

## POTENTIAL FOR LOADED BACKHAULS

The potential for a loaded backhaul from state  $i$  to Florida was measured by comparing the exempt and nonexempt commodities exported from state  $i$  to Florida with the commodities imported from Florida to state  $i$ .<sup>8</sup> Twenty-one (4) states east of the Mississippi exported (imported) more commodities to (from) Florida than were imported (exported) from (to) Florida (Table 3). Thus, the potential existed for FF&V truckers to find a backhaul to Florida. Furthermore, if a trucker made a delivery to one of the four states that provided no opportunity for a backhaul, the trucker could go to one of the adjacent states.

## ECONOMIC IMPACT OF EMPTY BACKHAUL MILES

Empty backhaul mileage cost truckers \$6,339,408<sup>9</sup> in April 1979. The likelihood that empty backhaul mileage can be reduced to zero is improbable, and possibly economically inefficient; however, with deregulation and more information on the location of backhauls, empty backhaul mileage can be reduced.

The price incidence on producer prices from a change in the marketing margin caused by a decrease in empty backhaul cost is summarized in the following equation [Fisher, p. 261]:

$$I_p = \frac{1}{1 + e_p/an} \quad (2)$$

where:  $I_p$  = the proportion of the marketing cost change borne by the producer

$e_p$  = the price elasticity of producer supply

$a$  =  $P_p/P_r$

$P_p$  = producer (farm) price

$P_r$  = consumer (retail) price

$n$  = the price elasticity of consumer demand.

The price incidence on consumer prices was defined as:

$$I_r = 1 - I_p \quad (3)$$

where:  $I_r$  = the proportion of the marketing cost change borne by the consumer.

Assuming that the price elasticity of supply was zero (inelastic supply of fruits and vegetables in the market),<sup>10</sup> then the proportion of price incidence

8. The Census of Transportation for nonexempt commodities is only taken during the years ending in 2 and 7. Thus, 1972 data were used.

9. Calculated as follows: 17,373 trucks times 364.9 average empty backhaul miles per truck times \$1.00 per mile [Boles, 1980, p. 10] equals \$6,339,408.

10. A viable assumption in the short run due to the short storage life for fresh fruits and vegetables and the extended period of time required to change farm level production plans which cause changes in market supply.