

331

TRANSPORTATION  
RESEARCH

Number 331, March 1988

# *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 43rd 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 10 years.

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

mode

1 highway transportation

subject areas

11 administration

40 maintenance

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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 advance in 1977/1987 and 1986/1987 percentage increases. A comparison of the last three years' percentage increases shows the salary scales are on the upswing again. In 1985, there was an average one-year increase of 8.3 percent. Last year, 1987, the one-year increase dropped to 3.8 percent. The figures for 1987 indicate a slight improvement of the average one-year increase to 4.1 percent.

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 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. However, a comparison with the 1986 averages indicates the North Atlantic States are narrowing the differences.

JOB TITLE	AVERAGE MAXIMUM SALARY (\$MO.)				
	North Atlantic States	South Eastern States	Mississippi Valley States	Western States	All States
State Maintenance Engineer	4747	4612	4535	4828	4680
District Engineer	4542	4693	4465	5063	4692
Area Supervisor	2453	2391	2667	3092	2682
Laborer	1378	1246	1480	1754	1483
Mechanic	1838	1890	1957	2278	2006
Equipment Operator II	1519	1605	1747	1869	1696
Traffic Signal & Light Frmn	2147	2457	2543	2661	2384
Traffic Signal & Light Tech	2062	2094	2101	2375	2167

## 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

Except for six states, all states have a civil service, merit system or other comparable plan for all or part of their employees. North Dakota is the latest state to adopt a merit system.

### 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.

Based on the responses received from the states, the personnel policy that had the most dramatic change over this past year regarded compulsory retirement age. Eleven more states have lifted their compulsory retirement age. There are now 38 states without a compulsory retirement age. The compulsory retirement age is 70 in eleven states and 72 in one state. The retirement age is established by statute in eight states and by policy in four states.

Forty-nine of the states indicate voluntary retirement is possible at an earlier age after a prescribed number of years. Eighteen states reported a minimum of ten years of service for voluntary retirement. Fourteen 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 six states had a minimum retirement age of 50. Many states' retirement age depends on the number of years of service.

### Vacation and Sick Leave

All states reported that permanent employees are granted vacation and sick leave. The minimum or starting basis on vacations ranges from 75 to 168 hours per year. Vacation time is cumulative in all states, and the maximum time that may be carried over into a new year varies from 35 hours to 720 hours, with four states reporting no limit on the amount of vacation that may be accumulated.

### 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 26 of these wholly state financed. The plan is mandatory in 20 states.

In 30 states, all or part of the maintenance and operations personnel are protected against lawsuits by a state-financed liability plan.



### Unionization

As per the last few years, there remain only 16 states where supervisory employees have collective bargaining rights, and the collective bargaining rights for nonsupervisory employees remain at 28 states.

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

### Service Awards

There was a shifting of policy in several states regarding the presentation of service awards for recognition of employees' years of service. However, on the whole, 46 of the states do issue some form of award. This is an increase of one state from last year's report.

### Working Hours and Conditions

Eleven states pay all their employees on an hourly basis, while 12 states pay everyone a salary rate. A further breakdown indicates that nonsupervisory personnel in 28 states are paid at a salary rate, and in 22 states they are paid at an hourly rate. Supervisory personnel on the other hand are paid an hourly rate in 12 states and a salary rate in 38 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 hours worked by their permanent field employees. Forty-eight of the 50 states reported that their nonsupervisory employees receive at least time-and-a-half for their overtime hours. In direct comparison, only 18 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. All of the 49 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-three states provide protective clothing for specialized operations, while only 26 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 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, while 26 states pay a standard per diem. Lodging costs for employees spending the night away from home are divided into three forms of payment: 22 states pay actual costs with a fixed maximum; 13 states pay the actual costs; and 15 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. Ten 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 24 states. In 45 of the states, the maintenance and replacement of all signs is under the jurisdiction of the highway departments. In 43 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 15 states have reduced their permanent staff. Some of these states have minimized the effects of this reduction by increasing their temporary staffs. Still, in total, 11 of the 50 states had a smaller total staff in 1987 than in 1986.

#### Basis of Crew Operations

The average number of lane miles handled by a general maintenance crew working out of one location varies from 31 to 820.

Fifteen states report that the same crew handles traffic signs and striping with the lane miles handled by each crew varying from 270 to 8,000.

Forty states have special crews for striping, with the lane miles covered by each crew varying from 556 to 9,651 miles.

#### Equipment Management System

Thirty-five states reported they have implemented an equipment management system. An additional 12 states indicate they intend to implement such a system in the future.

#### Maintenance Work Done By Contract

This category was only added to the report in 1986. Already, it indicates that 46 of the 50 states utilize outside contracted forces to handle some of its maintenance operations. This is an increase of eight states in one year. The percentage of work covered by these outside agencies varies from two percent to 73 percent of the maintenance budget.

## 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.
10.	<u>Laborer</u> - One who performs manual labor.

Title  
No.

Title and Description

11. Skilled Craftsman - One who through special training or experience, has become proficient in a trade such as a carpenter, painter, mason, plumber, etc.
12. Shop Superintendent- One who is responsible for the operation of a central garage and the supervision of major overhaul and repair of equipment.
13. Garage or Shop Foreman - One who is responsible for the operation of a garage and the supervision of the maintenance and repair of equipment.
14. Mechanic - One who under direct supervision, maintains and repairs all types of automotive equipment.
15. Mechanic Helper - One who assists the mechanic in the maintenance and repair of all automotive equipment.
16. Equipment Operator I - Operator of light trucks, mowers, patching rollers, etc.
17. Equipment Operator II - Operator of heavy trucks, light graders, and rollers used on resurfacing projects.
18. Equipment Operator III - Operator of specialized equipment such as cranes, shovels, heavy graders, paving machines, etc.
19. Timekeeper or Clerk - 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. State Traffic Engineer - One in an executive capacity who supervises all activities related to traffic operations of the State Highway and Transportation Department.
21. Assistant State Traffic Engineer - One who assists the State Traffic Engineer in the work of supervising traffic operations.
22. State Traffic Maintenance Engineer - One in an administrative capacity who programs and implements all phases of maintenance for traffic control activities under the supervision of the State Maintenance Engineer.
23. District Traffic Engineer - 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. Assistant District Traffic Engineer - One who assists the District Traffic Engineer in the work of supervising traffic operations within a district.
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.

Title No.	Title and Description
27.	<u>Sign Shop Foreman</u> - One who directs a crew of men in the activity of fabricating traffic signs.
28.	<u>Traffic Signal &amp; Lighting Foreman</u> - One who directs a crew of men in activities related to the operations and maintenance of traffic signals and lighting.
29.	<u>Striper Foreman</u> - One who directs a crew of men in activities related to pavement markings.
30.	<u>Sign Erection Foreman</u> - One who directs a crew of men in activities related to the erection and maintenance of all traffic signs.
31.	<u>Sign Fabricator</u> - One who specializes in the fabrication of traffic signs.
32.	<u>Sign Technician</u> - One who operates equipment and supervises laborers for all activities associated with signing both fabrication and erection.
33.	<u>Traffic Signal &amp; Lighting Technician</u> - One who works in a technical capacity for operating and maintaining traffic signal equipment and highway lighting.
34.	<u>Striper Technician</u> - 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 Operation."

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SULLIVAN, John W., Maintenance Engineer, Oregon Department of Transportation

MAINTENANCE AND TRAFFIC OPERATIONS PERSONNEL TITLES  
USED BY STATE HIGHWAY DEPARTMENTS (as of July 1, 1987)

MAINTENANCE PERSONNEL:

	(1) State	(2) Assistant State	(3) District	(4) District
State	Maintenance Engineer	Maintenance Engineer	District Engineer	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 Oper Engineer	:District Engineer	:Dept Dist Engr CE IV
Arkansas	:State Mtce Engineer	:Asst State Mtce Engr	:District Engineer	:Dist Mtce Supt
California	:Chief, Div of Mtce	: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 Oper&Plan Mgr	:Dist Mtce Mgr	:
Delaware	:State Mtce Engineer	:	:Dist Hwy Engineer	:Dist Mtce Engr
Florida	:State Mtce Engineer	:Engr of Mtce Oper	: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 & Oper	:Hwy Mtce Engineer	:Division Engineer	:
Maryland	:Chief Engr	:Dep Chief Engr, Mtce	: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	:Engineer VII	:Mtce Oper Manager	:Hwy Dist Engineer	:Hwy Mtce Dist Supt
Nevada	:Chief Mtce Engineer	:Asst Chief Mtce Engr	:District Engineer	:Asst District Engr
New Hampshire	:State Mtce Engineer	:Asst Mtce Engineer	:Highway Dist Engr	:
New Jersey	:Chief Bur of Mtce	:Project Engr,Mtce	:Regional Engr Transp	:Regional Mtce Engr
New Mexico	:Director of Oper	: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	:State Mtce Engineer	:Asst State Mtce Engr	:District Engineer	:Asst Dist Engr
Ohio	:Engineer of Mtce	:Maintenance Engr 2	:Dist Deputy Dir	:Dist Oper Engineer
Oklahoma	:State Mtce Engineer	:Asst State Mtce Engr	:Division Engineer	:Div Mtce Engineer
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 Oper Engineer	:Regional Manager	:
Tennessee	:Civil Engr Dir	:Civil Engr Mgr 2	:Civil Engr Dir	:Civil Engr Mgr 2
Texas	:Chief Engr Safety &	:Engineer Safety&Oper	:District Engineer	:Dist Mtce Engr
	:Mtce Operations	:	:	:
Utah	:Civil Engr 33	:	:Dist Director	:Civil Engr 29
Vermont	:Dir of Maintenance	:Chief/Mtce Support	:	:Dist Transp. Admin
	:	:Chief/Tech Services	:	:
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)	
Asst. Dist	Resident			
Maintenance Engr	:Maintenance Engr	:Area Supervisor	:Gang Foreman	:State
Asst Div Mtce Engr	:District Engineer	:Highway Supt	:Inc. 16, 17, 18	:Alabama
Mtce Mgr III	:Mtce Mgr II	:Mtce Supt I & II	:Mtce Leader III	:Alaska
Area Engr	:	:Area Supervisor	:Hwy Mtce Supv	:Arizona
Ast Dist Mtce Supt	:	:Area Foreman	:Mtce Job Supt	:Arkansas
Ast Dist Mtce Engr	:Region Supt	:Area Supt	:Supervisor	:California
Asst Hwy Mtce Supt	:	:Senior Hwy Supv	:Hwy Supv	:Colorado
Mtce Opers Supt	:	:Area Supv	:Gang Foreman	:Connecticut
Hwy Mtce Opers Mgr	:	:Mtce Tech V & IV	:Mech Tech	:
	:	:Equip Oper IV	:	:Delaware
Asst Dist Mtce Engr	:Mtce Engr	:Incl in #6	:Hwy Mtce Tech Supv	:Florida
Asst Dist Mtce Engr	:Area Engr	:	:Hwy Mtce Foreman II	:Georgia
	:	:Const&Mtce Supt VI	:Hwy Const&Mtce Supv	:Hawaii
	:	:Transp Mtce Foreman	:	:Idaho
	:Dist Field Engr	:	:Hwy Mtce Lead Wkr	:Illinois
Dist Mtce Op Engr	:Subdistrict Supt	:General Foreman	:Unit Foreman	:Indiana
	:Resident Mtce Engr	:Hwy Mtce Supt 1,2,3	:Hwy Mtce Supt 2&3	:Iowa
	:Area Engineer	:Dist & Area Supt	:Dist & Area Supv	:Kansas
Dist Mtce Engr	:	:	:Hwy County Foreman	:Kentucky
Dist Engr Supv 2	:	:Hwy Mtce Supt	:Foreman I,II,III	:Louisiana
	:	:	:	:
	:	:Hwy Dist Supv	:Highway Foreman	:Maine
Asst Dist Engr,Mtce	:Resident Mtce Engr	:Hwy Mtce Supv	:	:Maryland
Asst Dist Mtce Engr	:	:Hwy Mtce Foreman	:Hwy Repair Foreman	:Massachusetts
Asst Dist Mtce Engr	:	:Area Supt	:Garage Foreman	:Michigan
Mtce Opers Engr	:Incl 4 & 5	:Bridge Supv	:Bridge & Mtce Supv	:Minnesota
	:	:Hwy Mtce Supt II	:Hwy Mtce Supv II	:Mississippi
Maintenance Supt	:	:Mtce Area Supv	:Special Mtce Frm	:Missouri
	:	:Mtce Supt	:	:Montana
	:	:Hwy Mtce Supt	:Hwy Mtce Supv	:Nebraska
Dist Mtce Supt	:Dist Mtce Engr	:Mtce Supv 3	:Mtce Supv 2	:Nevada
Asst Dist Engineer	:Mtce Supervisor	:Mtce Supt	:Const Foreman	:New Hampshire
Proj Engr, Mtce	:Reg Mtce Supv	:Area Supervisor	:Crew Supervisor	:New Jersey
Dist Tech Sup Engr	:	:Area Mtce Supt	:Hwy Mtce SupvI,II,III	:New Mexico
	:	:	:	:
Ast Rg Hwy Mtce Engr	:Resident Engineer	:Hwy Mtce Supv II	:Bridge Rpr Supv II	:New York
District Engineer	:Hwy Mtce Engr	:Rd Mtce&Landscape Supv	:Mtce Crew Ldr II	:North Carolina
Hwy Mtce Supt	:	:	:Hwy Mtce Foreman	:North Dakota
Dist Mtce Engr	:Hwy Mtce Supt 3	:County Supv	:Hwy Wkr Supv	:Ohio
Field Mtce Engr	:	:Transp Mtce Supt	:Transp Mtce Supv	:Oklahoma
Region 1 Oper Engr	:District Mtce Supv	:Inc in Title 6	:Maintenance Supv	:Oregon
C E 3,Hwy Mtce Mgr 3	:	:Hwy Mtce Mgr 2,3,4	:Hwy Foreman 1,2,3	:Pennsylvania
	:Sr Civil Engr	:Hwy Mtce Supv	:Road Mtce Supv	:Rhode Island
	:Resident Mtce Engr	:Res Mtce Frm	:Sr Hwy Mtce Frm	:South Carolina
	:Oper Engr, Area Engr	:Mtce Coordinator	:	:South Dakota
Civil Engr Supv II	:Hwy Mtce Supv II	:Hwy Mtce Supv I	:Hwy Mtce Wkr III	:Tennessee
Asst Dist Mtce Engr	:Resident Engr	:Mtce Const Supt II	:Rdwy Mtce Supv 3,4,5	:Texas
	:	:	:	:
	:	:Dist Mtce Supv	:Hwy Opers Supv	:Utah
Trans Tech D	:	:Trans Mtce Gen Supv	:Trans Area Mtce Supv	:Vermont
	:	:	:	:
Resident Engr	:Residency Mtce Supv	:Hwy Mtce Supt B	:Highway Foreman	:Virginia
Asst Dist Mtce Engr	:	:Highway Supt	:Mtce Supervisor	:Washington
Mtce Assts	:Area Engineer	:County Mtce Supt	:Mtce Crew Supv	:West Virginia
Asst Dist Mtce Engr	:	:Patrol Supt	:(County)	:Wisconsin
	:	:Hwy Mtce Area Supv	:Area Crew Leader	:Wyoming



MAINTENANCE AND TRAFFIC OPERATIONS PERSONNEL TITLES  
USED BY STATE HIGHWAY DEPARTMENTS (as of July 1, 1987)

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 Mtce Wkr 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	:	: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	:Mtce Wkr III,Wk 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	:Auto Shop Suv
	:	:Bridge Tender	:Painter Carp et al	:Equip Specialist
Maine	:Crew Leader	:Hwy Worker I	:Mach Elec Carp	:Equip Supt
	:	:	:& Other Trades	:
Maryland	:Supv Road Mtce	:Highway Worker	:	:Dist Equip Supv
Massachusetts	:Hwy Repir Wkr Frm	:Laborer	:Br Painter Welder :Carpenter	:Supt of Shop & :Equip
	:	:	:Bridge Wkr IIIB,IV,V	:Equip Supt
Michigan	:Lead Worker	:Laborer IB	:	: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	:	:	: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
	:	:Mtce Worker I&II	:	:
New York	:Hwy Mtce Supv I	:Laborer	:Sign Shop Painter :Sign Shop Metal Wkr	:Regional Equip Mgr
	:	:	:Mtce Mech I,II	:
North Carolina	:Incl 8	:Hwy Mtce Worker	:	: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	:	:	:Mtce Repair Tech	:Auto Shop Supt
Oregon	:Hwy Mtce Frm I	:Laborer	:Elect or Carpenter	:Equip Rpr Shop Supv
Pennsylvania	:	:Hwy Mtce Wkr	:Welder Carpenter	:
	:	: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	:	:
South Dakota	:Hwy Mtce Frm	:	:	:
Tennessee	:Hwy Mtce Wkr II	:Hwy Mtce Wkr I	:Elect I Carp I&II	:Equip Mtce Supv II
Texas	:Mtce Tech 3	:Mtce Tech 2	:Mtce Tech 3	:Rdwy Mtce Supt 2
Utah	:Section Supv	:Hwy Oper Wkr	:Carp/Plumber	:Shop Manager
	:	:	:	:
Vermont	:Trans Mtce Wkr B	:Trans Mtce Wrk 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 III
Wisconsin	:(County)	:(County)	:(County)	:(County)
Wyoming	:	:Hwy Mtce Wkr I	:	:Dist Equip Supv

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

MAINTENANCE AND TRAFFIC OPERATIONS PERSONNEL TITLES  
USED BY STATE HIGHWAY DEPARTMENT (as of July 1, 1987)

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	:Chief, Div Traf
	:	:	:	:Engineer & Oper
Colorado	:	:Heavy Equip 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. Hwy Equip Oper	:Clerk II, IV, V	:Chief Traffic Opers
Georgia	:Equip Operator II, III	:Mtce Equip Oper &	:Clerk Sr. of Mtce	:St Traf&Sfty Engr
	:	:Equip Oper IV	: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	:Equip Operator II	:Equip Operator III	: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	:	:Mtce Equip Oper	:Timekeeper	: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	:Engineer VII
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	:	:Ch, Bur of Traf 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, Traffic&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	:Sr Transp Mtce Wkr	:Transp Field Clerk	:Division Engr
Oregon	:Hwy Mtce Wkr 3	:Hwy Mtce Wkr 4	:Hwy Mtce Office Mgr	: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 Opers Engr
	:	:	:Office Supervisor	:Traf Design Engr
Tennessee	:Incl in Title 9	:Hwy Mtce Wkr III	:Account Clerk	:Civil Engr Mgr II
Texas	:Mtce Tech 3	:Incl in #17	:Admin Secy 3	: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)	:Chief Traffic Engr
Wyoming	:Hwy Mtce Equip Oper	:Hwy Mtce Hvy Eq Oper	:	:St Traf Engr, Oper

(21)	(22)	(23)	(24)	
Asst State Traf Engr	:St Traf Mtce Engr	:Dist Traf Engr	:Asst Dist Traf Engr	:State
	:Traffic Engr (Oper)	:Div. Traf Engineer	:	:Alabama
	:	:Reg Traffic Engr	:Engr Asst III	:Alaska
Traffic Engr Manager	:Signing&Striping Mgr	:Dist Traf Engr	:Traf Branch Mgr	:Arizona
Asst Div Head, Traf	:	:	:	:Arkansas
Chief, Traffic Engr	:	:Dist Traffic Engr	:Asst Dist Traf Engr	:California
Chief, Transp Oper	:	:	:	:
Asst Staff Traf Engr	:	:Sr Hwy Engineer	:	:Colorado
Chief of Traf Engr	:Transp Engr of Traf	:Transp Asst Engr	:Dist Serv Agent II	:Connecticut
	:	:Dist Traf Engr	:Asst Dist Traf Engr	:Delaware
Asst State Traf Engr	:	:Dist Traf Oper Engr	:Asst Dist Traf Op Engr	:Florida
Asst State Traf &	:	:Dist Traff & Safety	:Asst Dist Traf &	:Georgia
Safety Engr	:	:Engineer	:Safety Engr	:
Asst Traffic Engr	:	:	:	:Hawaii
Asst Traf Engr	:	:Dist Traffic Engr/Ch	:	:Idaho
Traffic Oper Engr	:	:Dist Traffic Engineer	:Dist Oper&Plan Engr,	:Illinois
	:	:	:Design	:
Engr of Traf Dev	:Engr of Traf Oper	:Dist Traf Engr	:Asst Dist Traf Engr	:Indiana
	:	:	:	:Iowa
	:	:	:	:Kansas
Engr Branch Mgr, Traf	:	:Engr Branch Mgr, Traf	:Traffic Engineer	:Kentucky
Staff Engr Admin I	:Staff Engr Admin I	:Dist Engr Mgr I	:Dist Engr Supv I	:Louisiana
Traf Oper Engr et al	:	:	:	:
Asst Traffic Engr	:	:Div Traf Engr	:	:Maine
	:Ch, Bur of Traf Oper	:	:Asst Dist Traf Engr	:Maryland
Asst St Traf Engr	:Traf Mtce Engineer	:Dist Traffic Engr	:Asst Dist Traf Engr	:Massachusetts
Asst Engr,Traf&Safety	:Field Admn Engineer	:Dist Oper Engr	:Asst Dist Traf Engr	:Michigan
Asst Traffic Engr	:Incl Title 20	:Dist Traffic Engr	:Asst Dist Traf Engr	:Minnesota
Asst Traf Control &	:	:Area Traffic Engr	:	:Mississippi
Safety Engineer	:	:	:	:
Asst Div. Engr,Traf	:	:Traffic Engineer	:Dist Traf Studies Engr	:Missouri
Asst Mgr, Traf Unit	:	:Engr Traffic II	:	:Montana
	:	:	:	:Nebraska
	:	:Dist Traf Engr	:	:Nevada
Traf Systems Engr	:Traffic Oper Engr	:	:	:New Hampshire
	:	:Proj Engr, Traffic	:Principal Engr, Traf	:New Jersey
Asst Traf Serv Engr	:	:Dist Traffic Engr	:	:New Mexico
Dir-Operations	:	:Reg Traff&Safety Engr	:Asst Reg Traf Engr	:New York
Asst Traffic Engr	:Asst Traffic Engr	:Division Traf Engr	:	:North Carolina
Tech Oper	:Field Oper	:	:	:
	:	:	:	:North Dakota
	:	:	:	:
Staff Traffic Engr	:Staff Traf Engr	:Traffic Engr I	:Proj Engr 3	:Ohio
Asst Division Engr	:	:Engineering Mgr	:Transp Spec III	:Oklahoma
Traf Control Engr	:Incl in Title 2	:Incl in Title 3	:Reg Traf Oper Supv	:Oregon
Civil Engr 4	:	:Civil Engr 4 or 5	:Civil Engineer 3	:Pennsylvania
	:	:Traf Control Spec Mgr	:Traf Control Spec Supt:	:
Chf, Traf Mtce Supv	:Hwy Mtce Supv Traf	:	:	:Rhode Island
Asst State Traf Engr	:	:Dist Traf Engr	:	:South Carolina
	:	:	:	:
	:	:Reg Traffic Engr	:	:South Dakota
	:	:	:	:
	:Civil Engr Spec II	:Civil Engr Spec II	:Civil Engr Spec I	:Tennessee
Asst Oper Engr	:Engr By Mtce	:Dist Traf Engr	:Asst Dist Traf Engr	:Texas
	:	:Civil Engr 2	:	:Utah
	:Incl Title 2	:	:	:Vermont
Hwy Div Asst Admin	:	:Engr Programs Supv	:	:Virginia
Asst St Traf Engr	:	:Dist Traffic Engr	:Asst Dist Traf Engr	:Washington
Asst Dir, Traf Engr	:	:	:	:West Virginia
Division	:	:	:	:
Traf Cntl Oper Engr	:	:Dist Chief Traf Engr	:	:Wisconsin
Traf Staff Engr	:	:Dist Traffic Engr	:	:Wyoming

MAINTENANCE AND TRAFFIC OPERATIONS PERSONNEL TITLES  
USED BY STATE HIGHWAY DEPARTMENTS (as of July 1, 1987)

TRAFFIC OPERATION PERSONNEL (con't.)

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

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

MAINTENANCE AND TRAFFIC OPERATION PERSONNEL TITLES  
USED BY STATE HIGHWAY DEPARTMENTS (as of July 1, 1987)

TRAFFIC OPERATION PERSONNEL (Con't)

	(33)	(34)	(35)	(36)
State	:Traf Signal&Light Tech	:Striper Technician	:Chief Engineer	:Project Engineer
Alabama	:Traf Sign TechI,II,III:	:	:Chief Engineer	:Civil EngrI,II,III
Alaska	:	:	:	:Civil Engr IorII
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 IorII	:Leadworker Hwy Eq Oper:	:Deputy Director	:Resident Engineer
Colorado	:Traf Sig Electrician	:	:Chief Engineer	:Project Engineer
Connecticut	:Electrical Tech II	: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	:Digital Equip Spec	: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	:Hvy Equip Oper	:State Hwy Engr	:Resident Const Engr
Louisiana	:Statewide Elect	:Equip Oper I	:Chief Engineer	:Project Engr
Maine	:Traf Signal&Light Tech	:	:Dir Proj Development	:
Maryland	:Traf Cont Tech I,II,III :	:	:Chief Engineer	:
Massachusetts	:Traf Electrician	:	:Chief Engineer	:Resident 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 etal
Mississippi	:Traf Signal Tech	:	: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 TechI,II,III	:Incl Titles 17&18	:Secy, Hwy&Trans Dept	:Hwy Const Proj Mgr
	:	:	:	:I, II, III
New York	:Traf Signal Mech	:	:	:
North Carolina	:Traf Control Tech	:Machine Oper III	:Chief Engr, Oper	:Resident Engr
North Dakota	:	:	:Chief Engineer	:Project Coordinator
Ohio	:Signal Electrician 2	:Route Marker 2	:Asst Director	:Project Engineer 2
Oklahoma	:	:Trans Mtce 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 1,2,or3	:Chief Engineer	:Civil Engr 2 or 3
	: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	:	:	:Dir of Engineering	:Project Engineer
Tennessee	:	:Mtce Worker I	:Dep Comm II,St Trans	:Civil Engr II
	:	:	:Engineer	:Engineering Tech 2
Texas	:Engr Tech	:Mtce Tech	:Dep Dir Design&Const	:Engineer
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 TechI,II,III	:Mtce Tech III	:Dep Sec of Transp	:Project Engineer
West Virginia	:Electronic Tech	:Center Line Mach Oper :	:	:
Wisconsin	:Traf Signal 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, 1987)

**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	4730	4730	3	3517	3884	9	4076	4730	9	3343	3884
Alaska	1	4663	6409	-	-	-	3	5358	8750	3	5209	8277
Arizona	1	3422	5105	1	3123	4659	4	3422	5105	4	3123	4659
Arkansas	1	-	4492	1	3495	4102	10	-	4347	10	3257	4011
California	1	4899	5391	4	4154	5019	11	4054	5653	14	3420	5019
Colorado	1	3557	4767	1	3227	4324	11	3557	4767	8	3227	4324
Connecticut	1	3775	5097	1	3490	4712	4	3226	4357	-	-	-
Delaware	1	2978	4964	-	-	-	3	2978	4964	2	2784	4639
Florida	1	3417	5417	4	3206	5517	6	4167	6666	6	3206	5517
Georgia	1	3015	4869	1	2543	4085	7	3015	4869	7	2333	4085
Hawaii	1	3048	4799	1	2910	4593	4	2910	4593	2	2216	3778
Idaho	1	3489	5158	1	2603	3848	6	3489	5158	6	2603	3848
Illinois	1	3455	4990	3	3200	4625	9	3455	4990	9	2975	4365
Indiana	1	2461	3796	-	-	-	6	2461	3796	6	2058	3072
Iowa	1	3623	4580	1	2863	3623	6	3623	4580	6	2733	3456
Kansas	1	3420	4582	1	2813	3770	6	3101	4156	6	2813	3770
Kentucky	1	2488	3984	2	2256	3614	12	2743	4166	12	2256	3614
Louisiana	1	2859	4145	11	1603	3528	9	3153	4145	9	2754	3528
Maine	1	2858	4006	1	2291	3198	7	2605	3647	-	-	-
Maryland	1	4833	4833	1	3506	4605	7	3506	4605	-	-	-
Massachusetts	1	3540	4433	1	3438	4590	8	3847	4834	8	3174	4241
Michigan	1	3823	5112	1	3529	4728	9	3172	4376	9	2958	4051
Minnesota	1	3830	5084	4	2899	4409	9	3569	4735	15	3314	4409
Mississippi	1	2734	4096	1	2511	3762	6	2875	4304	6	2511	3762
Missouri	1	3912	4691	1	2826	3732	10	3538	4420	10	2531	3466
Montana	1	2677	3601	1	2328	3215	5	2677	3601	11	2328	3215
Nebraska	1	2976	4166	1	2395	3353	8	2976	4166	8	2228	3119
Nevada	1	2893	3977	1	2647	3629	3	2893	3977	3	2647	3629
New Hampshire	1	3024	3641	1	2523	3009	6	2637	3144	-	-	-
New Jersey	1	3339	4674	7	2747	3846	4	3681	5153	4	3339	4674
New Mexico	1	3062	4629	1	2917	4629	6	2917	4629	6	2648	4410
New York	1	5728	7103	1	4217	5331	11	5728	7103	11	4217	5331
North Carolina	1	3400	5317	1	3103	4836	14	3103	4836	14	2703	4200
North Dakota	1	2648	3945	1	2288	3416	8	2648	3945	8	2648	3945
Ohio	2	2356	4532	1	3111	4078	12	3068	4532	12	2825	3702
Oklahoma	1	3519	4699	1	3273	4369	8	3892	4931	8	2702	3604
Oregon	1	3449	4404	2	3129	3992	5	3129	4404	5	2699	3449
Pennsylvania	1	3501	4717	1	2823	3809	11	3656	4919	11	3089	4145
Rhode Island	1	3120	3620	1	2560	2920	1	2379	2696	1	1565	1776
South Carolina	1	3226	4610	2	2758	3909	7	2983	4261	7	2451	3475
South Dakota	1	2808	4212	1	2347	3519	4	3073	4609	-	-	-
Tennessee	1	2720	4042	1	2491	3702	4	2720	4042	4	2491	3702
Texas	1	4532	4532	1	4420	4420	24	4420	4661	24	2648	3931
Utah	1	3042	4442	-	-	-	6	3042	4442	6	2459	3586
Vermont	1	3511	5129	2	2376	3463	-	-	-	9	2874	4196
Virginia	1	3256	4447	3	2724	3721	9	3559	4862	9	2724	3721
Washington	1	3925	5025	1	3222	4124	6	3925	5279	6	3222	4124
West Virginia	1	3047	4568	4	2645	4560	10	2827	4560	10	2463	4206
Wisconsin	1	3677	5110	4	3096	4305	8	3677	5110	8	3096	4305
Wyoming	1	3345	5347	-	-	-	5	3345	5347	5	2882	4610
1987 Average			4608			4068			4692			4063
1977 Average			2624			2556			2567			2175
% Increase 1977-1987			75.6%			59.2%			83.0%			86.8%
% Increase 1986-1987			2.3%			4.4%			4.2%			3.0%



## MONTHLY SALARIES OF HIGHWAY PERSONNEL

(as of July 1, 1987)

## 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	1640	2548	41	2310	3516	41	1312	1996	-	-	-
Alaska	2	4101	6395	2	3590	5764	8	3140	5561	10	3070	4341
Arizona	10	2849	4250	-	-	-	9	2165	3229	55	1940	2894
Arkansas	10	2559	3458	-	-	-	83	2210	3055	32	2210	3055
California	20	3420	4564	40	3114	3760	144	2465	3420	502	2147	2584
Colorado	5	2788	3735	-	-	-	36	2409	3227	43	2081	2788
Connecticut	12	2983	4028	-	-	-	61	2051	2457	-	-	-
Delaware	-	-	-	-	-	-	15	1415	2358	14	1236	2060
Florida	6	2484	5157	25	2484	5157	-	-	-	23	1507	2485
Georgia	7	2147	3427	42	1973	3147	-	-	-	298	1429	2238
Hawaii	-	-	-	-	-	-	3	2088	3442	20	1773	2254
Idaho	-	-	-	-	-	-	49	1678	2479	-	-	-
Illinois	-	-	-	35	2745	4040	-	-	-	278	2352	2377
Indiana	6	1826	2702	37	1800	2342	37	1542	2004	150	1309	1700
Iowa	-	-	-	24	2487	3146	123	1879	2487	22	1969	2733
Kansas	-	-	-	26	2430	3257	35	1727	2314	43	1567	2099
Kentucky	35	2046	3278	-	-	-	-	-	-	135	1384	2216
Louisiana	3	2171	3146	-	-	-	88	872	2483	163	872	2169
Maine	-	-	-	-	-	-	28	1738	2380	100	1466	1950
Maryland	7	2809	3690	23	2409	3164	31	1784	2343	-	-	-
Massachusetts	8	2941	3927	-	-	-	39	1839	2398	93	1644	2137
Michigan	4	2767	3744	-	-	-	13	2201	2918	34	2065	2699
Minnesota	5	2899	3912	-	-	-	25	2321	3396	101	2081	3040
Mississippi	-	-	-	-	-	-	23	1669	2499	79	1367	2047
Missouri	20	2239	3076	-	-	-	104	1881	2563	39	1614	2188
Montana	-	-	-	-	-	-	22	1647	2286	-	-	-
Nebraska	-	-	-	-	-	-	30	1928	2699	84	1444	2021
Nevada	6	2038	2767	3	2423	3312	10	1871	2532	58	1721	2319
New Hampshire	6	2211	2637	6	1937	2311	14	1747	2066	19	1480	1747
New Jersey	4	2747	3846	4	2152	3013	23	1859	2603	114	1686	2360
New Mexico	6	2236	3812	-	-	-	19	1675	2850	144	1255	2348
New York	11	3010	3696	68	3427	4343	227	1957	2378	25	2071	2510
North Carolina	36	2578	4009	95	2153	3325	205	1811	2767	481	1409	2108
North Dakota	8	1707	2959	-	-	-	-	-	-	6	1404	2123
Ohio	12	2568	3362	29	2119	2771	88	1922	2402	357	1430	1820
Oklahoma	8	2334	3120	-	-	-	25	2066	2768	107	1742	2334
Oregon	1	3129	3992	16	2460	3138	-	-	-	138	1654	2114
Pennsylvania	22	2367	3223	-	-	-	52	2367	3501	625	1390	1956
Rhode Island	-	-	-	5	2041	2308	7	1445	1605	27	1315	1400
South Carolina	-	-	-	47	2179	3089	21	1531	2170	200	1361	1929
South Dakota	-	-	-	16	2568	3850	8	2099	3149	-	-	-
Tennessee	12	2384	3542	22	1752	2603	44	1232	1831	109	1079	1604
Texas	24	2478	3331	139	2478	3331	139	2102	2648	422	1969	3150
Utah	-	-	-	-	-	-	7	1797	2622	20	1709	2326
Vermont	9	1867	2720	-	-	-	9	1981	2884	48	1577	2291
Virginia	46	2279	3114	52	1907	2605	290	1596	2181	646	1335	1824
Washington	6	2919	3736	-	-	-	30	2517	3222	65	1968	2517
West Virginia	10	2146	3653	26	2146	3653	55	1316	2534	28	1255	1568
Wisconsin	30	2594	4305	-	-	-	32	2008	2641	-	-	-
Wyoming	-	-	-	-	-	-	29	1672	2674	35	1515	2421
1987 Average			3625			3373			2682			2299
1977 Average			1931			1700			1412			1211
% Increase 1977-1987			87.7%			98.4%			89.9%			89.8%
% Increase 1986-1987			4.8%			4.3%			2.7%			7.0%

## MONTHLY SALARIES OF HIGHWAY PERSONNEL

(as of July 1, 1987)

## MAINTENANCE PERSONNEL

STATE	(9) Sectionman			(10) Laborer			(11) Skilled Craftsman			(12) Shop Superintendent		
	#	Min.	Max.	#	Min.	Max.	#	Min.	Max.	#	Min.	Max.
Alabama	-	-	-	635	822	1105	10	1311	1947	6	2310	3517
Alaska	50	2758	4151	10	1937	2913	5	2420	3961	3	3140	5500
Arizona	52	1533	2287	7	1168	1742	3	1464	2184	4	2165	3229
Arkansas	117	1738	2483	63	904	1393	104	1211	2483	11	2210	3055
California	695	2051	2355	1239	1723	2429	111	1792	2926	24	2768	4037
Colorado	360	1798	2409	815	1630	2185	-	-	-	8	2461	3298
Connecticut	138	1544	1887	500	1231	1444	31	1411	1734	14	1864	2249
Delaware	80	1155	1925	12	846	1283	20	1155	1925	4	1415	2358
Florida	138	1080	2278	1356	851	1648	131	1140	1956	4	1425	2341
Georgia	-	-	-	273	997	1508	45	1232	2057	8	1893	3015
Hawaii	18	1326	1786	109	1211	1336	30	1561	1761	4	1948	2166
Idaho	53	1380	2038	0	808	1193	16	1314	1941	7	1678	2479
Illinois	1678	2167	2167	-	-	-	-	-	-	-	-	-
Indiana	354	1105	1437	1156	1105	1437	-	-	-	-	-	-
Iowa	-	-	-	2	1111	1329	-	-	-	-	-	-
Kansas	115	1567	2099	6	915	1229	-	-	-	6	1727	2314
Kentucky	201	1139	1826	314	700	1120	102	937	1502	18	1384	2216
Louisiana	-	-	-	335	662	1358	59	998	2027	6	1309	2169
Maine	0	1126	1461	99	989	1270	17	1240	1619	7	1887	2496
Maryland	195	1330	1742	714	908	1291	-	-	-	7	1539	2020
Massachusetts	156	1502	1886	733	1311	1630	50	1567	2018	1	3314	3854
Michigan	34	1813	2232	28	1395	1795	37	1583	2232	1	2201	2918
Minnesota	1359	1846	2010	8	1413	2010	98	2192	2464	2	2321	3396
Mississippi	47	1236	1854	386	603	904	-	-	-	7	1612	2414
Missouri	350	1466	1980	-	-	-	-	-	-	9	1881	2563
Montana	129	1892	2061	6	1497	1576	10	1826	1922	12	1641	2485
Nebraska	-	-	-	-	-	-	-	-	-	1	1928	2699
Nevada	-	-	-	142	1350	1794	11	1585	2127	6	1871	2532
New Hampshire	93	1480	1747	279	1019	1147	98	1315	1539	1	1747	2066
New Jersey	110	1529	2142	653	983	1448	170	1140	2036	4	1859	3013
New Mexico	10	942	2032	49	675	1451	20	987	1936	6	1675	2850
New York	625	1554	1913	1550	1104	1456	130	1645	2016	10	3087	3912
North Carolina	-	-	-	1313	982	1439	734	1196	2410	14	2153	3325
North Dakota	35	1336	2023	4	968	1461	-	-	-	8	1404	2450
Ohio	12	1367	1523	1141	1251	1461	92	1501	1781	6	2119	2771
Oklahoma	-	-	-	-	-	-	5	1179	1580	7	1968	2637
Oregon	82	1622	1782	24	1039	1758	24	1844	2125	4	1879	2401
Pennsylvania	-	-	-	357	1033	1438	286	1350	1734	-	-	-
Rhode Island	3	1256	1370	179	1145	1230	10	1190	1270	1	1447	1607
South Carolina	93	1163	1649	342	575	1071	-	-	-	-	-	-
South Dakota	75	1482	2224	-	-	-	-	-	-	-	-	-
Tennessee	412	987	1469	1324	779	1179	12	987	1604	4	1406	2089
Texas	-	1394	1814	-	1035	1498	-	1394	1814	24	2478	3120
Utah	70	1709	2326	3	1028	1502	15	1516	2238	1	1797	2622
Vermont	221	1213	1758	122	1049	1517	18	1343	1948	1	2234	3255
Virginia	-	-	-	34	782	1069	36	1221	1668	11	1596	2181
Washington	149	1968	2280	3	1342	1549	18	1876	2170	6	2517	3222
West Virginia	191	1109	1470	164	926	1033	399	972	1130	14	1264	3033
Wisconsin	-	-	-	-	-	-	-	-	-	-	-	-
Wyoming	-	-	-	22	1021	1631	-	-	-	6	2362	3783
1987 Average			1997			1483			1994			2829
1977 Average			1074			714			1001			1550
% Increase 1977-1987			85.9%			91.6%			99.2%			82.5%
% Increase 1986-1987			3.3%			3.0%			4.9%			0.1%

**MONTHLY SALARIES OF HIGHWAY PERSONNEL**  
(as of July 1, 1987)

**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	7	1380	2097	86	1560	1900	13	1280	1484	440	1001	1414
Alaska	7	2758	4151	80	2420	3764	5	2051	3061	40	2420	3574
Arizona	14	1865	2783	86	1525	2275	10	1068	1593	385	1219	1818
Arkansas	11	2045	2858	98	1211	2483	11	1001	1528	518	1001	1528
California	56	2407	2903	349	2196	2407	32	1613	1758	-	-	-
Colorado	10	2126	2849	89	2126	2461	23	1667	2232	-	-	-
Connecticut	14	1544	1887	146	1411	1734	24	1302	1600	720	1302	1547
Delaware	5	1322	2204	60	881	1925	5	846	1373	119	881	1469
Florida	6	1269	2074	163	816	1285	25	1026	1844	707	851	1343
Georgia	19	1551	2654	165	1327	2436	-	-	-	991	1026	1569
Hawaii	2	1708	1708	17	1561	1611	8	1336	1336	69	1251	1336
Idaho	6	1522	2248	48	1314	1941	4	1030	1380	33	1030	1380
Illinois	-	-	-	28	2065	2193	-	-	-	376	2223	2223
Indiana	40	1543	2004	170	1105	1437	40	933	1215	-	-	-
Iowa	-	-	-	135	1562	1700	14	1505	1633	754	1279	1562
Kansas	7	1645	2204	111	1354	1999	38	915	1229	512	1010	1354
Kentucky	3	1256	2012	188	937	2012	20	700	1120	1530	772	1236
Louisiana	6	1309	2169	140	919	2027	65	762	1445	642	762	1770
Maine	14	1452	1931	123	1240	1619	10	1076	1386	341	1029	1325
Maryland	28	1429	1875	63	1330	1742	38	1023	1622	77	1023	1326
Massachusetts	11	1735	2272	11	1567	2018	-	-	-	-	-	-
Michigan	7	2065	2699	77	1813	2232	31	1455	1876	40	1455	1875
Minnesota	13	2236	3156	151	2257	2389	25	1402	2147	-	-	-
Mississippi	12	1394	2088	59	1327	1988	24	1137	1702	483	859	1287
Missouri	9	1614	2188	50	1441	1880	-	-	-	1700	1191	1546
Montana	10	1892	1992	57	1826	1922	39	1497	1714	191	1629	1714
Nebraska	8	1928	2699	67	1444	2021	50	1249	1749	114	1006	1408
Nevada	2	1521	2037	41	1721	2319	3	1460	1953	67	1350	1794
New Hampshire	13	1543	1900	27	1315	1747	4	1050	1367	147	1082	1265
New Jersey	20	1686	2360	130	1454	2036	50	985	1379	349	1086	1519
New Mexico	13	1196	2348	70	707	2032	-	-	-	121	742	1597
New York	10	2443	2954	304	1645	2133	15	1310	1621	1657	1237	1538
North Carolina	98	1592	2641	464	1196	2201	-	-	-	638	1020	1499
North Dakota	-	-	-	39	1107	1846	12	886	1461	18	968	1461
Ohio	17	1922	2402	181	1501	1781	16	1306	1461	345	1306	1461
Oklahoma	3	1742	2334	44	1659	2223	1	1096	1469	742	1018	1365
Oregon	7	1702	2178	106	1597	2027	3	1294	1622	673	1407	1543
Pennsylvania	52	-	-	468	1350	1806	60	1165	1438	1884	1165	1542
Rhode Island	2	1410	1560	16	1285	1400	6	1150	1230	112	1210	1310
South Carolina	54	1472	2087	147	1309	1855	77	1034	1466	1006	850	1205
South Dakota	6	1482	2224	36	1040	1725	12	863	1297	-	-	-
Tennessee	26	1179	1752	142	1032	1535	-	-	-	-	-	-
Texas	73	2102	2648	-	1726	2173	-	697	1117	-	1035	1498
Utah	12	1672	2469	55	1516	2238	5	1159	1688	80	1241	1632
Vermont	1	1667	2423	42	1343	2054	-	-	-	-	-	-
Virginia	80	1460	1994	337	1221	1824	34	935	1277	2478	1023	1396
Washington	7	2170	2778	122	1968	2296	24	1624	1876	-	-	-
West Virginia	184	1156	1328	99	1064	1225	17	972	1130	119	972	1130
Wisconsin	-	-	-	-	-	-	-	-	-	-	-	-
Wyoming	24	1591	2811	51	1442	2421	11	1244	1988	56	1127	1800
1987 Average			2332			2006			1582			1554
1977 Average			1287			1077			863			832
% Increase 1977-1987			81.2%			83.6%			83.3%			86.8%
% Increase 1986-1987			1.8%			4.3%			2.5%			2.5%



## MONTHLY SALARIES OF HIGHWAY PERSONNEL

(as of July 1, 1987)

## TRAFFIC OPERATIONS

## MAINTENANCE PERSONNEL

## 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	173	1333	1640	140	1249	1854	102	864	1562	1	3885	3885
Alaska	-	-	-	130	2577	4200	7	1631	2135	-	-	-
Arizona	114	1348	2011	6	1533	2287	30	1062	1584	1	3422	5105
Arkansas	496	1101	1666	115	1463	2134	10	1211	1816	1	-	4347
California	1316	1959	2147	650	2051	2465	44	1687	2082	2	4565	5019
Colorado	-	-	-	37	2081	2409	-	-	-	1	3298	4419
Connecticut	248	1340	1600	116	1411	1734	61	1231	1444	1	3490	4712
Delaware	108	943	1571	99	1155	1925	19	881	1469	1	2978	4964
Florida	558	935	1807	152	1026	1648	95	751	1742	1	3417	5417
Georgia	483	1083	1745	232	1232	1893	42	1025	1611	1	3015	4869
Hawaii	60	1381	1561	12	1611	1661	4	1187	1821	1	2419	3778
Idaho	-	-	-	295	1193	1761	4	1030	1380	1	3014	4455
Illinois	56	2322	2322	17	2223	2223	-	-	-	1	3455	4990
Indiana	97	1309	1700	-	-	-	38	977	1367	1	2461	3796
Iowa	246	1329	1633	136	1383	1700	-	-	-	1	2733	3456
Kansas	457	1112	1492	180	1229	1645	29	1229	1645	1	2430	3257
Kentucky	622	937	1502	78	1034	1655	118	937	1502	1	2488	3984
Louisiana	393	872	1894	2	964	1571	34	713	1770	1	3374	5592
Maine	197	1126	1461	164	1185	1546	-	-	-	1	2291	3198
Maryland	425	1092	1420	55	1163	1516	29	1163	1516	1	3506	4605
Massachusetts	-	-	-	110	1502	1886	20	1212	1490	1	3539	4433
Michigan	270	1583	1994	57	1813	2232	30	1547	1909	1	3823	5112
Minnesota	5	2192	2257	-	-	-	-	-	-	1	3569	4735
Mississippi	189	998	1495	58	1102	1652	-	-	-	1	2734	4096
Missouri	1040	1304	1697	6	1441	1880	14	1377	1792	-	-	-
Montana	48	1695	1784	123	1760	1853	5	1792	2485	1	2132	2948
Nebraska	-	-	-	641	1162	1627	28	870	1219	1	2976	4166
Nevada	87	1461	1953	44	1585	2127	-	-	-	1	2647	3629
New Hampshire	15	1170	1367	45	1217	1423	13	1055	1388	1	2665	3208
New Jersey	132	1197	1587	48	1454	2036	-	-	-	1	3339	4674
New Mexico	488	1035	1845	235	1140	2032	12	857	1451	1	2586	4410
New York	520	1310	1621	112	1645	2016	69	1385	1711	1	5728	7103
North Carolina	482	1107	1699	862	1246	1934	192	1151	1699	1	3103	4836
North Dakota	212	1218	1846	35	1336	2023	8	777	1160	1	1975	2959
Ohio	251	1367	1523	80	1430	1646	159	1270	1461	1	3111	4078
Oklahoma	262	1179	1580	117	1269	1700	102	1123	1504	1	3692	4931
Oregon	292	1476	1622	49	1543	1701	16	1476	1880	1	3449	4404
Pennsylvania	2041	1311	1666	185	1390	1806	52	1165	1438	1	2823	3809
Rhode Island	13	1230	1375	17	1290	1400	18	1145	1230	1	2041	2308
South Carolina	463	956	1355	296	1034	1466	83	884	1586	1	3226	4610
South Dakota	308	948	1423	107	1149	1725	4	1335	2463	2	2347	3519
Tennessee	-	-	-	61	1079	1604	28	904	1345	1	2491	3702
Texas	-	1394	1814	-	-	-	288	1334	1671	1	3019	3804
Utah	210	1296	1764	110	1430	1883	10	1089	1590	-	-	-
Vermont	-	-	-	38	1343	1948	12	1213	1758	-	-	-
Virginia	964	1118	1527	85	1221	1668	215	1023	1396	1	3256	4447
Washington	505	1549	1968	1	1876	2170	30	1788	2280	1	3222	4124
West Virginia	968	1064	1225	323	1156	1328	268	691	1261	1	2827	4846
Wisconsin	-	-	-	-	-	-	-	-	-	1	3677	5110
Wyoming	225	1307	2089	87	1442	2305	-	-	-	1	2882	4610
1987 Average			1696			1889			1640			4314
1977 Average			937			1031			879			2439
% Increase 1977-1987			81.0%			83.2%			86.6%			76.9%
% Increase 1986-1987			3.2%			4.1%			5.3%			3.3%

**MONTHLY SALARIES OF HIGHWAY PERSONNEL**  
(as of July 1, 1987)

**TRAFFIC OPERATIONS PERSONNEL**

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	3517	3517	9	1810	3026	—	—	—
Alaska	—	—	—	—	—	—	3	3363	4858	3	3113	4224
Arizona	2	3123	4659	1	2599	3878	4	2849	4250	4	2849	4250
Arkansas	1	3495	4102	—	—	—	—	—	—	—	—	—
California	7	4154	5019	—	—	—	17	3420	4564	48	2972	4135
Colorado	1	3636	4372	—	—	—	8	3141	4209	—	—	—
Connecticut	2	3356	4531	5	2720	3027	5	2023	2467	4	1969	2156
Delaware	—	—	—	—	—	—	2	2272	3787	1	1985	3308
Florida	6	3206	5517	—	—	—	7	3206	5517	7	2484	5157
Georgia	1	2543	4085	—	—	—	7	2333	3739	7	2147	3427
Hawaii	1	2216	3442	—	—	—	—	—	—	—	—	—
Idaho	1	2803	3848	—	—	—	6	2141	3165	—	—	—
Illinois	1	3200	4625	—	—	—	9	2975	4365	14	2745	4365
Indiana	1	2279	3447	1	2279	3447	6	2058	3072	6	1800	2342
Iowa	—	—	—	—	—	—	—	—	—	—	—	—
Kansas	—	—	—	—	—	—	—	—	—	—	—	—
Kentucky	2	2256	3614	—	—	—	12	2256	3614	9	2046	3278
Louisiana	12	1603	5227	1	3153	5227	8	1715	4266	3	1715	3727
Maine	1	2112	2954	—	—	—	7	1988	2727	—	—	—
Maryland	—	—	—	1	3034	3986	—	—	—	7	2601	3417
Massachusetts	1	3174	4241	1	3174	4241	8	2941	3927	8	2685	3590
Michigan	1	3529	4728	1	3172	4376	—	2958	4051	5	2767	3744
Minnesota	5	3314	4409	—	—	—	9	2899	3912	5	2591	3491
Mississippi	1	2511	3762	—	—	—	3	2320	3475	—	—	—
Missouri	1	2826	3732	—	—	—	3	2384	3275	20	2093	2866
Montana	1	1956	2708	—	—	—	5	1647	2286	—	—	—
Nebraska	—	—	—	—	—	—	—	—	—	—	—	—
Nevada	—	—	—	—	—	—	2	1953	2647	—	—	—
New Hampshire	1	2434	2902	1	1714	2026	—	—	—	—	—	—
New Jersey	—	—	—	—	—	—	6	2747	3846	10	2373	3322
New Mexico	1	2236	3812	—	—	—	6	2465	4201	—	—	—
New York	1	4686	5931	—	—	—	11	3427	5331	11	3581	4314
North Carolina	1	2703	4200	1	2703	4200	14	2353	3652	—	—	—
North Dakota	—	—	—	—	—	—	—	—	—	—	—	—
Ohio	4	2568	3362	1	2568	3362	12	2568	3362	12	2336	3052
Oklahoma	1	3273	4369	—	—	—	8	2834	3781	8	2334	3120
Oregon	1	2699	3449	—	—	—	—	—	—	5	2839	2986
Pennsylvania	4	2259	3223	—	—	—	11	—	—	44	1984	2823
Rhode Island	1	1819	2116	1	1445	1605	—	—	—	—	—	—
South Carolina	1	2983	4261	—	—	—	4	2451	3475	—	—	—
South Dakota	—	—	—	—	—	—	4	2347	3519	—	—	—
Tennessee	—	—	—	2	2281	3389	4	2281	3389	4	2089	3104
Texas	1	2826	3561	1	4240	4240	24	3331	3804	24	2244	3331
Utah	—	—	—	—	—	—	6	2100	3069	—	—	—
Vermont	—	—	—	—	—	—	—	—	—	—	—	—
Virginia	3	2724	3721	—	—	—	9	2279	3114	—	—	—
Washington	1	2919	3736	—	—	—	6	2580	3249	6	2066	2919
West Virginia	1	2463	4206	—	—	—	—	—	—	—	—	—
Wisconsin	2	3096	4305	—	—	—	8	2185	4305	—	—	—
Wyoming	2	2608	4281	—	—	—	5	2608	4281	—	—	—
1987 Average			4013			3609			3718			3458
1977 Average			2125			1972			1973			1765
% Increase 1977-1987			88.9%			83.0%			88.4%			95.9%
% Increase 1986-1987			3.9%			7.5%			4.1%			7.8%

## MONTHLY SALARIES OF HIGHWAY PERSONNEL

(as of July 1, 1987)

## TRAFFIC OPERATIONS PERSONNEL

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	1486	1486	-	-	-
Alaska	2	3590	4858	-	-	-	-	-	-	-	-	-
Arizona	-	-	-	1	1940	2894	1	1655	2469	15	1723	2570
Arkansas	-	-	-	1	2940	3876	1	2210	3055	-	-	-
California	-	-	-	-	-	-	-	-	-	54	2522	3040
Colorado	-	-	-	9	2461	3298	1	2409	3227	7	2461	3298
Connecticut	-	-	-	1	1969	2156	1	2051	2457	5	2022	2467
Delaware	2	1620	2700	-	-	-	1	1236	2060	2	1415	2358
Florida	64	2484	5157	1	1507	2485	4	1026	1648	-	-	-
Georgia	-	-	-	6	1611	2543	-	1429	2238	10	1551	2333
Hawaii	-	-	-	3	1888	2008	-	-	-	1	2161	2315
Idaho	-	-	-	-	-	-	1	1449	2141	1	1598	2361
Illinois	29	2135	3625	-	-	-	11	1904	2972	-	-	-
Indiana	-	-	-	6	1287	1944	6	1308	1700	6	1543	2004
Iowa	6	1863	2323	-	-	-	1	1969	2487	1	2063	2610
Kansas	-	-	-	-	-	-	1	1354	1814	-	-	-
Kentucky	9	1384	2216	18	1139	1826	-	-	-	20	1034	2012
Louisiana	6	1309	2169	3	1223	2843	2	1309	2483	15	1223	2843
Maine	-	-	-	-	-	-	1	1452	1931	1	1507	2014
Maryland	-	-	-	1	1656	2175	1	1429	1875	1	1539	2020
Massachusetts	8	1839	2398	1	1949	2292	1	1644	2137	6	1735	2272
Michigan	1	2481	3339	3	2201	2918	9	1886	2481	9	2201	2918
Minnesota	5	1991	3123	13	1864	2434	-	-	-	7	2081	3396
Mississippi	-	-	-	1	1669	2499	1	1669	2499	1	1669	2499
Missouri	-	-	-	-	-	-	1	1700	2310	8	1614	2188
Montana	-	-	-	-	-	-	1	1826	1922	-	-	-
Nebraska	-	-	-	1	1928	2699	1	1444	2021	1	1928	2699
Nevada	2	1871	2532	-	-	-	1	1953	2647	-	-	-
New Hampshire	1	1953	2329	1	1512	1788	1	1366	1612	7	1214	1612
New Jersey	-	-	-	1	1952	2733	1	1686	2360	27	1686	2360
New Mexico	-	-	-	-	-	-	1	1255	2132	1	1521	2588
New York	-	-	-	1	2316	2804	2	1848	2253	10	1848	2253
North Carolina	14	1811	2767	25	1529	2301	-	-	-	14	1592	2410
North Dakota	-	-	-	-	-	-	-	-	-	-	-	-
Ohio	12	1764	2185	1	1764	2185	4	1534	1820	41	1636	2185
Oklahoma	-	-	-	11	2066	2768	1	2016	2702	-	-	-
Oregon	-	-	-	-	-	-	1	1826	2016	9	1975	2699
Pennsylvania	-	-	-	11	1542	2044	1	1438	1871	11	1734	2432
Rhode Island	-	-	-	1	1445	1605	1	1485	1660	1	1485	1660
South Carolina	-	-	-	-	-	-	7	1472	2087	7	1531	2170
South Dakota	-	-	-	-	-	-	1	1482	2224	-	-	-
Tennessee	4	1535	2281	3	1232	1831	11	1079	1604	-	-	-
Texas	24	2102	2826	24	1969	2478	24	1844	2322	24	1969	2478
Utah	-	-	-	1	1994	2909	1	1446	2031	2	1935	2470
Vermont	1	1667	2423	-	-	-	-	-	-	2	1490	2168
Virginia	9	1907	2605	9	1907	2605	8	1335	1829	22	1460	2181
Washington	-	-	-	-	-	-	1	1968	2517	6	2066	2644
West Virginia	10	1170	1920	10	1255	1568	10	1109	1470	1	1638	2765
Wisconsin	8	2008	2876	8	2185	2846	11	1717	2255	1	2185	2876
Wyoming	3	1514	2421	-	-	-	1	1846	2955	6	1757	2811
1987 Average			2813			2445			2185			2384
1977 Average			1479			1308			1176			1396
% Increase 1977-1987			90.2%			86.9%			85.8%			70.8%
% Increase 1986-1987			11.3%			1.5%			4.2%			0.4%



**MONTHLY SALARIES OF HIGHWAY PERSONNEL**  
(as of July 1, 1987)

**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	—	—	—	—	—	—	4	1219	1810	1	1160	1723
Alaska	—	—	—	—	—	—	—	—	—	—	—	—
Arizona	9	1464	2184	6	1464	2184	7	1267	1890	34	1302	1942
Arkansas	2	2210	3055	1	2210	3055	8	904	1666	15	1738	2483
California	—	—	—	—	—	—	—	—	—	—	—	—
Colorado	9	1929	2584	1	2126	2849	6	1798	2409	13	1929	2584
Connecticut	2	2050	2457	2	2050	2457	1	1411	1734	—	—	—
Delaware	2	1155	1925	3	1415	2358	4	1009	1925	—	—	—
Florida	151	1269	2074	245	1269	2074	15	891	1413	—	—	—
Georgia	—	1429	2238	—	1429	2238	10	1083	1677	—	—	—
Hawaii	1	1689	1792	—	—	—	5	1561	1561	—	—	—
Idaho	11	1380	2479	6	1678	2479	5	1192	1761	—	—	—
Illinois	31	2462	2462	—	—	—	13	2387	2530	—	—	—
Indiana	6	1287	1944	20	1308	1700	6	1105	1437	6	1287	1944
Iowa	6	1969	2487	—	—	—	8	1187	1439	—	—	—
Kansas	6	1567	2099	—	—	—	3	1169	1567	—	—	—
Kentucky	—	—	—	—	—	—	3	850	1362	—	—	—
Louisiana	13	998	2169	—	—	—	24	762	1894	12	762	1894
Maine	1	1466	1950	8	1185	1546	1	1240	1619	1	1314	1729
Maryland	7	1429	1875	—	—	—	1	1240	1622	8	962	1420
Massachusetts	44	1567	2018	32	1567	2018	6	1567	2018	—	—	—
Michigan	6	1813	2232	12	1583	2994	14	1455	1994	41	1583	1994
Minnesota	—	—	—	—	—	—	—	—	—	—	—	—
Mississippi	—	—	—	5	1367	2047	4	1048	1572	3	1236	1854
Missouri	—	—	—	—	—	—	2	1247	1620	2	1191	1546
Montana	3	1826	1922	—	—	—	2	1760	1853	—	—	—
Nebraska	—	—	—	—	—	—	5	1249	1749	—	—	—
Nevada	6	1585	2127	6	1585	2127	2	1794	2423	4	1461	1953
New Hampshire	8	1262	1612	7	1262	1612	4	1168	1478	12	998	1168
New Jersey	8	1686	2360	—	—	—	11	1197	1674	1	1454	2036
New Mexico	—	—	—	—	—	—	7	942	1597	—	—	—
New York	20	1466	1808	68	1466	1808	18	1310	1621	—	—	—
North Carolina	25	1529	2301	89	1107	1628	14	1107	1628	—	—	—
North Dakota	—	—	—	8	1404	2123	—	—	—	13	1107	1846
Ohio	18	1501	1781	—	—	—	9	1306	1461	2	1367	1523
Oklahoma	8	1742	2334	11	1742	2334	4	1179	1580	—	—	—
Oregon	8	1654	1918	16	1654	1826	8	1407	1543	—	—	—
Pennsylvania	21	1390	1806	52	1390	1806	2	1234	1542	6	1165	1542
Rhode Island	1	1315	1425	1	1445	1605	3	1285	1400	—	—	—
South Carolina	10	1361	1929	—	—	—	6	1118	1586	—	—	—
South Dakota	8	1482	2224	—	—	—	3	1040	1560	—	—	—
Tennessee	9	987	1469	10	987	1469	20	779	1179	20	779	1179
Texas	—	1844	2322	—	1617	2035	136	1176	1903	20	1176	1566
Utah	6	1709	2326	6	1709	2326	3	1312	1843	—	—	—
Vermont	7	1213	1758	4	1343	1948	1	1213	1758	—	—	—
Virginia	—	—	—	—	—	—	24	1118	1527	—	—	—
Washington	—	—	—	—	—	—	—	—	—	22	1788	2066
West Virginia	4	1109	1470	—	—	—	9	1079	1382	—	—	—
Wisconsin	16	1561	2089	40	1561	2089	25	1482	1824	40	1482	1824
Wyoming	10	1591	2544	2	1442	2305	3	1307	2088	4	1306	2088
1987 Average			2040			2109			1705			1814
1977 Average			1120			1097			967			899
% Increase 1977-1987			82.1%			92.3%			76.3%			101.8%
% Increase 1986-1987			0.6%			5.8%			3.3%			3.7%

## MONTHLY SALARIES OF HIGHWAY PERSONNEL

(as of July 1, 1987)

## TRAFFIC OPERATIONS PERSONNEL

## OTHER RELATED PERSONNEL

STATE	(33) Traffic Signal & Lighting Tech.			(34) Striper Technician			(35) Chief Engineer			(36) Project Engineer		
	#	Min.	Max.	#	Min.	Max.	#	Min.	Max.	#	Min.	Max.
Alabama	23	1077	2201	-	-	-	1	5490	5490	150	1450	2743
Alaska	-	-	-	-	-	-	10	5019	7121	50	3363	4858
Arizona	33	1533	2287	23	1219	1818	1	4508	6725	18	2599	3878
Arkansas	-	-	-	5	1738	2483	1	-	5734	32	3257	4011
California	222	1912	2768	-	-	-	2	4269	5522	-	2838	3941
Colorado	11	2126	2849	-	-	-	1	3636	4872	78	2713	3636
Connecticut	2	1340	2249	8	1302	1734	1	4416	5963	1	4083	5513
Delaware	4	1155	2358	1	943	1571	3	3904	6507	1	2784	4639
Florida	-	-	-	152	1026	1648	1	5000	8000	151	2484	5157
Georgia	34	1488	2238	-	1232	1893	1	4151	5696	216	1745	3147
Hawaii	10	1661	1761	4	1381	1381	-	-	-	6	2216	3442
Idaho	8	1135	2141	20	1193	1941	1	4789	4789	51	1849	2733
Illinois	16	1335	3625	-	-	-	1	4010	5935	-	2295	3315
Indiana	39	1308	1700	20	1308	1700	-	-	-	-	-	-
Iowa	2	1383	1912	19	1329	1700	1	3978	5028	20	2487	3146
Kansas	-	-	-	-	-	-	1	5052	-	34	2024	2954
Kentucky	19	937	1502	33	937	1655	1	-	5198	60	1856	2774
Louisiana	52	998	1770	105	762	1770	1	4423	7331	56	1603	3127
Maine	1	1440	1947	-	-	-	1	3005	4202	-	-	-
Maryland	26	1429	2175	-	-	-	-	-	-	-	-	-
Massachusetts	20	1567	2018	-	-	-	1	4819	6096	-	2331	3927
Michigan	28	1583	2441	17	1583	1994	1	5457	5457	58	2584	3744
Minnesota	37	1777	2404	-	-	-	1	4409	5857	66	2591	3912
Mississippi	6	1219	1826	-	-	-	1	3388	6134	37	2130	3191
Missouri	50	1535	2072	-	-	-	1	5024	6026	50	2239	3076
Montana	1	1792	2485	10	1760	1853	1	-	4208	53	1792	2485
Nebraska	7	1249	1749	-	-	-	1	4875	4875	61	1928	2699
Nevada	-	-	-	5	1461	1953	1	-	-	14	2220	3025
New Hampshire	1	1547	1828	6	1123	1313	1	-	4781	55	1508	2637
New Jersey	99	1454	2036	35	1140	1595	1	4262	5966	-	-	-
New Mexico	12	1035	2348	-	-	-	1	4902	4902	40	1935	4201
New York	94	1645	2016	60	1310	1620	-	-	-	-	-	-
North Carolina	36	1469	2201	57	1151	1699	1	3737	5853	45	2353	3652
North Dakota	-	-	-	-	-	-	1	3216	4777	48	1707	2959
Ohio	24	1501	1781	43	1430	1646	2	3553	5402	81	1950	2715
Oklahoma	-	-	-	64	1118	1365	1	4477	5983	25	2834	3781
Oregon	30	1758	2226	-	-	-	1	-	5099	36	2339	2986
Pennsylvania	11	1734	2432	44	1311	1666	1	3809	5130	320	-	-
Rhode Island	1	1410	1560	5	1255	1370	-	-	-	-	-	-
South Carolina	29	1309	1929	-	-	-	1	-	6030	49	2179	3089
South Dakota	-	-	-	-	-	-	1	3394	5093	46	1877	3149
Tennessee	-	-	-	20	779	1179	1	3868	5749	98	1535	2720
Texas	-	1617	2322	-	1394	1814	1	5072	5072	179	2478	3331
Utah	-	-	-	-	-	-	1	3355	4973	28	2332	3407
Vermont	-	-	-	6	1100	1591	1	3760	5495	40	1667	3062
Virginia	74	1221	1824	-	-	-	1	4253	5810	38	1907	2605
Washington	45	1624	2517	-	-	-	1	4902	6275	45	2517	3222
West Virginia	10	1434	2765	12	1032	1317	-	-	-	-	-	-
Wisconsin	10	1482	1824	40	1482	1943	-	-	-	175	2049	3335
Wyoming	7	1514	2421	28	1126	2194	-	-	-	33	-	-
1987 Average			2167			1704			5629			3432
1977 Average			1182			966			3017			1841
% Increase 1977-1987			83.3%			76.4%			86.6%			86.4%
% Increase 1986-1987			3.5%			2.8%			5.9%			8.9%



MAINTENANCE QUESTIONNAIRE ON POLICIES AFFECTING MAINTENANCE AND TRAFFIC OPERATIONS PERSONNEL,  
(as of July 1, 1987)

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			
					Fed.		Compulsory		Vol Retirement		An Vacation Schedule			
					State Soc.		Retirement		Min Yrs Min		Minimum			
	(1a)	(1b)	(1c)	(1d)	(2)	(3)	(4)	(4a)	(4b)	(5)	(5a)	(5b)	(6)	(7)
Alabama		X			yes	yes	yes	Statute	70	yes	30	none	yes	104 1-5
Alaska	X				yes	no	no			yes	5	50	yes	112.5 1-2
Arizona	X				yes	yes	yes	Statute	70	yes	5	50	yes	96 1
Arkansas				X	yes	yes	no			yes	any@30		yes	96 0-3
California	X				yes	yes	no			yes	5	50	yes	84 1-3
Colorado		X			yes	no	yes	Statute	70	yes	20@60	55	yes	96 1-5
Connecticut	X				yes	yes	yes	Statute	70	yes	10	55	yes	84 0-5
Delaware		X			yes	yes	no			yes	5@65	any/25	yes	112.5 0-10
Florida	X				yes	yes	no			yes	10	any	yes	156 1-5
Georgia		X			yes	yes	no			yes	10	any	yes	120 1-5
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 0-3
Louisiana		X			yes	no	yes	Policy	70	yes	10	55	yes	96 1-3
Maine	X				yes	no	no			yes	10	60	yes	96 0-5
Maryland	X				yes	yes	yes	Policy	70	yes	15	none	yes	80 1-5
Massachusetts		X			yes	no	no			yes	10	55	yes	75 1-5
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	yes	Statute	70	yes	15	55	yes	120 0-15
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 0-8
New Jersey		X			yes	yes	no			yes	10@60	55	yes	96 0-5
New Mexico	X				yes	yes	no			yes	5@65	any/25	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	varies	yes	84 0-2
Utah		X			yes	yes	no			yes	4@65	any/30	yes	104 1-5
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	400	yes	96	1	96		yes	unlimited	California	
168	16	yes	336	yes	120	1	120	1	yes	unlimited	Colorado	
104	20	yes	35	yes	105	1	105		yes	unlimited	Connecticut	
157.5	15	yes	twice annual	yes	112.5		112.5		yes	675	Delaware	
208	10	yes	240	yes	52	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	
		yes	no-max	yes					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	0-3	96	all	yes	unlimited	Kentucky	
192	15	yes	all	yes	96	1-3	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	
187.5	20	yes	75	yes	112.5	0-50			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	
										960/over 18		
200	20	yes	200	yes	96	0-1	120	1	yes	unlimited	New Jersey	
120	1 or more	yes	240	yes	96	each	96	1	yes	unlimited	New Mexico	
160	7	yes	240	yes	104	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	3yrs	yes	56	all	56	all	yes	unlimited	Ohio	
160	20	yes	480	yes	120	1-5	160	20	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	1/2	yes	unlimited	South Dakota	
180	20	yes	315	yes	90	0-5	90	20	yes	unlimited	Tennessee	
168	20	yes	336	yes	96		96		yes	unlimited	Texas	
156	11	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	all	144		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	mandatory	yes	wholly & partially	mandatory	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	optional	yes	wholly	mandatory				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	yes
Montana	yes	partially	optional	no			X				no	yes
Nebraska	yes	wholly & partially	optional	yes	wholly & partially	optional				X	yes	yes
Nevada	yes	wholly	mandatory	no						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				no	
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 & partially	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	no			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	partially	optional	yes	wholly	mandatory				X	no	no
Utah	yes	wholly	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	WORKING CONDITION								
Supervisory		Non-Supervisory		(17)	Working Hours					State			
Nat'l	Local	Nat'l	Local		Salary Basis	Per Day	Per Week	Per Day	Per Week				
Union	Union	Union	Union										
(16a)	(16b)	(16a)	(16b)	(17)	(18a)	(18b)	(18c)	(18d)	(19)	State			
no	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	8	40	Idaho	
no	yes	voluntary	yes	voluntary	no	yes	S	S	S&H	8	40	Illinois	
no	no	yes	voluntary	yes	voluntary	yes	H	S	H	8	40	Indiana	
no	no	yes	voluntary	yes	voluntary	yes	S	S	H	8	40	Iowa	
no	no	yes	voluntary	yes	voluntary	yes	S		8	40	Kansas		
no	no	no	no	yes	yes		H	S	S&H	8	40	Kentucky	
yes	voluntary	yes	voluntary	yes	voluntary	yes		S	S	H	8	40	Louisiana
no	yes	voluntary	no	yes	voluntary	yes	H	H	S	H	8	40	Maine
yes	voluntary		yes	voluntary	yes	yes	H	H	S	H	8	40	Maryland
no	yes	mandatory	yes	mandatory	no		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	no	S			8	40	Mississippi	
no	yes	voluntary	yes	voluntary	yes	voluntary	yes	S	S	H	8	40	Missouri
		yes	mandatory	yes	mandatory	yes		S	S	H	8	40	Montana
no	no	no	yes	voluntary	yes	yes	H	H	H	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	
no	no	yes	voluntary	yes	voluntary	yes		S	S	H	8	40	New Mexico
yes	voluntary		yes	voluntary	yes	yes	S			H	8	40	New York
no	yes	voluntary	no	yes	voluntary	yes		S	S	H	8	40	North Carolina
no	no	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	no	yes	voluntary	yes	S	S	S	S	8	40	Oklahoma
no	no	yes	mandatory	no	yes	yes		S	S	S/H	8	40	Oregon
yes	voluntary	yes	voluntary	yes	voluntary	yes		H	H	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		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	no	no	no	no	yes	yes		H	S	H	8	40	Texas
no	yes	voluntary	no	yes	voluntary	yes		S	S	H	8	40	Utah
no	yes	voluntary	no	yes	voluntary	yes	H				8	40	Vermont
no	no	no	yes	voluntary	yes	yes		S	S	H	8	40	Virginia
yes	mandatory		yes	mandatory	yes	yes		S	S	H	8	40	Washington
yes	voluntary	yes	voluntary	yes	voluntary	no	H				8	40	West Virginia
no	no	no	yes	voluntary	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	Adjustment for Overtime				Travel 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	comp	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	straight			yes	yes	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	no	yes	yes	
Missouri	yes	1-1/2	straight	1-1/2	yes	yes	yes	yes	no	no	no	yes	no	
Montana	yes	1-1/2	comp	1-1/2	yes	yes	yes	yes	no	no	no	yes	no	
Nebraska	yes	1-1/2	straight	1-1/2	yes	yes	yes	yes	yes	no	yes	yes	yes	
Nevada	yes	1-1/2	comp	1-1/2	yes	yes	yes	yes	yes	no	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	no	no	yes	no	
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	no	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	no	yes	yes	yes	no	
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	yes	yes	yes	yes	yes	no	no	yes	yes	
Vermont	yes	1-1/2	1-1/2	1-1/2	yes	yes	yes	yes	no	yes	yes	yes	no	
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	yes	yes	no	
Wisconsin	yes		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		yes	yes	yes	yes	X			Arkansas
yes			X			X		X		no	yes	yes	yes	X			California
yes			X		X			X		yes	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
no		X				X			X	no	no	no	yes	X			New Hampshire
yes									X	part	yes	yes	yes	X			New Jersey
yes			X		X			X		no	yes	yes	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	yes				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	1,063	502	1,565	702	no	yes 702
Alaska	2,500	7,125	3,000	12,625	250	60	310	175	no	no
Arizona	1,174	4,640	309	6,123	790	13	803	180	no	yes 2,000
Arkansas	2,689	21,033	122,489	146,211	2,300	50	2,350	400	no	yes 3,000
California	21,573	25,022		46,595			4,977	184	no	yes 2,451
Colorado	7,557	175	400	25,457	1,344	157	1,501	85	yes	3,181
Connecticut	3,060	6,900	0	9,960	1,920		1,920	75	yes	2,490
Delaware	0	3,343	6,490	9,833	515	70	585	820	no	yes 870
Florida	7,849	27,117		34,966	2,820		2,820	66	no	yes 920
Georgia	5,675	36,541		42,216	3,130	105	3,235	200	no	yes 954
Hawaii	325	2,039		2,364	349		349	119	yes	448 yes 848
Idaho	2,338	9,102	37	11,477	478	60	538	142	yes	1,416 yes 2,161
Illinois	7,525	30,874	2,014	40,412	3,035	175	3,210	370	yes	4,500 yes 2,400
Indiana	4,725	24,950		29,675	1,733	103	1,836	265	no	yes 1,562
Iowa	3,832	20,891		24,723	1,326	44	1,370	179	no	no
Kansas	4,012	18,843	1,295	24,150	1,358	10	1,368	210	no	no
Kentucky	5,224	24,348	25,265	54,837	3,094	318	3,412	450	yes	4,570
Louisiana	3,409	19,529	15,629	38,567	1,948		1,948	618	no	yes 3,800
Maine	1,162	7,232	7,606	16,000	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	5,208	7,141	0	12,349	1,253	100	1,353	150	yes	270 no
Michigan	3,168	4,233		7,401	798	100	898	218	no	yes 3,000
Minnesota	4,096	24,676		28,772	1,657	74	1,731	213	no	yes 3,287
Mississippi	3,169	21,318		24,487	1,466		1,466	285	no	yes 2,392
Missouri	6,406	65,027	2,432	73,865				200	no	yes 739
Montana	4,722	11,656	2,473	18,851	551	4	555	144	yes	1,714 no
Nebraska	1,972	20,089		22,061	912	18	930	248	no	yes 735
Nevada	2,212	8,253	2,154	12,619	434	12	446	31	yes	1,573 yes 3,330
New Hampshire	809	7,780		8,589	771	39	810	165	no	yes 1,227
New Jersey	2,890	7,413		10,303	1,745	53	1,798	135	yes	1,720 no
New Mexico	4,480	16,527	7,948	28,955	1,119	16	1,135	341	no	yes 4,826
New York	5,269	33,033	5,147	43,449	5,296	260	5,556	71	no	yes 634
North Carolina	2,942	143,912	14,194	161,048	5,452	431	5,883	335	no	yes 1,810
North Dakota	3,266	12,530	548	16,344	354	21	375	150	yes	2,043
Ohio	6,579	35,864	0	42,443	3,200	1,200	4,400	482		yes 3,500
Oklahoma	3,771	22,521		26,292	1,514	20	1,534	294	no	yes 3,270
Oregon	3,424	15,752		19,176	1,424	70	1,494	235	no	yes 1,200
Pennsylvania	20,000	74,000		94,000	5,641	483	6,124	130	no	yes 1,300
Rhode Island	446	2,641	13	3,100	407		407	115	no	yes 443
South Carolina	3,226	83,501		86,727	2,594		2,594	456	no	yes 1,845
South Dakota	3,073	14,651	678	18,402	516	110	626	256	yes	3,068
Tennessee	4,946	27,622		32,568	1,928		1,928	338	yes	8,000
Texas	26,200	151,800		178,000	7,500	100	7,600	630	no	yes 315
Utah	4,155	10,454		14,609	550	100	650		yes	yes 500
Vermont	1,606	4,597		6,203	497	20	517	160	no	yes 1,550
Virginia	4,546	110,032		114,578	4,894	400	5,294	480	no	yes 1,802
Washington	5,512	11,396		16,908	874	100	974	150	no	yes 2,800
West Virginia	4,102	44,585		48,687	2,657		2,657	452	yes	yes
Wisconsin	4,053	21,996		26,049	246		246		no	yes
Wyoming	3,784	11,953	425	16,162	565	50	615	269	no	yes 3,204

(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					X	X	no				X	X	yes	20	Alabama	
yes	4,000	yes		X	X			X	X	yes	X	X	X	X	X	yes	5.4	Alaska	
yes	1,500	yes		X	X	X	X	X	X	yes	X	X	X	X	X	yes	2.0	Arizona	
yes	3,000	yes		X	X		X	X	X	yes					X	yes	8.1	Arkansas	
yes	3,011	yes			X			X	X	yes						yes	24	California	
		yes		X	X			X	X	yes			X			yes	24	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	3,885	yes			X	X	X	X	X	yes	X	X		X	X	yes	15	Florida	
yes	4,190	yes		X	X	X	X	X	X	yes	X		X		X	no		Georgia	
yes	556	no	yes							no						yes	5	Hawaii	
yes	3,458	yes		X	X	X		X	X	yes				X		yes	25	Idaho	
yes	2,400	yes						X	X	yes	X		X		X	yes	20.0	Illinois	
yes	1,484	yes		X	X	X	X	X	X	no						yes	47	Indiana	
yes	4,120	no	yes							yes	X		X		X	yes	17.3	Iowa	
yes	4,025	yes		X	X				X	yes	X	X	X		X	yes	9	Kansas	
		yes		X	X	X	X	X	X							yes	5.0	Kentucky	
yes	4,700	yes		X	X	X	X	X	X							yes	15.0	Louisiana	
yes	2,650	yes		X	X		X	X		yes	X	X	X		X	yes	19.0	Maine	
yes	620	yes		X	X	X	X	X	X	no						yes	30	Maryland	
yes	70	no	yes							no						yes	65.0	Massachusetts	
yes	1,500	no	yes							yes	X		X		X	yes	73	Michigan	
yes	2,616	yes		X	X		X	X	X	yes	X	X	X		X	yes	7	Minnesota	
yes	4,089	no	yes							yes	X	X	X		X	yes	25	Mississippi	
yes	4,924	no	yes							yes	X		X		X	yes	10.0	Missouri	
no		yes		X	X	X		X	X							no		Montana	
yes	3,151	no	yes	X	X	X	X	X	X	yes				X		yes	11.0	Nebraska	
yes	3,330	yes		X				X	X	yes	X		X		X	yes	13.1	Nevada	
yes	1,515	no	yes													yes	11.0	New Hampshire	
no		yes		X	X	X	X	X	X	yes	X		X		X	X	yes	30	New Jersey
yes	9,651	yes		X	X			X	X	yes	X		X		X	yes	21.0	New Mexico	
yes	2,125	yes		X	X		X	X	X	yes	X		X		X	yes	7	New York	
yes	9,003	yes			X	X	X	X	X	yes	X		X		X	yes	5	North Carolina	
		yes		X	X	X	X	X	X	yes	X		X		X	yes	10	North Dakota	
		no	yes							no						yes	35.0	Ohio	
yes	3,270	yes		X				X	X	yes	X		X		X	yes	65.0	Oklahoma	
yes	2,400	no	no							yes	X		X	X	X	yes	25.0	Oregon	
yes	8,000	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	8,673	no	Study							yes	X		X		X	yes	22	South Carolina	
		no	yes							yes	X		X			yes	20	South Dakota	
		no	yes							yes	X		X			yes	35	Tennessee	
yes	4,000	yes			X			X	X	yes					X	yes	20	Texas	
yes	2,423	yes		X	X	X	X	X	X	yes	X		X			yes	10.0	Utah	
yes	2,250	Part	yes	X		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		no	no							yes	X				X			Wisconsin	
yes	1,616	yes				X		X	X	yes	X		X		X	yes	11.5	Wyoming	