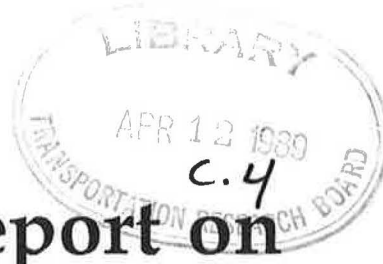


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TRANSPORTATION
RESEARCH

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CIRCULAR



Progress Report on Maintenance and Operations Personnel

**PROGRESS REPORT ON
MAINTENANCE AND OPERATIONS PERSONNEL**

This report was prepared by the Transportation Research Board Committee on Maintenance and Operations Personnel with the cooperation of AASHTO Subcommittee on Maintenance. This report is the 44th in a series which began in 1944.

The general format of the report has been retained since its inception in 1944. The Policy Questionnaire and Survey has been revised from time to time to keep it current with changing times.

As with last year's report, the year of 1977 is used as the base year for the comparison of salaries. The advantage of using 1977 base index insures a reasonable approximation of the current structures of the economy and facilitates a visual comparison of wage rates of change from a base period of at least 10 years.

Survey data was collected from all the states except Rhode Island and Delaware. In order to maintain the continuity of the report, all information from last year's report, except for monthly salaries, was used for Rhode Island and Delaware's submission.

mode

1 highway transportation

subject areas

11 administration

40 maintenance

Transportation Research Board
National Research Council
2101 Constitution Avenue, N.W.
Washington, D.C. 20418

The Transportation Research Board is a unit of the National Research Council, which serves as an independent advisor to the federal government on scientific and technical questions of national importance. The Research Council, jointly administered by the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine, brings the resources of the entire scientific and technical community to bear on national problems through its volunteer advisory committees.

For comparative purposes, portions of this report have been broken down into four regions as follows:

1. The North Atlantic States (Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island and Vermont).
2. The Southeastern States (Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia and West Virginia).
3. The Mississippi Valley States (Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, Oklahoma, South Dakota and Wisconsin).
4. The Western States (Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Texas, Utah, Washington and Wyoming).

SALARY COMPARISONS

The monthly salary statistics for this report indicate another increase in 1977/1988 and 1987/1988 percentages. A comparison of the last four years' percentage increases shows the salary scales are on a fairly constant upswing. In the 1985 report, the average one-year increase was 8.3 percent. In 1986 the average increase dropped to 3.8 percent. The 1987 averages showed an average increase of 4.1 percent, and this year's survey has an average increase of 4.8 percent. It should also be noted that almost all titles show an increase of 90 percent since 1977.

In order to give a further breakdown of average monthly salaries, the chart below gives a reasonable cross section of eight random positions in the four regions of

JOB TITLE	AVERAGE MAXIMUM SALARY (\$MO.)				
	North Atlantic States	South Eastern States	Mississippi Valley States	Western States	All States
State Maintenance Engineer	4974	5020	4694	4913	4885
District Engineer	4866	5023	4632	5157	4920
Area Supervisor	2720	2462	2809	3164	2826
Laborer	1462	1298	1466	1789	1520
Mechanic	1959	1945	2040	2364	2099
Equipment Operator II	1629	1650	1832	1942	1782
Traffic Signal & Light Frm	2265	2452	2635	2766	2550
Traffic Signal & Light Tech	2195	2239	2323	2388	2301

the United States. It can be readily seen that the Western States command the highest salaries while the North Atlantic States have the lowest salary structure. A comparison with prior years' averages indicates the North Atlantic States continue to narrow the difference.

PERSONNEL POLICIES

Based on an analysis of data compiled from all the states, the following determinations can be made of personnel policies. It must be noted, however, that all the states did not clearly indicate their data in various categories.

Civil Service or Merit System

Forty-four of the states have a civil service, merit system or other comparable plan for their employees. In 28 of the states, the above programs cover all the employees, including temporary and supervisory positions.

Retirement Plan

All states indicate their employees are protected by a state-sponsored retirement plan. In 43 of those states, all or part of the employees are also covered by Federal Social Security.

Similar to last year's survey, more states have lifted their compulsory retirement age. There are now 41 states without a compulsory retirement age. The compulsory retirement age is 70 in eight states, and 72 in one state. The retirement age is established by statute in six states and by policy in three states.

Forty-nine of the states indicate voluntary retirement is possible at an earlier age after a prescribed number of years. Nineteen states reported a minimum of ten years of service for voluntary retirement. Fifteen states reported a five-year minimum and eight states reported a 30-year minimum. Twenty-three states had a minimum retirement age of 55, while seven states had a minimum retirement age of 50. Many states' retirement age depends on the number of years of service.

Vacation Leave

All states reported that permanent employees are granted vacation leave. The minimum or starting basis on vacations ranges from 80 to 168 hours per year. The maximum vacation time is 249 hours after 40 years of service. Vacation time is cumulative in all states, and the maximum vacation time that can be carried over into a new year averages about 300 hours. Some states have a no maximum carry-over policy.

Sick Leave

All states reported that permanent employees are granted sick leave. The minimum starting basis for sick leave is 48 hours per year. The maximum number of hours of sick leave granted is 240, after 19 years of service. In all states, one is allowed to accumulate sick leave, and 36 states have no maximum limit.

Insurance

All states have a partially or wholly state-financed hospitalization plan for

their permanent employees. Twenty-five of these plans are wholly state-financed. The plan is mandatory in 11 states.

Forty-three states have a partially or wholly state-financed life insurance plan for their permanent employees, with 27 of these wholly state financed. The plan is mandatory in 18 states.

In 34 states, all or part of the maintenance and operations personnel are protected against lawsuits by a state-financed liability plan.

Unionization

Seventeen states report that supervisory employees now have collective bargaining rights. Among nonsupervisory employees, 28 states are covered under bargaining rights programs.

Thirty-eight states report voluntary or mandatory organization of their supervisory personnel in a local or national union. Forty-five states report mandatory or voluntary organization of their nonsupervisory maintenance and operations employees in either a national, local or employee association.

Service Awards

Forty-eight of the states now give service awards for recognition of employees' years of service. This is an increase of two states in the past year.

Working Hours and Conditions

Twelve states pay all their employees on an hourly basis, while 13 states pay everyone a salary rate. A further breakdown indicates that nonsupervisory personnel in 27 states are paid at a salary rate, and in 23 states they are paid at an hourly rate. Supervisory personnel on the other hand are paid an hourly rate in 11 states and a salary rate in 39 states. Temporary employees are predominately paid on an hourly basis.

Forty-five states have an 8 or 10-hour workday, with 40 hours per week as the standard workweek. Four states have a 7.5-hour workday and a 37.5-hour workweek, and one state has a 7-hour workday and a 35-hour workweek.

All states allow either compensatory time, straight time, time-and-a-half or double time for overtime worked by their permanent field employees. Forty-nine of the 50 states reported that their nonsupervisory employees receive at least time-and-a-half for their overtime hours. In direct comparison, only 19 states report that their supervisory personnel receive time-and-a-half for overtime hours. Ten states report that their supervisory employees do not receive any allowance for overtime work.

Only one state reports that it does not require their employees to report to an assembly point preparatory to their day's work. Forty-seven of these states requiring the central meeting point pay employees from the time they leave this assembly point until they return at the close of the day's work.

All states furnish hard hats and safety vests to their employees. Where needed, all states provide welding goggles and helmets also. Forty-seven states provide

protective clothing for specialized operations, while only 30 states provide normal operations clothing such as rain outfits.

Thirty-one states have automatic or automatically recommended salary advances.

All states reported that they have a formalized job classification plan.

Thirty-four states now report the use of convict labor in some of their maintenance operations.

Only three states do not allow expenses to employees when they are away from their home station. Twenty-one states pay actual costs with a maximum coverage for meals while 24 states pay a standard per diem. Lodging costs for employees spending the night away from home are divided in three forms of payment: 21 states pay actual costs with a fixed maximum; 15 states pay the actual costs; and 14 states pay a standard per diem rate. When an employee is required to change his residence, only 43 states provide either total or partial reimbursements for the moving expenses. Twelve of the 43 states will pay for the total move.

Maintenance Responsibility

State maintenance operations are responsible for all or part of the original placement of highway signs in 22 states. In 45 of the states, the maintenance and replacement of all signs is under the jurisdiction of the highway departments. In 41 of the states, pavement marking is also done by the highway forces.

In 48 states, garage or shop operations for vehicle maintenance are under the jurisdiction of the respective highway departments. In 33 states, this is limited to highway department vehicles only, while in 13 states, servicing is performed for other state agencies, and for all state agencies in three states.

Number of Employees

The reporting states indicate that while 18 states increased their permanent staff, 11 states decreased their staffs. The use of temporary employees also varied. Combining the permanent and temporary employees indicated that 29 states increased their total staff while 11 states were in the process of reducing staffs from the past year.

If there is one area of this and other progress reports that causes the most discussion, it is in the statistics on the number of lane miles per state versus the number of employees in the state. It is very easy to match these two figures and arrive at a "mathematical" solution of average lane miles per employee.

Prior to the 42nd edition of this report, there was a specific question that asked the average lane miles per employee. It was the one item that solicited the most questions and the most objection. Discussions held on this matter indicated there were too many factors that influence this straight-line ratio of workers to lane miles. Some states hire the county forces to do some of the roadway maintenance; the roadway inventory remains the same, but because the county employees are not on the state rolls, the lane miles/employee ratio is very high. The same can be said of states that commit their maintenance work to be done by contract vendors. Again, high inventory, but low state employee rolls.

Beginning with the 42nd edition of this report dated March, 1986, the lane mile/employee question was dropped from the questionnaire. In its place another question was added seeking the approximate percentage of the maintenance budget that is spent on contracted items. This does not resolve the issue of lane miles/employee, but it does advise the reader of at least one factor that may contribute to the wide range of lane miles/employee for various state operations.

Basis of Crew Operations

The average number of lane miles handled by a general maintenance crew working out of one location varies from 50 to 1100.

Fourteen states report that the same crew handles traffic signs and striping with the lane miles handled by each crew varying from 488 to 8,000.

Thirty-three states have special crews for traffic sign maintenance, with the lane miles covered by each crew varying from 280 to 4,405.

Thirty-five states have special crews for traffic striping operations, with the lane miles covered by each crew varying from 556 to 9,068.

Equipment Management System

Thirty-eight states reported they have implemented an equipment management system. An additional 10 states indicate they intend to implement such a system in the future.

Maintenance Work Done By Contract

Only one state, Georgia, reports that none of their maintenance work is done by contract forces. The percentage of the maintenance budget handled by these outside agencies varies from two percent to 73 percent.

TRB COMMITTEE A3C03

TRB-AASHTO JOINT COMMITTEE ON MAINTENANCE AND OPERATIONS PERSONNEL

DEFINITIONS OF MAINTENANCE AND OPERATIONS PERSONNEL TITLES

Note: In the following definitions of titles of maintenance personnel, the first subdivision in the state for supervision purposes is called a "district" or "division." The first subdivision in a district or division is called a "residency."

MAINTENANCE PERSONNEL TITLES

Title No.	Title and Description
1.	<u>State Maintenance Engineer</u> - One in an executive capacity who supervises all activities of maintenance for the State Highway and Transportation Department.
2.	<u>Assistant State Maintenance Engineer</u> - One who assists the State Maintenance Engineer in the work of supervising the activities of maintenance.
3.	<u>District Engineer</u> - (In some states, called <u>Division Engineer</u> or <u>Regional Engineer</u>) - One in an executive capacity who supervises highway activities within a district.
4.	<u>District Maintenance Engineer</u> - One in an executive capacity who supervises maintenance activities of highways within a district.
5.	<u>Assistant District Maintenance Engineer</u> - One who assists the District Engineer and/or the District Maintenance Engineer in supervising maintenance within a district.
6.	<u>Resident Maintenance Engineer</u> - One who directs the activities of all maintenance employees and equipment and oversees the maintenance of highways within a residency.
7.	<u>Area Supervisor</u> - (In some states, called <u>Superintendent</u>) - One who directs the activities of all maintenance employees and equipment and oversees the maintenance of highways within a residency, excluding engineering requirements.
8.	<u>Gang Foreman</u> - One who directs the activities of a group of men engaged in maintenance and betterment work such as a grading crew, bituminous repair crew, concrete pavement patching crew, bridge repair crew, roadside maintenance crew, etc.
9.	<u>Sectionman</u> - One who in reality is a working foreman, or who can and does perform any of the work necessary to properly maintain the highways within a specified territory; in addition, supervises the work of operators and laborers when necessary. A highly skilled and trained man.

Title No.	Title and Description
10.	<u>Laborer</u> - One who performs manual labor.
11.	<u>Skilled Craftsman</u> - One who through special training or experience, has become proficient in a trade such as a carpenter, painter, mason, plumber, etc.
12.	<u>Shop Superintendent</u> - One who is responsible for the operation of a central garage and the supervision of major overhaul and repair of equipment.
13.	<u>Garage or Shop Foreman</u> - One who is responsible for the operation of a garage and the supervision of the maintenance and repair of equipment.
14.	<u>Mechanic</u> - One who under direct supervision, maintains and repairs all types of automotive equipment.
15.	<u>Mechanic Helper</u> - One who assists the mechanic in the maintenance and repair of all automotive equipment.
16.	<u>Equipment Operator I</u> - Operator of light trucks, mowers, patching rollers etc.
17.	<u>Equipment Operator II</u> - Operator of heavy trucks, light graders, and rollers used on resurfacing projects.
18.	<u>Equipment Operator III</u> - Operator of specialized equipment such as cranes, shovels, heavy graders, paving machines, etc.
19.	<u>Timekeeper or Clerk</u> - One who keeps the time records of employees, hours of equipment usage, quantities of materials received, used, and on hand; maintenance cost records, etc.

TRAFFIC OPERATIONS PERSONNEL TITLES

20.	<u>State Traffic Engineer</u> - One in an executive capacity who supervises all activities related to traffic operations of the State Highway and Transportation Department.
21.	<u>Assistant State Traffic Engineer</u> - One who assists the State Traffic Engineer in the work of supervising traffic operations.
22.	<u>State Traffic Maintenance Engineer</u> - One in an administrative capacity who programs and implements all phases of maintenance of traffic control activities under the supervision of the State Maintenance Engineer.
23.	<u>District Traffic Engineer</u> - One in an executive capacity who supervises traffic operations within a district. May in some cases be two positions: one for design and one for maintenance.
24.	<u>Assistant District Traffic Engineer</u> - One who assists the District Traffic Engineer in the work of supervising traffic operations within a district.

Title
No.

Title and Description

25. Traffic Supervisor - One who directs the activities of all employees and equipment related to traffic operations within a district.
26. Sign Supervisor - One who directs the activities of all signing, both fabrication and erection.
27. Sign Shop Foreman - One who directs a crew of men in the activity of fabricating traffic signs.
28. Traffic Signal & Lighting Foreman - One who directs a crew of men in activities related to the operations and maintenance of traffic signals and lighting.
29. Striper Foreman - One who directs a crew of men in activities related to pavement markings.
30. Sign Erection Foremen - One who directs a crew of men in activities related to the erection and maintenance of all traffic signs.
31. Sign Fabricator - One who specializes in the fabrication of traffic signs.
32. Sign Technician - One who operates equipment and supervises laborers for all activities associated with signing, both fabrication and erection.
33. Traffic Signal & Lighting Technician - one who works in a technical capacity for operating and maintaining traffic signal equipment and highway lighting.
34. Striper Technician - One who operates equipment and supervises laborers regarding all activities of pavement markings.

OTHER RELATED PERSONNEL TITLES

35. Chief Engineer - One in an executive capacity who supervises all engineering activities of a State Highway Department.
36. Project Engineer - One who has charge in the field of one or more highway construction projects under the general supervision of a Division Construction Engineer or a Division Engineer.

GENERAL DEFINITIONS

Maintenance - The preservation and upkeep of a highway, including all of its elements, in as nearly as practicable its originally constructed condition or its subsequently improved condition.

Traffic Operations - The operation of a highway facility and services incidental thereto to provide safe, convenient, and economical highway transportation.

NOTE: The word "Operations" in the Committee's title indicates "Traffic Operations".

TRANSPORTATION RESEARCH BOARD
GROUP 3, OPERATION AND MAINTENANCE OF TRANSPORTATION FACILITIES

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University of Notre Dame, Indiana

* * * * *

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* * * * *

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MAINTENANCE AND TRAFFIC OPERATIONS PERSONNEL TITLES
USED BY STATE HIGHWAY DEPARTMENTS (as of July 1, 1988)

MAINTENANCE PERSONNEL:

	(1)	(2)	(3)	(4)
State	State Maintenance Engineer	Assistant State Maintenance Engineer	District Engineer	District Maintenance Engineer
Alabama	:State Mtce Engineer	:Asst State Mtce Engr	:Division Engineer	:Division Mtce Engr
Alaska	:Trans Mtce&Oper Engr	:	:Reg Director	:Reg Mtce Director
Arizona	:State Mtce Engineer	:Mtce Opers Engineer	:District Engineer	:
Arkansas	:State Mtce Engineer	:Asst State Mtce Engr	:District Engineer	:Dist Mtce Supt
California	:Engr Mgr II	:Chief, Office of	:Dist Dir of Transp	:Dist Mtce Engineer
Colorado	:Staff Mtce Supt	:Asst Staff Mtce Supt	:District Engineer	:Highway Mtce Supt
Connecticut	:Director of Mtce	:Mtce Opers&Plan Mgr	:Dist Mtce Mgr	:
Delaware	:State Mtce Engineer	:	:Dist Hwy Engineer	:Dist Mtce Engr
Florida	:State Mtce Engineer	:Engr of Mtce Opers	:Dpty Asst. Secretary	:Dist Mtce Engr
Georgia	:State Mtce Engineer	:Asst St Mtce Engr&Chf	:District Engineer	:Dist Mtce Engr
Hawaii	:Chief, Hwys Div	:Asst Chf Const & Mtce	:District Engineer	:Maintenance Engr
Idaho	:State Mtce Engineer	:Asst Mtce Engr	:District Engineer	:Dist Mtce Engr/Supv
Illinois	:State Mtce Engineer	:Section Chief	:District Engineer	:Dist Mtce Engr
Indiana	:Chief, Div of Mtce	:	:District Engineer	:Dist Mtce Engr
Iowa	:Maintenance Engineer	:Asst Mtce Engineer	:District Engineer	:Dist Mtce Engr
Kansas	:Chief,Bur Const/Mtce	:A-Chf,Bur Const/Mtce	:District Engineer	:Dist Mtce Engr
Kentucky	:Dir, Div of Mtce	:Engr, Branch Mgr	:Chf District Engineer	:Engr Branch Mgr-Oper
Louisiana	:Engr, Administration 2	:Staff Engr, Admin 1	:District Admin	:Dist Engr Mgr 2
Maine	:Dir,Bur Mtce & Opers	:Hwy Mtce Engineer	:Division Engineer	:
Maryland	:Deputy Chf Engr Maint	:	:District Engineer	:
Massachusetts	:Maintenance Engineer	:Asst Mtce Engineer	:Dist Hwy Engineer	:Dist Mtce Engr
Michigan	:Engineer of Mtce	:Asst Engr of Mtce	:District Engineer	:Dist Oper Engr
Minnesota	:Asst Dir,Contr Admin	:Asst State Mtce Engr	:District Engineer	:Dist/Area Mtce Engr
Mississippi	:Maintenance Engineer	:Asst Mtce Engineer	:District Engineer	:Dist Mtce Engineer
Missouri	:Div Engr Mtce & Traf	:Asst Div Engr, Mtce	:District Engineer	:Dist Mtce & Traf Engr
Montana	:Admin Mtce&Equip Div	:Asst Admin Mtce&Equip	:District Engineer	:Maintenance Chief
Nebraska	:Hwy Maint Manager	:Mtce Opers Manager	:Hwy Dist Engineer	:Hwy Mtce Dist Supt
Nevada	:Chief Mtce Engineer	:Asst Chief Mtce Engr	:District Engineer	:Dist Maint Engr
New Hampshire	:State Mtce Engineer	:Asst Mtce Engineer	:Highway Dist Engr	:
New Jersey	:Manager Bur of Maint	:Project Engr,Mtce	:Regional Director	:Regional Mtce Engr
New Mexico	:Director of Opers	:Chief Mtce Support	:District Engineer	:Dist Mtce Engineer
	:	:Bureau	:	:
New York	:Dir Highway Mtce	:Asst Dir Hwy Mtce	:Reg Dir of Transp	:Reg Hwy Mtce Engr
North Carolina	:St Hwy Engr Mtce&Equip	:State Road Mtce Engr	:Division Engineer	:Div Mtce Engineer
North Dakota	:Maint&Procure Engr	:Ast Maint&Procure Eng	:District Engineer	:Asst Dist Engr
Ohio	:Deputy Director	:Maintenance Engr 2	:Dist Deputy Dir	:Dist Opers Engineer
Oklahoma	:State Mtce Engineer	:Asst State Mtce Engr	:Division Engineer	:Asst Div Engr
Oregon	:Maintenance Engineer	:Mtce Oper Engineer	:Region Engineer	:Region Mtce Engineer
Pennsylvania	:Hwy Engr Mgr	:Civil Engineer 5	:Hwy Dist Engr 3	:Asst Hwy Dist Engr
Rhode Island	:Asst Dir Div of Mtce	:Dpty Asst Dir of Mtce	:Supv Civil Engr	:Chief Hwy Mtce Supv
South Carolina	:Dir Maintenance	:Asst Dir Maintenance	:District Engineer	:Dist Mtce Engineer
South Dakota	:Maintenance Engineer	:Mtce Opers Engineer	:Regional Manager	:
Tennessee	:Civil Engr Dir	:Civil Engr Mgr 2	:Civil Engr Dir	:Civil Engr Mgr 2
Texas	:Chief Engr Safety & :Mtce Operations	:Engr of Maint :	:District Engineer :	:Dist Mtce Engr :
Utah	:Civil Engr 33	:	:Dist Director	:Civil Engr 29
Vermont	:Dir of Maintenance	:Chief/Mtce Support :Chief/Tech Services	: :	:Dist Transp. Admin :
Virginia	:Hwy Div Admin	:Hwy Div Asst Admin	:Dist Engineer	:Asst Dist Engr
Washington	:State Mtce Engineer	:Asst State Mtce Engr	:Dist Administrator	:Dist Mtce Engr
West Virginia	:Chief Engr Mtce	:Dir Mtce Engr	:District Engineer	:Asst Dist Engr Mtce
Wisconsin	:State Mtce Engr	:Regional Mtce Engr	:District Director	:Dist Mtce Engr
Wyoming	:St Const & Mtce Engr	:	:District Engineer	:Dist Mtce Engr

	(5)	(6)	(7)	(8)
State	Asst. Dist Maintenance Engr	Resident Maintenance Engr	Area Supervisor	Gang Foreman
Alabama	:Asst Div Mtce Engr	:District Engineer	:Highway Supt	:Inc. 16, 17, 18
Alaska	:Mtce Mgr III	:Mtce Mgr II	:Mtce Supt I & II	:Mtce Leader III
Arizona	:Asst Dist Engr Maint	:Area Engr Maint	:Area Supervisor	:Hwy Mtce Supv
Arkansas	:Ast Dist Mtce Supt	:	:Area Foreman	:Mtce Job Supt
California	:Ast Dist Mtce Engr	:Region Supt	:Area Supt	:Supervisor
Colorado	:Asst Hwy Mtce Supt	:	:Senior Hwy Supv	:Hwy Supv
Connecticut	:Mtce Opers Supt	:	:General Supv	:
	:Hwy Mtce Opers Mgr	:	:Mtce Tech V & IV	:Mech Tech
Delaware	:	:	:Equip Oper IV	:
Florida	:Asst Dist Mtce Engr	:Mtce Engr	:Incl in #6	:Hwy Mtce Tech Supv
Georgia	:Asst Dist Mtce Engr	:Area Engr	:	:Hwy Mtce Foreman II
Hawaii	:	:	:Const&Mtce Supt VI	:Hwy Const&Mtce Supv
Idaho	:Transp Staff Engr Asst	:	:Transp Mtce Foreman	:
Illinois	:	:Dist Field Engr	:	:Hwy Mtce Lead Wkr
Indiana	:Dist Mtce Op Engr	:Subdistrict Supt	:General Foreman	:Unit Foreman
Iowa	:	:Resident Mtce Engr	:Hwy Mtce Supt 1,2,3	:Hwy Mtce Supt 2&3
Kansas	:	:Area Engineer	:Dist & Area Supt	:Dist & Area Supv
Kentucky	:Dist Mtce Engr	:	:	:Hwy County Foreman
Louisiana	:Dist Engr Supv 2	:	:Hwy Mtce Supt	:Foreman I,II,III
Maine	:	:	:Hwy Dist Supv	:Highway Foreman
Maryland	:Asst Dist Engr,Mtce	:Resident Mtce Engr	:Hwy Mtce Supv	:
Massachusetts	:Asst Dist Mtce Engr	:	:Hwy Mtce Foreman	:Hwy Repair Foreman
Michigan	:Asst Dist Mtce Engr	:	:Area Supt	:Garage Foreman
Minnesota	:Mtce Opers Engr	:Incl 4 & 5	:Bridge Supv	:Bridges & Mtce Supv
Mississippi	:	:	:Hwy Mtce Supt II	:Hwy Mtce Supv II
Missouri	:Maintenance Supt	:	:Mtce Area Supv	:Special Mtce Frm
Montana	:	:	:Mtce Supt	:
Nebraska	:	:	:Hwy Mtce Supt	:Hwy Mtce Supv
Nevada	:Asst Dist Engr	:Maint Supt	:Mtce Supv 3	:Mtce Supv 2
New Hampshire	:Asst Dist Engineer	:Mtce Supervisor	:Mtce Supt	:Const Foreman
New Jersey	:Proj Engr, Mtce	:Reg Mtce Supv	:Area Supervisor	:Crew Supervisor
New Mexico	:Dist Tech Sup Engr	:	:Area Mtce Supt	:Hwy Mtce Supv I,II,III
New York	:Ast Rg Hwy Mtce Engr	:Resident Engineer	:Hwy Mtce Supv II	:Bridge Rpr Supv II
North Carolina	:District Engineer	:Hwy Mtce Engr	:Rd Mtce&Landscape Supv	:Mtce Crew Ldr II
North Dakota	:Hwy Mtce Supt	:	:	:Hwy Mtce Foreman
Ohio	:Dist Mtce Engr	:Hwy Mtce Supt 3	:County Supv	:Hwy Wkr Supv
Oklahoma	:Area Maint Engr	:	:Transp Mtce Supt	:Transp Mtce Supv
Oregon	:Region 1 Oper Engr	:District Mtce Supv	:Inc in Title 6	:Maintenance Supv
Pennsylvania	:Asst Maint Engr	:	:Hwy Mtce Mgr 2,3,4	:Hwy Foreman 1,2,3
Rhode Island	:	:Sr Civil Engr	:Hwy Mtce Supv	:Road Mtce Supv
South Carolina	:Asst Dist Maint Engr	:Resident Mtce Engr	:Res Mtce Frm	:Sr Hwy Mtce Frm
South Dakota	:	:Oper Engr, Area Engr	:Mtce Coordinator	:
Tennessee	:Civil Engr Supv II	:Hwy Mtce Supv II	:Hwy Mtce Supv I	:Hwy Mtce Wkr III
Texas	:Asst Dist Mtce Engr	:	:Section Supv I,II,III	:Asst Sect Supv
Utah	:	:	:Dist Mtce Supv	:Hwy Opers Supv
Vermont	:Trans Tech D	:	:Trans Mtce Gen Supv	:Trans Area Mtce Supv
Virginia	:Resident Engr	:Residency Mtce Supv	:Hwy Mtce Supt B	:Highway Foreman
Washington	:Asst Dist Mtce Engr	:	:Highway Supt	:Mtce Supervisor
West Virginia	:	:Area Engineer	:County Mtce Supt	:Mtce Crew Supv
Wisconsin	:Asst Dist Mtce Engr	:Area Assistant	:Patrol Supt	:(County)
Wyoming	:	:	:Hwy Mtce Area Supv	:Area Crew Leader

MAINTENANCE AND TRAFFIC OPERATIONS PERSONNEL TITLES
USED BY STATE HIGHWAY DEPARTMENTS (as of July 1, 1988)

MAINTENANCE PERSONNEL (Cont'd):

	(9)	(10)	(11)	(12)
State	:Sectionman	:Laborer	:Skilled Craftsman	:Shop Superintendent
Alabama	:Incl 16, 17, 18	:Laborer	:Skilled Craftsman	:Equip Mtce Supv
Alaska	:Mtce Leader I&II	:Laborer	:Carp Elect Painter	:Dist Equip Mgr/Supt
Arizona	:Hwy Maint Tech III	:Groundskeeper I&II	:Carpenter/Painter	:Equip Shop Supv II
Arkansas	:Crew Leader	:General Laborer	:Carpenter/Welder	:Equip Mtce Supv
	:	:	:	:
California	:Leadworker	:Mtce Worker	:Plumber/Welder/ :Painter	:Equip Supt I-III
	:	:	:	:
Colorado	:Sr Hwy Mtce Worker	:Hwy Mtce Worker B	:Hwy Maint Worker A	:Prin Auto Shop Supv
Connecticut	:Mtce Crew Ldr	:DOT Mtce II	:Qual Craft Wrk	:Repair Garage Supv
Delaware	:Labor Foreman	:Laborers	:Skilled Craftsman	:Hwy Equip Supt
Florida	:Hwy Mtce Supv	:Laborer,Mtce Tech	:Carp,Welder,Elect	:Auto Eq Mtce Supt
Georgia	:	:Mtce Worker	:Skilled Laborer	:Mtce Shop Manger
	:Hwy Labor Supv	:	:	:
Hawaii	:Hwy Mtce Supv	:Gen Laborers & :Trade Helper	:Bridge Mtce Wkrs :Carpenters et al	:Auto Mech Supv
	:	:	:	:
Idaho	:Hwy Mtce Oper Leadwrk	:Laborer	:Utility Craftsman	:Shop Superintendent
Illinois	:Hwy Maintainer	:	:	:
Indiana	:Working Leader	:Mtce Worker III	:	:
Iowa	:	:Mtce Worker I	:	:
Kansas	:Sub-Area Supv	:	:	:Shop Superintendent
Kentucky	:Hwy Crew Foreman	:Mtce Laborer	:Carp,Bridgemen Wldrs	:Garage Supv
Louisiana	:	:Labor Utility	:Mtce Repairman	:Equip Shop Supt
	:	:Bridge Tender	:Painter Carp et al	:Equip Specialist
Maine	:Crew Leader	:Hwy Worker I	:Mach Elec Carp :& Other Trades	:Equip Supt
	:	:	:	:
Maryland	:Supv Road Mtce	:Highway Worker	:	:Dist Equip Supv
Massachusetts	:	:Laborer	:Br Painter Welder :Carpenter	:Supt of Shop & :Equip
	:	:	:	:
Michigan	:Lead Worker	:Laborer IB	:Bridge Wrk IIIB,IV,V	:Equip Supt
Minnesota	:Hwy Mtce Wkr	:Laborer I,II et al	:Bridge Worker	:Equip Fabric Supt
	:Hwy Mtce Wkr Sr	:	:	:Hwy Equip Supv
Mississippi	:Hwy Mtce Supv I	:Gen Serv Emp II	:	:Equip Mtce Supt
Missouri	:Mtce Supt	:	:Building Specialist	:Dist Equip Supv
Montana	:Field Mtce Supv A&B	:Laborer	:Carpenter	:Div Shop Supt
Nebraska	:	:	:	:Hwy Mech Supt
Nevada	:	:Hwy Maintainer	:Gen Bldg Maintainer	:Supv Equip,Mech 2
New Hampshire	:Hwy Patrol Frm	:Hwy Maintainer I	:Asst Hwy Pat Frm	:Supt Equip
New Jersey	:Asst Crew Supv	:Mtce Worker	:Bridge&Const Repr	:Reg Equip Supv
New Mexico	:Hwy Supv Mtce, Ld Wkr	:Mtce Wkr I,II Laborer	:Carp Painter Welder	:Equip Manager
New York	:Hwy Mtce Supv I	:Laborer	:Sign Shop Painter :Sign Shop Metal Wkr	:Regional Equip Mgr
	:	:	:	:
North Carolina	:Incl 8	:Hwy Mtce Worker	:Mtce Mech I,II	:Equip Supt
North Dakota	:Leadman	:Mtce Worker I	:	:Mtr Veh Shop Frm II
Ohio	:Hwy Worker 3	:Hwy Worker 2	:Painter Welder et al	:Equip Mtce Supt 3
Oklahoma	:Sr Maint Worker	:Maint Worker I	:Field Welder	:Auto Shop Supt
Oregon	:Hwy Mtce Frm I	:Laborer	:Elect or Carpenter	:Equip Rpr Shop Supv
Pennsylvania	:	:Hwy Mtce Wkr	:Welder Carpenter	:Hwy Equip Mgr 2,3
	:	:Semi-Skld Laborer	:Mason & Painter	:
Rhode Island	:Labor Supv	:Laborer	:Semi-Skld Laborer	:Supv, Heavy Equip
South Carolina	:Hwy Mtce Frm	:Hwy Mtce Wkr I	:Trades Craftsman	:
South Dakota	:Hwy Mtce Frm	:	:	:Equip Shop Frm
Tennessee	:	:Hwy Mtce Wkr I	:Elect I Carp I&II	:Equip Mtce Supv II
Texas	:Roadway Crew Chief	:Roadway Tech I	:	:Dist Equip SuptI,II
Utah	:Section Supv	:Hwy Oper Wkr	:Carp/Plumber	:Shop Manager
Vermont	:Trans Mtce Wkr B	:Trans Mtce Wkr A	:Bridge Mtce Mech	:Supt Central Garage
Virginia	:	:Hwy Mtce Helper	:Carp/Painter/Plumber	:Equip Rep Frm B
Washington	:Mtce Lead Tech	:Laborer	:Mtce Specialist	:Equip Supt
West Virginia	:Mtce Crew Leader	:Laborer	:Craftsman I,II&III	:Equip Supv
Wisconsin	:(County)	:(County)	:(County)	:(County)
Wyoming	:	:Hwy Mtce Wkr I	:	:Dist Equip Supv

	(13)	(14)	(15)	(16)
State	:Garage/Shop Foreman	:Mechanic	:Mechanic Helper	:Equipment Operator I
Alabama	:Equip Repair Supv	:Welder,Auto,Body&Hwy	:Asst&Serviceman	:Hwy Mtce Tech I
Alaska	:Shop Foreman	:Hwy Duty/Lt Duty Mech	:Equip Serviceman	:Equip Oper-WG54
Arizona	:Eq Shop Supv I et al	:Equip Mech I&II	:Auto Serv Atnd I	:Hwy Mtce Tech I
Arkansas	:Shop Foreman	:Mechanic	:Skill Trades Trainee	:Single Axle Truck
	:	:	:	:Mower Operator
California	:Mech Supv I,II	:Hwy Equip Mech	:Mechanic Helper	:Mtce Worker
Colorado	:Sr Auto Shop Supv	:Auto&Equip Mech	:Auto Mechanic	:
Connecticut	:Crew Leader	:Qual Craft Wkr	:DOT Mtce 3&4	:Maintainer III
Delaware	:Auto Supv	:Auto Mech I&II	:Auto Mech I/Servman	:Equip Oper 1
Florida	:Auto/Marine Equip	:Auto Mech I & II	:Auto Serviceman	:Maint Tech I
	:Repair Supv	:Equip Mech II	:	:
Georgia	:Mech Shop Supv	:Mechanic Frm/Sr.	:	:Equip Oper 1
Hawaii	:Auto Mech II	:Auto Mech I	:Auto Mech Helper	:Tractor Oper et al
Idaho	:Shop Foreman	:Mechanic	:Mechanic Assistant	:Trans Tech Apprentice
Illinois	:	:Automotive Mech	:	:Hwy Mtce Equip Oper
Indiana	:Hwy Mechanic Supv IV	:Mechanic III	:Mechanic IV	:
Iowa	:	:Auto Mechanic	:Auto Mech Helper	:Equip Operator I
Kansas	:Equip Mech III	:Equip Mech I&II	:Auto Mech Helper	:Equip Operator I
Kentucky	:Auto Mechanic Chief	:Auto&Diesel Mechanic	:Mechanic Trainee	:Light Equip Oper
Louisiana	:Equip Shop Frm	:Auto Mech 1,2,3	:Trades Helper	:Equip Operator I
Maine	:Auto Mech Foreman	:Auto Mechanic	:Laborer I & II	:Highway Worker II
	:	:	:	:
Maryland	:Auto Serv Supv II	:Auto Serv Spec	:Auto Serv Mech/Helper	:Equip Operator I
Massachusetts	:	:Mechanic	:	:Equip Oper I
	:	:	:	:
Michigan	:Equip Foreman	:Auto Mech IVB	:Trades Helper IIB	:Mtce Worker II
Minnesota	:Shop Supv	:Mechanic	:Mech Appretice	:Incl Title 9
	:	:Hwy Equip Mech	:	:
Mississippi	:Equip Repair Supv	:Equip Mech Master	:Equip Mechanic	:Equip Oper Lt Veh
Missouri	:Chief Shop Mech	:Shop Mechanic	:	:Mtce Crew Member
Montana	:Working Shop Foreman	:Mech/Mach	:Stockman/Serv CombA&B	:Tk Driver Under 5 Ton
Nebraska	:Hwy Mech Supv	:Auto/Diesel Mech	:Auto Mech II	:Hwy Mtce Worker
Nevada	:Supv Garage Servman	:Equip Mech 2&3	:Equip Mech I	:Mtce Tech I
New Hampshire	:Garage/Shop Foreman	:Hwy Equip/Auto Mech	:Trades Hlpr/Auto Serv	:Hwy Maintainer II
New Jersey	:Mech Crew Supv	:Auto Mechanic	:Mechanic Helper	:Truck Driver
New Mexico	:Vehicle Center Supv	:Vehicle Mech I,II,III	:	:Equip Oper I
New York	:Motor/Equip Mtce	:Motor Equip Mech	:Mtce Asst Mech	:Hwy Equip Operater
	:Supv III	:	:	:
North Carolina	:Mech Supv I&II	:Mechanic I&II	:Incl Title 14	:Machine Oper I
North Dakota	:	:Motor Vehicle Mech	:Auto Service Wkr	:Equip Operator I
Ohio	:Equip Mtce Supt 2	:Auto Mechanic	:Asst Auto Mech	:Equip Operator I
Oklahoma	:Auto Shop Supv	:Auto Mechanic II	:Auto Mechanic I	:Transp Mtce Wkr I
Oregon	:Equip/Repair ShopFrm	:Heavy Equip Mech	:Mech Trades Hlpr	:Hwy Mtce Wkr 2
Pennsylvania	:Auto Mechanic Supv	:Auto & Diesel Mech	:Tradesman Hlpr	:Equip Oper 1&2
Rhode Island	:Auto Serv Supv	:Auto Mechanic	:Auto Mech Hlpr	:Motor Equip Oper
South Carolina	:Auto Mtce Tech III	:Auto Mtce Tech II	:Auto Mtce Tech I	:Hwy Mtce Wkr II
South Dakota	:	:Mechanic I&II	:Equip Srv Wkr I&II	:
Tennessee	:Equip Mech II	:Equip Mech I	:	:Maint Worker 2
Texas	:Hwy Equip Repair Supv	:Mechanic II, III	:Mechanic I	:Mtce Tech 2
Utah	:Shop Supv	:Journey Mech-Wldr	:Mech Helper	:Hwy Oper Spec 1
	:	:	:Auto Serv Wkr	:
Vermont	:Motor Shop Supv	:Motor Equip Mech B	:	:Incl Title 10
Virginia	:Equip Repair Frm A	:Equip Mech A	:Hwy Equip Mtce Appren	:Hwy Equip Oper A
Washington	:Equip Supv	:Equip Mech	:Shop Assistant	:
West Virginia	:Mechanic III	:Mechanic II	:Mechanic I	:Equip Operator I
Wisconsin	:(county)	:(county)	:(county)	:(county)
Wyoming	:Shop Foreman I&II	:Mechanic II	:Mechanic I	:Hwy Mtce Wkr II

MAINTENANCE AND TRAFFIC OPERATIONS PERSONNEL TITLES
USED BY STATE HIGHWAY DEPARTMENT (as of July 1, 1988)

MAINTENANCE PERSONNEL (cont'd):TRAFFIC OPERATIONS
PERSONNEL

	(17)	(18)	(19)	(20)
State	:Equip Operator II	:Equip Operator III	:Timekeeper or Clerk	:State Traffic Engr
Alabama	:Hwy Mtce Tech II	:Hwy Tech III	:Clerk I & Eng Asst II	:Traff Engr, Design
Alaska	:	:Equip Oper WG 53	:Clerk Typist III	:
Arizona	:Equip Operator II	:Equip Operator III	:Secretary	:State Traffic Eng
Arkansas	:Multi-Axle Truck Driver	:Crane Oper	:Payroll Clerk	:Div Head, Traffic
California	:Equip Operator	:Heavy Equip Oper	:Mtce Off Syst Tech	:Engr, Mgr I
	:	:	:	:Engineer & Oper
Colorado	:Heavy Equip Oper	:Supv Heavy Eq Oper	:	:Staff Traf Engr
Connecticut	:Maintainer IV	:Maintainer V	:General Supv Aide	:Manager of Traffic
Delaware	:Equip Operator II	:Equip Operator III	:Area Clerk	:Chief Traffic Engr
Florida	:Mtce Tech II	:Sr. Hvy Equip Oper	:Clerk II, IV, V	:Chief Traffic Oper
Georgia	:Equip Operator II, III	:Maint Equip Oper	:Clerk Sr Sec/Typist	:St Traff&Sfty Engr
	:	:	:Mtce Clerk	:
Hawaii	:Truck Driver et al	:Grader Oper et al	:Account Clerk IV	:Traffic Engineer
Idaho	:	:Transp Technician	:Clerical Specialist	:Traffic Supv
Illinois	:Hwy Const Equip Oper	:Power Shovel Oper	:	:Engineer of Traffic
Indiana	:Mtce Worker II	:	:Subdistrict Clerk IV	:Chief, Div. of Traf
Iowa	:Equip Operator 2	:Equip Operator 3	:	:State Traffic Engr
Kansas	:Equip Operator II	:Equip Operator III	:Area Office Manager	:Hwy Marking Engr
Kentucky	:Hvy Equip Oper	:Specialist Equip Oper	:Timekeeper	:Dir Div of Traffic
Louisiana	:Hwy Equip Oper I	:Hwy Equip Oper II	:Clerk II, III, IV	:Staff Engr Admin 2
Maine	:Highway Worker III	:Highway Worker IV	:	:Traffic Engineer
Maryland	:Equip Operator II	:Equip Operator III	:Office Clerk I&II	:Dep Chief Engr, Traf
Massachusetts	:	:	:Clerk Tallyman	:State Traffic Engr
Michigan	:Mtce Worker III	:Mtce Worker IV	:Clerk	:Engr of Traf&Safety
Minnesota	:Hvy Equip Oper	:Incl Title 9	:Incl Title 8	:Traffic Engineer
Mississippi	:Equip Operator/Mtrls	:Equip Oper/Hvy Mach	:	:Traf Cont&Safety
	:	:	:	:Engineer
Missouri	:Mtce Crew Leader	:Dragline Operator	:Dist Stock Clerk	:
Montana	:Equip Operator I	:Equip Operator II	:Dist Cent Serv Supv	:Manager, Traf Unit
Nebraska	:	:Hwy Mtce Wkr/Senior	:Office Clerk II	:Traffic Engineer
Nevada	:Mtce Tech II	:Mtce Tech III	:	:Ch Traf Design Engr
New Hampshire	:Hwy Maintainer IIIA	:Hwy Maintainer IIIB	:Acct Clrk III/ClrkIV	:Admin of Traffic
New Jersey	:Equip Oper	:Hvy Equip Oper	:	:Mgr Bur of Trf Engr
New Mexico	:Equip Oper&Hwy MtceII	:Equip Oper/Hwy MtceIII	:Timekeeper or Clerk	:Traffic Serv Engr
New York	:Const Equip Oper	:Crane & Shovel Oper	:Transp Office Asst	:Dir, Traffc&Safety
North Carolina	:Machine Oper II&III	:Machine Oper IV&V	:Clerk III	:State Traff Engr
North Dakota	:Equip Oper II	:Leadman	:Gen Office Clerk	:Traffic Oper Engr
Ohio	:Equip Oper 2	:Equip Oper 3	:Clerical Specialist	:Traffic Engr 2
Oklahoma	:Transp Mtce Wkr II	:Maint Worker II	:Transp Field Clerk	:State Traffic Engr
Oregon	:Hwy Mtce Wkr 3	:Hwy Mtce Wkr 4	:	:St Traffic Engr
Pennsylvania	:Equip Oper 3	:Equip Oper 4	:Clerk 2	:Civil Engr 5
Rhode Island	:Utility Motor Eq Oper	:Hvy Motor Equip Oper	:Clerk Dispatcher	:Supv Civil Engr
South Carolina	:Hwy Mtce Wkr III	:Hwy Mtce Wkr IV	:Clerk Spec C/Clerk/	:Dir/Traff Engrg
	:	:	:Clerk Typist II	:
South Dakota	:Hwy Mtce Wkr II	:Senior Hwy Mtce Wkr	:Adm Service Asst	:Traf Oper Engr
	:	:	:Office Supervisor	:Traf Design Engr
Tennessee	:Maint Worker 3	:	:Account Clerk	:Civil Engr Mgr II
Texas	:Mtce Tech 3	:Hwy Equip Oper	:Office Mgrs	:Traffic Oper Engr
Utah	:Hwy Oper Spec 2	:Hwy Oper Spec 3	:Office Tech 2	:
Vermont	:Incl Title 9	:Sr Mtce Worker	:Storekeeper	:
Virginia	:Hwy Equip Oper B	:Hwy Equip Oper C	:Office Service Asst	:Hwy Division Admin
Washington	:Mtce Tech 1, 2	:Mtce Tech III	:Office Mgr	:St Traffic Engineer
West Virginia	:Equip Oper II	:Equip Oper III	:Clerk I, II, III	:Dir, Traf Engr Div
Wisconsin	:(County)	:(County)	:(County)	:State Traffic Engr
Wyoming	:Equip Operator	:Hwy Mtce Hvy Eq Oper	:	:St Traf Engr, Oper

	(21)	(22)	(23)	(24)
State	:Asst State Traf Engr	:St Traf Mtce Engr	:Dist Traf Engr	:Asst Dist Traf Engr
Alabama	:	:Traffic Engr (Oper)	:Div. Traf Engineer	:
Alaska	:	:	:Reg Traffic Engr	:Engr Asst III
Arizona	:Traffic Engr Manager	:Signing&Striping Mgr	:Dist Traf Engr	:Traf Branch Mgr
Arkansas	:Asst Div Head, Traf	:	:	:
California	:Traffic Office Chief	:	:Dist Traffic Engr	:Asst Dist Traf Engr
	:Chief, Transp Oper	:	:	:
Colorado	:Asst Staff Traf Engr	:	:Dist Traffic Engr	:Asst Dist Traf Engr
Connecticut	:Chief of Traf Engr	:Transp Engr of Traf	:Senior Engr Trans	:Dist Serv Agent II
Delaware	:	:	:Dist Traf Engr	:Asst Dist Traf Engr
Florida	:Asst State Traf Engr	:	:Dist Traf Oper Engr	:Asst Dist Traf Op Engr
Georgia	:Asst State Traf &	:	:Dist Traff & Safety	:Asst Dist Traf &
	:Safety Engr	:	:Engineer	:Safety Engr
Hawaii	:Asst Traffic Engr	:	:	:
Idaho	:Asst Traf Engr	:	:Dist Traffic Engr/Ch	:
Illinois	:Traffic Oper Engr	:	:Dist Traffic Engineer	:Dist Oper&Plan Engr,
Indiana	:Engr of Traf Dev	:Engr of Traf Oper	:Dist Traf Engr	:Asst Dist Traf Engr
Iowa	:	:	:	:
Kansas	:	:	:	:
Kentucky	:Engr Branch Mgr, Traf	:	:Engr Branch Mgr, Traf	:Traffic Engineer
Louisiana	:Staff Engr Admin I	:Staff Engr Admin I	:Dist Engr Mgr I	:Dist Engr Supv I
Maine	:Asst Traffic Engr	:	:Div Traf Engr	:
Maryland	:	:Ch, Bur of Traf Oper	:	:Asst Dist Traf Engr
Massachusetts	:Asst St Traf Engr	:Traf Mtce Engineer	:Dist Traffic Engr	:Asst Dist Traf Engr
Michigan	:Asst Engr,Traf&Safety	:Field Admn Engineer	:Dist Oper Engr	:Asst Dist Traf Engr
Minnesota	:Asst Traffic Engr	:Incl Title 20	:Dist Traffic Engr	:Asst Dist Traf Engr
Mississippi	:Asst Traf Control &	:	:	:
	:Safety Engineer	:	:	:
Missouri	:Asst Div. Engr,Traf	:	:Traffic Engineer	:Dist Traf Studies Engr
Montana	:Asst Mgr, Traf Unit	:	:Engr Traffic II	:
Nebraska	:	:	:	:
Nevada	:	:	:Dist Traf Engr	:
New Hampshire	:Traf Systems Engr	:Traffic Oper Engr	:	:
New Jersey	:Supv Hwy Engr II	:	:Proj Engr, Traffic	:Principal Engr, Traf
New Mexico	:Asst Traf Serv Engr	:	:Dist Traffic Engr	:
New York	:Dir-Operations	:	:Reg Traf&Safety Engr	:Asst Reg Traf Engr
North Carolina	:Asst Traffic Engr	:Asst Traffic Engr	:Division Traf Engr	:
	:Tech Oper	:Field Oper	:	:
North Dakota	:	:	:	:
Ohio	:Staff Traffic Engr	:Staff Traf Engr	:Traffic Engr I	:Proj Engr 3
Oklahoma	:Asst Division Engr	:Project/Branch Mgr	:Project/Branch Mgr	:
Oregon	:Traf Control Engr	:Incl in Title 2	:Incl in Title 3	:Reg Traf Oper Supv
Pennsylvania	:Civil Engr 4	:	:Civil Engr 4	:Civil Engineer 3
	:	:	:Traf Control Spec Mgr	:Traf Control Spec Supt
Rhode Island	:Chf, Traf Mtce Supv	:Hwy Mtce Supv Traf	:	:
South Carolina	:Asst State Traf Engr	:	:Dist Traf Engr	:Asst Dist Traf Engr
South Dakota	:	:	:Reg Traffic Engr	:
Tennessee	:	:Civil Engr Spec II	:Civil Engr Spec II	:Civil Engr Spec I
Texas	:Traffic Field Engr	:	:Dist Traf Engr	:Asst Dist Traf Engr
Utah	:	:	:Civil Engr 2	:
Vermont	:	:Incl Title 2	:	:
Virginia	:Hwy Div Asst Admin	:	:Engr Programs Supv	:
Washington	:Asst St Traf Engr	:	:Dist Traffic Engr	:Asst Dist Traf Engr
West Virginia	:Asst Dir, Traf Engr	:	:	:
	:Division	:	:	:
Wisconsin	:Traf Cntl Oper Engr	:	:Dist Chief Traf Engr	:
Wyoming	:State Traffic Engr	:	:Dist Traffic Engr	:

MAINTENANCE AND TRAFFIC OPERATIONS PERSONNEL TITLES
USED BY STATE HIGHWAY DEPARTMENTS (as of July 1, 1988)

TRAFFIC OPERATION PERSONNEL (con't.)

State	(25) :Traffic Supv	(26) :Sign Supervisor	(27) :Sign Shop Foreman	(28) :Traf Signal&Ltg Frm
Alabama	:	:	:Traf Sign Shop Supv	:
Alaska	:Traffic Control Mgr	:	:	:
Arizona	:	:Hwy Mtce Crew Supv	:Sign Shop Supv	:Traf Signal&Light
	:	:	:	:Crew Supv
Arkansas	:	:Sec Head Traf Serv	:Sign Shop Supv	:
California	:	:Supervisor	:Supervisor	:Hwy Elec Supr
Colorado	:Traffic Supervisor	:Traf Sign & Striping	:Sign Shop Supv	:Sr Traf Signal
	:	:Supv	:	:Supv
Connecticut	:	:Sign&Mark Coord	:Supt Portland Plant	:Dist Elec Supv
Delaware	:Traf Supv	:	:Sign Shop Frm	:Traf Signal Frm
Florida	:Traffic Opers Engr	:Sign Shop Mgr	:Sign Shop Supv	:
	:	:	:	:
Georgia	:	:Hwy Mtce Supt	:Hwy Mtce Frm II	:Traf Sig Tech Supv
Hawaii	:	:Traf Signs&Mark Supv	:	:Traf Sig&Ltg Supv
Idaho	:	:	:Sign Shop Supt	:Traf Signal Supt
Illinois	:Fld Engr or Tech	:Incl Title 25	:Sign Shop Supv&Frm	:
Indiana	:	:Sign Supv	:Sign Shop Crew Ldr	:Elect Tech Supv III
Iowa	:Dist Traf Tech	:	:Sign Shop Supt	:Lighting Mtce Supt
Kansas	:	:	:Sign Shop Wkr Supv	:
Kentucky	:Hwy Dist Frm	:Hwy Dist Crew Frm	:	:Hwy Sig Crew Frm
Louisiana	:Hwy Frm 2	:Hwy Sign&Striper Supv	:Hwy Frm 2	:Elec Foreman
Maine	:	:	:Sign Shop Foreman	:Elec Foreman
Maryland	:	:Sign Shop Supv	:Sign Shop Asst Supv	:Signal Shop Supv
Massachusetts	:Hwy Traf Mtce Frm	:Supv of Traf Equip	:Sign Shop Frm	:Traf Elec Frm
	:	:Traf Section Frm	:	:
Michigan	:Sign Supv VIII	:Sign Supv VII	:Sign Shop Foreman	:Dist Electrician
Minnesota	:Traf Control Supv	:Sign Supv	:Incl Title 8	:Elc Traf Mtce Supv
Mississippi	:	:	:	:
Missouri	:	:	:Sign Shop Supv	:Signal&Light Supv
Montana	:	:	:Painter Foreman	:
Nebraska	:	:Sign Shop Supt	:Sign Shop Supv	:Hwy Elect Mgr
Nevada	:Mtce Supv 3	:	:Sign Shop Supv	:
New Hampshire	:Traf Mtce Supv	:Traf Mtce Supt	:Sign Shop Foreman	:Sig Reprmn II,III
New Jersey	:	:Supv of Hwy Mark	:Crew Supv-Signs	:Crew Supv-Elect
New Mexico	:Incl Title 8	:	:Sign Shop Foreman	:Traf Elec Supv
New York	:	:Sign Shop Supv II	:Sign Shop Supv I	:Traf Sig Supv Mech
North Carolina	:Traf Serv Supv	:Traf Serv Crew Ldr	:	:Traf Cnt Tech Supv
North Dakota	:	:	:	:
Ohio	:Traf Control Supv	:Sign Supt	:Sign Supv 2	:Signal Elec Supv
Oklahoma	:	:	:Sign Shop Supv	:
Oregon	:Incl in Title 24	:	:Sign Shop Supt	:Signal Tech Mgr
Pennsylvania	:	:Traf Control Tech 3	:Sign Shop Foreman	:CE 2,Traf Cntl Spec
Rhode Island	:	:Hwy Mtce Supv-Traf	:Commercial Artist	:Electrician Supv
	:Striping	:	:	:
South Carolina	:	:	:Master Craftsman	:Electronics Tech II
South Dakota	:	:	:Hwy Mtce Frm	:
Tennessee	:Civil Engr Assoc 2	:Sign&Marking Supv 2	:Sign&Marking Supv 1	:
Texas	:Traf Sect Supv I, II	:	:Dist Sign Shop Supv	:Trf Sig&Repair Supv
Utah	:	:Shop Supv 2	:Hwy Sign Supv	:Electrician Supv
Vermont	:Traffic Oper Supv	:	:	:Trans Elec Mtce
	:	:	:	:Spec
Virginia	:Tech Prog Supv	:Tech Prog Supv	:Sign Fab Frm	:Equip Elect Frm A&B
Washington	:Incl in #7	:	:Sign Shop Mgr	:Traf Sig Supv Elec
	:	:	:	:Supv
West Virginia	:Traf Sign Supv	:Mtce Crew Supv	:Crew Leader I,II	:Elec Tech 4
Wisconsin	:Dist Traf Supv	:Marking&Sign Shop Supv	:Mark/Sign Coord	:Electrical Supv
Wyoming	:Dist Traf Tech	:	:Sign Shop Supv	:Sign & Elec Foreman

	(29)	(30)	(31)	(32)
State	:Striper Foreman	:Sign Erection Foreman	:Sign Fabricator	:Sign Technican
Alabama	:	:	:Traf Sign Painter II	:Traf Sign Painter I
Alaska	:	:	:	:
Arizona	:Hwy Mtce Tech II/III	:Hwy Mtce Tech III	:Hwy Sign Fabricator	:Hwy Sign Tech
	:	:	:	:
Arkansas	:Striping Supervisor	:Signing Supervisor	:Sign Maker I&II	:Sign Crew Foreman
California	:Supervisor	:Supervisor	:Supervisor	:
Colorado	:Traf Signal Tech	:Traf Shop Foreman	:Sr Sign Fabricator	:Traf Signal Tech
Connecticut	:General Supervisor	:Sign & Marking Supv	:Maintainer V	:
Delaware	:Striper Frm	:Sign Foreman	:Sign Fabricator	:
Florida	:Mtce Supv	:Mtce Supv	:Mtce Support Tech	:
	:	:	:Sign Tech	:
Georgia	:Hwy Mtce Foreman II	:Hwy Mtce Foreman II	:Sign Shop Printer	:
Hawaii	:Traf Marking Supv	:	:Sign Painter&Painter	:
Idaho	:Transp Mtce Frm	:Transp Mtce Foreman	:Hwy Sign Fabricator	:Transp Technician
Illinois	:Lead Wkr, Pavement	:Incl Title 29	:Silk Screen Oper	:Incl in #25
	:Marking Foremen	:	:Sign Painter	:
Indiana	:Pavement Mark Supv	:Sign Crew Leader	:Sign Fabricator	:Sign Supervisor
Iowa	:Dist. Paint Supt	:	:Sign Shop Worker	:
Kansas	:Mtce Supervisor	:	:Sign Shop Worker	:
Kentucky	:Incl Title 26	:Incl Title 26	:Sign Painter	:Incl Title 26
Louisiana	:Hwy Frm 1,2	:	:Sign Fabricator 1	:Equip Oper 1
	:	:	:Carpenter, Welder	:
Maine	:Highway Foreman	:Hwy Mtce Man IV	:Sign Painter	:Sign Shop Tech
Maryland	:Road Markings Supv	:Road Mtce Supv	:Sign Fabricator III	:Sign Fabricator 1,2
Massachusetts	:	:	:	:
Michigan	:Paint Foreman	:Sign Foreman	:Sign Mech II & III	:Sign Mechanic IIIB
Minnesota	:Incl Title 25	:Incl Title 8	:Incl Title 9	:Incl Title 26
Mississippi	:	:	:Silk Screen Printer	:Traf Signal Tech
Missouri	:	:	:Silk Screen Operator	:Sign Painter
Montana	:Painter Foreman	:	:Painter	:
Nebraska	:Incl Title 8	:	:Sign Painter II	:Incl Title 27
Nevada	:Mtce Supv I	:Mtce Supv I	:Sign Painter	:Mtce Spec (Sign&Strip
New Hampshire	:Pavement Mark Frm	:Dist Sign Supv	:Sign Fabricator	:Hwy Maintainer II
	:	:Hwy Sign Mtce Frm	:Sign Letterer	:
New Jersey	:Crew Supv Marking	:Incl Title 29	:Sign Fabricator	:Painter, Signs
New Mexico	:Incl Title 8	:Incl Title 8	:Sign Tech I,II	:
New York	:Pavement Mark Supv	:Sign Crew Supv	:Sign Shop Worker	:
North Carolina	:Traf Serv Crew Ldr	:Traf Sign Erector	:Traf Sign Painter	:
North Dakota	:	:Sign Shop Foreman	:	:Sign Fabricator
Ohio	:Route Marker 3	:	:Sign Worker I	:Sign Wkr 2
Oklahoma	:Transp Mtce Supv	:Transp Mtce Supv	:Sign Shop Worker	:
Oregon	:Reg Traf Line Cr Supv	:Sign Cre Supv	:Sign Tech	:
Pennsylvania	:Highway Foreman 2	:Hwy Frm 2&3	:Sign Tech 2	:Sign Tech 1 & 2
Rhode Island	:Traf Line Paint Frm	:Sign Erector Supv	:Sign Painter	:
South Carolina	:Sr Hwy Mtce Frm	:Incl Titles 8 & 9	:Sign Fabricator	:
South Dakota	:Hwy Mtce Frm	:Incl Title 29	:Sign Producer	:
Tennessee	:Mtce Worker 2	:Hwy Mtce Wkr 2	:Mtce Worker 1	:Maintenance Worker
Texas	:Stripping Crew Supv	:	:Sign Shop Tech	:
Utah	:Hwy Oper Supv	:Hwy Oper Supv	:Jrnman Hwy Sign Spec	:Sign Tech
Vermont	:Marking Crew Ldr B	:Sign Crew Leader	:Sign Painter	:
Virginia	:Foreman	:Foreman	:Hwy Sign Fabricator	:Equip Oper A
Washington	:Mtce Supv	:	:	:Sign InstallationTech
West Virginia	:Crew Leader I,II	:	:Craftsman I,II	:
Wisconsin	:Pav't Mark Crew Chief	:Signing Crew Chief	:Various Titles	:Various Titles
Wyoming	:Hwy Striping Frm	:Hwy Traf Sign Tech II	:Sign Fabricator	:Hwy Traf Signal TechI

MAINTENANCE AND TRAFFIC OPERATION PERSONNEL TITLES
USED BY STATE HIGHWAY DEPARTMENTS (as of July 1, 1988)

TRAFFIC OPERATION PERSONNEL (Con't)

State	(33)	(34)	(35)	(36)
	: Traf Signal&Light Tech	: Striper Technician	: Chief Engineer	: Project Engineer
Alabama	: Traf Sign Tech I, II, III	:	: Chief Engineer	: Civil Engr I, II, III
Alaska	:	:	:	: Civil Engr I or II
Arizona	: Traf Signal Light Tech	: Hwy Mtce Tech I	: State Engineer	: Trans Engr, Team Ldr
Arkansas	:	: Striper Crew Forman	: Chief Engineer	: Resident Engineer
California	: Hwy Electrician I or II	: Leadworker Hwy Eq Oper	: Deputy Director	: Resident Engineer
Colorado	: Traf Sig Electrician	:	: Chief Engineer	: Project Engineer
Connecticut	: Electronics Tech	: Maintainers III, IV, V	: Chief Engineer	: Asst Chief Engr
Delaware	: Traf Signal Tech	: Striper Tech	: Deputy Engineer	: Project Engr
Florida	:	: Sr Hwy Eq Oper	: Secretary of Dept.	: Project Engineer
Georgia	: Traf Signal Tech	: Mtce Equipment Oper	: State Hwy Engr	: Project Engineer
Hawaii	: Hwy Ltg Wkr & Elec	: Traf Strip Mach Oper	: Incl title #1	: Area Engineer
Idaho	: Traf Sig Tech & Elec	: Transp Technician	: State Hwy Admin	: Proj Engr/Chief
Illinois	: Traf Signal Engr&Tech	: Incl Title 29	: Dir of Highways	: Proj&Resident Engr
Indiana	: Electronics Tech II	: Markings Crew Chief	:	:
Iowa	: Ltg Mtce Elect&Tech	: Equip Oper 2 & 3	: Dir of Hwys Ch Engr	: Resident Const Engr
Kansas	:	:	: State Transp Engr	: Const Engineer
Kentucky	: Hwy Signal Installer	: Hwy Equip Oper	: State Hwy Engr	: Resident Const Engr
Louisiana	: Statewide Elect	: Equip Oper I	: Chief Engineer	: Engr-in-Training 1
Maine	: Traf Signal&Light Tech	:	: Dir Proj Development	:
Maryland	: Traf Cont Tech I, II, III	:	: Chief Engineer	:
Massachusetts	:	:	: Chief Engineer	:
Michigan	: Electrician	: Sign Mechanic IIIB	: Deputy Dir Highways	: Project Engr
Minnesota	: Hwy Signal Tech	: Incl Title 9	: Deputy Commissioner	: Project Engr
	: Electronic Tech et al	:	:	: Resident Engr et al
Mississippi	:	:	: Chief Engineer	: Project Engr
Missouri	: Signal Electrician	:	: Chief Engineer	: Resident Engineer
Montana	: Engr Traffic III	: Striping Mach Oper	: Director of Hwys	: Field Proj Mgr
Nebraska	: Electronics Tech II	: Incl in Title 18	: Dir-State Engr	: Hwy Project Mgr II
Nevada	:	: Mtce Spec, Strip&Sign	: Director	: Hwy Resident Engr
New Hampshire	: Traf Signal Tech	: Carriage Oper	: Asst Commissioner	: Civil Engr I-IV
	: Hwy Mtce II	:	:	:
New Jersey	: Electrical Mech I	: Highway Marker	: Chief Engr Const&Mtce	:
New Mexico	: Traf Elec Tech I, II, III	: Incl Titles 17&18	: Secy, Hwy&Trans Dept	: Hwy Const Proj Mgr
	:	:	:	: I, II, III
New York	: Traf Signal Mech	: Constr Equip Oper	: Asst Comm Engr/Ch Engr	:
North Carolina	: Traf Control Tech	: Machine Oper III	: Chief Engr, Oper	: Resident Engr
North Dakota	:	:	: Chief Engineer	: Project Manager
Ohio	: Signal Electrician 2	: Route Marker 2	: Asst Director	: Project Engineer 2
Oklahoma	:	: Sr Maint Worker	: Chief Engineer	: Engr Mgr, Res Engr
Oregon	: Signal Tech	: Incl Titles 16 & 17	: State Hwy Engr	: Project Manager
Pennsylvania	: Civil Engr 2,	: Equip Oper 3	: Chief Engineer	: Constr Mgr 1, 2
	: Traf Control Spec	:	:	:
Rhode Island	: Elect Tech	: Traffic Line Painter	:	:
South Carolina	: Elect&Traf Signal Tech	: Incl Title 18	: State Hwy Engineer	: Project Engr
South Dakota	:	: Sr. Maint Worker	: Dir of Engineering	: Project Engineer
Tennessee	:	: Mtce Worker I	: Dep Comm II, St Trans	: Civil Engr II
	:	:	: Engineer	: Engineering Tech 2
Texas	: Traf Signal Repair Tech	: Striper Tech	: Engineer-Director	: Proj Engr
Utah	:	:	: Asst Dir of Transp	: Civil Engr 3
Vermont	:	: Hwy Mark Equip Oper	: Chief Engineer	: Resident Engr
Virginia	: Equip Elect&Leader	: Equip Oper B	: Chief Engineer	: Const Project Engr
Washington	: Sig&Elec Tech I, II, III	: Mtce Tech III	: Dep Sec of Transp	: Project Engineer
West Virginia	: Electronic Tech	: Craftsworker III	:	:
Wisconsin	: Elect Tech	: Marking Tech	:	: Project Engineer
Wyoming	: Hwy Traf Signal Tech	: Hwy Painting Tech I&II	:	: Resident Engineer

MONTHLY SALARIES OF HIGHWAY PERSONNEL
(as of July 1, 1988)

MAINTENANCE PERSONNEL

STATE	(1) State Maint. Engineer			(2) Asst State Maint. Engineer			(3) District Engineer			(4) District Maint. Engineer		
	#	Min.	Max.	#	Min.	Max.	#	Min.	Max.	#	Min.	Max.
Alabama	1	3103	4730	3	2310	3885	9	3103	4730	9	2548	3885
Alaska	1	4663	6409	-	-	-	3	5358	8750	3	5209	8277
Arizona	1	3542	5360	1	3232	4892	4	3542	5360	-	-	-
Arkansas	1	-	4492	1	3582	4102	10	-	4347	10	3337	4011
California	1	5095	5607	3	4320	5220	12	4634	5878	14	3558	5220
Colorado		3557	4767		3073	4118	11	3636	4872		3227	4324
Connecticut	1	3775	5097	1	3490	4712	4	3226	4357	-	-	-
Delaware												
Florida	1	3519	5579	3	3299	5678	7	4292	6866	7	3302	5682
Georgia	1	3226	5219	1	2720	4362	7	3226	5219	7	2497	4187
Hawaii	1	3103	5087	1	2965	4869	4	2965	4869	2	2271	3960
Idaho	1	3664	5417	1	2733	4040	6	3664	5417	6	2733	4040
Illinois	1	3555	5290	3	3295	4905	9	3555	5290	9	3060	4630
Indiana	1	2810	4353	-	-	-	6	2810	4353	6	2440	3880
Iowa	1	3768	4765	1	2978	3768	6	3768	4765	6	2843	3595
Kansas	1	3628	4861	1	2984	3999	6	3290	4409	6	2984	3999
Kentucky	1	2448	4431	2	2256	3874	12	2743	4431	12	2256	3874
Louisiana	1	3863	6403	10	1835	4565	9	3374	5592	10	2754	4565
Maine	1	3100	4344	1	2484	3468	7	2825	3955	-	-	-
Maryland	1	4423	4423	-	-	-	7	3146	4132	-	-	-
Massachusetts	1	3267	4092	-	-	-	8	3552	4462	8	3053	3915
Michigan	1	3957	5291	1	3652	4893	9	3283	4529	9	3062	4192
Minnesota	1	3830	5084	4	2899	4409	9	3569	4735	15	3314	4409
Mississippi	1	2946	4414	1	2708	4056	6	3097	4640	6	2708	4056
Missouri	1	3942	4721	1	2856	3762	10	3571	4480	10	2561	3496
Montana	1	2677	3601	1	2328	3215	5	2677	3601	12	2328	3215
Nebraska	1	2879	4030	1	2678	3749	8	3095	4333	8	2317	3244
Nevada	1	2953	4062	1	2704	3706	3	2953	4062	3	2474	3382
New Hampshire	1	3208	3863	1	2677	3192	6	3064	3688	-	-	-
New Jersey	2	3698	5177	7	3043	4260	4	4077	5708	4	3698	5177
New Mexico	1	2639	4456	-	-	-	6	3042	4674	22	2693	4456
New York	1	6015	7459	1	4428	5598	11	6015	7459	11	4428	5598
North Carolina	1	3952	6116	1	3597	5556	14	3596	5556	14	3135	4824
North Dakota	1	2648	3945	1	2288	3416	8	2648	3945	8	2288	3416
Ohio	1	3166	4678	1	3211	4209	12	3166	4678	12	2915	3820
Oklahoma	1	3519	4699	1	3273	4369	8	3692	4931	8	3273	4369
Oregon	1	3449	4404	1	3129	3992	5	3449	4852	3	2699	3449
Pennsylvania	1	3875	4954	1	2929	4000	11	4456	5165	11	3369	4352
Rhode Island												
South Carolina	1	3368	5053	2	2879	4319	7	3114	4671	7	2879	4319
South Dakota	1	2865	4296	1	2347	3519	4	3134	4701	-	-	-
Tennessee	1	2720	4042	1	2382	3542	4	2720	4042	8	2382	3542
Texas	1	3931	4661	1	3931	4661	24	4420	4661	17	2826	4240
Utah	1	3042	4442	-	-	-	6	3042	4442	6	2459	3586
Vermont	1	3530	5359	2	2543	3855	-	-	-	9	2889	4385
Virginia	1	3337	4603	3	2819	3851	9	3684	5032	9	2819	3851
Washington	1	4029	5158	1	3307	4233	6	4339	5419	6	3307	4233
West Virginia	1	3047	4568	1	2827	4560	10	2827	4560	10	2463	4206
Wisconsin	1	3522	5269	4	3039	4480	8	3522	5269	8	3039	4480
Wyoming	1	3345	5347	-	-	-	5	3345	5347	5	2882	4610
1988 Average			4885			4240			4920			4261
1977 Average			2624			2556			2564			2175
% Increase 1977-1988			86.2			65.9			91.9			95.9
% Increase 1987-1988			6.0			4.2			4.9			4.9

MONTHLY SALARIES OF HIGHWAY PERSONNEL
(as of July 1, 1988)

MAINTENANCE PERSONNEL

STATE	(5) Asst District Maint. Engineer			(6) Resident Maint. Engineer			(7) Area Supervisor			(8) Gang Foreman		
	#	Min.	Max.	#	Min.	Max.	#	Min.	Max.	#	Min.	Max.
Alabama	9	1450	2425	41	1600	3517	29	1312	1996	-	-	-
Alaska	2	4101	6395	2	3590	5764	8	3140	5561	10	3070	4341
Arizona	4	3232	4892	1	2949	4463	10	2241	3391	56	2008	3039
Arkansas	10	2622	3460	-	-	-	83	2264	3055	32	2264	3055
California	18	3558	4747	41	3231	3901	141	2557	3548	497	2228	2681
Colorado	-	2991	4009	-	-	-	36	2409	3227	-	2081	2788
Connecticut	17	2983	4028	-	-	-	61	2051	2457	-	-	-
Delaware	-	-	-	-	-	-	-	-	-	-	-	-
Florida	7	2558	5311	25	2558	5311	-	-	-	23	1552	2560
Georgia	7	2294	3668	42	2109	3364	-	-	-	293	1525	2391
Hawaii	-	-	-	-	-	-	3	2143	3608	23	1810	2329
Idaho	6	2038	3014	-	-	-	52	1849	2733	-	-	-
Illinois	-	-	-	32	2825	4285	-	-	-	279	2582	2582
Indiana	6	2479	3447	37	1837	2390	37	1573	2045	150	1335	1736
Iowa	-	-	-	24	2586	3273	134	1953	2843	9	2047	2843
Kansas	-	-	-	29	2578	3455	35	2227	2984	43	1924	2578
Kentucky	38	2046	3278	-	-	-	-	-	-	132	1384	2216
Louisiana	3	2406	3987	-	-	-	110	1143	2483	203	872	2169
Maine	-	-	-	-	-	-	28	1882	2577	100	1578	2098
Maryland	7	2921	3838	23	2505	3290	31	1987	2609	-	-	-
Massachusetts	8	2601	3314	-	-	-	8	1965	2579	112	1519	2445
Michigan	4	2864	3875	-	-	-	13	2278	3021	34	2138	2793
Minnesota	5	2899	3912	-	-	-	25	2321	3396	101	2081	3040
Mississippi	-	-	-	-	-	-	29	1728	2588	98	1415	2120
Missouri	22	2269	3106	-	-	-	105	1911	2593	40	1644	2218
Montana	-	-	-	-	-	-	22	1647	2286	-	-	-
Nebraska	-	-	-	-	-	-	30	2005	2807	84	1502	2102
Nevada	6	2704	3706	6	2081	2826	12	1911	2587	58	1757	2368
New Hampshire	6	2562	3055	6	2055	2452	14	1853	2192	19	1570	1853
New Jersey	4	3043	4260	4	2384	3337	23	2059	2883	114	1868	2614
New Mexico	-	-	-	-	-	-	16	1607	2768	25	1374	2287
New York	11	3161	3881	79	3599	4561	206	2055	2497	41	2175	2636
North Carolina	36	2858	4389	95	2376	3640	205	1913	2892	481	1489	2203
North Dakota	8	1707	2546	-	-	-	-	-	-	6	1404	2123
Ohio	12	2651	3471	33	2188	2860	88	1983	2479	58	1582	1878
Oklahoma	8	2702	3604	-	-	-	29	2066	2768	107	1742	2334
Oregon	1	3129	3992	16	2460	3138	-	-	-	126	-	2114
Pennsylvania	22	2547	3384	-	-	-	52	2547	3676	625	1102	2054
Rhode Island	-	-	-	-	-	-	-	-	-	-	-	-
South Carolina	4	2559	3839	47	2559	3839	25	1662	2493	200	1478	2217
South Dakota	-	-	-	16	2605	3909	6	2099	3149	-	-	-
Tennessee	14	2382	3542	22	1777	2576	40	1251	1857	101	1146	1701
Texas	6	2648	3561	-	-	-	281	1969	2826	228	1756	2478
Utah	-	-	-	-	-	-	7	1797	2622	20	1709	2326
Vermont	9	2392	2843	-	-	-	9	2392	3014	48	1486	2394
Virginia	46	2359	3223	52	1974	2696	292	1652	2257	657	1382	1888
Washington	6	2996	3835	-	-	-	30	2584	3307	64	2020	2584
West Virginia	-	-	-	26	2146	3653	55	1316	2534	32	1255	1568
Wisconsin	30	2622	4132	38	1867	3244	-	-	-	-	-	-
Wyoming	-	-	-	-	-	-	29	1672	2674	31	1515	2421
1988 Average			3771			3572			2826			2394
1977 Average			1931			1700			1412			1211
% Increase 1977-1988			95.3			110.1			100.2			97.7
% Increase 1987-1988			4.0			5.9			5.4			4.1

MONTHLY SALARIES OF HIGHWAY PERSONNEL
(as of July 1, 1988)

MAINTENANCE PERSONNEL

STATE	(9) Sectionman			(10) Laborer			(11) Skilled Craftsman			(12) Shop Superintendent		
	#	Min.	Max.	#	Min.	Max.	#	Min.	Max.	#	Min.	Max.
Alabama	-	-	-	505	822	1105	10	1219	1854	9	2310	3517
Alaska	50	2758	4151	10	1937	2913	5	2420	3961	3	3140	5500
Arizona	58	1587	2401	2	1311	1984	3	1515	2293	4	2241	3391
Arkansas	128	1781	2485	88	925	1398	124	1239	2485	11	2264	3055
California	687	2128	2443	1217	1788	2519	102	2278	2872	25	2943	4491
Colorado	-	1798	2409	-	1630	2185	-	1408	1888	-	2409	3227
Connecticut	141	1544	1887	535	1231	1444	52	1411	1734	14	1864	2249
Delaware	-	-	-	-	-	-	-	-	-	-	-	-
Florida	138	1112	2347	1350	877	1698	131	1174	2014	7	1467	2411
Georgia	-	-	-	273	1052	1608	45	1311	2022	8	2022	3226
Hawaii	18	1687	1845	113	1284	1416	35	1655	1761	4	2012	2238
Idaho	56	1522	2248	0	808	1193	18	1380	2038	6	1849	2733
Illinois	1662	2453	2453	-	-	-	-	-	-	-	-	-
Indiana	354	1178	1531	1156	1127	1465	-	-	-	-	-	-
Iowa	-	-	-	1	1156	1383	-	-	-	-	-	-
Kansas	115	1924	2578	4	925	1240	-	-	-	6	2227	2984
Kentucky	200	1139	1826	286	700	1120	93	937	1502	18	1384	2216
Louisiana	-	-	-	316	622	1351	94	998	1894	9	1400	2321
Maine	0	1212	1572	99	1048	1346	17	1334	1742	7	2043	2703
Maryland	195	1383	1812	714	944	1343	-	-	-	7	1601	2101
Massachusetts	-	-	-	552	1270	1580	93	1519	1955	1	3267	4092
Michigan	34	1867	2299	28	1437	1850	64	1630	2299	1	2278	3021
Minnesota	1359	1846	2010	8	1413	2010	98	2192	2464	2	2321	3396
Mississippi	30	1281	1918	365	662	993	-	-	-	7	1728	2588
Missouri	353	1496	2010	-	-	-	9	1644	2218	9	1911	2593
Montana	132	1892	2061	18	1497	1576	7	1826	1922	11	1641	2485
Nebraska	-	-	-	-	-	-	-	-	-	1	2005	2807
Nevada	-	-	-	142	1378	1832	11	1618	2171	6	1911	2587
New Hampshire	93	1570	1853	279	1081	1217	98	1395	1633	1	1853	2192
New Jersey	110	1691	2369	673	1038	1603	178	1288	2255	4	2059	3337
New Mexico	87	1374	2287	-	-	-	694	1197	1991	-	-	-
New York	605	1632	2009	1458	1160	1529	355	1728	2117	10	3242	4108
North Carolina	-	-	-	1313	1036	1504	734	1263	2518	14	2275	3475
North Dakota	86	1336	2023	3	968	1676	-	-	-	9	1404	2448
Ohio	305	1531	1749	1178	1353	1562	84	1531	1892	6	2188	2860
Oklahoma	145	1269	1700	727	1018	1365	12	1580	2117	8	1968	2637
Oregon	117	1654	1818	13	1060	1793	1	1881	2068	4	1879	2401
Pennsylvania	-	-	-	346	958	1509	289	1266	1821	52	2215	2925
Rhode Island	-	-	-	-	-	-	-	-	-	-	-	-
South Carolina	87	1263	1895	357	853	1280	10	1366	2206	-	-	-
South Dakota	78	1511	2267	-	-	-	-	-	-	6	1511	2267
Tennessee	-	-	-	1202	779	1197	12	999	1628	4	1427	2118
Texas	860	1393	1813	2274	695	1118	-	-	-	24	2244	3120
Utah	70	1709	2326	3	1028	1502	15+	1516	2238	1	1797	2622
Vermont	221	1220	1837	122	1056	1584	18	1352	2037	1	2248	3402
Virginia	-	-	-	36	809	1106	40	1264	1726	13	1652	2257
Washington	154	2020	2340	3	1392	1599	20	1926	2228	6	2584	3307
West Virginia	208	1109	1470	153	926	1033	528	972	1130	9	1264	3033
Wisconsin	-	-	-	-	-	-	-	-	-	-	-	-
Wyoming	-	-	-	6	1021	1631	-	-	-	5	2362	3783
1988 Average			2115			1532			2075			2958
1977 Average			1074			774			1001			1550
% Increase 1977-1988			96.9			97.9			107.3			90.8
% Increase 1987-1988			5.9			3.3			4.1			4.6

MONTHLY SALARIES OF HIGHWAY PERSONNEL
(as of July 1, 1988)

MAINTENANCE PERSONNEL

STATE	(13) Garage or Shop Foreman			(14) Mechanic			(15) Mechanic Helper			(16) Equipment Operator I		
	#	Min.	Max.	#	Min.	Max.	#	Min.	Max.	#	Min.	Max.
Alabama	8	1380	2097	89	1219	1900	16	1026	1486	556	1001	1414
Alaska	7	2758	4151	80	2420	3764	5	2051	3061	40	2420	3574
Arizona	14	1931	2922	87	1670	2527	9	1180	1786	405	1261	1909
Arkansas	11	2095	2858	98	1239	2134	9	1025	1545	427	1025	1545
California	54	2557	3083	372	2329	2807	25	1673	2278	-	-	-
Colorado		2081	2788		1798	2409		1630	2185	-	-	-
Connecticut	15	1544	1887	135	1411	1734	25	1302	1600	764	1302	1547
Delaware												
Florida	32	1307	2136	154	1057	1899	33	840	1323	707	879	1384
Georgia	19	1651	2606	157	1412	2200	-	-	-	762	1084	1672
Hawaii	2	1810	1810	15	1708	1708	8	1416	1655	85	1326	1416
Idaho	7	1678	2479	58	1449	2141	2	1082	1598	0	1082	1598
Illinois	-	-	-	29	2300	2403	-	-	-	371	2453	2453
Indiana	30	1573	2045	170	1178	1531	40	953	1283	-	-	-
Iowa	-	-	-	126	1624	1768	12	1565	1699	763	1331	1624
Kansas	7	2020	2706	109	1662	2227	38	1124	1508	475	1304	1745
Kentucky	4	1256	2012	170	937	2012	13	700	1120	1329	772	1236
Louisiana	8	1309	2169	146	933	2027	84	762	1445	949	762	1445
Maine	14	1562	2078	123	1334	1742	10	1141	1469	341	1091	1405
Maryland	28	1486	1950	63	1383	1812	38	1064	1687	77	1064	1379
Massachusetts	-	-	-	55	1456	1955	-	-	-	87	1456	1828
Michigan	11	2138	2793	82	1867	2299	5	1499	1931	62	1499	1931
Minnesota	13	2236	3156	151	2257	2389	25	1402	2147	-	-	-
Mississippi	13	1473	2207	55	1374	2057	27	1177	1763	461	893	1340
Missouri	9	1644	2218	50	1471	1910	-	-	-	1678	1221	1576
Montana	9	1892	1992	58	1826	1922	43	1497	1714	207	1629	1714
Nebraska	8	2005	2807	73	1502	2102	46	1299	1819	109	1046	1464
Nevada	2	1566	2098	41	1757	2368	3	1490	1994	67	1378	1832
New Hampshire	13	1637	2016	27	1395	1853	4	1114	1450	147	1148	1342
New Jersey	20	1868	2614	125	1611	2255	51	1091	1528	370	1202	1683
New Mexico	7	1437	2402	39	1254	2086	-	-	-	100	1000	1653
New York	10	2566	3102	304	1728	2240	15	1376	1703	1535	1299	1615
North Carolina	98	1682	2760	464	1317	2300	-	-	-	638	1077	1567
North Dakota	-	2 -	-	31	1107	2023	11	886	1461	30	968	1461
Ohio	18	1983	2479	194	1601	1892	16	1531	1749	337	1409	1542
Oklahoma	3	1742	2334	55	1659	2223	17	1469	1968	727	1018	1365
Oregon	7	1702	2178	106	1629	2068	3	1320	1654	668	1435	1574
Pennsylvania	87	1457	1964	471	1266	1896	58	1102	1509	1698	1102	1619
Rhode Island												
South Carolina	47	1537	2305	131	1366	2206	72	1079	1619	1030	960	1440
South Dakota	-	-	-	33	1060	1740	12	881	1321	-	-	-
Tennessee	26	1197	1777	139	1049	1558	-	-	-	150	999	1491
Texas	24	2102	2826		1515	2173		1251	1566		1033	1495
Utah	12	1672	2469	55	1516	2238	5	1159	1688	80	1241	1632
Vermont	2	1499	2532	41	1352	2146	-	-	-	-	-	-
Virginia	78	1511	2064	331	1264	1888	30	968	1059	2502	1059	1445
Washington	6	2228	2852	125	2020	2459	25	1674	1926	-	-	-
West Virginia	233	1156	1328	140	1064	1225	19	972	1130	81	972	1130
Wisconsin	-	-	-	-	-	-	-	-	-	-	-	-
Wyoming	24	1591	2811	50	1442	2421	13	1244	1988	40	1127	1800
1988 Average			2425			2099			1677			1623
1977 Average			1287			1077			863			832
% Increase 1977-1988			88.4			94.9			94.3			95.1
% Increase 1987-1988			4.0			4.6			6.0			4.4

MAINTENANCE PERSONNEL

MONTHLY SALARIES OF HIGHWAY PERSONNEL
(as of July 1, 1988)TRAFFIC OPERATIONS
PERSONNEL

STATE	(17) Equipment Operator II			(18) Equipment Operator III			(19) Timekeeper or Clerk			(20) State Traffic Engineer		
	#	Min.	Max.	#	Min.	Max.	#	Min.	Max.	#	Min.	Max.
Alabama	190	1133	1640	137	1249	1854	102	864	1562	1	2548	3885
Alaska	-	-	-	130	2577	4200	7	1631	2185	-	-	-
Arizona	124	1396	2112	6	1587	2401	33	1099	1663	25	3542	5360
Arkansas	483	1127	1668	134	1497	2134	10	1248	1818	1	-	4347
California	1381	1984	2228	566	2128	2384	43	1822	2160	2	4747	5220
Colorado		1798	2409		2081	2788	-	-	-	1	3636	4872
Connecticut	234	1340	1600	124	1411	1734	61	1231	1444	1	3490	4712
Delaware												
Florida	558	963	1861	152	1057	1698	95	774	1794	1	3519	5579
Georgia	764	1143	1864	236	1311	2022	42	1078	1719	1	3226	5219
Hawaii	69	1464	1655	14	1655	1761	4	1242	1903	1	2965	4869
Idaho	-	-	-	321	1314	1941	3	1082	1598	1	3165	4678
Illinois	62	2582	2582	17	2453	2453	-	-	-	1	3555	5290
Indiana	97	1335	1736	-	-	-	38	997	1395	1	2810	4353
Iowa	244	1383	1699	139	1439	1768	-	-	-	1	2843	3595
Kansas	460	1436	1924	176	1583	2121	29	1583	2121	1	2578	3455
Kentucky	585	937	1502	79	1034	1655	121	937	1502	1	2488	4729
Louisiana	160	1068	1770	11	1143	1894	104	762	1770	1	3374	5592
Maine	197	1212	1572	164	1275	1664	-	-	-	1	2485	3468
Maryland	425	1136	1477	55	1210	1577	29	1210	1577	1	4423	4423
Massachusetts	-	-	-	-	-	-	14	1119	1372	1	3267	4092
Michigan	352	1630	2053	118	1867	2299	26	1601	1975	1	3957	5291
Minnesota	5	2192	2257	-	-	-	-	-	-	1	3569	4735
Mississippi	202	1033	1547	67	1147	1720	-	-	-	1	2946	4414
Missouri	1116	1334	1727	7	1471	1910	13	1407	1822	-	-	-
Montana	51	1695	1784	129	1760	1853	5	1792	2485	1	2132	2948
Nebraska	-	-	-	644	1290	1692	26	905	1267	1	3095	4333
Nevada	80	1490	1994	40	1618	2171	-	-	-	1	2704	3706
New Hampshire	15	1241	1450	45	1291	1510	13	1119	1473	1	2827	3403
New Jersey	147	1325	1854	47	1611	2255	-	-	-	1	3698	5177
New Mexico	100	1144	1900	50	1254	2086	-	-	-	1	2639	4456
New York	505	1376	1703	105	1728	2117	240	1455	1797	1	6015	7459
North Carolina	482	1168	1776	862	1317	2021	192	1214	1776	1	3597	5556
North Dakota	210	1218	1846	-	-	-	8	886	1329	1	1975	2959
Ohio	250	1469	1624	84	2102	1749	166	1373	1562	1	3211	4209
Oklahoma	304	1179	1580	100	1179	1580	102	1123	1504	1	3692	4931
Oregon	265	1506	1654	42	1574	1735	-	-	-	1	3129	3992
Pennsylvania	2028	1266	1749	193	1266	1896	52	1102	1560	1	2929	4000
Rhode Island												
South Carolina	478	1079	1619	314	1123	1684	91	922	1752	1	3368	5053
South Dakota	294	967	1453	105	1161	1740	6	1061	2513	2	2347	3519
Tennessee	75	1079	1604	-	-	-	28	906	1366	1	2477	3702
Texas		1393	1699		1393	1813	319	1106	1566	1	3931	4641
Utah	210	1296	1764	110	1430	1883	10	1089	1590	-	-	-
Vermont	-	-	-	38	1352	2037	12	1220	1837	-	-	-
Virginia	976	1157	1580	87	1264	1726	234	1059	1445	1	3337	4603
Washington	503	1599	2020	71	1926	2228	29	1838	2340	1	3307	4233
West Virginia	974	1064	1225	395	1156	1328	305	691	1261	1	2827	4846
Wisconsin	-	-	-	-	-	-	-	-	-	1	3522	5269
Wyoming	234	1307	2089	87	1442	2305	-	-	-	1	2882	4610
1988 Average			1782			1985			1715			4541
1977 Average			937			1031			879			2439
% Increase 1977-1988			90.2			92.5			95.1			86.2
% Increase 1987-1988			5.1			5.1			4.6			5.3

MONTHLY SALARIES OF HIGHWAY PERSONNEL
TRAFFIC OPERATIONS PERSONNEL (as of July 1, 1988)

STATE	(21) Asst State Traffic Engineer			(22) State Traffic Maint. Engineer			(23) District Traffic Engineer			(24) Asst District Traffic Engineer		
	#	Min.	Max.	#	Min.	Max.	#	Min.	Max.	#	Min.	Max.
Alabama	-	-	-	1	2310	3517	9	1600	3517	-	-	-
Alaska	-	-	-	-	-	-	3	3363	4858	3	3113	4224
Arizona	2	3232	4892	1	2690	4072	4	2690	4072	4	2949	4463
Arkansas	1	3582	4102	-	-	-	-	-	-	-	-	-
California	11	4320	4747	-	-	-	20	3558	4747	57	3091	4293
Colorado	1	3636	4872	-	-	-	-	3141	4209	-	2713	3636
Connecticut	2	3356	4531	5	2856	3500	5	2331	2838	4	2067	2461
Delaware	-	-	-	-	-	-	-	-	-	-	-	-
Florida	6	3302	5682	-	-	-	7	3302	5682	7	2558	5311
Georgia	1	2720	4362	-	-	-	7	2497	4187	7	2294	3668
Hawaii	1	2474	3960	-	-	-	-	-	-	-	-	-
Idaho	1	2733	4040	-	-	-	6	2248	3323	-	-	-
Illinois	1	3295	4905	-	-	-	9	3060	4630	14	2825	4285
Indiana	1	2440	3800	1	2440	3800	6	2440	3800	6	2091	3137
Iowa	-	-	-	-	-	-	-	-	-	-	-	-
Kansas	-	-	-	-	-	-	-	-	-	-	-	-
Kentucky	1	2256	4486	-	-	-	12	2256	3874	9	2046	3278
Louisiana	12	1603	5227	1	3153	5227	8	2574	4266	5	1603	3727
Maine	1	2288	3200	-	-	-	7	2153	2953	-	-	-
Maryland	-	-	-	1	3155	4145	-	-	-	7	2705	3554
Massachusetts	1	3005	3752	1	3053	3915	8	2633	3314	8	2364	3015
Michigan	1	3652	4893	1	3283	4529	-	3062	4192	5	2864	3875
Minnesota	5	3314	4409	-	-	-	9	2899	3912	5	2591	3491
Mississippi	1	2708	4056	-	-	-	-	-	-	-	-	-
Missouri	1	2856	3762	-	-	-	3	2414	3305	18	2123	2896
Montana	1	1956	2708	-	-	-	4	1647	2286	-	-	-
Nebraska	-	-	-	-	-	-	-	-	-	-	-	-
Nevada	-	-	-	-	-	-	2	1994	2704	-	-	-
New Hampshire	1	2582	3079	1	1818	2149	-	-	-	-	-	-
New Jersey	2	3354	4697	-	-	-	9	3043	4260	14	2628	3680
New Mexico	1	2518	4247	-	-	-	6	2518	4247	-	-	-
New York	1	4921	6228	-	-	-	11	3599	5598	11	3761	4530
North Carolina	1	3135	4824	1	3135	4824	14	2605	3998	-	-	-
North Dakota	-	-	-	-	-	-	-	-	-	-	-	-
Ohio	4	2915	3820	1	2651	3471	12	2501	3495	12	2411	3142
Oklahoma	1	3047	4066	1	2702	3604	8	2702	3604	-	-	-
Oregon	1	2699	3449	-	-	-	-	-	-	4	2339	2986
Pennsylvania	4	2547	3384	-	-	-	11	2547	3384	18	2215	2965
Rhode Island	-	-	-	-	-	-	-	-	-	-	-	-
South Carolina	1	3114	4671	-	-	-	5	2879	4319	4	2559	3889
South Dakota	-	-	-	-	-	-	4	2347	3519	-	-	-
Tennessee	-	-	-	2	2291	3389	4	2291	3389	4	2118	3104
Texas	1	3019	3804	-	-	-	16	2648	3561	4	2244	3331
Utah	-	-	-	-	-	-	6	2100	3069	-	-	-
Vermont	-	-	-	-	-	-	-	-	-	-	-	-
Virginia	3	2359	3223	-	-	-	9	2359	3223	9	-	-
Washington	1	2996	3835	-	-	-	6	2584	3307	6	2340	2996
West Virginia	1	2463	4206	-	-	-	-	-	-	-	-	-
Wisconsin	3	3039	4480	-	-	-	8	3039	4480	-	-	-
Wyoming	2	2608	4177	-	-	-	5	2608	4177	-	-	-
1988 Average			4238			3857			3842			3595
1977 Average			2125			1972			1973			1765
% Increase 1977-1988			99.4			95.6			94.7			103.7
% Increase 1987-1988			5.6			6.9			3.3			4.0

MONTHLY SALARIES OF HIGHWAY PERSONNEL
(as of July 1, 1988)

STATE	(25) Traffic Supervisor			(26) Sign Supervisor			(27) Sign Shop Foreman			(28) Traffic Signal & Lighting Foreman		
	#	Min.	Max.	#	Min.	Max.	#	Min.	Max.	#	Min.	Max.
Alabama	—	—	—	—	—	—	1	1312	1996	—	—	—
Alaska	2	3590	4858	—	—	—	—	—	—	—	—	—
Arizona	—	—	—	1	2008	3039	1	2008	3039	17	1783	2698
Arkansas	—	—	—	1	3012	3878	1	2264	3055	—	—	—
California	—	—	—	—	—	—	—	—	—	57	2617	3154
Colorado	—	2409	3227	—	2409	3227	—	2409	3227	—	2849	3818
Connecticut	—	2331	2838	1	—	—	1	2051	2457	5	2124	2591
Delaware	—	—	—	—	—	—	—	—	—	—	—	—
Florida	64	2558	5311	1	1552	2560	3	1057	1698	—	—	—
Georgia	—	—	—	6	1719	2720	—	1525	2391	10	1651	2606
Hawaii	—	—	—	3	1950	2074	—	—	—	1	2233	2392
Idaho	—	—	—	—	—	—	1	1598	2361	1	1761	2603
Illinois	28	2195	3745	—	—	—	11	1962	3060	—	—	—
Indiana	—	—	—	6	1367	1985	6	1335	1736	6	1356	2045
Iowa	6	1938	2416	—	—	—	1	2047	2586	1	2146	2714
Kansas	—	—	—	—	—	—	1	1436	1924	—	—	—
Kentucky	10	1384	2216	19	1139	1826	—	—	—	21	1034	2012
Louisiana	8	1309	2169	—	—	—	2	1309	2483	21	1309	2169
Maine	—	—	—	—	—	—	1	1562	2078	1	1622	2167
Maryland	—	—	—	1	1722	2262	1	1486	1950	1	1539	2020
Massachusetts	7	1783	2324	1	1868	2445	1	1681	2202	9	1682	2202
Michigan	1	2568	3456	3	2278	3021	9	1952	2568	9	2278	3021
Minnesota	5	1991	3123	13	1864	2434	—	—	—	7	2081	3396
Mississippi	—	—	—	—	—	—	—	—	—	—	—	—
Missouri	—	—	—	—	—	—	1	1730	2340	8	1644	2218
Montana	—	—	—	—	—	—	1	1826	1922	—	—	—
Nebraska	—	—	—	1	2005	2807	1	1502	2102	1	2005	2807
Nevada	2	1911	2587	—	—	—	1	1994	2704	—	—	—
New Hampshire	1	2072	2471	1	1604	1897	1	1449	1710	7	1288	1710
New Jersey	—	—	—	1	2162	3027	1	1868	2614	26	1868	2614
New Mexico	—	—	—	9	1652	2768	1	1229	2186	1	1577	2641
New York	—	—	—	1	2432	2945	1	1941	2366	13	1941	2366
North Carolina	14	1913	2892	25	1615	2405	—	—	—	14	1682	2518
North Dakota	—	—	—	—	—	—	—	—	—	—	—	—
Ohio	12	1821	2255	1	1821	2255	4	1582	1878	18	1600	2255
Oklahoma	—	—	—	—	—	—	1	1433	1920	—	—	—
Oregon	—	—	—	—	—	—	11	1879	2401	10	2068	2699
Pennsylvania	—	—	—	11	1457	2179	1	1457	1964	11	1927	2450
Rhode Island	—	—	—	—	—	—	—	—	—	—	—	—
South Carolina	—	—	—	—	—	—	4	1537	2305	7	1598	2398
South Dakota	—	—	—	—	—	—	1	1511	2267	—	—	—
Tennessee	4	1558	2291	3	1251	1857	10	1097	1628	—	—	—
Texas	—	2102	2826	—	—	—	24	1844	2478	24	1969	2826
Utah	—	—	—	1	1994	2909	1	1446	2031	2	1935	2074
Vermont	1	1678	2532	—	—	—	—	—	—	2	1499	2265
Virginia	9	1974	2696	9	1974	2696	9	1382	1888	22	1511	2257
Washington	—	—	—	—	—	—	1	2020	2584	4	2121	2714
West Virginia	10	1170	1920	10	1255	1568	10	1109	1470	1	1638	2765
Wisconsin	8	2622	4132	8	2254	3244	11	1806	2540	1	2254	3244
Wyoming	5	1514	2421	—	—	—	1	1846	2955	6	1757	2811
1988 Average			2941			2561			2284			2550
1977 Average			1479			1308			1176			1396
% Increase 1977-1988			98.9			95.8			94.2			82.7
% Increase 1987-1988			4.6			4.8			4.5			7.0

MONTHLY SALARIES OF HIGHWAY PERSONNEL
(as of July 1, 1988)

TRAFFIC OPERATIONS PERSONNEL

STATE	(29) Striper Foreman			(30) Sign Erection Foreman			(31) Sign Fabricator			(32) Sign Technician		
	#	Min.	Max.	#	Min.	Max.	#	Min.	Max.	#	Min.	Max.
Alabama	-	-	-	-	-	-	3	1219	1810	7	1160	1723
Alaska	-	-	-	-	-	-	-	-	-	-	-	-
Arizona	11	1679	2542	2	1587	2401	7	1311	1984	36	1348	2039
Arkansas	2	2264	3055	1	2264	3055	8	925	1668	16	1781	2485
California	-	-	-	-	-	-	-	-	-	-	-	-
Colorado	-	2081	2788	-	2081	2788	-	1630	2185	-	1798	2409
Connecticut	4	2051	2457	-	-	-	3	1411	1734	-	-	-
Delaware	-	-	-	-	-	-	-	-	-	-	-	-
Florida	151	1307	2136	245	1307	2136	12	917	1456	-	-	-
Georgia	-	1525	2391	-	1525	2391	10	1143	1719	-	-	-
Hawaii	1	1745	1851	-	-	-	5	1655	1655	-	-	-
Idaho	6	1849	2733	6	1849	2733	5	1251	1849	11	1314	1941
Illinois	31	2536	2536	-	-	-	13	2507	2507	-	-	-
Indiana	6	1367	1985	20	1335	1736	6	1178	1531	6	1367	1985
Iowa	5	2047	2586	-	-	-	8	1234	1624	-	-	-
Kansas	6	1924	2578	-	-	-	3	1240	1662	-	-	-
Kentucky	-	-	-	-	-	-	3	850	1362	-	-	-
Louisiana	13	1309	2169	-	-	-	22	762	1894	10	762	1894
Maine	1	1578	2098	8	1275	1664	1	1334	1742	1	1414	1861
Maryland	7	1486	1950	-	-	-	1	1240	1622	8	962	1420
Massachusetts	-	-	-	-	-	-	-	-	-	-	-	-
Michigan	6	1867	2299	12	1630	2053	14	1498	2053	41	1630	2053
Minnesota	-	-	-	-	-	-	-	-	-	-	-	-
Mississippi	-	-	-	-	-	-	5	1048	1572	5	1367	2047
Missouri	-	-	-	-	-	-	4	1277	1650	2	1221	1576
Montana	3	1826	1922	-	-	-	5	1760	1853	-	-	-
Nebraska	-	-	-	-	-	-	5	1299	1819	-	-	-
Nevada	6	1618	2171	6	1618	2171	2	1832	2475	4	1490	1994
New Hampshire	8	1339	1710	7	1339	1710	4	1239	1568	12	1059	1239
New Jersey	8	1868	2614	-	-	-	11	1325	1854	1	1611	2255
New Mexico	2	1577	2641	-	-	-	-	-	-	-	-	-
New York	22	1540	1899	68	1540	1899	16	1376	1703	-	-	-
North Carolina	25	1615	2405	89	1168	1701	14	1168	1701	-	-	-
North Dakota	-	-	-	8	1404	2123	-	-	-	13	1107	1846
Ohio	25	1601	1892	-	-	-	9	1409	1562	4	1469	1624
Oklahoma	7	1742	2334	11	1742	2334	6	1179	1580	-	-	-
Oregon	8	1654	1918	16	1654	1826	9	1435	2068	-	-	-
Pennsylvania	21	1266	1896	52	1266	1896	2	1102	1619	23	1266	1821
Rhode Island	-	-	-	-	-	-	-	-	-	-	-	-
South Carolina	10	1478	2217	-	-	-	5	1168	1752	-	-	-
South Dakota	5	1161	2267	-	-	-	3	1061	1592	-	-	-
Tennessee	8	999	1491	10	999	1491	30	779	1197	30	779	1197
Texas	24	1844	2478	-	-	-	155	1251	1906	-	-	-
Utah	6	1709	2326	6	1709	2326	3	1312	1803	-	-	-
Vermont	7	1220	1837	4	1163	2037	1	1220	1837	-	-	-
Virginia	652	1382	1888	652	1382	1888	28	1157	1580	2507	1059	1445
Washington	-	-	-	-	-	-	-	-	-	23	1838	2121
West Virginia	4	1109	1470	-	-	-	10	1079	1382	-	-	-
Wisconsin	16	1558	2164	40	1558	2164	25	1448	2164	40	1448	2164
Wyoming	10	1591	2544	3	1442	2305	4	1307	2088	5	1307	2088
1988 Average			2223			2123			1765			1879
1977 Average			1120			1097			967			899
% Increase 1977-1988			98.5			93.5			82.5			109.0
% Increase 1987-1988			9.0			0.7			3.5			3.6

MONTHLY SALARIES OF HIGHWAY PERSONNEL
(as of July 1, 1988)

STATE												
(33) Traffic Signal & Lighting Tech.			(34) Striper Technician			(35) Chief Engineer			(36) Project Engineer			
	#	Min.	Max.	#	Min.	Max.	#	Min.	Max.	#	Min.	Max.
Alabama	27	1077	2201	-	-	-	1	3603	5490	110	1450	2743
Alaska	-	-	-	-	-	-	10	5019	7121	50	3363	4858
Arizona	42	1424	2155	32	1351	2049	1	4666	7061	19	2690	4072
Arkansas	-	-	-	5	1781	2485	1	-	5734	30	3337	4011
California	245	1984	3011	-	-	-	2	5345	5878	-	3091	4293
Colorado	-	1929	2409	-	-	-	-	3636	4872	-	2713	3636
Connecticut	7	1340	2249	8	1302	1734	1	4416	5963	1	4083	5513
Delaware	-	-	-	-	-	-	-	-	-	-	-	-
Florida	-	-	-	152	1047	1698	1	5150	8240	151	2558	5311
Georgia	34	1590	2497	-	1311	2022	1	4562	6266	216	1863	3364
Hawaii	10	1791	1973	4	1464	1464	-	-	-	6	2271	3608
Idaho	7	1449	2141	22	1314	1941	1	5551	5551	21	2038	3014
Illinois	16	1375	3880	-	-	-	1	4130	6295	-	2360	3515
Indiana	39	1335	1736	20	1335	1736	-	-	-	-	-	-
Iowa	2	1439	1988	19	1383	1768	1	4137	5229	20	2586	3273
Kansas	-	-	-	-	-	-	1	5653	Varies	29	2338	3134
Kentucky	20	937	1502	37	937	1655	1	2743	5000	55	1856	2974
Louisiana	90	998	1894	49	762	1770	1	4423	7331	68	1603	3727
Maine	1	1550	2095	-	-	-	1	3259	4557	-	-	-
Maryland	26	1722	2262	-	-	-	1	4646	4646	-	-	-
Massachusetts	-	-	-	-	-	-	1	4197	5309	-	-	-
Michigan	28	1630	2514	17	1630	2053	1	6469	6469	55	2674	3875
Minnesota	37	1777	2404	-	-	-	1	4409	5857	66	2591	3912
Mississippi	-	-	-	-	-	-	1	3689	6134	30	2295	3440
Missouri	55	1565	2102	-	-	-	1	5054	6056	40	2269	3106
Montana	2	1792	2485	9	1760	1853	1	-	4208	51	1792	2485
Nebraska	9	1299	1819	-	-	-	1	5200	5200	61	2005	2807
Nevada	-	-	-	5	1490	1994	1	-	-	15	2266	3090
New Hampshire	1	1641	1939	6	1191	1393	1	-	4781	55	1600	2798
New Jersey	89	1611	2255	35	1288	1803	1	4720	6608	-	-	-
New Mexico	3	1439	2401	14	1439	2401	1	5208	5208	11	2401	4050
New York	118	1728	2117	22	1376	1701	1	-	-	-	-	-
North Carolina	36	1552	2300	57	1214	1776	1	4338	6729	45	2605	3998
North Dakota	-	-	-	-	-	-	1	3216	4777	48	1707	2959
Ohio	24	1601	1892	54	1531	1749	2	3488	5108	96	2071	2884
Oklahoma	-	-	-	7	1269	1700	1	5000	5000	25	2834	3781
Oregon	21	1971	2362	-	-	-	1	-	5099	36	2339	2986
Pennsylvania	11	1927	2450	49	1266	1749	1	4456	5385	-	1927	2835
Rhode Island	-	-	-	-	-	-	-	-	-	-	-	-
South Carolina	29	1366	2131	-	-	-	1	6673	6673	52	2559	3839
South Dakota	-	-	-	4	1161	1740	1	3463	5193	45	1877	3149
Tennessee	-	-	-	30	779	1197	1	3868	5749	115	1558	2720
Texas	214	1334	2322	148	1033	1699	1	5725	5725	-	2244	3331
Utah	-	-	-	-	-	-	1	3355	4973	28	2332	3407
Vermont	-	-	-	6	1109	1662	1	3780	5746	40	1872	3402
Virginia	80	1264	1888	987	1157	1580	1	4402	6013	42	1974	2696
Washington	44	1674	2584	-	-	-	1	7111	9103	45	2584	3307
West Virginia	15	1434	2765	16	1032	1317	-	-	-	-	-	-
Wisconsin	27	1778	3397	40	1448	1998	-	-	-	180	2254	4132
Wyoming	6	1514	2421	24	1126	2194	-	-	-	26	2608	4177
1988 Average			2301	1796			5808			3517		
1977 Average			1182	966			3017			1841		
% Increase 1977-1988			94.7	85.9			92.5			91.0		
% Increase 1987-1988			6.2	5.4			3.2			2.5		

MAINTENANCE QUESTIONNAIRE ON POLICIES AFFECTING MAINTENANCE AND TRAFFIC OPERATIONS PERSONNEL,
(as of July 1, 1988)

Questions asked the various State Highway Departments are answered in the table below. The numbers at the head of each column of the table refer to the question numbers.

CIVIL SERVICE ON MERIT SYSTEM

1. Are your maintenance and operations employees under a civil service plan, merit system, or some other comparable plan?
 - a. all, b. all but temporary, c. supervisory only, d. none

RETIREMENT

2. Are your maintenance and operations employees included in any state sponsored or controlled retirement plan?
3. Are your maintenance and operations employees included in a Federal Social Security retirement plan?
4. Do you have a compulsory retirement age? If answer is "yes" indicate the following: a. Is it established by policy or established statute? b. Compulsory retirement age?
5. Is voluntary retirement possible after a prescribed number of years? If answer is "yes", indicate the following:
 - a. Minimum year of service at which voluntary retirement is possible?
 - b. Minimum age at which voluntary retirement is possible?

VACATIONS

6. Do maintenance and operations employees receive an annual vacation of full pay?
7. What is your annual vacation schedule for maintenance and operations personnel (working hours per year per years of service)?
8. Are your annual vacations cumulative? If answer is "yes", what amount of vacation may be carried over into a new year? (Do not include any unearned vacation.)

SICK LEAVE

9. Do you grant sick leave with pay to maintenance and operations employees?
10. What is your annual sick leave schedule for maintenance and operations personnel (working hours per year per years of service)?
11. Is your sick leave cumulative? If answer is "Yes", what is the maximum?

INSURANCE

12. Are your maintenance and operations employees protected by a wholly or partially state-financed hospitalization plan?
 - a. If answer is "yes" indicate whether plan is wholly state-financed or partially state-financed.
 - b. Is participation optional or mandatory with employees?
13. Are your maintenance and operations employees protected by a wholly or partially state-financed life insurance plan?
 - a. If answer is "yes" indicate whether plan is wholly state-financed or partially state-financed.
 - b. Is participation optional or mandatory with employees?
14. Are your maintenance and operations employees protected against lawsuit by a state-financed public liability plan?
 - a. All, b. All but temporary, c. Supervisory only, d. None

UNIONIZATION

15. Do maintenance and operations employees have collective bargaining rights?
16. Are your maintenance and operations employees organized by the following, and if so, is membership mandatory or voluntary?
 - a. National union, b. Local union or employee association

SERVICE AWARDS

17. Do your maintenance and operations departments give any type of recognition, such as pins or tokens, to employees serving a certain length of time with the department?

WORKING CONDITIONS

18. Check which of your maintenance and operations field employees are paid on a salaried basis and which are paid on a hourly basis.
 - a. All, b. Permanent Field Employees (exclusive of supervisory), c. Supervisory, d. Temporary
19. Standard number of hours worked by each permanent field employee per day and per week.
20. Is any allowance or adjustment made for overtime work? If answer is "yes" indicate basis of payment for overtime (straight time, time and a half, compensatory time, none) for:
 - a. Permanent field employees (exclusive of supervisory), b. Supervisory, c. Temporary
21. Are your field employees required to report at an assembly point, such as a headquarters garage or shop, preparatory to their day's work?
 - a. If answer to Question 21 is "yes" are they paid from the time they leave this assembly point until they return at the close of the day's work (portal to portal)?
22. Are the maintenance and operations employees furnished any type of protective clothing as indicated below:
 - a. Hard hats and safety vests, b. Welding goggles and helmets, c. Other protective clothing for specialized operations (bituminous work, shop mechanics, etc.), d. Normal operations (rain outfits, insulated undergarments, etc.)

WORKING CONDITIONS (cont'd)

23. Do you have automatic or automatic-recommended salary advancement?
24. Do you, by law or policy, require a formalized job classification plan?
25. Do you use convict labor?
26. Do you pay any travel expenses for maintenance and operations employees when they are away from the home station overnight? If answer is "yes" is payment for meals and lodging respectively based on:
 - a. Actual, b. Actual with a maximum, c. Per Diem
27. Does your policy provide reimbursement of expenses incurred when a maintenance or operations employee is required to change residence which necessitates his moving his family and furniture?
 - a. Total, b. Limited, c. None

MAINTENANCE RESPONSIBILITY

28. Is the physical placement and maintenance of signing and marking the responsibility of the Maintenance Division?
 - a. Original placement of highway signs, b. Replacement and maintenance of highway signs
 - c. Pavement marking
29. Are garage or shop operations for vehicle maintenance under the jurisdiction of the Highway Department? If answer is "yes", which of the following do you maintain?
 - a. Highway Department vehicles only, b. Vehicles for several state agencies, c. Vehicles for all state agencies

LANE MILES

30. Number of lane miles maintained by state forces on the following systems, a lane mile being defined as any single driving lane:
 - a. Interstate and Freeways, b. Primary and Secondary, c. County, Township, Municipal and Service Roads
 - d. Total Lane Miles
31. What is your average number of maintenance and traffic operations field employees?
 - a. Permanent, b. Temporary, c. Total

BASIS OF OPERATIONS

32. Average lane miles covered by each general maintenance crew working out of one location (gang or section headquarters)?
33. Do you have special crews for traffic signs and striping?
 - a. Same crew handles traffic signs and striping (yes or no); Average lane miles per crew
 - b. Traffic signs (yes or no); Average lane miles per crew,
 - c. Striping (yes or no); Average lane miles per crew
34. Have you implemented an equipment management system?
35. If the answer to Question 35 is "no", do you intend to implement one?
36. If the answer to Question 35 is "yes", does your system provide for:
 - a. Control of number of units, b. Determination of optimum replacement intervals
 - c. Determination of shop personnel requirements, d. Determination of parts requirements
 - e. Managing preventative maintenance programs, f. Control of utilization
37. Do you work four 10-hour day work week? If "Yes", check the applicable statements:
 - a. Field crews, b. Shop personnel, c. Summer months, d. Winter months, e. Management's prerogative
 - f. Union concurrence
38. Do you perform maintenance work by contract? (yes or no)
39. What is the approximate percentage of your maintenance budget that is done by contract?

State	CIVIL SERVICE or MERIT SYSTEM				RETIREMENT PLAN							VACATION			
	(1a)	(1b)	(1c)	(1d)	Fed.			Compulsory Retirement	Vol Retirement Min Yrs Min Service Age	An Vacation Schedule					
					State Plan	Soc. Sec.	Yrs Service			Hrs /Yrs	Yrs of Service				
												(2)	(3)	(4)	(4a)
Alabama		X			yes	yes	yes	Statute	70	yes	25	none	yes	104	1-5
Alaska	X				yes	no	no			yes	5	50	yes	112.5	1-2
Arizona	X				yes	yes	no			yes	5	50	yes	96	1
Arkansas				X	yes	yes	no			yes	any@30		yes	96	1-3
California	X				yes	yes	no			yes	5	50	yes	84	1-3
Colorado		X			yes	no	no			yes	5	55	yes	96	1-5
Connecticut	X				yes	yes	yes	Statute	70	yes	10	55	yes	84	1-5
Delaware		X			yes	yes	no			yes	5@65	any/25	yes	112.5	0-10
Florida	X				yes	yes	no			yes	10	any	yes	104	1-5
Georgia		X			yes	yes	no			yes	10	any	yes	120	0-5
Hawaii	X				yes	yes	no			yes	10	62	yes	168	any
Idaho	X				yes	yes	no			yes	5	55	yes	96	0-5
Illinois		X			yes	yes	no			yes	8	60	yes	80	1-5
Indiana				X	yes	yes	yes	Statute	70	yes	15	55	yes	96	0-5
Iowa	X				yes	yes	no			yes	0	55	yes	80	1-4
Kansas	X				yes	yes	no			yes	10	60	yes	96	0-5
Kentucky		X			yes	yes	no			yes	30	any@30	yes	96	0-5
Louisiana		X			yes	no	yes	Policy	70	yes	10	55	yes	96	0-3
Maine		X			yes	no	no			yes	25	60	yes	96	0-5
Maryland	X				yes	yes	no			yes	5	none	yes	80	1-5
Massachusetts	X				yes	no	no			yes	10	65	yes	80	1
Michigan	X				yes	yes	no			yes	10@60	55	yes	104	1/2-5
Minnesota		X			yes	yes	no			yes	5	30/svc	yes	104	0-5
Mississippi	X				yes	yes	no			yes	30	any	yes	144	1mo-3yrs
Missouri	X				yes	yes	no			yes	10	55	yes	120	1-15
Montana				X	yes	yes	no			yes	5@55		yes	120	1-10
Nebraska	X				yes	yes	no			yes	5	55	yes	96	1-5
Nevada	X				yes	no	no			yes	10	55	yes	120	0-10
New Hampshire	X				yes	yes	no			yes	10	50	yes	120	1-8
New Jersey		X			yes	yes	no			yes	10@60	55	yes	96	0-5
New Mexico		X			yes	yes	no			yes	25	55	yes	120	ea.yr.
New York	X				yes	yes	no			yes	10	55	yes	104	1
North Carolina		X			yes	yes	no			yes	20	50	yes	94	1-2
North Dakota	X				yes	yes	no			yes	30	60	yes	96	0-3
Ohio	X				yes	no	no			yes	5@60	any/30	yes	80	1-8
Oklahoma	X				yes	yes	yes	Policy	70	yes	10	55	yes	80	1-5
Oregon	X				yes	yes	no			yes	30	55	yes	96	6mo/5yrs
Pennsylvania				X	yes	yes	no			yes	10	none	yes	75	0-1
Rhode Island	X				yes	yes	yes	Statute	70	yes	10	55	yes	80	6mo/5yrs
South Carolina				X	yes	yes	yes	Statute	72	yes	30	60	yes	120	1-10
South Dakota		X			yes	yes	no			yes	5	55	yes	120	1-15
Tennessee	X				yes	yes	no			yes	30	48	yes	90	0-5
Texas				X	yes	yes	no			yes	10@60	50w/30	yes	84	0-2
Utah		X			yes	yes	yes	Statute	70	yes	30	48	yes	104	0-5
Vermont		X			yes	yes	no			yes	10	55	yes	96	1-5
Virginia		X			yes	yes	no			yes	5	55	yes	96	0-5
Washington	X				yes	yes	no			yes	5	55/25	yes	96	1/2-1
West Virginia	X				yes	yes	no			yes	5	55	yes	144	1-10
Wisconsin	X				yes	yes	no			no		55	yes	80	1-5
Wyoming	X				yes	yes	yes	Policy	70	yes	25	50	yes	96	0-4

VACATION (cont'd)					SICK LEAVE						
					Annual Sick Leave Schedule						
Maximum			Minimum				Maximum				
Hrs.	Yrs. of		Cumulative	Hrs.	Yrs. of	Hrs.	Yrs. of		Cumulative		
Yrs.	Service		Maximum	Yrs	Service	Yrs.	Service		Maximum		
(7 cont'd)			(8)	(9)		(10)			(11)	State	
234	25	yes	480	yes	104	1-max	104	1 yes	1200	Alabama	
225	10	yes	450	yes	112.5	all	112.5	all yes	unlimited	Alaska	
168	15	yes	240	yes	96	1	96	1 yes	unlimited	Arizona	
180	20	yes	216	yes	96	any	96	any yes	unlimited	Arkansas	
180	20	yes	no-max	yes	96	1	96	yes	unlimited	California	
168	16	yes	336	yes	96	1-3.75	96	yes	360	Colorado	
140	20	yes	35	yes	105	1		yes	unlimited	Connecticut	
157.5	15	yes	twice annual	yes	112.5		112.5	yes	675	Delaware	
156	10	yes	240	yes	104	all		yes	unlimited	Florida	
168	10	yes	360	yes	120	all	120	all yes	720	Georgia	
168	any	yes	720	yes	168	any	168	any yes	unlimited	Hawaii	
168	15	yes	336	yes	96	0-15	96	15 yes	unlimited	Idaho	
200	25	yes	80-200	yes	96	1	96	1 yes	unlimited	Illinois	
200	20	yes	no-max	yes	48	any	48	any yes	unlimited	Indiana	
200	24	yes	twice the annual hrs	yes	144		144	yes	unlimited	Iowa	
188	15	yes	240	yes	96	all	96	all yes	unlimited	Kansas	
158	15	yes	450	yes	96	all	96	all yes	unlimited	Kentucky	
192	15	yes	all	yes	96	0-3	192	15 yes	unlimited	Louisiana	
192	10	yes	320	yes	96	any	96	yes	960	Maine	
200	20	yes	280	yes	120	all	120	yes	unlimited	Maryland	
160	4 1/2	yes	80	yes	120	1		yes	unlimited	Massachusetts	
249	40	yes	240	yes	104	1/2-all	104	all yes	unlimited	Michigan	
234	30	yes	240/275	yes	104	0-1	104	1 yes	900	Minnesota	
216	15	yes	all	yes	96	1mo-3yr	60	15 yes	all	Mississippi	
168	20	yes	336	yes	120		120	yes	unlimited	Missouri	
192	20	yes	384	yes	8/mo		96	all yes	unlimited	Montana	
200	16	yes	all	yes	96	1-5	240	19 yes	1440	Nebraska	
168	15	yes	240	yes	120		120	yes	unlimited	Nevada	
192	21	yes	384	yes	120	0-8	120	16 yes	720/0-8	New Hampshire	
200	20	yes	1 yr. vac.	yes	96	0-1	120	1 yes	960/over 18	New Jersey	
120		yes	240	yes	96	each	96	1 yes	unlimited	New Mexico	
160	7	yes	320	yes	1	unlimited		yes	1600	New York	
206	20	yes	240	yes	96	all	96	1 yes	unlimited	North Carolina	
192	19	yes	240	yes	96		96	yes	unlimited	North Dakota	
200	25	yes	600	yes	80	1	80	all yes	unlimited	Ohio	
160	20	yes	480	yes	80	1-5	120	5 yes	1040	Oklahoma	
192	20	yes	250	yes	96	all	96	yes	unlimited	Oregon	
187.5	25	yes	337.5	yes	112.5	0-35	112.5	35 yes	1500	Pennsylvania	
224	25	yes	208	yes			120	yes	1000	Rhode Island	
240	22	yes	360	yes	120		120	yes	1440	South Carolina	
160	15	yes	240/320	yes	112	0-1	112	1 yes	unlimited	South Dakota	
180	20	yes	315	yes	90	0-5	90	20 yes	unlimited	Tennessee	
168	20	yes	376	yes	96		96	yes	unlimited	Texas	
156	10	yes	320	yes	104	all		yes	unlimited	Utah	
192	30	yes	360	yes	96	1-5	192	30 yes	unlimited	Vermont	
168	20	yes	336	yes	120	any	120	any yes	unlimited	Virginia	
176	16	yes	240	yes	96	all		all yes	unlimited	Washington	
192	15	yes	320	yes	144	1	144	all yes	unlimited	West Virginia	
200	25	yes	40	yes				yes	unlimited	Wisconsin	
192	19	yes	384	yes	96	all	96	all yes	unlimited	Wyoming	

State	INSURANCE							UNIONIZATION				
	Hospitalization				Life Insurance		Public Liability				Supv	Non-Supv
	(12)	(12a)	(12b)	(13)	(13a)	(13b)	(14a)	(14b)	(14c)	(14d)	(15)	
Alabama	yes	wholly	mandatory	no						X	no	no
Alaska	yes	wholly	mandatory	yes	wholly	mandatory	X				yes	yes
Arizona	yes	partially	optional	yes	wholly	optional	X				no	no
Arkansas	yes	partially	optional	yes	partially	optional				X	no	no
California	yes	partially	optional	yes	wholly	mandatory	X				no	yes
Colorado	yes	partially	optional	yes	wholly	optional	X				no	no
Connecticut	yes	wholly	optional	yes	partially	optional	X				yes	yes
Delaware	yes	partially	optional	no		optional				X	yes	yes
Florida	yes	partially	optional	yes	partially	optional	X				no	yes
Georgia	yes	partially	optional	yes	partially	mandatory	X				no	no
Hawaii	yes	partially	optional	yes	wholly	optional				X	yes	yes
Idaho	yes	wholly	optional	yes	wholly	optional	X				no	no
Illinois	yes	wholly	mandatory	yes	wholly	mandatory	X				yes	yes
Indiana	yes	partially	optional	yes	partially	optional	X				no	no
Iowa	yes	wholly & partially	optional	yes	wholly & partially	optional	X				no	yes
Kansas	yes	partially	optional	yes	wholly	mandatory				X	no	yes
Kentucky	yes	wholly	mandatory	yes	wholly	mandatory				X	no	no
Louisiana	yes	partially	optional	yes	partially	optional				X	no	yes
Maine	yes	wholly	optional	yes	wholly	optional				X	yes	yes
Maryland	yes	partially	optional	no			X				no	no
Massachusetts	yes	partially	mandatory	yes	partially	optional	X				yes	yes
Michigan	yes	partially	optional	yes	partially	optional	X				no	yes
Minnesota	yes	partially	mandatory	yes	wholly	mandatory				X	yes	yes
Mississippi	yes	wholly	optional	yes	partially	optional				X	no	no
Missouri	yes	wholly	optional	yes	wholly	optional	X				no	no
Montana	yes	partially	optional	yes	partially	optional	X				no	yes
Nebraska	yes	partially	optional	yes	wholly & partially	optional				X	yes	yes
Nevada	yes	wholly	mandatory	yes	wholly	mandatory	X				no	no
New Hampshire	yes	wholly	optional	yes	partially	optional				X	yes	yes
New Jersey	yes	wholly & partially	optional	yes	wholly & partially	optional & mandatory				X	yes	yes
New Mexico	yes	partially	optional	yes	partially	optional	X				yes	yes
New York	yes	partially	optional	yes	wholly	mandatory	X				yes	yes
North Carolina	yes	wholly	optional	yes	partially	mandatory	X				no	no
North Dakota	yes	wholly	optional	yes	wholly	mandatory	X				no	no
Ohio	yes	partially	optional	yes	wholly	mandatory	X				no	yes
Oklahoma	yes	partially	optional	yes	partially	optional				X	no	no
Oregon	yes	wholly & partially	optional	yes	wholly & partially	optional	X				no	yes
Pennsylvania	yes	wholly	optional	yes	wholly	optional	X				yes	yes
Rhode Island	yes	wholly	mandatory	yes	partially	mandatory				X	yes	yes
South Carolina	yes	wholly	mandatory	yes	wholly	mandatory		X			no	no
South Dakota	yes	wholly	mandatory	yes	wholly	mandatory	X				no	yes
Tennessee	yes	partially	optional	yes	partially	optional	X				no	no
Texas	yes	wholly	optional	yes	wholly	optional	X				no	no
Utah	yes	partially	optional	no	wholly	mandatory	X				no	no
Vermont	yes	partially	optional	yes	partially	optional				X	yes	yes
Virginia	yes	wholly	optional	yes	wholly	mandatory	X				no	no
Washington	yes	wholly	mandatory	yes	partially	optional	X				yes	yes
West Virginia	yes	wholly & partially	optional	yes	wholly & partially	optional	X				no	no
Wisconsin	yes	partially	optional	yes	partially	optional	X				no	yes
Wyoming	yes	partially	optional	yes	partially	optional	X				no	no

UNIONIZATION (cont'd)				SERVICE AWARDS	WORKING CONDITION						
Supervisory Nat'l Union	Local Union	Non-Supervisory Nat'l Union	Local Union		Working Hours						
					Salary Basis				Per Day	Per Week	
(16a)	(16b)	(16a)	(16b)	(17)	(18a)	(18b)	(18c)	(18d)	(19)	State	
no	yes voluntary	yes voluntary	yes voluntary	yes		S	S	H	8 40	Alabama	
no	yes mandatory	no	yes mandatory	yes		H	S	H	7.5 37.5	Alaska	
no	yes voluntary	no	yes voluntary	yes	S	S	S	H	8 40	Arizona	
no	no	no	no	yes	S				8 40	Arkansas	
no	no	no	yes voluntary	yes		S	S	H	8-10 40	California	
no	yes voluntary	no	yes voluntary	yes		S	S	H	8 40	Colorado	
no	yes voluntary	no	yes voluntary	no		H	S	H	7 35	Connecticut	
yes mandatory	no	yes mandatory	no	yes		H	S	H	7.5 37.5	Delaware	
no	no	yes voluntary	no	yes	S				8-10 40	Florida	
no	yes voluntary	no	yes voluntary	yes	S				8 40	Georgia	
no	yes voluntary	no	yes voluntary	yes	S				8 40	Hawaii	
no	yes voluntary	no	yes voluntary	yes	H	H	H	H	8 40	Idaho	
no	yes voluntary	yes voluntary	no	yes		S	S	S&H	8 40	Illinois	
no	yes voluntary	no	voluntary	yes	S				8 40	Indiana	
no	yes voluntary	no	voluntary	yes	S				8 40	Iowa	
no	no	yes voluntary		yes	S				8 40	Kansas	
no	no	no	no	yes		H	S	S&H	8 40	Kentucky	
yes voluntary	yes voluntary	yes voluntary	yes voluntary	yes		S	S	H	8 40	Louisiana	
no	yes voluntary	no	yes voluntary	yes	H	H	S	H	varies	Maine	
yes voluntary			yes voluntary	yes		H	S	H	8 40	Maryland	
yes voluntary	yes mandatory	yes mandatory	yes mandatory	yes	H	H	H	H	8 40	Massachusetts	
no	yes voluntary	no	yes mandatory	yes	S	S	S	S	8 40	Michigan	
no	yes mandatory	yes mandatory	yes mandatory	yes		H	H	H	8 40	Minnesota	
no	yes voluntary	no	yes voluntary	yes	S				8 40	Mississippi	
no	yes voluntary			yes		S	S		8 40	Missouri	
no		yes mandatory	yes mandatory	yes		H	S	H	8 40	Montana	
yes voluntary	no	yes voluntary	yes voluntary	yes		H	S	H	8 40	Nebraska	
no	yes voluntary	no	yes voluntary	yes	H				8 40	Nevada	
no	yes voluntary	no	yes voluntary	yes	H	H	H	H	8 40	New Hampshire	
yes voluntary	no	yes voluntary	no	yes	S				8 40	New Jersey	
yes voluntary		yes voluntary		yes	H				8 40	New Mexico	
yes voluntary		yes voluntary		yes	S			H	8 40	New York	
no	yes voluntary	no	yes voluntary	yes		S	S	H	8 40	North Carolina	
no	yes voluntary	yes voluntary	yes voluntary	yes		S	S	H	8-10 40	North Dakota	
no	no	yes voluntary	yes voluntary	yes	H	H	H	H	8 40	Ohio	
no	yes voluntary			yes	S	S	S	S	8 40	Oklahoma	
no	no	yes mandatory	no	yes		S	S	S/H	8 40	Oregon	
yes mandatory	yes mandatory	yes mandatory	yes mandatory	yes		S	S	H	7.5 37.5	Pennsylvania	
no	yes voluntary	no	yes voluntary	yes		H	S	H	8 40	Rhode Island	
no	yes voluntary	no	yes voluntary	yes		H	S	H	8 40	South Carolina	
no	yes voluntary	yes voluntary	yes voluntary	yes	H				8/10 40	South Dakota	
no	yes voluntary	no	yes voluntary	yes	S				7.5 37.5	Tennessee	
no	yes voluntary	no	yes voluntary	yes		H	S/H	H	8 40	Texas	
no	yes voluntary	no	yes voluntary	yes	H	H	H	H	8 40	Utah	
no	yes voluntary	no	yes voluntary	yes	H				8 40	Vermont	
no		no		yes		S	S	H	8 40	Virginia	
yes mandatory		yes mandatory		yes		S	S	H	8 40	Washington	
yes voluntary	yes voluntary	yes voluntary	yes voluntary	no	H	H	S/H	H	8 40	West Virginia	
no	no	no	yes	yes	H	H	H	H	8 40	Wisconsin	
no	yes voluntary	no	yes voluntary	yes		S	S	H	8 40	Wyoming	

WORKING CONDITIONS (continued)

State	Travel												
	Adjustment for Overtime				Time		Protective Clothing						
	(20)	(20a)	(20b)	(20c)	(21)	(21a)	(22a)	(22b)	(22c)	(22d)	(23)	(24)	(25)
Alabama	yes	1-1/2	comp	1-1/2	yes	yes	yes	yes	yes	yes	no	yes	yes
Alaska	yes	1-1/2	none	1-1/2	yes	yes	yes	yes	yes	yes	yes	yes	no
Arizona	yes	1-1/2	1-1/2	1-1/2	yes	yes	yes	yes	yes	yes	no	yes	yes
Arkansas	yes	1-1/2	none	1-1/2	yes	yes	yes	yes	yes	yes	no	yes	no
California	yes	1-1/2	straight & comp	1-1/2	yes	yes	yes	yes	yes	yes	yes	yes	yes
Colorado	yes	1-1/2	none	1-1/2	yes	yes	yes	yes	yes	no	yes	yes	yes
Connecticut	yes	1-1/2	1-1/2	1-1/2	yes	yes	yes	yes	yes	yes	yes	yes	yes
Delaware	yes	1-1/2	& 1-1/2 comp	1-1/2	yes	yes	yes	yes	yes	yes	no	yes	yes
Florida	yes	1-1/2	comp	none	yes	yes	yes	yes	yes	yes	no	yes	yes
Georgia	yes	1-1/2	comp	1-1/2	yes	1 way	yes	yes	yes	yes	yes	yes	yes
Hawaii	yes	1-1/2	1-1/2	1-1/2	yes	yes	yes	yes	yes	yes	yes	yes	yes
Idaho	yes	1-1/2	1-1/2	1-1/2	yes	yes	yes	yes	yes	no	no	yes	yes
Illinois	yes	1-1/2	1-1/2 & 2	1-1/2 & 2	yes	yes	yes	yes	yes	no	no	yes	yes
Indiana	yes	1-1/2	straight	1-1/2	yes	no	yes	yes	yes	no	yes	yes	yes
Iowa	yes	1-1/2	none	1-1/2	yes	yes	yes	yes	yes	no	yes	yes	yes
Kansas	yes	1-1/2	none	1-1/2	yes	yes	yes	yes	no	no	yes	yes	yes
Kentucky	yes	1-1/2	comp	varies	yes	yes	yes	yes	yes	no	yes	yes	yes
Louisiana	yes	1-1/2	comp	1-1/2	yes	yes	yes	yes	yes	yes	yes	yes	no
Maine	yes	1-1/2		1-1/2	yes	yes	yes	yes	yes	yes	yes	yes	no
Maryland	yes	1-1/2	comp	1-1/2	yes	yes	yes	yes	yes	yes	yes	yes	yes
Massachusetts	yes	1-1/2	1-1/2	1-1/2	yes	yes	yes	yes	yes	yes	yes	yes	no
Michigan	yes	1-1/2	straight	1-1/2	yes	yes	yes	yes	yes	yes	yes	yes	yes
Minnesota	yes	1-1/2	straight	1-1/2	yes	yes	yes	yes	yes	no	yes	yes	no
Mississippi	yes	1-1/2	comp	1-1/2	yes	yes	yes	yes	yes	yes	yes	yes	yes
Missouri	yes	1-1/2	straight	1-1/2	yes	yes	yes	yes	yes	no	no	yes	no
Montana	yes	1-1/2	comp	1-1/2	yes	yes	yes	yes	yes	no	no	yes	no
Nebraska	yes	1-1/2	straight	1-1/2	yes	yes	yes	yes	yes	no	no	yes	yes
Nevada	yes	1-1/2	straight	1-1/2	yes	yes	yes	yes	yes	yes	yes	yes	yes
New Hampshire	yes	1-1/2	straight	1-1/2	yes	yes	yes	yes	yes	yes	yes	yes	yes
New Jersey	yes	1-1/2	1-1/2	1-1/2	yes	yes	yes	yes	no	yes	yes	yes	limited
New Mexico	yes	1-1/2	straight	1-1/2	yes	yes	yes	yes	yes	yes	no	yes	yes
New York	yes	1-1/2	1-1/2	1-1/2	yes	yes	yes	yes	yes	yes	yes	yes	no
North Carolina	yes	comp	none	1-1/2	yes	yes	yes	yes	yes	no	yes	yes	yes
North Dakota	yes	1-1/2	none	1-1/2	yes	yes	yes	yes	yes	no	yes	yes	no
Ohio	yes	1-1/2	1-1/2 or comp	1-1/2	yes	yes	yes	yes	yes	no	yes	yes	no
Oklahoma	yes	1-1/2	none		yes	yes	yes	yes	yes	yes	no	yes	yes
Oregon	yes	1-1/2	1-1/2	1-1/2	yes	yes	yes	yes	yes	no	yes	yes	no
Pennsylvania	yes	1-1/2	1-1/2	1-1/2	yes	yes	yes	yes	yes	yes	yes	yes	no
Rhode Island	yes	1-1/2	1-1/2	1-1/2	yes	yes	yes	yes	yes	yes	yes	yes	yes
South Carolina	yes	1-1/2	comp	1-1/2	yes	yes	yes	yes	yes	yes	no	yes	yes
South Dakota	yes	1-1/2	straight	1-1/2	yes	yes	yes	yes	yes	no	no	yes	yes
Tennessee	yes	1-1/2	1-1/2	1-1/2	yes	yes	yes	yes	yes	yes	no	yes	yes
Texas	yes	comp & 1-1/2	comp	comp & 1-1/2	yes	yes	yes	yes	yes	yes	no	yes	no
Utah	yes	1-1/2	1-1/2	1-1/2	yes	no	yes	yes	yes	no	yes	yes	yes
Vermont	yes	1-1/2	1-1/2	1-1/2	yes	yes	yes	yes	yes	yes	yes	yes	yes
Virginia	yes	1-1/2	1-1/2	1-1/2	yes	yes	yes	yes	yes	yes	yes	yes	yes
Washington	yes	1-1/2	1-1/2	1-1/2	yes	yes	yes	yes	yes	no	yes	yes	yes
West Virginia	yes	1-1/2	1-1/2	1-1/2	yes	yes	yes	yes	yes	yes	no	yes	yes
Wisconsin	yes	1-1/2	none	1-1/2	no		yes	yes	no	no	no	yes	no
Wyoming	yes	1-1/2	none	1-1/2	yes	yes	yes	yes	yes	no	no	yes	no

WORKING CONDITIONS (cont'd)									MAINTENANCE RESPONSIBILITY							State	
Travel Expenses									Signing & Marking			Vehicle					
Meals	Lodging			Moving Expense					Responsibility			Maintenance					
(26)	(26a)	(26b)	(26c)	(26a)	(26b)	(26c)	(27a)	(27b)	(27c)	(28a)	(28b)	(28c)	(29)	(29a)	(29b)	(29c)	
yes			X			X		X		yes	yes	yes	yes		X		Alabama
yes			X			X		X		no	yes	yes	yes			X	Alaska
yes			X		X			X		yes	yes	yes	yes		X		Arizona
yes		X			X			X		no	yes	no	yes	X			Arkansas
yes			X			X		X		no	yes	yes	yes	X			California
yes			X	X				X		no	yes	yes	yes	X			Colorado
yes		X	X		X	X			X	no	yes	yes	yes		X		Connecticut
no									X	yes	yes	yes	yes	X			Delaware
yes	X	X	X	X	X	X		X		no	yes	yes	yes	X			Florida
yes		X			X			X		no	yes	yes	yes		X		Georgia
yes			X			X		X		no	yes	yes	yes	X			Hawaii
yes		X		X				X		no	yes	yes	yes		X		Idaho
yes			X		X			X		no	no	no	no				Illinois
yes			X	X			X			no	yes	no	yes	X			Indiana
yes		X			X			X		yes	yes	yes	yes		X		Iowa
yes			X		X			X		yes	yes	yes	yes	X			Kansas
yes			X		X		X			no	no	no	yes	X			Kentucky
yes		X	X		X	X		X		yes	yes	yes	yes	X			Louisiana
yes		X			X		X			no	yes	no	yes	X			Maine
yes			X	X					X	yes	yes	yes	yes	X			Maryland
yes	X			X					X	yes	yes	yes	yes	X			Massachusetts
yes		X			X			X		no	yes	yes	yes	X	X		Michigan
yes		X			X			X		no	yes	yes	yes		X		Minnesota
yes		X		X				X		no	no	no	yes	X			Mississippi
yes	X			X				X		yes	yes	yes	yes	X			Missouri
yes			X		X			X		no	yes	yes	yes	X			Montana
yes		X			X		X			yes	yes	yes	yes	X			Nebraska
yes			X			X	X			yes	yes	yes	yes	X			Nevada
yes		X				X			X	no	no	no	yes	X			New Hampshire
no									X	part	yes	yes	yes	X			New Jersey
yes	X		X	X				X		no	yes	no	yes	X			New Mexico
yes			X			X		X		yes	yes	yes	yes	X			New York
yes			X		X			X		no	yes	yes	yes		X		North Carolina
yes			X		X			X		no	yes	yes	yes		X		North Dakota
yes		X			X		X			no	no	no	yes		X		Ohio
yes			X	X				X		yes	yes	yes	yes	X			Oklahoma
yes		X			X			X		yes	yes	yes	yes	X			Oregon
yes			X		X			X		yes	yes	yes	yes	X			Pennsylvania
no									X	no	yes	yes	yes			X	Rhode Island
yes		X				X		X		yes	yes	yes	yes	X			South Carolina
yes			X		X			X		yes	yes	yes	yes		X		South Dakota
yes			X			X	X			no	yes	yes	yes	X			Tennessee
yes		X			X			X		yes	yes	yes	yes	X			Texas
yes		X				X	X			no	yes	yes	yes		X		Utah
yes		X		X			X			yes	yes	yes	yes	X			Vermont
yes	X			X				X		no	yes	yes	yes			X	Virginia
yes			X			X		X		yes	yes	yes	yes	X			Washington
yes		X		X			X			no	yes	yes	yes	X			West Virginia
yes		X			X			X		yes	yes	yes	no				Wisconsin
yes	X			X			X			no	yes	yes	yes	X			Wyoming

State	Relationship, Miles to Number of Employees							BASIS OF OPERATIONS		
	Lane Miles		Average Numbers of Employees					Lane Miles Per Crew		
	(30a)	(30b)	(30c)	(30d)	(31a)	(31b)	(31c)	(32)	(33a)	(33b)
Alabama	4,241	24,561		28,802	1,280	379	1,659	702	no	yes 702
Alaska	2,500	7,125	3,000	12,625	250	60	310	175	no	no
Arizona	1,208	4,680	358	6,246	877		877	180	no	yes 2,000
Arkansas	2,258	32,356	595	35,209	2,300	50	2,350	400	no	3,300 yes 3,300
California	21,760	25,272		47,032			4,936	184	no	yes 2,452
Colorado	3,836	17,149	1,428	22,413	1,682	98	1,780	75	yes	2,812
Connecticut	3,060	6,900	0	9,960	2,222		2,222	75	yes	2,490
Delaware	0	3,343	6,490	9,833	515	70	585	820	no	yes 870
Florida	8,132	27,628		35,760	2,816		2,816	1,100	no	yes 941
Georgia	5,842	36,708		42,600	3,130	105	3,235	200	no	yes 1,000
Hawaii	325	2,039		2,364	388		388	119	yes	448 yes 848
Idaho	2,335	9,186	55	11,576	509	0	509	313	no	yes 1,929
Illinois	7,500	32,541	2,041	42,082	2,986	186	3,172	386	yes	4,700 yes 2,500
Indiana	4,725	24,950		29,675	1,733	103	1,836	265	no	yes 1,562
Iowa	3,832	21,003		24,835	1,332	52	1,384	180	no	no
Kansas	4,366	18,356	1,780	24,502	1,318	7	1,325	213	no	no
Kentucky	5,275	24,489	29,122	58,886	2,752	306	3,058	450	yes	4,907
Louisiana	3,581	19,529	15,675	38,785	2,046		2,046	626	no	yes 3,878
Maine	1,999	12,897	688	15,584	940	12	952	220	no	yes 2,300
Maryland	1,962	12,701	700	15,363	1,468		1,468	50	no	yes 280
Massachusetts	4,260	3,664	906	8,830						
Michigan	3,168	4,233		7,401	871	56	927	218	no	yes 3,000
Minnesota	7,507	21,329		28,836	1,657	74	1,731	214	no	yes 3,204
Mississippi	3,169	21,342		24,538	1,591		1,591	285	no	yes 2,392
Missouri	6,406	65,027	2,432	73,865	3,062	157	3,219	200	no	yes 739
Montana	4,760	11,677	2,503	18,940	570	14	584	144	yes	1,714 no
Nebraska	2,006	20,066		22,072	910	33	943	248	no	yes 735
Nevada	2,220	8,260	2,160	12,640	434	12	446	180	yes	1,573 yes 3,330
New Hampshire	840	7,800		8,640	771	39	810	92	no	yes 1,080
New Jersey	2,890	7,413		10,303				135	yes	1,720 no
New Mexico	4,471	16,488	7,986	28,944	1,100	40	1,140	433		
New York	9,800	32,400	0	42,200	5,340	260	5,600	190	no	yes 620
North Carolina	2,822	144,152	14,460	161,434	5,452	431	5,883	335	no	yes 1,814
North Dakota	2,880	13,140	548	16,568	364	24	388	150	yes	2,071
Ohio	6,579	35,864	0	42,443	3,200	1,200	4,400	482		no
Oklahoma	3,896	22,523		26,419	1,524	20	1,544	297	yes	3,302
Oregon	3,326	16,236		19,562	1,313	50	1,363	236	no	yes 1,223
Pennsylvania	20,000	74,000		94,000	5,886	487	6,373	130	no	yes 1,300
Rhode Island	446	2,641	13	3,100	407		407	115	no	yes 443
South Carolina	3,232	83,533		86,533	2,932	100	3,032	500	no	yes 1,500
South Dakota	3,073	14,651	678	18,402	510	40	550	256	yes	3,068
Tennessee	4,946	27,622		32,568	1,928		1,928	338	yes	8,000
Texas	21,219	105,254		180,000	6,175	609	6,784	630	no	no
Utah	4,155	10,454		14,609	520	30	550	180	yes	2,400
Vermont	1,606	4,597		6,203	497	20	517	160	no	yes 1,550
Virginia	4,622	110,474		115,096	4,876	400	5,276	480	no	yes 1,802
Washington	5,512	11,396		16,908	947	81	1,028	150	no	yes 2,800
West Virginia	2,865	45,592		48,457	2,657		2,657	598	yes	4,405 yes 4,405
Wisconsin	4,136	22,065		26,201	284	0	284		no	yes 655
Wyoming	3,784	11,963	425	16,172	565	50	615	269	no	yes 3,234

(Lane Miles Per Crew cont'd)																	Contract Maintenance Work		State
Equipment Management System																			
(33c)	(34)	(35)	(36a)	(36b)	(36c)	(36d)	(36e)	(36f)	(37)	(37a)	(37b)	(37c)	(37d)	(37e)	(37f)	(38)	(39)		
yes	3,200	no	yes													yes		Alabama	
yes	4,000	yes		X	X			X	X	no				X	X	yes	20	Alaska	
yes	1,500	yes		X	X	X	X	X		yes	X	X	X	X		yes	50	Arizona	
yes	6,800	yes		X	X	X	X	X	X	yes	X	X	X			yes	2.0	Arkansas	
yes	3,012	yes			X			X	X	yes					X	yes	13.8	California	
		yes		X	X	X		X	X	yes					X	yes	4	Colorado	
		yes		X	X	X	X	X	X	no						yes	5.0	Connecticut	
no		yes		X			X	X	X	no						yes	5.0	Delaware	
yes	3,973	yes			X	X	X	X	X	yes	X	X	X	X	X	yes	17	Florida	
yes	4,200	yes		X	X	X	X	X	X	yes	X		X		X	no		Georgia	
yes	556	no	yes							no						yes	5	Hawaii	
yes	2,315	yes		X	X	X		X	X	yes					X	yes	30	Idaho	
yes	2,500	yes						X	X	yes	X		X		X	yes	18	Illinois	
yes	1,484	yes		X	X	X	X	X	X	no						yes	48.3	Indiana	
yes	4,139	no	yes							yes	X		X		X	yes	16.8	Iowa	
yes	4,084	yes		X	X				X	no						yes	10	Kansas	
		yes		X	X	X	X	X	X							yes	12	Kentucky	
yes	4,848	yes		X	X	X	X	X	X	yes	X				X	yes	15.0	Louisiana	
yes	2,650	yes		X	X		X	X		yes	X	X	X			yes	10	Maine	
yes	620	yes						X		no						yes	16	Maryland	
		yes		X						no						yes		Massachusetts	
yes	1,500	no	yes							yes	X		X		X	yes	73	Michigan	
yes	2,621	yes						X		yes	X	X	X		X	yes	7	Minnesota	
yes	4,089	no	yes							yes	X	X	X		X	yes	25	Mississippi	
yes	4,900	no	yes							yes	X		X		X	yes	10.0	Missouri	
yes	1,714	yes		X	X	X		X	X	no						yes	2	Montana	
yes	3,151	no	yes							yes					X	yes	8	Nebraska	
yes	3,330	yes		X				X	X	yes	X		X		X	yes	12.1	Nevada	
yes	1,432	no	yes													yes	11.0	New Hampshire	
no		yes		X	X	X	X	X	X	yes	X		X		X	yes	30	New Jersey	
		yes		X	X			X	X	yes	X		X		X	yes	24	New Mexico	
yes	1,900	yes		X	X		X	X	X	yes	X		X		X	yes	10	New York	
yes	9,068	yes			X	X	X	X	X	yes	X		X		X	yes	21	North Carolina	
		yes		X	X	X	X	X	X	yes	X		X		X	yes	12	North Dakota	
no		yes	yes	X	X		X	X	X	no						yes	23	Ohio	
		yes		X				X	X	yes	X		X		X	yes	65.0	Oklahoma	
yes	3,912	no	no							yes	X		X	X	X	yes		Oregon	
yes	8,545	yes		X	X	X	X	X	X	no						yes	40	Pennsylvania	
yes	3,100	yes		X	X	X	X	X	X	no						yes	6.0	Rhode Island	
yes	5,000	no	yes							no						yes	35	South Carolina	
		yes		X	X			X	X	yes	X		X		X	yes	20	South Dakota	
		no	yes							yes	X		X			yes	35	Tennessee	
yes	6,000	yes								yes	X		X		X	yes	35	Texas	
		yes		X	X		X	X	X	yes					X	yes	21	Utah	
yes	2,250	yes		X			X	X		no						yes	2.0	Vermont	
yes	4,500	yes		X	X	X		X	X	yes	X		X		X	yes	50.0	Virginia	
yes	2,800	yes		X	X	X	X	X	X	yes	X	X	X	X	X	yes	10.0	Washington	
no		yes		X				X		yes	X				X	yes	5	West Virginia	
yes	1,640	no	no							yes	X	X	X		X	yes	20	Wisconsin	
yes	1,617	yes						X	X	yes	X		X		X	yes	33	Wyoming	