## Impact of Product Density on Motor Carrier Cost

Assume:

1. Truck trailer has 3,000 cubic feet
2. The motor carrier's cost of the trip is $\$ 400$
A. Freight weights 2 pounds per cubic foot
3. Motor carrier's payload is 6,000 pounds ( $2 \mathrm{lb} / \mathrm{cu}$. ft. x $3,000 \mathrm{cu} . \mathrm{ft}$.)
4. Motor carrier's cost per 100 pounds $=\frac{\$ 400}{60}=\$ 6.67$ per cwt.
B. Freight weights 16 pounds per cubic foot
5. Motor carrier's payload is 48,000 pounds ( $16 \mathrm{lb} . / \mathrm{cu} . \mathrm{ft} . \mathrm{x} 3,000 \mathrm{cu} . \mathrm{ft}$ )
6. Motor carrier's cost per 100 pounds $=\frac{400}{480}=\$ 0.83$ per cwt.
