

TABLE 2.—ANNUAL FATIGUE-RELATED FATALITIES BY ALTERNATIVE—Continued
[Numbers in parentheses are negative]

	Current/ 100%	PATT	ATA	FMCSA
Total:				
Fatalities in Crashes Attributable to Fatigue	317	247	365	276
Differences by Alternative Relative to Current/100%	NA	(70)	48	(41)

Source: RIA Exhibits 8–1 and 9–6. Totals do not add due to rounding.

Adjustments to Benefits Due to Secondary Effects

The crash reduction benefits shown in Table 1 (RIA Exhibit 9–6) include only effects of schedule changes on driver fatigue. While these are the primary effects of HOS rules, two secondary effects need to be considered. First, the changes in drivers resulting from the schedule changes and mode shifts, presented in Tables 5 and 9 (RIA

Exhibits 9–1 and 9–5), will result in changes in the number of relatively inexperienced drivers in the industry. As described in RIA Section 8.7, these drivers tend to have somewhat higher accident rates than the average driver, even over the fairly long time horizon considered in this analysis. Second, the changes in long-haul Vehicle Miles Traveled (VMT) resulting from the mode shift can be expected to result in

proportionate changes in long-haul accidents. Both of these secondary effects are presented in Table 3 (RIA Exhibit 9–8), which shows the effects in terms of their impacts on benefits: increased crashes are shown as negative impacts on benefits in the exhibit, while reduced crashes are shown as positive values. The table also shows the total benefits of each alternative after the adjustments for these secondary effects.

TABLE 3.—ADJUSTMENTS TO BENEFITS DUE TO SECONDARY EFFECTS OF ALTERNATIVES: NEW DRIVERS AND MODE SHIFT
[(Millions of dollars per year) (Values in parentheses are negative)]

	PATT	ATA	FMCSA
Change in Benefits due to New Long-haul Drivers	(51)	67	49
Change in Benefits due to New Short-haul Drivers	(70)	4	(6)
Change in Benefits due to New Long-haul and Short-haul Drivers	(121)	71	42
Changes in Benefits due to Increases in Long-haul VMT Due to Mode Shift	61	(69)	(48)
Change in Benefits due to Both Secondary Effects	(60)	2	(5)
Total Unadjusted Benefits (from Table 1 above)	400	(275)	234
Total Adjusted Benefits	341	(272)	228

Source: RIA Exhibit 9–6. Totals may not add due to rounding.

Along with these adjustments to benefits, there would be small adjustments to the changes in fatalities.

These adjustments are shown in Table 4 (RIA Exhibit 9–9) below.

TABLE 4.—ADJUSTMENTS TO CHANGES IN FATALITIES DUE TO SECONDARY EFFECTS OF ALTERNATIVES, RELATIVE TO THE CURRENT RULES WITH FULL COMPLIANCE
[Values in parentheses are negative]

	PATT	ATA	FMCSA
Increase in Long-haul Fatalities due to New Drivers	9	(12)	(9)
Increase in Short-haul Fatalities due to New Drivers	11	(1)	1
Increase in Total Fatalities due to New Drivers	20	(13)	(8)
Increase in Long-haul Fatalities due to Changes in Long-haul VMT	(11)	12	8
Net Increase in Fatalities due to Secondary Effects	9	0	1
Total Unadjusted Change in Fatalities	(70)	48	(41)
Total Adjusted Change in Fatalities	(61)	48	(40)

Source: RIA Exhibit 9–7. Totals do not add due to rounding.

Costs of the Alternatives

This section presents the results of the cost analysis. First, the FMCSA summarizes the required changes in drivers for long-haul and short-haul operations. Initially, the changes are shown under assumptions of constant demand for trucking services; the adjustment for mode shifts is presented

later. The agency later presents the implications to costs of these changes in numbers of drivers.

Given the primary changes in drivers and costs, FMCSA considered two secondary effects: changes in drivers' wages, and mode shifts between long-haul truck and rail. Feedback from these secondary changes would, in theory,

cause further ramifications, but these are not analyzed due to their small magnitude.

Table 5 (RIA Exhibit 9–1) presents the percentage changes in drivers required that were calculated in the analysis of changes in operations, and then shows their implications for total numbers of drivers on the basis of the FMCSA's