# Hintate <br> GENERAL ASSEMBLY OF NORTH CAROLINA <br> Session 2005 <br> Legislative Fiscal Note 

BILL NUMBER: Senate Bill 1834 (First Edition)
SHORT TITLE: Carpooling Incentives for State Employees.

SPONSOR(S): Senator Jacumin

| FISCAL IMPACT |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Yes (X) | No () | No Estimate Available ( ) |  |  |
|  | FY 2006-07 | FY 2007-08 | FY 2008-09 | FY 2009-10 | FY 2010-11 |
| TRACKING SYTEM EXPENDITURES | \$573,063 | \$73,063 | \$73,063 | \$73,063 | \$73,063 |
| CARPOOLING INCENTIVE | [NO ESTIMATE AVAILABLE] |  |  |  |  |
| POSITIONS (cumulative): | 1 | 1 | 1 | 1 | 1 |
| PRINCIPAL DEPARTMENT(S) \& PROGRAM(S) AFFECTED: Department of Administration |  |  |  |  |  |
| EFFECTIVE DATE: This bill becomes effective July 1, 2006. |  |  |  |  |  |

## BILL SUMMARY:

This bill authorizes the payment of ten cents per person, per mile, to each group of two or more that carpool in a State vehicle, to a maximum of fifty cents per vehicle, per mile. Requires that the Department of Administration develop a tracking system to allow State employees to locate other individuals traveling to the same location.
Source: Bill Digest S.B. 1834 (05/23/0200).

## ASSUMPTIONS AND METHODOLOGY:

## Tracking System

This bill requires the Department of Administration, Motor Fleet Management Division, to develop a tracking system that will enable state employees traveling to and from the same location on the same dates the option of carpooling.

Software: A web-based tracking system is likely to offer the most timely and automated mechanism to connect state employees across state agencies on a continuous basis prior to the trip. The development and implementation of a web-based tracking system for carpooling, including employee contact information, and an automated travel log accounting system costs $\$ 500,000$ on a nonrecurring basis. According to Department of Administration staff, it will take approximately one year to develop the computer application.

Staffing Needs: It is anticipated that the additional workload justifies a full-time position at a pay grade 75 to maintain the tracking system and travel log. The employee will also be required to oversee the billing of multiple agencies for the shared cost of one trip. The cost for this position, including salary ( $\$ 55,000$ ), benefits $(\$ 11,813)$, and supplies $(\$ 6,250)$, totals $\$ 73,063$. Of the $\$ 6,250$ for supplies, $\$ 4,500$ of the appropriation is in nonrecurring funds for furniture and computer equipment.

## Carpooling Incentive

This bill creates an incentive to carpool by paying each state employee who carpools with at least one other state employee the sum of $\$ 0.10$ per person, per mile up to a maximum amount payable of $\$ 0.50$ per mile, per vehicle.

Payment to Employees: To estimate the reimbursement cost to state employees that carpool, three factors must be assumed. First, this analysis assumes that no carpooling takes place today. Second, it is estimated that between five and twenty-five percent of the total miles traveled will be carpooled. Third, it is assumed that the average number of state employees that carpool together will either be two or three employees. Based on Table 1, the State will incur costs between $\$ 1,123,038$ and $\$ 5,615,190$ for two employees per vehicle and between $\$ 1,684,557$ and $\$ 8,422,785$ for three employees per vehicle.

## Table 1: Payment for Two or Three State Employees Per Vehicle Based on 5\% to 25\% of Total Miles Traveled Being Carpooled

| Total Miles <br> Traveled in <br> State Vehicles <br> Annually | Percentage of <br> Miles Carpooled | Total Carpool <br> Miles | Payment to Two <br> Employees Per <br> Vehicle | Payment to <br> Three <br> Employees Per <br> Vehicle |
| :--- | :---: | ---: | :--- | :--- |
| $112,303,800$ | $5 \%$ | $5,615,190$ | $\$ 1,123,038$ | $\$ 1,684,557$ |
| $112,303,800$ | $10 \%$ | $11,230,380$ | $\$ 2,246,076$ | $\$ 3,369,114$ |
| $112,303,800$ | $15 \%$ | $16,845,570$ | $\$ 3,369,114$ | $\$ 5,053,671$ |
| $112,303,800$ | $20 \%$ | $22,460,760$ | $\$ 4,492,152$ | $\$ 6,738,228$ |
| $112,303,800$ | $25 \%$ | $28,075,950$ | $\$ 5,615,190$ | $\$ 8,422,785$ |

Savings to State for Each Mile Carpooled: The State incurs a cost of $\$ 0.25$ per mile traveled to operate and maintain state vehicles. Two employees that do not carpool together to the same destination on the same dates cost the state $\$ 0.50$ per mile in comparison to a cost of $\$ 0.25$ per mile if the two employees carpooled together. Three employees that do not carpool together to the same destination on the same dates cost the state $\$ 0.75$ per mile compared to a cost of $\$ 0.25$ per mile ${ }^{1}$ if the three employees carpooled together. Based on the assumption that five to twenty-five percent of total miles will be carpooled, two employees carpooling will save between $\$ 1,403,798$

[^0]and $\$ 7,018,988$ and three employees carpooling with save between $\$ 2,807,595$ and $\$ 14,037,975$ (See Table 2).

Table 2: Savings to State for Two or Three Employees to Carpool

| Percentage of Miles Carpooled | Total Carpool Miles | \$0.25 Cost Per <br> Mile Saved for Two Employees that Carpool | $\$ 0.50$ Cost Per Mile Saved for Three Employees that Carpool |
| :---: | :---: | :---: | :---: |
| 5\% | 5,615,190 | (\$1,403,798) | (\$2,807,595) |
| 10\% | 11,230,380 | $(\$ 2,807,595)$ | (\$5,615,190) |
| 15\% | 16,845,570 | $(\$ 4,211,393)$ | (\$8,422,785) |
| 20\% | 22,460,760 | $(\$ 5,615,190)$ | (\$11,230,380) |
| 25\% | 28,075,950 | (\$7,018,988) | (\$14,037,975) |

Net Impact Per Year for Two or Three Employees Per Vehicle: Based on the fixed $\$ 0.10$ payment per mile, per vehicle, the state will experience a cost savings of $\$ 0.05$ per mile for two employees that carpool or a savings of $\$ 0.20$ per mile for three employees that carpool. Based on five percent of the total miles traveled in State vehicles being carpooled miles, the State incurs an annual savings of $\$ 280,760$ for an average of two employees per car and $\$ 1,123,038$ for an average of three employees per car. The greater the percentage of carpooled miles to total miles traveled and/or the more employees to carpool on the same trip, the greater the savings to the State. Based on twenty-five percent of the total miles traveled in State vehicles being carpooled miles, the State incurs an annual savings of $\$ 1,403,798$ for an average of two employees per car and \$5,615,190 for an average of three employees per car (See Tables 3 and 4).

Table 3: Net Impact Per Year: Two Employees

| Percentage of Miles <br> Carpooled | Payment to Two Employees Per Vehicle | \$0.25 Cost Per Mile Saved for Two Employees that Carpool | Net Impact Per Year |
| :---: | :---: | :---: | :---: |
| 5\% | \$1,123,038 | (\$1,403,798) | (\$280,760) |
| 10\% | \$2,246,076 | $(\$ 2,807,595)$ | $(\$ 561,519)$ |
| 15\% | \$3,369,114 | (\$4,211,393) | $(\$ 842,279)$ |
| 20\% | \$4,492,152 | $(\$ 5,615,190)$ | (\$1,123,038) |
| 25\% | \$5,615,190 | (\$7,018,988) | (\$1,403,798) |

Table 4: Net Impact Per Year: Three Employees

| Percentage of Miles Carpooled | Payment to <br> Three <br> Employees Per <br> Vehicle | \$0.50 Cost Per <br> Mile Saved for Two <br> Employees that Carpool | Net Impact Per Year |
| :---: | :---: | :---: | :---: |
| 5\% | \$1,684,557 | $(\$ 2,807,595)$ | (\$1,123,038) |
| 10\% | \$3,369,114 | (\$5,615,190) | (\$2,246,076) |
| 15\% | \$5,053,671 | $(\$ 8,422,785)$ | (\$3,369,114) |
| 20\% | \$6,738,228 | (\$11,230,380) | $(\$ 4,492,152)$ |
| 25\% | \$8,422,785 | (\$14,037,975) | $(\$ 5,615,190)$ |

Conclusion: To obtain a fiscal estimate, the above analysis assumed that carpooling does not currently occur. The Motor Fleet Management Division does not track the number of trips that are used to transport more than one state employee. Therefore, it is not possible to obtain a reasonable estimate for the number of miles that are currently carpooled or the number of additional miles that will be carpooled with a financial incentive. It is possible that the amount paid for trips that are normally carpooled will offset any cost savings that are incurred by encouraging new carpools.

SOURCES OF DATA: Department of Administration
TECHNICAL CONSIDERATIONS: The Department of Administration will not be able to develop and implement the tracking software on July 1, 2006.

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[^0]:    ${ }^{1}$ The $\$ 0.55$ is calculated by adding the $\$ 0.25$ cost per mile and the $\$ 0.10$ per mile payment for three employees.

