all among the hardest-working 7.5 percent of the industry would have the productivity of its entire staff of drivers reduced by 4.3 percent.

These changes in productivity are translated into changes in costs using the method described in Chapter 6 of the RIA. The results of that analysis, and a brief summary of how it was conducted, is presented below.

Translation of Productivity Changes Into Cost Impacts

Under the FMCSA option for the short-haul segment discussed in the RIA, the agency showed an increase in labor demand by about 0.7 percent. That translated to a cost increase of about \$168 million for the short-haul/local segment (*see* Exhibit 9–3 in the RIA). The FMCSA also estimated short-haul total revenue of \$198 billion (*see* Exhibit 3–1 in RIA), implying a 0.08 percent increase in costs in terms of their revenue. Under the worst-case scenario analyzed as part of the impact on small businesses, a 4.3 percent increase in labor demand translates to a corresponding cost increase for short-haul of about \$1.32 billion or a 0.67 percent increase as a share of short-haul

revenue. Table 22 shows the breakdown of the cost increases for these two scenarios.

The labor cost changes are calculated based on the wage-hours worked relationship estimated for truck drivers from the Current Population Survey data. The details of the estimated wage equation are explained in Chapter 6, Sections 2 and 3 in the RIA. Under the worst-case scenario, a 4.3 percent increase in labor demand means that the short-haul segment would have to hire the equivalent of 64,500 new drivers (though smaller firms are assumed to be able to increase their use of part-time drivers rather than adding a whole employee) at 0.67 percent increase in their costs as a share of revenue. The percentage increase in costs is smaller than the drop in productivity by the existing drivers because the pay for the new drivers (or additional part-time labor) is offset by reductions in the pay for the existing drivers whose hours are limited. Under this scenario, firms incur \$2.7 billion in driver labor costs for the new drivers or part-time drivers used to make up for the hours that existing drivers cannot work, but save \$1.9 billion in avoided labor costs, giving a net labor cost of \$786 million. Corresponding increases in the other cost categories are for new equipment and facilities for the 64,500 new drivers, as well as for hiring other types of workers related to the hiring of new drivers ("non-driver labor"—*see* explanation in RIA Chapter 6).

TABLE 22.—DIRECT COST CHANGES FOR THE SHORT-HAUL UNDER FMCSA OPTION
[(Million of Dollars) (Values in parentheses are negative)]

Scenario modeled	Proposed option	Worst-case
Change in Labor Demand (percent)	0.7	4.3
Change in Number of Drivers	10,500	64,500
Driver Labor Cost:	90	786
Avoided Labor		
Wages	(298)	(1,774)
Avoided Labor		
Benefits	(17)	(106)
New Labor		
Wages	309	2,034
New Labor Benefits	96	631
Other Costs:	78	536
Non-driver Labor	4	31
Trucks	33	249

TABLE 22.—DIRECT COST CHANGES FOR THE SHORT-HAUL UNDER FMCSA OPTION—Continued

[(Million of Dollars) (Values in parentheses are negative)]

Scenario modeled	Proposed option	Worst-case
Parking	10	58
Insurance	7	43
Maintenance	12	75
Recruitment	13	80
Total	168	1,322
Cost Increase as Share of Short-Haul Revenue ¹	0.08	0.67

¹ Assuming short-haul total revenue of \$198 billion (\$76 billion + \$122 billion). *See* Exhibit 3–1 in the RIA.

Sensitivity Analysis for Higher Impacts on Smaller Firms

These estimated changes in costs apply to all firms, not to small entities in particular. Some types of regulation tend to hit small firms harder than large firms, generally because they impose costs that are the same for all firms, or require equipment that exhibits substantial economies of scale. Small firms tend to have higher per-unit costs of compliance with these kinds of regulations because they have fewer units of output over which to spread the regulatory costs. The FMCSA does not consider the HOS rules to fall into that category of regulations, however, because the costs they impose affect individual drivers, not firms. Thus, total cost impacts are likely to be roughly proportional to the number of drivers, and costs for small firms will not tend to be out of proportion with costs for large firms.

In recognition of the SBA's finding that small businesses shoulder costs 60 percent greater than large businesses, the FMCSA conducted a sensitivity analysis that assumed costs were higher for small firms. *See* page 24 of "The Regulatory Flexibility Act: an Implementation Guide for Federal Agencies," The Office of Advocacy, U.S. Small Business Administration, November 2002, <http://www.sba.gov/advo/laws/rfaguide.pdf>. To calculate a more conservative cost impact for small firms using SBA's finding, the agency started with the distribution of employment by number of employees across all for-hire trucking firms. This distribution is shown in Table 23.

³ These estimates could somewhat overstate the impacts of the HOS rules, because they considered only the effects of the daily rules: very intense daily

schedules could cause drivers to be limited by the weekly HOS rules. Working 13 hours per day for 5 days, for example, results in 65 hours of work,

which would exceed the 60 hours allowed per 7 days.