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TRANSPORTATION
LIBRARY RESEARCH



Number 241, April 1982
ISSN 0097-8515

CIRCULAR

Transportation Research Board, National Academy of Sciences, 2101 Constitution Avenue, N.W., Washington, DC 20418

PROGRESS REPORT ON MAINTENANCE AND OPERATIONS PERSONNEL

mode
1 highway transportation

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This report was prepared by the TRB Committee on Maintenance and Operations Personnel with the cooperation of the AASHTO Subcommittee on Maintenance. This report is the 37th in a series which began in 1944.

In 1971 the report was expanded to include Traffic Services personnel in addition to Maintenance personnel. The policy questionnaire has been revised from time to time to keep it current with changing trends, but the general format of the report has been retained.

Response to the questionnaire was excellent this year, with all 50 states responding.

For comparative purposes, this report has 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 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).

The following are the average monthly salaries of certain positions by regions, as of July 1, 1981, which gives a reasonable cross section for the comparison of current salaries in these four regions:

Job Title	AVERAGE SALARY (\$/MO.)			
	North Atlantic States	South Eastern States	Mississippi Valley States	Western States
State Maintenance Engineer	3214	3146	3246	3652
District Engineer	2900	2974	3116	3653
Area Supervisor	1691	1470	1766	2113
Laborer	868	761	1010	1126
Mechanic	1186	1125	1285	1541
Equipment Operator I	963	869	1040	1261
Equipment Operator II	1031	991	1238	1479
Equipment Operator III	1145	1109	1298	1648

These averages all show an increase over 1980.

Using 1967, the current cost index base year, the relative change in selected classifications for 1981 is as follows: State Maintenance Engineer - 235.92%, Equipment Operator I - 234.17%, Laborer - 238.92% and Mechanic 232.45%. This will permit a general comparison with the various labor cost indexes available for your area.

PERSONNEL POLICIES

While all the states did not clearly indicate their data in some categories, the following can be determined from an analysis of the report on personnel policies:

Civil Service or Merit System

Only five states do not have a civil service, a merit system or some other comparable plan for all or part of their employees, as indicated by the following tabulation:

North Atlantic States	Pennsylvania
Mississippi Valley States	North Dakota
Southeastern States	Arkansas & South Carolina
Western States	Montana

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.

Sixteen states reported no compulsory retirement age. The compulsory retirement age is 65 in one state, 70 in 32 states, and 72 in two states. The retirement age is established by statute in 24 states and by policy in 10 states.

Forty-eight of the reporting states indicate voluntary retirement is possible at an earlier age after a prescribed number of years. The most prevalent minimum years of service for voluntary retirement is 10 years, while the most prevalent minimum retirement age is 55.

Vacation and Sick Leave

All states indicated that permanent employees are granted vacation and sick leave. The minimum or starting basis on vacations ranges from 56 to 225 hours per year, and maximum from 120 to 315 hours per year. Vacation time is cumulative in all 50 states, and the maximum time that may be carried over into a new year varies from 35 hours to unlimited, with two states reporting no limit on the amount of vacation that may be accumulated.

The minimum or starting basis on sick leave ranges from 80 to 168 hours per year, and the maximum from 80 to 240 hours per year. All states allow sick leave to be carried over into the ensuing year. The maximum that may be carried over into a new year ranges from 96 hours to unlimited, with 37 states reporting no limit to the amount that may be accumulated.

Insurance

All 50 states have a partially or wholly state-financed hospitalization plan for their permanent employees. Twenty-seven of these plans are wholly state-financed. The plan is mandatory in 10 states.

Forty-one states have a partially or wholly state-financed life insurance plan for their permanent employees, with 23 of these wholly state-financed. The plan is mandatory in 19 states.

In 29 states, all or part of the maintenance and operations personnel are protected against lawsuit by a state-financed liability plan.

Unionization

Fourteen states report that supervisory employees have collective bargaining rights, while in 28 states non-supervisory employees have collective bargaining rights.

Thirty-four states report voluntary or mandatory organization of maintenance and operations supervisory personnel in unions or employee associations, with 15 states indicating no union or employee association for supervisory employees.

Forty-four states report mandatory or voluntary organization of their non-supervisory maintenance and operations employees in either national unions, local unions or employee associations, with six states indicating no union or employee association organization.

Membership in some type of union is mandatory for supervisors in five states and for non-supervisors in seven states.

Service Awards

Forty-three states have some type of award for years of service.

Working Hours and Conditions

Thirteen states pay all employees on a salaried basis, with 20 other states paying all permanent field and supervisory employees on a salaried basis. Eight states pay all employees on an hourly basis.

Forty-five states have an 8-hour day, with 40 hours per week as the standard workweek. Five states have a less than 40-hour week.

Forty-nine states allow either compensatory time, straight time or time-and-a-half to their permanent field employees. For overtime work, 46 states report non-supervisory personnel earn time-and-a-half compensation for overtime. In 10 states, supervisory employees do not receive any allowance for overtime work.

Forty-eight states require their employees to report to an assembly point preparatory to their day's work; 44 states 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. All states furnish welding goggles and helmets; 41 states furnish some other types of protective clothing, even though minor, to their maintenance employees.

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

Forty-nine states have a formalized job classification plan.

Only 13 states use convict labor.

Only two of the states do not allow expenses to employees when they are away from their home station. Both meals and lodging are allowed on the basis of actual expenses in four states; actual expenses with a maximum in 11 states, and on a per diem basis in 14 states. In 20 states, the basis of reimbursement for meals and lodging differs.

Forty-one states allow either total or partial reimbursement of moving expenses incurred when an employee is required to change his residence.

Maintenance Responsibility

The Maintenance Division is responsible for all or part of the original placement of highway signs in 23 states; for their replacement and maintenance in 43 states, and for pavement marking in 40 states.

In 48 states, garage or shop operations for vehicle maintenance are under the jurisdiction of the Highway Department; in 33 states this is limited to Highway Department vehicles only, while in 11 states servicing is performed for some other state agencies and four states for all state agencies.

Lane Miles

The average lane miles per man varies from 6 to 40.4.

Maintenance Management System

Forty-three of the reporting states have changed or are in the process of changing to a maintenance management system or maintenance performance budget method of operation. Five states contemplate making this change, while one state indicates they do not contemplate the change.

Basis of Crew Operations

The average number of lane miles handled by a general maintenance crew working out of one location varies from 26 to 625 according to the answers given.

The travel distance from a gang or section headquarters to their farthest point of work varies from 8 to 55.8.

Twelve states report that the same crew handles traffic signs and striping, with the lane miles handled by each crew varying from 270 to 5,060.

Forty states have special crews for traffic signs, with the lane miles handled by each crew varying from 250 to 5,784.

Forty-two states have special crews for striping, with the lane miles handled by each crew varying from 469 to 9,070 miles.

Equipment Management System

Twenty-one states reported they have implemented an equipment management system. Another 22 states indicated they intend to implement such a system.

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.	<u>Title and Description</u>
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.

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Definitions of Maintenance and Operations Personnel Titles

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

TRAFFIC OPERATIONS PERSONNEL TITLES

20. 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.

<u>Title No.</u>	<u>Title and Description (Cont'd)</u>
23.	<u>District Traffic Engineer</u> - One in an executive capacity who supervises traffic operations within a district. May, in some cases, be two positions: one for design and one for maintenance.
24.	<u>Assistant District Traffic Engineer</u> - One who assists the District Traffic Engineer in the work of supervising traffic operations within a district.
25.	<u>Traffic Supervisor</u> - One who directs the activities of all employees and equipment related to traffic operations within a district.
26.	<u>Sign Supervisor</u> - One who directs the activities of all signing, both fabrication and erection.
27.	<u>Sign Shop Foreman</u> - One who directs a crew of men in the activity of fabricating traffic signs.
28.	<u>Traffic Signal & Lighting Foreman</u> - One who directs a crew of men in activities related to the operation 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 laborer for all activities associated with signing, both fabrication and erection.
33.	<u>Traffic Signal & 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.

(7-1-81)

Definitions of Maintenance and Operations Personnel Titles

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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 work "Operations" in the committee's title indicates "Traffic Operation."

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MAINTENANCE AND TRAFFIC OPERATIONS PERSONNEL TITLES USED BY STATE HIGHWAY DEPARTMENTS (as of July 1, 1981)

MAINTENANCE PERSONNEL:

<u>State</u>	(1) State Maintenance Engineer	(2) Assistant State Maintenance Engineer	(3) District Engineer	(4) District Maintenance Engineer
Alabama	State Mtce Engr	Asst State Mtce Engr	Division Engineer	Division Mtce Engr
Alaska	Deputy Commissioner	Asst Deputy Commissioner	Director	-
Arizona	Asst State Engr, Mtce	Mtce Operations Engr	District Engineer	District Mtce Engr or District Mtce Supt
Arkansas	State Mtce Engr	Asst State Mtce Engr	District Engineer	District Mtce Supt
California	Chief, Div of Mtce	Chief, Hwy Mtce	Dist Dir of Transp	District Mtce Engr
Colorado	Staff Mtce Supt	Chief, Struc Mtce Asst Staff Mtce Supt	District Engineer	District Mtce Supt
Connecticut	Director of Mtce	Mtce Operations Mgr Mtce Planning Mgr	-	District Mtce Mgr
Delaware	Chief Mtce Engr (Civil Engr VI)	Deputy State Mtce Engr	District Engineer (Civil Engr VI)	District Mtce Engr (Civil Engr III)
Florida	State Mtce Engr	Asst State Mtce Engr	District Engineer	District Mtce Engr
Georgia	State Mtce Engr	Asst Chief, Constr & Mtce	District Engineer	Asst Dist Engr, Mtce
Hawaii	Chief, Hwy Division	Asst Chief, Constr & Mtce	District Engineer	District Mtce Engr
Idaho	Mtce Supervisor	Asst Mtce Engineer	District Engineer	District Mtce Engr
Illinois	Engineer Mgr 3	Engineer Mgr 1	Engineer Mgr 3	Engineer Mgr 1
Indiana	State Mtce Engr	Section Chief	District Engineer	District Mtce Engr
Indiana	Hwy Engr, Supt II	Hwy Engr, Supt III	Hwy Engr, Supt III	Hwy Engr, Supt IV
Iowa	Maintenance Engr	Asst Mtce Engineer	District Engineer	District Mtce Engr
Kansas	Engineer of Mtce	Asst Engr of Mtce	District Engineer	District Mtce Engr
Kentucky	Dir, Div of Mtce	Asst Dir, Div of Mtce	Dist Hwy Gen Mgr	Asst Dist Engr, Oper
Louisiana	Dir, Mtce & Field Oper	Chief Mtce & Oper Engr	District Admin	District Mtce Engr
Maine	Dir, Bureau of Mtce & Oper	Mtce System Engr et al	Division Engineer	-
Maryland	Deputy Chief Engr, Oper	Hwy Mtce Engineer	District Engineer	-
Massachusetts	Maintenance Engr	Asst Mtce Engineer	District Hwy Engr	District Mtce Engr
Michigan	Engineer of Mtce	Asst Engr of Mtce	District Engineer	District Mtce Engr
Minnesota	State Mtce Engr	Mtce Engr Coordinator, Equipment et al	District Engineer	Area Mtce Engineer
Mississippi	State Mtce Engr	Asst State Mtce Engr	District Engineer	District Mtce Engr
Missouri	Div Engr, Mtce & Traf	Asst Div Engr, Mtce	District Engineer	Dist Mtce & Traf Engr
Montana	Admin, Mtce Div	Asst Admin, Mtce Div	-	Chief, Field Mtce Bureau
Nebraska	Maintenance Engr	Mtce Opera Mgr	Hwy Distr Engr	Hwy Mtce Dist Supt
Nevada	Chief Mtce Engr	Asst Mtce Engineer	District Engineer	Asst Dist Engr, Mtce
New Hampshire	State Mtce Engr	Asst Mtce Engineer	Division Engineer	-
New Jersey	Chief Engr, Constr & Mtce	Chief, Bureau of Mtce	Regional Engr, Transp	Regional Mtce Engr
New Mexico	Director of Oper	Chief, Mtce Section	District Engineer	District Mtce Engr
New York	Dir of Transp Mtce	Dir of Hwy Mtce	Regional Dir of Transp	Regional Hwy Mtce Engr A-B-C
North Carolina	Manager of Mtce & Equip	Head of Mtce	Division Engineer	Asst Div Engr, Mtce
North Dakota	State Mtce Engr	Asst State Mtce Engr	District Engineer	Asst District Engr
Ohio	Engr of Mtce	-	Dist Deputy Dir	Dist Operations Engr
Oklahoma	Transp Div Engr	Transp Asst Div Engr	Transp Div Engr	Transp Asst Div Engr
Oregon	Asst State Hwy Engr, Mtce Branch	Mtce Oper Engr & Mtce Services Engr	Region Engineer	Region Mtce Engr
Pennsylvania	Hwy Engr Manager	Civil Engineer 5	Hwy Dist Engr 3	Civil Engineer 5 Hwy Dist Engr 1
Rhode Island	Asst Dir of DOT, Division Mtce	Deputy Asst Dir DOT, Division Mtce	Senior Civil Engr	-
South Carolina	State Mtce Engr	Asst State Mtce Engr	District Engineer	District Mtce Engr
South Dakota	Constr -Mtce Engr	Constr-Mtce Oper Engr	District Engineer	Asst Dist Engr, Mtce
Tennessee	Engr Director, Mtce	Engr Admin, Mtce	Engineering Director	Asst to Engr Director
Texas	Chief Engr, Safety & Mtce Operations	Engineer V	District Engineer	Engineer V
Utah	Engineer of Mtce	-	District Director	District Mtce Engr
Vermont	Dir of Mtce	Chief of Mtce Support Chief of Tech Serv	-	Dist Transp Admin
Virginia	State Hwy Mtce Engr	State Hwy Mtce Engr, Asst	Highway Dist Engr	Hwy Asst Dist Engr
Washington	State Mtce & Oper Engr	Hwy Mtce Engineer	Dist Administrator	Dist Mtce Engineer
West Virginia	Dir of Maintenance	Asst Dir of Mtce	District Engineer	Asst Dist Mtce Engr
Wisconsin	Chief Mtce Engineer	Asst Chief Mtce Engr	District Director	Dist Chief Mtce Engr
Wyoming	State Constr & Mtce Engr	-	District Engineer	District Mtce Engr

(5) Assistant District Maintenance Engineer	(6) Resident Maintenance Engineer	(7) Area Supervisor	(8) Gang Foreman	(9) Sectionman	State
Asst Div Mtce Engr	District Engineer	Highway Supt	Highway Foreman	Inc in 16, 17, 18	Alabama
Mtce Mgr I, II & III	Transp Mtce Supt	-	WG I & WGII	-	Alaska
-	-	Hwy Mtce Crew Supv	Inc in 7	Hwy Mtce Wkr III (Leadman)	Arizona
Asst Dist Mtce Supt	-	Area Foreman	Job Supt	Crew Leader	Arkansas
Asst Dir Mtce Engr	Region Supt	Area Supt	Supervisor	Leadworker	California
Asst Mtce Supt	-	Senior Foreman	Foreman	Senior Mtceaman	Colorado
Mtce Oper Supt	-	Mtce Gen Supvr	Mtce Supvr	Mtce Crew Leader	Connecticut
Hwy Mtce Oper Mgr	-	Hwy Mtce Supt	Hwy Mtce Asst Supv	Labor Foreman II	Delaware
Asst Dist Mtce Engr	Area Mtce Engr	Hwy Mtce Supv	Hwy Mtce JII	Labor Foreman I	Florida
Maintenance Asst	Mtce Area Manager	Hwy Mtce Frm II	Hwy Mtce Frm II	-	Georgia
-	-	Const & Mtce Supt VI	Hwy Const & Mtce Supv, Br Mtce Supt	Hwy Labor Supv	Hawaii
-	-	Transp Mtce Foreman	-	Hwy Mtce Supv, et al	Idaho
-	Dist Field Engr	-	Hwy Mtce Lead Wkr	Hwy Maintainer	Illinois
Hwy Engr Supv V	Hwy Engr III	Mtce Supv III	Hwy Mtce Supv V	Mtce Wkr IV	Indiana
-	Res Mtce Engr	Hwy Mtce Supv 1,2,3	Hwy Mtce Supv 2&3	-	Iowa
Asst Dist Mtce Engr	Area Engineer	Dist & Area Supt	Dist & Area Supv	Sub-Area Supv	Kansas
Dist. Mtce Engr	-	Hwy Mtce Supv	Hwy Foreman	Asst Hwy Foreman	Kentucky
Asst Mtce Engr	-	Hwy Mtce Supt Equip Supt, et al	Foreman 1,2,3	-	Louisiana
-	-	Hwy Dist Supv	Highway Foreman	Crew Leader	Maine
Asst Dist Engr, Mtce	Resident Mtce Engr	Hwy Mtce Supv	-	Supv Rd Mtce	Maryland
Asst Dist Mtce Engr	-	Hwy Mtce Engr	Hwy Repair Frm	Hwy Repair Wkr	Massachusetts
Asst Dist Mtce Engr	-	Transp Mtce Supt VII	Mtce Supv VI	Foreman Transp Mtce Supv IVB	Michigan
Mtce Oper Engineer	Dist Methods Engr Senior Engr	Bridge Supv, Hwy Mtce Supt et al Hwy Mtce Supt II	Bridge Foreman Hwy Mtce Foreman Foreman, HM I	Hwy Mtce Wkr Hwy Mtce Wkr Sr. Equip Oper	Minnesota Mississippi
Mtce Superintendent	-	Mtce Area Supv	Special Mtce Frm	Hwy Mtce Frm	Missouri
-	-	Mtce Supervisor	-	Field Mtce Supv A & B	Montana
-	-	Hwy Mtce Supt	Hwy Mtce Supv	-	Nebraska
-	-	Hwy Mtce Supt	Sr. Hwy Mtce Frm	Hwy Mtce Foreman	Nevada
Asst Div Engineer	Mtce Supervisor	Mtce Superintendent	Const. Foreman	Hwy Patrol Frm	New Hampshire
Project Engr, Mtce	Regional Mtce Supv	Area Supervisor	Foreman, Hwy Mtce	Asst Foreman, Hwy Mtce	New Jersey
Mtce Superintendent	-	Asst Mtce Supt	Hwy Mtce Supv I, II, III	Mtce Supv Mtce Lead Wkr	New Mexico
Sr Civil Engineer Asst Civil Engr	Resident Engineer	-	Br Rpr Supv II	Br Rpr Supv I	New York
-	District Engineer	Mtce Supervisor	Hwy Mtce Supv II Mtce Crew Ldr IV	Hwy Mtce Supv I Mtce Crew Ldr I, II, etc	North Carolina
-	-	Hwy Mtce Supt	Hwy Mtce Foreman	Equip Oper III (Leadman)	North Dakota
Dist Mtce Engr	-	County Supt	Hwy Worker 3	Hwy Worker 2	Ohio
Transp Engr II	-	Transp Mtce Supt	Transp Mtce Supv	-	Oklahoma
Asst Region Engr	District Engineer	-	Hwy Mtce Supv	Asst Supv or Special Supv	Oregon
Civil Engr 4 Hwy Mtce Mgr 4	-	Hwy Mtce Mgr 2,3,4	Hwy Foreman 2 Hwy Foreman 3	-	Pennsylvania
-	Chief Hwy Mtce Supv	Hwy Mtce Supv	Road Mtce Supv	Labor Foreman	Rhode Island
-	Resident Mtce Engr	-	Hwy Mtce Crew Supv I-III	-	South Carolina
-	Resident Mtce Engr	Hwy Mtce Supt	Hwy Mtce Supv	Hwy Mtce Foreman	South Dakota
Engineer 4 Engineering Tech 4 Engineer IV	Engineer 4	Dist Mtce Supt	Asst Dist Mtce Supterintendent	Mtce Crew Leader	Tennessee
-	-	Mtce-Constr Supt	Mtce-Constr Frm	Mtce-Const Supv	Texas
-	-	Dist Mtce Supv	Hwy Oper Foreman	Station Foreman	Utah
Asst Dist Transp Administrator Hwy Asst Dist Engr	Hwy Res Mtce Supv	Transp General Mtce Supervisor	Br Mtce Supv Transp Mtce Wkr C	Trans Mtce Wkr B	Vermont
Asst Dist Mtce Engr	-	Hwy Superintendent	Hwy Foreman	-	Virginia
-	-	County Mtce Supt	Asst Co Mtce Supt	Foreman	West Virginia
Area Mtce Supv	-	Asst Area Supv	(County)	(County)	Wisconsin
-	-	Hwy Mtce Area Supv	Hwy Mtce Area Crew Leader	-	Wyoming

MAINTENANCE AND TRAFFIC OPERATIONS PERSONNEL TITLES USED BY STATE HIGHWAY DEPARTMENT (as of July 1, 1981)

MAINTENANCE PERSONNEL (cont'd):

<u>(10)</u>	<u>(11)</u>	<u>(12)</u>	<u>(13)</u>	<u>(14)</u>	
<u>State</u>	<u>Laborer</u>	<u>Skilled Craftsman</u>	<u>Shop Superintendent</u>	<u>Garage or Shop Foreman</u>	<u>Mechanic</u>
Alabama	Laborer	Skilled Craftsman	Div Equip Mtce Engr	Mechanic Foreman	Auto & Hvy Equip Mechanic
Alaska	-	-	-	-	-
Arizona	Groundskeeper I & II	Bldg Mtce Wkr I & II	Equip Shop Supv II	Equip Shop Supv I, et al	Equip Mech I & II
Arkansas	Laborer	Carp., Weld, etc	Equip Mtce Supv	Shop Foreman	Mech & Sr Mech
California	Mtce Worker	Carpenter Struc Steel Painter	Shop Superintendent	Shop Foreman	Hvy Equip Mech
Colorado	Utility Worker	Maintenanceman	Sr Shop Foreman	Foreman	A&E Mechanic
Connecticut	DOT Mtce II	Qual Craft Worker	Repair Gar Supvr	-	Auto & Equip Mech
Delaware	Laborer	-	Hwy Equip Supt	Automotive Supt	Auto Mech III
Florida	Hwy Mtce Tech I or II	Plumber, etc Carpenter, etc	-	Auto Equip Repr Fmn	Auto Mech II
Georgia	Laborer I	Skilled Laborer	Mtce Shop Mgr	Mech Shop Supv	Auto Equip Mech I & II Mech, Senior
Hawaii	Gen Laborers & Trade Helpers	Br Mtce Workers Carpenters, et al	Auto Mech Supv	Auto Mechanic II	Auto Mech I & Machinist
Idaho	-	Utility-Craftsman	Shop Superintendentnet	Shop Foreman	Mechanic
Illinois	-	-	-	-	Auto Mechanic
Indiana	Mtce Worker IV	Mtce Repairman II	Purchasing Adm V	Hwy Shop Supv IV	Mechanic II
Iowa	Mtce Wkr 1 & 2	-	-	Hwy Mtce Supt 2	Auto Mechanic
Kansas	-	-	Shop Superintendent	Auto Mechanic II	Auto Mechanic I
Kentucky	Mtce Laborer	Carpenters, Bridge-men, Welders	-	Garage Foreman	Auto & Diesel Mechanic
Louisiana	Laborer Utility Br Tender, et al	Mtce Repairman Painter, Carp, et al	Auto Shop Supv Equip Specialist	-	Auto Mechanic
Maine	Hwy Mtceman I	Mach, Elec, Carp & Other Trades	Equip Superintendent	Auto Mech Foreman	Auto Repair, et al
Maryland	Hwy Worker	Skilled Craftsman	Dist Equip Supv	Auto Serv Supv II	Auto Serv Spec
Massachusetts	Laborer	-	Supt Shop & Equip	Dist Hwy Equip Fmn	Motor Equip Rprman
Michigan	Laborer IB	Br Worker IIIB,IV,V	Mtr Equip Supt VIIB	Transp Mtce Supv VI	Auto Mech IVB
Minnesota	Laborer I	Bridge Worker	Equip Fab Supt	Hwy Equip Mech Fmn	Hwy Equip Field Mech
Mississippi	Laborer II, et al Gen Ser Emp II	Br & Constr Reprs	Hwy Equip Supv	Equip Repair Foreman	Hwy Equip Mech
Missouri	-	-	Equip Mtce Supt	Chief Shop Mech	Equip Mech Master
Montana	Laborer	Carpenter	Equip Mech Foreman	Wk Shop Foreman	Shop Mechanic
Nebraska	-	-	Hwy Mechanic Supt	Hwy Mech Supv	Mechanic/Machinist
Nevada	Hwy Mtce Laborer	Hwy Maintainer	Hwy Equip Oper Supv	Supv Equip Mech II	Auto Mechanic II
New Hampshire	Hwy Maintainer I	Asst Hwy Patrol Fmn	Asst Hwy Gar Admin	Garage Foreman	Equip Mech II
New Jersey	Mtce Worker	Br & Constr Reprs	Supv Gar Foreman	Shop Foreman	Hwy Equip Mech
New Mexico	Utility Worker Mtce Worker	Mtce Specialist	Master Mechanic	Foreman & Assistant	Auto Mechanic
New York	Laborer	Br & Constr Reprs	-	Foreman, Mechanic	Auto Shop Fmn I, II
North Carolina	Gen Utility Wkr	Mtce Asst - Br Repr Asst, et al	Motor Equip Mtce Supv	Motor Equip Mtce Supv I	Auto Mech, Auto Bdy Rep, Hvy Equip
North Dakota	Mtce Worker I	Mtce Mech I, II,etc	Equip Superintendent	Mech Supv I & II	Motor Equip Mech
Ohio	Hwy Worker 1	Painter, Weld et al	Mtr Veh Shop Foreman	-	Mechanic I & II
Oklahoma	-	-	Equip Mtce Supt 3	Equip Mtce Supt 2	Mechanic I & II
Oregon	Laborer	Elec or Carp	Auto Shop Supt	Auto Shop Supv	Auto Mechanic II
Pennsylvania	Hwy Mtce Wkr Semi, Skid Laborer	Weld, Carpenter Mason, Painter	Hwy Shop Supv	Auto Shop Supv	Hvy Equip Mech
Rhode Island	Laborer	Semi-Skid Laborer	Hwy Equip Mgr 1,2,3	Hwy Shop Supv	Auto Mech 1, 2 Diesel Mechanic
South Carolina	Hwy Mtce Wkr I	Hwy Mtce Wkr II-IV	-	Trades Wkr Supv	Auto Mechanic
South Dakota	-	Mechanic II	Equip Shop Foreman	-	Mechanic I & II
Tennessee	Utility Wkr 1	Carp, Elec, Weld	Regional Gar Supt	Regional Gar Supv	Mechanic
Texas	Mtce Tech I & II	Mtce Tech III	Shop Foreman I-IV	Shop Foreman I-IV	Mtce Tech II & III
Utah	Mtce Worker	Weld, Auto Body Wkr, Carp	Shop Supervisor	Shop Foreman	Mechanic
Vermont	Transp Mtce Worker A	Br Mtce Mechanic	Supt Central Gar	Motor Shop Supv	Motor Equip Mech B
Virginia	Hwy Mtce Helper	Carp, Painter, Plumb, et al	Hwy Engineer B	Hwy Equip Rpr Fmn A	Hwy Equip Mech A&B
Washington	Laborer	Mtce Specialist	Equip Supt	Equip Supervisor	Equip Mechanic 1
West Virginia	Laborer	Craftsman III&IV	Dist Equip Supv	Dist Equip Supv	Mechanic
Wisconsin	(County)	(County)	(County)	(County)	(County)
Wyoming	Hwy Mtce Wkr I	-	Dist Equip Supv	Shop Foreman I&II	Mechanic II

(15)	(16)	(17)	(18)	(19)	
Mechanic Helper	Equipment Operator I	Equipment Operator II	Equipment Operator III	Timekeeper or Clerk	State
Asst Mechanic & Serviceman	Hwy Mtce Tech I WG VI	Hwy Mtce Tech II WG IV	Hwy Mtce Tech III WG III	Clerk I & Engr Asst II Clerk Typist III	Alabama Alaska
Auto Serv Atten I, et al	Hwy Mtce Wkr I	Hwy Mtce Wkr II	Hwy Mtce Wkr III	Clerk Typist I,II,III	Arizona
Mechanic Helper	Single Axle Tr Dr Mower Operator Mtce Worker	Bkh Opr, Mtr Pat-Rough et al Equip Oper	Distp Opr, Lboy Float Tr Driver Hvy Equip Oper	Payroll Clerk Hvy Fld Off Asst	Arkansas California
Auto Mechanic	-	-	Hvy Equip Oper	Typist B	Colorado
	DOT Mtce III	DOT Mtce IV	DOT Mtce V	Supvr Clerk	Connecticut
Auto Mechanic I	Equip Oper I	Equip Oper II	Equip Oper III	Area Clerk (Clerk II & III)	Delaware
Auto Servman	Hwy Mtce Tech I&II	Hvy Equip Oper I	Hvy Equip Oper II	Clerk V	Florida
Mechanic	Laborer II	Equip Operator I	Mtce Equip Oper	Clerk Senior or Mtce Clerk Account Clerk IV	Georgia
Auto Mech Help	Equip Oper I, Trac Oper, et al	Equip Oper II & III Truck Driver, et al	Equip Oper IV Grader Oper, et al	Maintenance Clerk	Hawaii
Auto Serv Wkr	Hwy Mtce Oper Trainee	Hwy Mtce Oper	Hwy Mtce Operator	-	Idaho
Mech Helper Serviceman	Hwy Mtce Equip Oper	Hwy Constr Equip Oper	Power Shovel Oper	-	Illinois
Mechanic IV	Mtce Worker III	-	Mtce Worker II	Clerk IV	Indiana
Auto Mech Help	Equipment Oper 1	Equipment Oper 2	Equipment Oper 3	-	Iowa
Auto Mech Help	Equipment Oper I	Equipment Oper II	Equipment Oper III	Area Office Manager	Kansas
Mechanic Help	Lt Equip Operator	Hvy Equip Operator	Spec Equip Operator	Timekeeper	Kentucky
Trades Help	Equipment Oper 1	Equipment Oper 2	Equipment Oper 3	Clerk 2,3,4,Ldman	Louisiana
Laborer I&II	Hwy Mtce II&IIIA	Hwy Mtce III	Hwy Mtce IV	-	Maine
Auto Serv Mech	Equipment Oper I	Equipment Oper II	Equipment Oper III	Timekeeper or Clerk	Maryland
Auto Serv Help	Skilled Laborer	-	Mtce Equip Operator	Clerk Tallyman	Massachusetts
Mech Handyman	-	-	Equip Oper IIIB	Equip Oper IV	Michigan
Trades Help IIB	Laborer II	-	-	Account Clerk	-
Hwy Equip Mech	(Incl 9)	Hwy Equip Operator	(Incl 9)	(Incl 8)	Minnesota
Auto Serv Att	-	Equip Oper Master	-	Clerk	Mississippi
Equip Mech	Equip Operator	-	-	-	-
Mechanic Help	Maintenanceman	Mtce Crew Leader	Dragline Operator	Dist Stock Clerk	Missouri
Stockman & Serv	Equipment Oper I	Equipment Oper II	-	Fld Business Mgr	Montana
Comb A & B	-	-	Hwy Mtce Wkr/Senior	Office Clerk II	Nebraska
Auto Mechanic I	Hwy Mtce Worker	-	Mtce Spec Roadway	Hwy Dist Off Mgr	Nevada
Trades Helper	Hwy Maintainer II	Hwy Maintainer III-A	Hwy Maintainer III-B	Account Clerk III Clerk IV	New Hampshire
Auto Serviceman	Truck Driver	Equipment Operator	Hvy Equip Operator	-	New Jersey
Mechanic Helper	-	-	-	-	-
Asst Mechanic	Equip Oper I, Hwy Maintainer I	Equip Oper II, Hwy Maintainer II	Equip Oper III, Hwy Maintainer III	Timekeeper or Clerk Transp Office Asst	New Mexico New York
(Incl 14)	Hwy Equip Oper	Const Equip Oper	Crane & Shovel Oper	-	-
-	Trk Driver & Machine Oper I	Machine Oper II & III	Machine Oper IV & V	Clerk III, etc	North Carolina
-	Equipment Oper I	Equipment Oper II	Equipment Oper III	Timekeeper or Clerk	North Dakota
Asst Auto Mech	Equipment Oper 1	Equipment Oper 2	Equipment Oper 3	Timekeeper	Ohio
Auto Mechanic I	Transp Mtce Wkr I	Transp Mtce Wkr II	Senior Transp Mtce Wkr	Transp Field Clerk	Oklahoma
Hvy Equip Mech	Hwy Mtce Worker 2	Hwy Mtce Worker 3	Hwy Mtce Worker 4	(Incl 16)	Oregon
Trainee	-	-	-	-	-
Tradesman Help	Equipment Oper 2	Equipment Oper 3	Equipment Oper 4	Clerk 2	Pennsylvania
Auto Mech Help	Motor Equip Oper	Utility Motor Equip Operator (Incl 11)	Hvy Motor Equip Oper (Incl 11)	Clerk Dispatcher	Rhode Island
Trades Helper	(Incl 11)	(Incl 11)	(Incl 11)	Clerk II,III, Chief Clerk, Cl Typ I,II	South Carolina
Trades Worker	-	-	-	Adm Services Asst	-
Equip Serv Wkr I	Hwy Mtce Wkr I	Hwy Mtce Wkr II	Hwy Mtce Wkr III	Office Supervisor	South Dakota
Equip Serv Wkr II	Utility Wkr 2	Utility Wkr 3	Reg Hvy Equip Oper	Jr. Account Clerk	Tennessee
Mtce Tech I	Mtce Tech I	Mtce Tech II	Mtce Tech III	-	Texas
Auto Serviceman	Hwy Oper Spec 15	Hwy Oper Spec 17	Hwy Oper Spec 19	-	Utah
-	(Incl 10)	(Incl 9)	Equipment Oper C	Storekeeper	Vermont
Hwy Equip Mech	Hwy Equip Oper A	Hwy Equip Oper B	Hwy Equip Oper C	Highway Timekeeper	Virginia
Apprentice	-	Mtce Tech I & II	Mtce Tech III	Office Assistant	Washington
Shop Assistant	-	-	-	-	-
Mechanic Help	Equipment Oper I	Equipment Oper II	Equipment Oper III	Field Clerk	West Virginia
(County)	(County)	(County)	(County)	(County)	Wisconsin
Mechanic I	Hwy Mtce Worker II	Hwy Mtce Equip Oper	Hwy Mtce Hvy Equip Oper	-	Wyoming

MAINTENANCE AND TRAFFIC OPERATIONS PERSONNEL TITLES USED BY STATE HIGHWAY DEPARTMENTS (as of July 1, 1981)

TRAFFIC OPERATIONS PERSONNEL

State	State Traffic Engineer	(20)	(21) Assistant State Traffic Engineer	(22) State Traffic Maintenance Engineer	(23) District Traffic Engineer	(24) Assistant District Traffic Engineer
Alabama	Traffic Engr (Design)	-	-	Traffic Engr (Serv)	Div Traffic Engr	-
Alaska	-	-	-	-	-	-
Arizona	Asst State Engr, Traf	Traf Engr Oper & Design	-	-	Dist Traf Engr or Supervisor	-
Arkansas	Div Head, Traffic	Asst Div Head, Traf	-	-	-	-
California	Chief, Div of Oper	Chief, Traf Engr	-	-	Dist Traf Engineer Asst Dist Traf Engr	-
Colorado	Principal Hwy Engr	Chief, Transp Oper	-	-	Sr Hwy Engineer	-
Connecticut	Manager of Traffic	Asst Traf Engr	Operations Supt	-	Transp Asst Engr	Dist Serv Agent II
Delaware	Chief, Bureau of Traf (Civil Engr VI)	-	-	-	Civil Engr IV	Civil Engr II
Florida	State Traf Oper Engr	Dep St Traf Oper Engineer	St Traf Oper Engr	-	Civil Engr III	Asst Dist Traf Oper Engr
Georgia	St Traf & Safety Engr	Asst St Traf & Safety Engr	-	-	Asst Traf Oper Engr	Transp Engr I
Hawaii	Traffic Engr	Asst Trafic Engr	-	-	Dist Traf & Saf Engineer	-
Idaho	Traf Supv Engr Manager 2	Asst Traf Engr	-	-	Dist Traf Engr	-
Illinois	Engr of Traffic	Engr Manager 1	-	-	Engr Proj Supv	-
Indiana	Hwy Engr Supv II	Hwy Engr Supv IV	Hwy Engr Supv IV	-	Dist Traf Engr	-
Iowa	State Traf Engr	Traf Sign & Mark Engineer	-	-	Dist Traf Engr	-
Kansas	Hwy Mark Engineer	-	-	-	-	-
Kentucky	Dir, Div of Traf	Asst Dir, Div of Traffic	-	-	Dist Traf Engr	Asst Dist Traf Engr
Louisiana	Hwy Coord Engineer	Asst Traf Pl Engr	Traf S & O Engr	-	Dist Traf Oper Engineer	Traffic Engineer
Maine	Traffic Engineer	Asst Traf Engineer	-	-	Div Traf Engr	-
Maryland	Asst Chief Engr, Traf	-	Chief, Bureau of Traf Operations	-	Dist Traf Engr	Asst Dist Traf Engr
Massachusetts	Traffic Engineer	Asst Traf Engr	Traf Mtce Engr	-	Dist Traf Engr	Asst Dist Traf Engr
Michigan	Engr of Safety & Traf	Asst Engr of Safety Traf & Safety	Fld Admin Engineer	-	Dist Traf Engr	Asst Dist Traf Engr
Minnesota	Traffic Engineer	Asst Traf Engr	(Incl 20)	-	Dist Traf Engr	(Incl 23)
Mississippi	Traf Control & Safety Engineer (Incl 1)	Asst Traf Control & Safety Engineer	-	-	-	-
Missouri	-	Asst Div Engr, Traf	-	-	Traffic Engr	Dist Traf Studies Engineer
Montana	Manager, Traf Unit	Asst Mgr, Traf Unit	-	-	Engr. Traf II	-
Nebraska	Traffic Engineer	-	-	-	-	-
Nevada	Chief, Traf Engineer	-	-	-	Hwy Engr II, Traf	-
New Hampshire	Traffic Engineer	Traf Constr Engr	-	-	-	-
New Jersey	Chief Engr Transp Oper & Local Aid	Chief, Bureau of Electrical Oper	Supt Elec, Constr, Mtce & Other	-	District Supv, Electrical	Asst Dist Supv Electrical
New Mexico	Traf Serv Engineer	Asst Traf Serv Engineer	-	-	Dist Traf Engr	-
New York	Dir, Traf & Safety Div G-35	Deputy Dir, Tr. & Safety Div G-34	Dir, Oper Bureau G-33	-	Regional Traf Engr G-29	Sr. Civil Engineer G-23
North Carolina	Mgr of Traf Engr	Asst Mgr Traf Engr	-	-	Div Traf Engr	-
North Dakota	Transp Serv Engr	Tech & Fld Oper Hwy Engineer IV	-	-	-	-
Ohio	Engr of Traffic	Asst Traffic Engr	-	-	Dist Traf Engr	Asst Dist Traf Engr
Oklahoma	Transp Div Engr	Transp Asst Div Engineer	Transp Div Engr	-	Transp Engr II	-
Oregon	State Traf Engr	-	(Incl 2)	-	(Incl 3)	Regional Traf Engr
Pennsylvania	Civil Engineer 6	Civil Engineer 5	-	-	Civ Engr 4 or 5 Tf Cnt Spec Mgr	Civ Engineer 3 Tf Cnt Spec Supv
Rhode Island	-	-	Chief Hwy Mtce Supv, Traffic	-	-	-
South Carolina	Traf & Plan Engr	Asst Traf & Plan Engineer	-	-	Dist Traf Engr	-
South Dakota	Traf Oper Engr	-	-	-	Dist Traf Engr	-
Tennessee	Traf Design Engr	-	-	-	Reg Traffic Engr	-
Texas	Engr Admin, Mtce	-	Sign & Marking Coordinator	-	Dist Traf Engr	-
Utah	Engr for Safety	-	Traffic Engineer	-	Dist Traf Engr	Asst Dist Traf Engr
Vermont	-	-	(Incl 2)	-	-	-
Virginia	State Traf Engr	Asst State Traf Engineer	Dist Traf Engr	-	Dist Traf Engr	Engineer A
Washington	State Traf Engr	Asst State Traf Engineer	-	-	Dist Traf Engr	Asst Dist Traf Engr
West Virginia	Dir of Traf Engr Div	Asst Dir Traf Engr	-	-	Reg Traf Engr	Asst Reg Traf Engr
Wisconsin	Chief Traf Engr	Traffic Engr Supvr	-	-	Dist Chief Traf Engineer	Dist Traffic Engr, Supervisor
Wyoming	State Traf Engr Operations	Traffic Staff Engr	-	-	Dist Traf Engr	-

(25)	(26)	(27)	(28)	(29)	
Traffic Supervisor	Sign Supervisor	Sign Shop Foreman	Traffic Signal & Lighting Foreman	Striper Foreman	State
-	-	Sign Fab Plant Mgr	Signal Shop Supv	-	Alabama
-	-	-	-	-	Alaska
Hwy Mark Crew Supv	Hwy Mtce Crew Supv	Hwy Mark Crew Supv	Traf Signal & Light Crew Supv I & II	Hwy Mtce Wkr III	Arizona
-	Sec Head Traf Serv	Sign Shop Supv	-	Striping Supv	Arkansas
-	Supervisor	Supervisor	Hwy Elec Supv	Supervisor	California
-	Foreman	Foreman	Sr Traf Signal Fmn	Highway Foreman	Colorado
-	Signs & Mark Coord	Supt Portland Plant	Dist Elec Supv	General Supv	Connecticut
Traf Oper Mgr	-	Sign Shop Foreman	Signals Supt (Hwy Mtce Supt)	-	Delaware
-	Sign Shop Supv	Sign Shop Foreman	-	Hwy Foreman II	Florida
-	Chief, Sign Shop Operations	Sign Shop Prod Mgr	Elec Signal Engr	Hwy Mtce Fmn II	Georgia
-	Traf Signs & Mark Supervisor	-	Traf Signal & Hwy Light Supv	Traf Mark Supv	Hawaii
-	-	Sign Shop Supt	Traf Signal Supt	Transp Mtce Fmn	Idaho
Field Engr Oper	(Incl 25)	Sign Shop Supv	-	Lead Worker Pavt Mark Foreman	Illinois
Elec Tech Supv IV	Engr Asst V	Mtce Worker II	Elec Tech II	Mtce Worker II	Indiana
Dist Traf Tech	-	Sign Shop Supt	Traf Sig Repair Supt	Dist Paint Supt	Iowa
-	-	Sign Shop Wkr Supervisor	Light Mtce Supt	Mtce Supervisor	Kansas
Traf Engr Tech I	Traf Foreman	Sign Painter,Sr.	Traf Sig Repairman	Striper Foreman	Kentucky
Sign & Traf Supv	Sign & Strip Supv	Sign Shop Foreman	Elec Foreman	Striper Gang Fmn	Louisiana
-	-	Sign Shop Foreman	Elec Foreman	Hwy Foreman	Maine
-	Traf Sign Shop Supervisor	Traf Sign Shop Assistant Supv	Traf Signal Shop Supervisor	Supv, Pavement Mark	Maryland
Hwy Traf Mtce Fmn	Supv, Traf Equip	Sign Shop Foreman	Traf Elec Foreman	Traf Sec Foreman	Massachusetts
Sign Supv VIII	Sign Supv VII	Sign Supv VB	Electrician VI	Sign Mechanic IV	Michigan
Principal Hwy Tech	Sign Supervisor	(Incl 8)	Elec Traf Mtce Supv	(Incl 25)	Minnesota
-	-	Foreman HM II	-	-	Mississippi
-	-	Sign Shop Foreman	Signal & Light Fmn	(Incl 8)	Missouri
-	-	Painter Foreman	-	Painter Foreman	Montana
-	Sign Shop Supt	Sign Shop Supv	Hwy Comm Manager	(Incl 8)	Nebraska
-	Sign Shop Supv	-	-	Hwy Mtce Foreman	Nevada
Traf Mtce Supv	-	Sign Shop Foreman	Traf Signal Foreman	Pavt Mark Foreman	New Hampshire
-	Supv of Hwy Mark	Foreman Sign Shop	Foreman Electrical	Foreman Hwy Mark	New Jersey
Traf Serv Supv	-	Sign Shop Foreman	Traf Elec Supv	(Incl 8)	New Mexico
Asst Civil Engr	Sign Shop Supv II	Sign Shop Supv I	Supv Electrician	Labor Supervisor	New York
Traf Serv Supv	Traf Serv Crew Ldr	-	Traf Control Tech Supervisor	Traf Serv Crew Ldr	North Carolina
-	-	Sign Shop Foreman	-	-	North Dakota
Traf Control Supv	Sign Superintendent	Sign Supervisor	Signal Elec Supv	Hwy Worker 3	Ohio
Transp Mtce Supt	Transp Mtce Supv	-	-	Transp Mtce Supv	Oklahoma
(Incl 4 & 5)	-	Sign Shop Supt	Elec Superintendent	Strip Crew Supv	Oregon
-	Traf Cont Tech 3	Sign Shop Foreman	Civ Engr 2	Hwy Foreman 2	Pennsylvania
Hwy Mtce Supv Line Striping	Hwy Mtce Supv, Sign	Commercial Artist	Traf Cont Spec	Traf Line Painter	Rhode Island
-	-	Trades Wkr Supv	Elec Foreman	Foreman	South Carolina
-	Sign Supervisor	Sign Shop Foreman	Trades Wkr Supv	Hwy Mtce Crew Supv I - III	South Dakota
Hwy Marking Supt	Hwy Marking Supt	-	-	Hwy Mtce Worker II	South Tennessee
-	-	-	-	Hwy Mtce Worker III	Tennessee
Signal Supervisor	Sign Supervisor	Sign Shop Foreman	Traf Signal Foreman	Paint Foreman	Texas
Traf Shop Supv	(Incl 25)	(Incl 25)	Traf Signal Supv	Mark Crew Ldr B	Utah
Engineer A	Mtce Supt B	(Incl 8)	Hwy Equip Elec Foreman A & B	(Incl 8)	Vermont
Highway Supt	-	Sign Fabricator	Traf Signal Supv	Mtce Supervisor	Virginia
Traf Technician	-	Sign Shop Foreman	Electronic Supv	Washington	West Virginia
Dist Traf Supv	Mark Sign Supv	Mark Sign Coord	Traf Signal & Lighting Foreman	Sign Shop Supv	
Dist Traf Tech	-	Sign Shop Supv	Elec Supervisor	Pavt Mark Crew Chief	Wisconsin
			Sign & Elec Foreman	Hwy Striping Fmn	Wyoming

MAINTENANCE AND TRAFFIC OPERATIONS PERSONNEL TITLES USED BY STATE HIGHWAY DEPARTMENT (as of July 1, 1981)

TRAFFIC OPERATIONS PERSONNEL (Cont'd):

State	(30) Sign Erection Foreman	(31) Sign Fabricator	(32) Sign Technician	(33) Traffic Signal & Lighting Technician
Alabama	-	Sign Painter	Maintenance Tech	Traf Signal Tech
Alaska	-	-	-	Traf Signal Tech, WG III
Arizona	Hwy Mtce Wkr III	Hwy Sign Fab	Painter, Hwy Sign Install, et al	Traf Signal & Light Technician I & II
Arkansas	Signing Supervisor	Sign Maker	Sign Layout Spec	-
California	Supervisor	Supervisor	-	Hwy Elec I or II
Colorado	-	-	Maintenanceman	Traffic Signal Tech 1
Connecticut	Sign & Mark Supv	QCW & Mtce V	-	Elec Technician
Delaware	Sign Supervisor (Hwy Mtce Supv)	Trades Helper Sign Fab I & II	-	Signal Reprm I & II Instrument Tech I & II
Florida	Hwy Foreman I	-	Sign Technician	-
Georgia	Hwy Mtce Foreman II	Skilled Lab (DOT)	Skilled Lab (DOT)	Traf Signal Tech
Hawaii	-	Sign Painter & Painter	-	Hwy Light Wkr & Electrician
Idaho	Transp Mtce Frm	Hwy Sign Fab	-	Electrician
Illinois	(Incl 29)	Silk Screen Oper Sign Painter	(Incl 25)	Traf Signal Engr Traf Signal Tech
Indiana	Mtce Worker II	Mtce Worker III	Mtce Worker II	Elec Technician II
Iowa	-	Sign Shop Wkr	-	Traf Sig Repair Tech Light Mtce Tech
Kansas	-	Sign Shop Worker	-	-
Kentucky	(Incl 26)	Sign Painter	(Incl 26)	Traf Sig Repairman (Jr & Sr)
Louisiana	Sign Foreman (Stwide)	Bldg Mtce Supt 1	Statewide Sign	-
	Sign Foreman	Carp, Welder, et al	Trademan	Statewide Electrician
Maine	Hwy Mtceman IV	Sign Painter	Sign Shop Tech	Traf Sig & Light Tech
Maryland	Supv Rd Mtce	Sign Fabricator III	Sign Fab I & II	Elec Tech Traf Control
Massachusetts	Traf Sec Foreman	Sign Painter & Letterer	Sign Shop Foreman	Traffic Electrician
Michigan	Sign Mechanic IIIB	Sign Mch II & III	Traf Sec Foreman	-
Minnesota	(Incl 8)	(Incl 9)	(Incl 26)	Sign Mch IIIB
Mississippi	-	Silk Screen Printer	-	Hwy Signal Technician
Missouri	(Incl 8)	Silk Screen Oper	Sign Painter	Electronic Technician
Montana	-	Painter	-	Electronic Technician
Nebraska	-	Sign Printer II	(Incl 27)	Engr Traffic I & II
Nevada	Hwy Mtce Foreman	Sign Painter	Silk Screen Oper	Electronics Tech II
New Hampshire	Dist Sign Supv	Sign Fabricator	Hwy Maintainer II	Traf Signal Repman I
	Hwy Sign Mtce Frm	Sign Letterer	-	Traf Signal Repman II
New Jersey	(Incl 29)	Sign Fabricator	Highway Marker	Elec Mechanic I
New Mexico	(Incl 8)	Sign Tech II	-	Traf Elec Tech I, II, III
New York	Labor Supervisor	Sign Shop Worker	-	Electrician
North Carolina	Traffic Sign Erector	Traf Sign Painter	-	Traf Control Technician
North Dakota	-	Sign Fabricator I Sign Fabricator II	-	-
Ohio	Routemarker 2	Sign Worker 1	Sign Worker 2	Signal Electrician 2
Oklahoma	-	Senior Sign Shop Wkr	-	-
Oregon	Sign Crew Supv	(Incl 16, 17, 18)	-	(Incl 11)
Pennsylvania	Hwy Foreman 3	Sign Technician 2	Sign Technician 1	Civil Engr 2 Trf Cn Spec
Rhode Island	Sign Erector Foreman	Sign Painter	-	Electronic Equip Mechanic
South Carolina	(Incl 8)	Trades Worker	-	Electrician
South Dakota	Hwy Mtce Foreman	Traf Sign Fab II	-	-
	Hwy Mtce Worker III	-	-	-
Tennessee	-	Mtce Crew Leader	-	-
Texas	-	Utility Worker	-	-
Utah	Sign Foreman	Sign Fabricator	-	Traf Signal Tech
Vermont	Sign Crew Leader	Sign Painter	-	Mtce Mechanic B
Virginia	(Incl 8)	Hwy Sign Fabricator	Traf Tech C	Hwy Equip Elec
Washington	-	-	Sign Install Tech	Sign Tech I, II or III
West Virginia	-	Sign Fabricators	-	Electronic Tech I, II, III
Wisconsin	Signing Crew Chief	(Various Titles)	Sign Crew Member	Traffic Signal & Lighting Technician
Wyoming	Hwy Traf Sign Tech	Sign Fabricator	Hwy Traf Sign Tech I	Electrician
	-	-	-	Hwy Traf Signal Tech

OTHER RELATED PERSONNEL:			
(34)	(35)	(36)	
Striper Technician	Chief Engineer	Project Engineer	State
	Chief Engineer	Civil Engr I,II,III	Alabama
			Alaska
Hwy Mtce Wkr II	State Engineer	Resident Engineer	Arizona
Striping Machine Dr	Chief Engineer	Chief Proj Supv, et al	Arkansas
Leadworker, Hwy Equip Operator Maintenanceman	Deputy Director	Resident Engineer	California
DOT Maintainers III, IV, V	Chief Engineer	Project Engineer	Colorado
		Transp Senior Engr	Connecticut
	Civil Engineer VII		Delaware
			Florida
Mtce Equipment Oper Heavy Duty	Asst State Hwy Engr	Project Engineer	Georgia
Traf Strip Machine Oper	Chief, Hwys Div	Area Engineer	Hawaii
Hwy Mtce Operator	State Hwy Admin	Project Engineer	Idaho
	Dir of Highways	Engrs Proj Coord	Illinois
		Project Engineer	
Mtce Worker II		Resident Engineer	Indiana
Equip Oper 2 & 3	Dir of Highways	Hwy Engineer IV	
	Chief Engineer	Resident Constr Engr	Iowa
	State Transp Engr	Construction Engr	Kansas
Hvy Equip Operator	State Hwy Engr	Res Constr Engineer	Kentucky
Equip Oper 1,2,3	Chief Hwy Engineer	Dist Constr Engr	Louisiana
	Civil Engineer V	Project Engr et al	Maine
	Chief Engineer	Project Engineer	Maryland
Spray Painter Working Foreman Sign Mechanic IIIB	Chief Engineer	Sr Civil Engineer	Massachusetts
(Incl 9)	Transp Admin Engr	Transp Constr Engr VII	Michigan
Equipment Operator	Deputy Commissioner	Transp Engineer IX	
	(Incl 6)	(Incl 6)	Minnesota
(Incl 17)	Chief Engineer	Project Engineer	Mississippi
Striping Machine Oper	Dir of Highways	Resident Engineer	Missouri
(Incl 8)	Deputy State Engr	-	Montana
Mtce Specialist Striping & Sign Carriage Operator Hwy Maintainer II	Dir of Transportation	Hwy Engineer III	Nevada
	Deputy Commissioner & Chief Engineer	Project Engineer	New Hampshire
	Dir of Engineer & Operations	Project Engr Mtce	New Jersey
(Incl 8)	Chief Hwy Admin	Project Engr Constr Proj Mgr I, II, III	New Mexico
Constr Equip Oper			New York
Machine Oper III	Chief Engr, Oper	Resident Engineer	North Carolina
Equip Operator III	Chief Engineer	Project Coordinator	North Dakota
Routemarker 1	Chief Engineers (3)	Project Engineer 2	Ohio
		Transp Engr Br Mgr	Oklahoma
(Incl 16 & 17)	State Highway Engr	Resident Engineer	Oregon
Equip Operator 3	Chief Highway Engr	Civ Engineer 2 or 3	Pennsylvania
Traffic Line Painter		T C Manager 1 or 2	Rhode Island
(Incl 10 & 11)	State Highway Engr	Project Engineer	South Carolina
	Dir & State Hwy Engr	Resident Engineer	South Dakota
Paint Machine Oper	State Transp Engr	Engineer 2	Tennessee
		Engr Tech 2	
	State Engr, Dir	Engineer IV	Texas
	Assistant Director	Proj & Res Engineer	Utah
Marking Crew Ldr A	Dir of Engr & Constr	Resident Engineer	Vermont
(Incl 8)	Chief Engineer	Constr Proj Engr	Virginia
Mtce Technician III	Deputy Secretary of Transp	Project Engineer	Washington
Center Line Paint Machine Operator Pavt Mark Crew Member	Chief Engr, Fld Oper	-	West Virginia
Hwy Paint Tech I & II		Project Engineer	Wisconsin
	Supt & Chief Engr	Resident Engineer	Wyoming

MONTHLY SALARIES OF HIGHWAY PERSONNEL (as of July 1, 1981)

MAINTENANCE PERSONNEL:

State	(1) State Maintenance Engineer				(2) Assistant State Maintenance Engineer				(3) District Engineer				(4) District Maintenance Engineer				(5) Assistant District Maintenance Engineer			
	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.
Alabama	1	2497	3308	3308	3	1147	2740	2528	9	2111	3308	3142	9	1588	2740	2549	9	1305	2202	1716
Alaska	1	4819	5770	5184	1	4648	5575	4996	5	4483	5371	4819	-	-	-	-	8	3095	3685	3318
Arizona	1	2739	3719	3719	1	2499	3393	3393	7	2739	3719	3719	7	1757	2833	2710	-	-	-	-
Arkansas	1	3044	3409	3202	1	1804	2771	2771	10	2944	3297	3096	10	1590	2487	2470	10	1317	2089	2089
California	1	3167	4211	3837	2	2951	3921	3249	11	2879	4415	4023	12	2563	3566	3093	20	2563	3093	2956
Colorado	1	2713	3636	3636	1	2584	3463	3463	6	2991	4009	4009	9	2584	3463	3463	9	2409	3227	3227
Connecticut	1	2876	3530	3145	2	2659	3264	3154	-	-	-	-	4	2458	3018	2796	8	2273	2790	2499
Delaware	1	2173	3474	3313	-	-	-	-	3	2173	3474	3420	1	1641	2556	2322	4	1534	2322	1884
Florida	1	2392	3323	3207	2	2246	3110	3097	6	2549	3556	-	6	2097	2917	2906	6	1851	2762	2410
Georgia	1	2192	3397	3260	1	1839	2849	2849	7	2192	3397	3192	7	1688	2608	2507	7	1547	2392	2242
Hawaii	1	2267	3780	3609	1	2165	3623	3453	4	2165	3623	3325	1	1974	2993	2859	-	-	-	-
Idaho	2	2613	3863	3590	1	2149	3177	2881	6	2613	3863	3435	6	2149	3177	2603	-	-	-	-
Illinois	1	2635	3730	3460	3	2235	3510	3155	9	2635	3730	-	9	2235	3295	2891	-	-	-	-
Indiana	1	2427	3759	3248	2	2106	3280	2872	6	2106	3280	2800	6	1954	2977	2629	6	1803	2708	2246
Iowa	1	2453	3130	2976	1	2231	2837	2837	6	2453	3130	3130	6	2031	2572	2572	-	-	-	-
Kansas	1	2524	4056	3405	1	2244	3605	2937	6	2524	4056	3516	6	2244	3605	3229	1	1995	3101	2566
Kentucky	1	2074	3214	3214	2	1882	3214	3214	12	2750	3750	3021	12	1882	3214	3061	34	1549	3214	2290
Louisiana	1	2515	3388	3388	13	1745	3085	2801	9	2272	3145	3132	9	2010	2902	2902	9	1878	2781	2781
Maine	1	2263	3017	3017	1	1811	2411	2411	7	1811	2411	2411	-	-	-	-	-	-	-	
Maryland	1	2380	3126	3126	1	2204	2895	2895	7	2203	2895	2895	-	-	-	-	7	1889	2482	2333
Massachusetts	1	2035	2526	-	2	2035	2526	-	8	2111	2629	-	8	1879	2337	-	8	1667	2059	-
Michigan	1	2828	3783	3783	1	2591	3499	3499	9	2347	3235	3235	9	2191	2998	2998	7	2046	2768	2768
Minnesota	1	2394	3144	3144	3	1944	2694	2594	9	2394	3144	3144	16	2228	2977	2920	4	1944	2694	2594
Mississippi	1	2406	3214	3165	1	2255	3149	2850	6	2593	3311	3181	6	2255	3149	2970	-	-	-	-
Missouri	1	2658	3267	3046	1	2142	2679	2679	10	2375	3067	2774	10	1881	2479	2444	20	1649	2184	2148
Montana	1	2473	3253	3231	1	1900	2506	2461	-	-	-	-	11	2073	2728	2523	-	-	-	-
Nebraska	1	2398	3357	2991	1	1930	2702	2480	8	2398	3357	2857	8	1554	2175	1648	-	-	-	-
Nevada	1	2388	3283	3282	1	2185	2995	2995	6	2388	3283	3283	4	2185	2995	2995	-	-	-	-
New Hampshire	1	2238	2753	2753	1	1961	2410	2410	7	1835	2267	2267	-	-	-	-	7	1632	1999	1999
New Jersey	1	3202	4323	3763	1	2390	3226	2808	4	2766	3734	3250	4	2390	3226	2808	6	1966	2655	2310
New Mexico	1	-	-	3710	1	2243	3654	3654	5	2473	3654	3654	5	2243	3654	3299	5	1445	2473	2248
New York	1	3810	4281	4165	1	3104	3530	3422	10	3619	4063	3936	9	2274	3175	3032	41	1499	2121	1981
North Carolina	1	2371	3473	3473	1	2159	3155	3155	14	2159	3155	3155	14	1869	2735	2302	-	-	-	-
North Dakota	1	2413	3535	3380	1	2085	3054	2995	8	2413	3535	3234	9	2085	3054	2855	-	-	-	-
Ohio	1	2099	2983	2983	-	-	-	-	12	1903	2732	2731	12	1899	2660	2626	12	1726	2416	2173
Oklahoma	18	2827	5788	3063	32	2326	3117	2740	18	2827	3788	3063	32	2326	3117	2740	73	1867	2502	1946
Oregon	1	2835	3620	3620	2	2573	3281	3281	5	2553	3281	3281	4	2220	2835	2835	1	2220	2835	2835
Pennsylvania	1	2673	3233	3233	4	2155	2787	2750	11	2750	3416	3400	11	2357	3032	3032	22	1806	2356	2356
Rhode Island	1	1985	2248	2729	1	1171	1470	1718	1	1411	1591	1891	-	-	-	-	-	-	-	
South Carolina	1	2180	3090	3137	2	1938	2747	2665	7	2015	2856	2792	7	1656	2348	2356	-	-	-	-
South Dakota	1	2073	3297	2709	1	1907	3010	2417	5	-	-	2662	5	1754	2749	2279	-	1796	2287	1977
Tennessee	1	2133	3234	2945	1	1944	2945	2133	4	2133	3234	2945	4	1855	2414	2160	4	1524	2038	1740
Texas	1	-	-	3249	1	2207	2777	-	26	-	-	3050	26	2207	2777	-	26	2066	2600	-
Utah	1	2429	3544	2987	-	-	-	-	6	2716	3967	3342	6	1780	2598	2189	-	-	-	-
Vermont	1	2104	3586	-	2	1681	2827	-	-	-	-	-	9	1681	2827	-	9	1338	2236	-
Virginia	1	2275	3107	2601	1	1904	2601	2176	8	2275	3107	2601	8	1904	2601	2176	8	1904	2601	2176
Washington	1	2868	3671	3671	1	2598	3325	3325	6	3013	4052	3751	6	2354	3013	3013	6	2132	2729	2725
West Virginia	1	2372	4249	2971	1	1857	2834	2834	10	2372	4249	2917	10	2049	3682	2330	-	-	-	-
Wisconsin	1	3008	4182	4041	4	2533	3522	3243	8	3008	4182	3721	8	2533	3522	3175	30	2323	3230	2617
Wyoming	1	2979	4621	3801	-	-	-	-	5	2979	4621	3801	5	2569	3986	3321	-	-	-	-
1981 Average																				
1944 Average																				
\$Increase 1944-1981																				
\$Increase 1980-1981																				

1981 Average 3343 2935 3204 2728 2385
 1944 Average 434 341 - 292 264
 \$Increase
1944-1981 b/u 761 - 834 803
 \$Increase
1980-1981 17.9 18.9 18.9 18.3 19.6

(6) Resident Maintenance Engineer				(7) Area Supervisor				(8) Gang Foreman				(9) Sectionman				(10) Laborer				State	
No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.		
41	1428	2202	2083	41	1147	1388	1385	7	909	1109	1109	-	-	-	-	603	676	826	784	Alabama	
16	3095	3685	3318	-	-	-	-	41	2567	3154	3102	-	-	-	-	-	-	-	-	Alaska	
-	-	-	-	50	1499	1971	1913	-	-	-	-	48	1296	1661	1610	30	881	1265	1122	Arizona	
-	-	-	-	82	1237	1954	1935	38	1237	1954	1950	121	956	1467	1426	30	598	921	817	Arkansas	
44	2444	2951	2684	147	1889	2684	2200	562	1646	1979	1888	698	1572	1804	1724	1333	1311	1433	1373	California	
-	-	-	-	41	2081	2788	2788	46	1798	2409	2409	389	1552	2081	1982	40	1050	1408	1216	Colorado	
-	-	-	-	29	1551	1846	1699	65	1407	1687	1547	141	1159	1410	1285	336	910	1073	991	Connecticut	
-	-	-	-	1	1251	1952	1717	17	991	1495	1452	46	839	1273	1197	-	-	-	-	-	
-	-	-	-	18	1146	1795	1661	4	910	1388	1275	14	775	1169	1018	25	632	919	847	Delaware	
23	1851	2762	2410	124	955	1256	1250	164	859	1122	1108	201	814	1057	1020	528	762	668	856	790	
47	1422	2192	2029	-	-	-	-	225	1024	1547	1300	-	-	-	-	334	704	977	767	Georgia	
-	-	-	-	3	1811	2735	2022	20	1436	1898	1583	9	997	1445	1235	93	943	1185	959	Hawaii	
-	-	-	-	50	1455	2149	1853	-	-	-	-	53	1256	1857	1548	-	-	-	-	Idaho	
35	1965	3075	2472	-	-	-	-	280	-	-	1710	1603	-	-	1660	-	-	-	-	Illinois	
18	1675	2466	1922	37	1376	2055	1638	149	1112	1674	1312	331	947	1421	1210	1098	830	1252	965	Indiana	
24	1853	2340	2304	109	1501	1853	1770	1	1636	2031	2031	-	-	-	-	3	880	1059	999	Iowa	
25	1995	3101	2601	35	1430	2221	2038	35	1253	1885	1637	115	1253	1885	1637	-	-	-	-	Kansas	
-	-	-	-	2	951	2177	1475	195	862	1626	1274	125	782	1475	1155	633	583	1100	821	Kentucky	
-	-	-	-	96	900	1856	1675	262	809	1603	1365	-	-	-	-	809	605	1257	801	Louisiana	
-	-	-	-	35	1345	1754	1672	132	1121	1431	1350	52	910	1133	1080	152	800	978	904	Maine	
23	1623	2127	2091	29	1299	1706	1604	-	-	-	-	194	912	1190	1076	759	663	929	720	Maryland	
-	-	-	-	35	1879	2337	-	96	986	1266	-	100	929	1198	-	484	774	997	-	Massachusetts	
-	-	-	-	13	1618	2159	1888	53	1512	1998	1750	54	1322	1663	1492	35	980	1307	1143	Michigan	
-	-	-	-	33	1667	2328	2163	104	1493	1933	1811	1423	1262	1378	1350	44	997	1378	1020	Minnesota	
-	-	-	-	26	1191	1775	1433	50	870	1290	1031	448	695	1045	829	338	601	901	689	Mississippi	
-	-	-	-	101	1290	1719	1663	38	1158	1540	1412	361	1038	1387	1308	-	-	-	-	Missouri	
-	-	-	-	20	1467	1993	1958	-	-	-	118	1647	1716	1674	11	1231	1251	1235	-	Montana	
-	-	-	-	30	1345	1882	1627	85	1164	1629	1366	-	-	-	-	-	-	-	-	Nebraska	
-	-	-	-	6	1682	2284	2137	25	1421	1914	1872	43	1308	1756	1650	-	991	1308	-	-	Nevada
10	1253	1518	1518	10	1284	1567	1567	21	1118	1352	1295	98	1118	1352	1236	265	773	886	827	New Hampshire	
5	1617	2183	1900	23	1396	1887	1642	122	1206	1629	1418	137	1094	1477	1286	565	934	1051	993	New Jersey	
-	-	-	-	16	1248	2136	1886	137	1078	2034	1562	16	767	1593	1188	77	600	1189	807	New Mexico	
65	2032	2604	2371	-	-	-	-	216	1130	1473	1233	670	871	1004	938	1622	749	871	817	New York	
35	1623	2371	1997	87	1239	1785	1377	162	995	1419	1207	689	735	1295	1000	1240	647	911	779	North Carolina	
-	-	-	-	8	1218	1784	2102	4	1218	1784	1649	87	1160	1699	1477	6	825	1209	1160	North Dakota	
-	-	-	-	88	1080	1428	1287	326	905	1060	1022	727	789	945	897	53	738	884	840	Ohio	
-	-	-	-	26	1822	2442	1844	109	1428	1913	1560	-	-	-	-	-	-	-	-	Oklahoma	
16	2016	2573	2573	-	-	-	-	130	1361	1917	1638	126	1302	1507	1446	33	873	1086	885	Oregon	
-	-	-	-	60	-	-	-	774	1119	1452	1452	-	-	-	-	2842	842	1035	956	Pennsylvania	
2	1119	1300	1568	9	1041	1116	1279	26	943	1004	1135	3	885	941	1108	257	774	814	857	Rhode Island	
47	1361	2087	1884	-	-	-	-	289	786	1410	1154	-	-	-	-	812	580	814	653	South Carolina	
1	1613	2510	2167	10	1365	2092	1862	5	1255	1910	1578	83	1154	1744	1458	-	-	-	-	South Dakota	
12	1796	2287	2038	5	1015	1421	1181	42	938	1327	1056	124	779	1139	933	671	556	858	634	Tennessee	
-	-	-	-	56	1537	2066	-	97	968	1696	-	352	1346	1935	-	3670	580	1142	-	Texas	
-	-	-	-	3	1604	2342	1973	16	1420	2078	1749	71	1420	2078	1749	9	919	1686	1303	Utah	
-	-	-	-	9	1071	1758	-	39	802	1335	-	127	688	1140	-	217	641	1033	-	Vermont	
55	1333	1820	1523	294	1219	1666	1393	634	1020	1393	1166	-	-	-	-	112	598	817	683	Virginia	
-	-	-	-	31	1932	2473	2460	67	1509	1932	1920	164	1509	1750	1744	2	1017	1179	1108	Washington	
-	-	-	-	55	1285	2579	1598	42	1173	2348	1316	271	1026	1234	1127	240	842	(Fixed)	842	West Virginia	
-	-	-	-	28	1787	2354	1890	-	-	-	-	-	-	-	-	-	-	-	Wisconsin		
-	-	-	-	29	1494	2316	2101	33	1353	2099	1813	-	-	-	-	58	912	1414	1056	Wyoming	

2172	1772	1517	1330	927	1981 Average
-	-	141	152	121	1944 Average
-	-	976	775	666	\$Increase 1944-1981
19.9	19.2	19.6	16.0	15.6	\$Increase 1980-1981

MONTHLY SALARIES OF HIGHWAY PERSONNEL (as of July 1, 1981)

State	MAINTENANCE PERSONNEL (cont'd):				(12)				(13)				(14)				(15)				
	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	
Alabama	35	972	1471	1234	9	1796	2293	2282	6	1227	1471	1455	83	1004	1264	1209	16	744	1038	789	
Alaska	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Arizona	25	1062	1551	1393	3	1897	2578	2340	20	1499	2132	1933	87	1212	1826	1710	16	933	1356	1163	
Arkansas	78	849	1307	1263	11	1237	1954	1954	10	1161	1820	1674	94	754	1307	1272	-	-	-	-	
California	8	1685	2124	1848	17	2173	2879	2621	52	1889	2278	2073	316	1724	2073	1889	38	1311	1433	1373	
Colorado	805	1408	1888	1712	8	2081	2788	2788	8	1798	2409	2409	94	1798	2081	1982	19	1630	1888	1552	
Connecticut	51	1057	1293	1174	14	1407	1687	1547	-	-	-	-	168	1057	1293	1174	-	-	-	-	
Delaware	16	750	1120	1028	4	1251	1952	1873	4	1146	1795	1479	23	839	1273	1165	9	701	1030	948	
Florida	-	955	1256	1218	-	906	1188	1179	-	-	-	-	30	1009	1332	1321	105	906	1188	1103	35
Georgia	43	776	1107	992	7	1362	2099	1665	8	1205	1839	1612	93	947	1422	1204	61	882	1307	960	
Hawaii	32	1198	1628	1308	4	1483	1813	1608	2	1299	1579	1531	18	1230	1490	1325	7	1020	1185	1164	
Idaho	13	1197	1768	1364	6	1528	2257	1929	5	1319	1949	1630	48	1197	1768	1418	9	893	1319	1058	
Illinois	-	-	-	-	-	-	-	-	-	-	-	-	29	-	-	1599	-	-	-	-	
Indiana	3	984	1482	1029	1	1112	1675	1406	39	1265	1886	1415	85	1112	1674	1365	33	800	1203	1008	
Iowa	-	-	-	-	-	-	-	-	1	1501	1853	1853	142	1199	1305	1295	21	1059	1148	1118	
Kansas	-	-	-	-	6	1368	2057	1861	7	1147	1724	1478	97	1004	1415	1208	26	761	1070	918	
Kentucky	44	745	1976	1274	-	-	-	-	14	862	1626	1288	214	612	1274	1064	14	480	906	659	
Louisiana	145	774	1603	1251	29	1011	1771	1659	-	-	-	-	190	851	1603	1260	67	741	1197	937	
Maine	41	959	1329	1190	7	1405	1842	1757	13	1122	1431	1380	123	959	1202	1170	13	784	1021	970	
Maryland	13	856	1114	881	7	1043	1366	1229	29	972	1272	1145	54	912	1189	1070	17	710	909	818	
Massachusetts	-	-	-	-	1	1641	2154	-	8	1039	1354	-	19	929	1198	-	42	811	1048	-	
Michigan	57	1132	1469	1300	1	1618	2139	1944	17	1512	1998	1755	77	1322	1663	1492	32	1028	1373	1201	
Minnesota	102	1505	1550	1520	5	1667	2245	2088	18	1606	2161	2050	159	1550	1644	1600	34	934	1472	1184	
Mississippi	8	990	1390	1055	6	1220	1820	1375	10	1104	1664	1242	46	1021	1529	1090	22	768	1149	876	
Missouri	-	-	-	-	9	1366	1818	1755	10	1158	1540	1471	52	1004	1312	1179	25	854	1122	952	
Montana	5	1577	1637	1582	12	1467	1993	1959	9	1647	1707	1651	48	1577	1637	1567	45	1231	1369	1257	
Nebraska	-	-	-	-	1	1445	2024	1782	3	1251	1751	1418	72	1007	1410	1148	25	871	1220	927	
Nevada	216	1114	1481	1335	-	1755	2388	-	8	1544	2090	2090	70	1363	1832	1793	-	-	-	-	
New Hampshire	112	986	1179	1130	1	1679	2054	2054	11	1153	1394	1335	5	986	1179	1179	1	887	1024	1024	
New Jersey	156	1094	1477	1286	4	1617	2183	1900	38	1267	1711	1489	131	1094	1477	1286	63	890	1001	946	
New Mexico	16	805	1593	1151	-	-	-	-	15	1027	2034	1698	81	767	1517	1145	-	-	-	-	
New York	578	833	1174	927	10	1544	1792	1668	19	1170	1367	1268	280	1043	1223	1133	43	832	983	907	
North Carolina	319	767	1355	1023	15	1405	2261	1028	130	1083	1701	1392	530	801	1419	1110	-	-	-	-	
North Dakota	-	-	-	-	8	1218	1784	1656	-	-	-	-	24	1107	1622	1409	-	-	-	-	
Ohio	107	967	1180	1123	2	1428	1993	1556	19	1298	1728	1556	304	967	1180	1079	19	844	998	963	
Oklahoma	-	-	-	-	8	1736	2326	1917	1	1463	1960	1455	51	1295	1736	1455	18	1119	1499	1190	
Oregon	20	1491	1718	1581	5	1502	1917	1824	5	1361	1740	1740	67	1422	1562	1490	11	1086	1357	1136	
Pennsylvania	238	998	1276	1220	-	-	-	-	66	-	-	-	560	998	1276	1233	150	842	1035	1022	
Rhode Island	16	814	856	938	1	1003	1072	1014	-	-	-	-	1	801	974	1171	1	774	814	945	
South Carolina	1279	597	1030	843	-	-	-	-	47	995	1410	1293	104	920	1304	1106	104	621	1030	835	
South Dakota	5	976	1453	1131	9	1255	1910	1535	-	-	-	-	24	789	1210	1038	2	663	1009	920	
Tennessee	27	704	1056	858	4	1096	1524	1278	10	894	1278	1056	119	858	1230	858	-	-	-	-	
Texas	3713	1064	1364	-	49	968	1815	-	-	968	1815	-	-	848	1001	-	-	743	1001	-	
Utah	18	872	1999	1436	1	1604	2342	1973	12	1061	2204	1632	29	872	1999	1436	9	820	1342	1081	
Vermont	18	764	1271	-	1	1413	2378	-	1	1071	1758	-	43	764	1271	-	-	-	-	-	
Virginia	63	933	1523	1166	8	1593	2176	1820	75	1116	1523	1274	342	933	1393	1166	62	714	976	817	
Washington	19	1436	1666	1641	6	1839	2354	2300	7	1585	2029	2001	82	1509	1750	1718	27	1239	1436	1373	
West Virginia	137	1072	1234	1105	37	1072	2579	1474	218	1072	1121	1100	83	981	1026	998	32	889	934	902	
Wisconsin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Wyoming	-	-	-	-	6	1731	2685	2373	31	1422	2432	1798	32	1288	1998	1559	2	1111	1723	1406	
1981 Average																					
1944 Average																					
\$Increase 1944-1981																					
\$Increase 1980-1981																					

1981
1944
\$Increase
1980-1981

14.4

14.4

17.0

17.0

17.6

18.5

(16) (17) (18) (19)

	Equipment Operator I No.	No.	Min.	Max.	Aver.	Equipment Operator II No.	No.	Min.	Max.	Aver.	Equipment Operator III No.	No.	Min.	Max.	Aver.	Timekeeper or Clerk No.	No.	Min.	Max.	Aver.	State
286	771	936	918	165	909	1109	1087	163	1038	1264	1260	102	718	1147	1017						Alabama
1	1893	2346	2294	98	2123	2638	2586	317	2263	2808	2756	2	1393	1613	1475						Alaska
253	990	1265	1127	171	1137	1451	1303	61	1296	1661	1610	26	708	1126	900						Arizona
599	637	975	907	335	670	1027	1011	68	754	1155	1118	10	709	1086	1029						Arkansas
-	-	-	-	1036	1501	1646	1571	549	1572	1724	1650	74	1215	1454	1325						California
-	-	-	-	-	-	-	-	38	1512	2025	1929	19	711	952	784						Colorado
664	969	1150	1058	253	1000	1190	1094	101	1057	1293	1174	-	-	-	-						Connecticut
166	701	1030	865	49	775	1169	1070	59	839	1273	1165	14	701	1030	948						Delaware
762	668	856	790	528	737	951	925	107	774	1002	997	142	814	1057	1096	22	814	1057	1043		Florida
1005	727	1025	848	453	751	1082	898	230	882	1307	1118	52	732	1024	833						Georgia
67	950	1185	982	60	1053	1397	1200	13	1198	1538	1341	4	1020	1441	1231						Hawaii
13	985	1455	1007	-	-	-	-	326	1140	1684	1331	4	938	1385	1100						Idaho
458	-	-	1660	72	-	-	1872	17	-	-	1674	-	-	-	-						Illinois
-	947	1421	1225	-	-	-	-	12	1070	1612	1350	37	800	1203	955						Indiana
812	942	1149	1082	261	1019	1255	1220	128	1059	1305	1279	-	-	-	-						Iowa
571	839	1181	971	417	920	1297	1138	175	1004	1415	1305	28	1004	1415	1126						Kansas
1143	583	1100	821	720	643	1338	1048	73	782	1475	1274	111	643	1213	951						Kentucky
807	741	1197	952	571	809	1519	1201	173	893	1455	1407	122	660	1191	1021						Louisiana
416	831	1074	990	167	910	1133	1080	121	959	1202	1140	-	-	-	-						Maine
271	754	971	880	214	802	1040	941	42	856	1116	1007	29	856	1116	1007						Maryland
749	811	1048	-	-	-	-	-	95	885	1145	-	35	751	964	-						Massachusetts
54	1028	1373	1201	331	1133	1469	1300	-	1322	1663	1492	32	978	1270	1124						Michigan
-	-	-	-	12	1505	1550	1550	-	-	-	-	-	-	-	-						Minnesota
448	695	1045	829	185	957	1432	1065	-	-	-	-	40	622	933	767						Mississippi
1666	805	1066	955	1044	897	1181	1108	7	1004	1312	1328	22	887	1168	1072						Missouri
303	1369	1439	1394	73	1508	1568	1494	-	-	-	-	11	1467	1937	1768						Montana
236	811	1135	889	-	-	-	-	515	937	1311	1096	36	701	982	820						Nebraska
-	-	-	-	-	-	-	-	89	1206	1611	1544	6	1308	1756	1756						Nevada
125	830	967	898	12	887	1024	990	39	917	1066	1021	7	886	1047	1047						New Hampshire
409	940	1103	1022	145	946	1215	1081	27	1094	1477	1286	-	-	-	-						New Jersey
265	767	1376	900	395	837	1593	1109	195	978	1757	1284	39	600	1132	850						New Mexico
1175	794	905	866	369	833	960	899	102	1012	1182	1105	147	672	992	817						New York
1576	673	953	813	727	735	1083	902	909	835	1239	1018	100	647	1039	882						North Carolina
12	825	1209	1025	212	1107	1622	1248	-	-	-	-	7	868	1272	1171						North Dakota
607	844	998	1006	145	905	1060	1022	67	967	1180	1079	100	808	998	963						Ohio
845	814	1091	929	227	943	1264	1094	95	1015	1360	1190	116	898	1203	1012						Oklahoma
657	1137	1292	1206	254	1237	1357	1302	49	1292	1422	1367	-	-	-	-						Oregon
560	899	1119	1049	2018	965	1220	1165	250	1035	1335	1310	30	842	1035	996						Pennsylvania
127	835	886	952	17	860	913	956	22	913	972	972	20	774	814	848						Rhode Island
-	-	-	-	-	-	-	-	-	-	-	-	119	597	1159	919						South Carolina
2	663	1009	761	304	789	1210	998	102	898	1326	1191	7	789	1210	1097						South Dakota
634	634	974	779	316	704	1056	858	60	742	1096	894	32	634	933	742						Tennessee
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						Texas
145	1035	1509	1272	141	1157	1686	1422	94	1277	1865	1571	-	-	-	-						Utah
-	-	-	-	-	-	-	-	38	764	1271	-	12	726	1213	-						Vermont
2741	714	976	817	941	781	1066	893	89	854	1166	976	233	781	893	1066						Virginia
-	-	-	-	521	1179	1509	1383	74	1436	1666	1661	31	921	1179	1107						Washington
220	889	934	903	850	981	1026	996	458	1072	1121	1090	46	889	960	918						West Virginia
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						Wisconsin
65	1007	1561	1166	177	1167	1809	1418	77	1288	1998	1726	-	-	-	-						Wyoming

1028	1189	1321	1040	1981 Average
-	-	-	142	1944 Average
-	-	-	632	\$Increase 1944-1981
17.8	17.5	18.8	18.2	\$Increase 1980-1981

MONTHLY SALARIES OF HIGHWAY PERSONNEL (as of July 1, 1981)

TRAFFIC OPERATIONS PERSONNEL:																					
	(20)				(21)				(22)				(23)				(24)				
State	State Traffic No.	Traffic Min.	Engineer Max.	Aver.	Assistant State Traffic No.	Min.	State Max.	Aver.	State Maintenance No.	Traffic Min.	Engineer Max.	Aver.	District Traffic No.	Min.	District Engineer Max.	Aver.	Assistant District Traffic No.	Min.	District Engineer Max.	Aver.	
Alabama	1	1945	2740	2740	-	-	-	-	1	1726	2202	2202	9	1428	2019	1813	-	-	-	-	
Alaska	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Arizona	1	2739	3719	3719	2	2499	3393	3393	-	-	-	-	4	1757	2833	2572	-	-	-	-	
Arkansas	1	2944	3297	3096	1	1805	2771	2771	-	-	-	-	-	-	-	-	-	-	-	-	
California	1	3413	4415	3945	2	3245	3921	3572	-	-	-	-	17	2563	3566	3093	48	2226	3093	2684	
Colorado	1	2991	4009	4009	1	2713	3636	3636	-	-	-	-	3	2461	3298	3298	-	-	-	-	
Connecticut	1	2659	3500	3500	1	2458	3018	2667	1	2273	2790	2499	4	1594	1944	1769	4	1551	1846	1699	
Delaware	1	2173	3474	3474	-	-	-	-	1	1879	2880	2751	1	1641	2556	2322	2	1534	2322	1946	
Florida	1	2392	3323	3340	4	2097	2976	2571	1	2097	2780	-	6	2097	2917	-	13	1521	2652	-	
Georgia	1	2192	3397	3397	2	1839	2849	2726	-	-	-	-	7	1547	2392	2196	7	1253	1922	1843	
Hawaii	1	1974	2993	3131	1	1806	2727	2607	-	-	-	-	-	-	-	-	-	-	-	-	
Idaho	1	2370	3503	3025	1	2149	3177	2881	-	-	-	-	6	1768	2613	2434	-	-	-	-	
Illinois	1	2635	3730	3425	1	2435	3510	3130	-	-	-	-	9	2235	3295	2814	15	1550	3075	2419	
Indiana	1	2427	3759	3447	1	2106	3280	3003	1	2106	3280	2895	6	1803	2708	2147	6	1675	2466	1920	
Iowa	1	2031	2572	2572	1	1704	2130	2130	-	-	-	-	-	-	-	-	-	-	-	-	
Kansas	1	1995	3101	2912	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Kentucky	1	2074	3214	3214	2	1882	3214	3061	-	-	-	-	14	1707	3214	2672	5	1155	2644	1894	
Louisiana	1	2333	3206	3206	5	1878	3024	2854	1	2010	2902	2902	9	1878	2781	2716	2	1745	2471	2224	
Maine	1	1811	2411	2411	1	1672	2224	2224	-	-	-	-	7	1442	2018	1760	-	-	-	-	
Maryland	1	2040	2895	2895	-	-	-	-	1	1625	2130	2130	7	1625	2130	2130	7	1505	1980	1905	
Massachusetts	1	2035	2526	-	1	1667	2059	-	1	1879	2337	-	8	1879	2337	-	8	1667	2059	-	
Michigan	1	2020	3703	3703	1	2591	3499	3499	1	2347	3235	3235	9	2191	2990	2990	6	2046	2768	2768	
Minnesota	1	2394	3144	3144	4	2228	2977	2920	-	-	-	-	9	1944	2694	2594	-	-	-	-	
Mississippi	1	2406	3214	3165	1	2051	2865	2699	-	-	-	-	-	-	-	-	-	-	-	-	
Missouri	-	-	-	-	1	2142	2679	2679	-	-	-	-	3	1766	2336	2336	16	1534	2027	1962	
Montana	1	1900	2561	2518	1	1742	2296	2198	-	-	-	-	5	1467	1937	1917	-	-	-	-	
Nebraska	1	2231	3123	2943	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Nevada	1	2185	2995	2995	-	-	-	-	-	-	-	-	2	1611	2185	2185	-	-	-	-	
New Hampshire	1	2087	2555	2555	1	1784	2197	2197	-	-	-	-	-	-	-	-	-	-	-	-	
New Jersey	1	3202	4323	3763	1	2509	3387	2948	1	2064	2786	2426	4	1617	2183	1900	7	1396	1887	1642	
New Mexico	1	2243	3654	3480	1	1937	3314	2727	-	-	-	-	4	2136	3654	3159	-	-	-	-	
New York	1	3462	4128	4128	1	3462	4128	4128	1	3124	3741	3741	10	2539	3039	2789	31	1903	2215	2059	
North Carolina	1	3150	3166	3166	3	1860	3735	3735	-	-	-	-	14	1623	2371	1906	-	-	-	-	
North Dakota	1	2413	3535	3385	1	2085	3054	2960	-	-	-	-	-	-	-	-	-	-	-	-	
Ohio	1	2090	2931	3134	1	1899	2660	2544	-	-	-	-	1	1726	2416	2173	12	1428	1993	1795	
Oklahoma	18	2827	3788	3063	32	2326	3117	2740	18	2827	3788	2740	73	1867	2502	1946	-	-	-	-	
Oregon	1	2553	3281	3281	-	-	-	-	-	-	-	-	-	-	-	-	5	1917	2448	2448	
Pennsylvania	1	2454	3165	3165	2	2155	2787	2787	-	-	-	-	11	-	-	-	44	1583	2064	2002	
Rhode Island	-	-	-	-	-	-	-	-	1	1119	1300	1422	-	-	-	-	-	-	-	-	
South Carolina	1	2180	3090	3090	2	1938	2747	2747	-	-	-	-	4	1656	2348	2046	-	-	-	-	
South Dakota	1	1613	2510	2275	1	1613	2510	2206	-	-	-	-	5	1613	2510	2167	-	-	-	-	
Tennessee	1	1944	2945	2133	-	-	-	-	1	1318	1789	1731	4	1796	2287	2038	-	-	-	-	
Texas	-	-	-	-	-	-	-	-	-	-	-	-	13	2007	2777	-	-	-	-	-	
Utah	1	2567	3746	3156	-	-	-	-	5	1780	3202	2491	3	1780	3202	2491	1	1604	2342	1973	
Vermont	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Virginia	1	2275	3107	2601	1	1904	2601	2176	8	1593	2176	1820	-	-	-	-	8	1457	1990	1666	
Washington	1	2354	3013	3013	1	2027	2598	2598	-	-	-	-	5	1932	2473	2467	5	1585	2029	2001	
West Virginia	1	2372	4249	3115	1	2049	3682	2834	-	-	-	-	3	1407	3045	1953	3	1173	2138	1568	
Wisconsin	1	3008	4182	3594	4	2527	3540	3002	-	-	-	-	7	2208	3000	2887	8	2208	2908	2659	
Wyoming	1	2569	3986	3443	2	2327	3609	2828	-	-	-	-	5	2108	3270	2545	-	-	-	-	
1981 Average			3169				2833					2468			2359			2047			
1944 Average			-				-					-			-			-		-	
\$Increase 1944-1981			-				-					-			-			-		-	
\$Increase 1980-1981			20.0				22.2					21.6			18.0			16.3			

(25)				(26)				(27)				(28)				(29)				
Traffic Supervisor	Sign Supervisor	Shop Foreman	Traffic Signal & Lighting Foreman	Sign Supervisor	Shop Foreman	Foreman	Striper Foreman	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	State
No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	
-	-	-	-	-	-	-	-	1227	1471	1349	1	1588	2019	2019	-	-	-	-	Alabama	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Alaska	
7	1387	1826	1763	1	1499	1991	1971	1	1387	1826	1682	15	1499	2132	1560	11	1296	1661	1614	Arizona
-	-	-	-	1	1590	2487	2487	1	1237	1954	1954	-	-	-	-	2	1237	1954	1876	Arkansas
-	-	-	-	-	-	-	-	-	-	-	-	27	1935	2332	2124	-	-	-	-	California
-	-	-	-	4	1798	2409	2409	1	1798	2409	2409	7	2232	2991	2991	8	1798	2409	2409	Colorado
-	-	-	-	1	1669	2034	2034	1	1340	1613	1500	-	-	-	-	-	-	-	-	Connecticut
2	1534	2322	2212	-	-	-	-	1	991	1495	1198	1	1251	1952	1873	-	-	-	-	Delaware
-	-	-	-	1	1198	1820	-	3	814	1120	-	-	-	-	-	9	995	1256	1250	Florida
-	-	-	-	1	1688	2608	2615	1	1422	2192	2196	1	1547	2392	2196	9	1024	1547	1500	Georgia
-	-	-	-	3	1429	1663	1449	-	-	-	-	1	1668	1955	1668	1	1254	1458	1458	Hawaii
-	-	-	-	-	-	-	-	1	1319	1949	1528	1	1604	2370	2149	2	1455	2149	1853	Idaho
27	1315	2715	1942	-	-	-	-	11	1468	2204	1917	-	-	-	-	15	-	-	1710	Illinois
6	1161	1744	1353	6	1112	1675	1332	37	1070	1612	1432	6	1027	1519	1131	37	1070	1612	1363	Indiana
6	1548	1927	1888	-	-	-	-	1	1328	1636	1335	1	1367	1475	1475	6	1501	1853	1753	Iowa
-	-	-	-	-	-	-	-	1	1096	1554	1386	-	-	-	-	6	1253	1885	1637	Kansas
11	951	1792	1565	10	782	1475	1260	9	643	1213	1048	15	710	1338	1255	11	782	1475	1165	Kentucky
9	985	1603	1499	4	1086	1768	1768	5	809	1603	1351	18	1086	1768	1689	12	985	1603	1540	Louisiana
-	-	-	-	-	-	-	-	1	1121	1431	1431	1	1164	1492	1492	1	1121	1431	1431	Maine
-	-	-	-	1	1205	1585	1520	1	910	1190	1145	1	1300	1705	1640	7	972	1272	1218	Maryland
7	1157	1525	-	33	1039	1354	-	1	1039	1354	-	1	1039	1354	-	32	1039	1354	-	Massachusetts
1	1834	2471	2471	10	1618	2159	1888	10	1372	1834	1603	1	1512	1998	1750	13	1322	1663	1492	Michigan
14	1629	2163	2088	14	1388	1667	1637	-	-	-	-	1	1606	2161	2088	-	-	-	-	Minnesota
-	-	-	-	-	-	-	-	73	938	1404	1113	-	-	-	-	-	-	-	Mississippi	
-	-	-	-	-	-	-	-	1	1226	1607	1531	6	1158	1540	1528	-	-	-	-	Missouri
-	-	-	-	-	-	-	-	1	1577	1637	1584	-	-	-	-	2	1577	1637	1561	Montana
-	-	-	-	1	1345	1882	1656	1	1164	1629	1419	1	1554	2175	-	-	-	-	-	Nebraska
-	-	-	-	1	1611	2185	2185	-	-	-	-	-	-	-	6	1308	1756	1756	Nevada	
1	1387	1671	1671	-	-	-	-	1	1012	1231	1231	1	1236	1503	1503	8	1012	1231	1231	New Hampshire
-	-	-	-	1	1396	1887	1642	1	1267	1711	1489	29	1267	1711	1489	6	1206	1629	1418	New Jersey
3	1376	2863	2112	-	-	-	-	1	805	1376	1376	2	1310	2243	1847	-	-	-	-	New Mexico
84	1545	1810	2013	1	1419	1627	1533	1	1134	1328	1229	14	1170	1385	1278	20	871	1004	938	New York
14	1239	1785	1377	14	911	1295	1103	-	-	-	-	14	1083	1551	1262	14	911	1295	1103	North Carolina
-	-	-	-	-	-	-	-	8	1218	1784	1544	-	-	-	-	-	-	-	North Dakota	
13	998	1298	1288	1	1180	1570	1298	1	1038	1298	1171	4	1180	1570	1412	24	905	1060	1031	Ohio
26	1822	2442	1844	109	1428	1913	1560	-	-	-	-	-	-	-	-	109	1428	1913	1560	Oklahoma
-	-	-	-	-	-	-	-	1	1502	1917	1917	2	1917	2115	2115	8	1361	1577	1577	Oregon
-	-	-	-	11	1172	1518	1500	1	1074	1386	1386	11	1335	1732	1700	23	1035	1335	1323	Pennsylvania
1	1041	1116	1279	1	1041	1116	1279	1	1043	1199	1062	1	1046	1119	1336	1	943	1004	1135	Rhode Island
-	-	-	-	-	-	-	-	7	995	1410	1214	8	995	1410	1263	10	786	1410	1255	South Carolina
-	-	-	-	1	1062	1592	1535	1	976	1453	1389	-	-	-	-	5	789	1210	998	South Dakota
4	1096	1524	1278	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Tennessee	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Texas	
1	1780	2598	2189	1	1604	2342	1973	1	1357	1865	1611	3	1060	2205	1632	6	1420	2078	1749	Utah
1	1071	1758	-	-	-	-	-	-	-	-	-	1	844	1397	-	7	802	1335	-	Vermont
-	-	-	-	3	1219	1666	1393	-	-	-	-	19	1116	1666	1393	-	-	-	-	Virginia
2	1932	2473	2442	-	-	-	-	6	1509	1750	1750	5	1509	1932	1932	6	1509	1932	1920	Washington
7	811	1946	1122	-	-	-	-	1	1173	1773	1344	1	1693	2579	2040	8	937	1407	1278	West Virginia
3	1782	2342	1921	1	1857	2443	2259	10	1583	2078	1750	1	1656	2443	2345	17	1278	1590	1434	Wisconsin
2	1353	2097	1610	-	-	-	-	1	1648	2556	2103	5	1569	2432	2084	10	1422	2205	1795	Wyoming

1769	1730	1504	1735	1480	1981 Average
-	-	-	-	-	1944 Average
-	-	-	-	-	\$Increase 1944-1981
23.6	21.2	17.0	19.0	18.6	\$Increase 1980-1981

MONTHLY SALARIES OF HIGHWAY PERSONNEL (as of July 1, 1981)

TRAFFIC OPERATIONS PERSONNEL (Cont'd):

State	(30)				(31)				(32)				(33)				(34)			
	Sign No.	Erection Min.	Foreman Max.	Aver.	Sign No.	Fabricator Min.	Max.	Aver.	Sign No.	Technician Min.	Max.	Aver.	Traffic No.	Signal & Lighting Min.	Technician Max.	Aver.	Striper No.	Technician Min.	Max.	Aver.
Alabama	-	-	-	-	2	1004	1227	1101	8	771	1087	925	23	972	1588	758	-	-	-	-
Alaska	-	-	-	-	-	-	-	-	-	-	-	-	10	2425	2984	2932	-	-	-	-
Arizona	3	1296	1661	1529	5	1137	1451	1384	36	1062	1826	1306	43	1387	1826	1753	18	1137	1451	1334
Arkansas	1	1237	1954	1954	6	670	1027	813	1	709	1086	1029	-	-	-	-	5	800	1229	1048
California	-	-	-	-	-	-	-	-	-	-	-	-	172	1762	2124	1935	-	-	-	-
Colorado	-	-	-	-	-	-	-	-	8	1408	1888	1712	8	1512	2025	1837	8	1408	1888	1712
Connecticut	-	-	-	-	5	1057	1293	1174	-	-	-	-	5	1000	1190	1094	-	-	-	-
Delaware	3	1146	1795	1562	8	874	1329	1215	-	-	-	-	7	1146	1795	1633	-	-	-	-
Florida	33	859	1122	1108	-	-	-	-	8	737	1012	-	-	-	-	-	-	-	-	-
Georgia	11	1024	1547	1300	14	776	1107	992	79	776	1107	992	6	1065	1616	1188	12	947	1422	1173
Hawaii	-	-	-	-	5	1198	1397	1280	-	-	-	-	9	1230	1628	1416	3	1053	1226	1096
Idaho	6	1455	2149	1853	4	938	1385	1112	-	-	-	-	7	1385	2046	1718	9	1140	1684	1331
Illinois	-	-	-	-	13	-	-	1734	-	-	-	-	11	1260	2715	1769	-	-	-	-
Indiana	37	1070	1612	1318	37	947	1421	1255	37	1070	1612	1382	40	984	1482	1178	37	1070	1612	1368
Iowa	-	-	-	-	9	979	1199	1097	-	-	-	-	1	1144	1426	1312	14	1019	1255	1153
Kansas	-	-	-	-	3	961	1353	1122	-	-	-	-	1	1059	1305	1305	5	1059	1305	1256
Kentucky	-	-	-	-	1	583	1100	862	-	-	-	-	11	480	1338	894	23	583	1100	1066
Louisiana	4	809	1455	1251	25	741	1768	1100	6	741	1197	853	56	938	1603	1259	126	741	1455	986
Maine	3	959	1202	1202	1	959	1202	1202	1	1016	1284	1284	1	1266	1657	1657	-	-	-	-
Maryland	-	-	-	-	3	855	1115	1070	10	710	970	910	26	710	1365	1070	-	-	-	-
Massachusetts	32	1039	1354	-	6	929	1198	-	33	1039	1354	-	20	885	1141	-	18	1039	1354	-
Michigan	31	1132	1469	1300	10	1020	1469	1263	42	1057	1469	1300	34	1132	1834	1483	17	1132	1469	1300
Minnesota	-	-	-	-	7	1007	1410	1145	-	-	-	-	17	1232	1695	1560	-	-	-	-
Mississippi	-	-	-	-	4	913	1362	1132	-	-	-	-	6	1040	1454	1238	448	695	1045	829
Missouri	-	-	-	-	2	854	1087	1036	1	805	1031	891	36	1089	1453	1275	-	-	-	-
Montana	-	-	-	-	5	1508	1568	1495	-	-	-	-	6	1467	2107	1878	12	1508	1568	1488
Nebraska	-	-	-	-	7	1007	1410	1145	-	-	-	-	6	1007	1410	1259	-	-	-	-
Nevada	2	1308	1756	1756	2	1481	2000	2000	2	1363	1833	1833	-	-	-	-	6	1206	1611	1611
New Hampshire	6	1012	1231	1231	1	1012	1231	1231	2	986	1179	1083	5	945	1116	1031	1	1068	1293	1238
New Jersey	1	1118	1352	1352	4	945	1116	1116	11	830	967	967	6	797	917	917	-	-	-	-
New Mexico	-	-	-	-	11	946	1215	1081	37	944	1158	1051	117	1094	1477	1266	-	-	-	-
New York	61	871	1004	938	18	833	960	893	-	-	-	-	9	837	2034	1301	-	-	-	-
North Carolina	101	735	1030	887	3	735	1039	807	-	-	-	-	27	995	1419	1056	70	767	1003	925
North Dakota	-	-	-	-	16	1107	1622	1309	-	-	-	-	-	-	-	-	2	1160	1699	1533
Ohio	36	905	1060	1059	2	789	945	898	-	844	998	-	8	1038	1298	1171	69	789	945	941
Oklahoma	-	-	-	-	4	920	1233	1040	-	-	-	-	-	-	-	-	-	-	-	
Oregon	17	1296	1430	1426	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pennsylvania	67	1119	1452	1400	5	899	1119	1119	5	899	1119	1119	11	1335	1732	1700	50	1035	1335	1315
Rhode Island	1	957	1036	1124	3	801	974	1171	-	-	-	-	2	943	1004	1135	6	913	972	972
South Carolina	6	1154	1744	1458	13	727	1030	9905	-	-	-	-	21	727	1358	915	-	-	-	-
South Dakota	3	898	1326	1191	3	898	1326	1200	-	-	-	-	-	-	-	-	-	-	-	-
Tennessee	-	-	-	-	11	779	1139	933	-	-	-	-	-	-	-	-	21	742	1096	894
Texas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Utah	1	1420	2078	1749	6	1157	1686	1422	-	-	-	-	15	1035	1865	1450	-	-	-	-
Vermont	4	726	1213	-	1	764	1271	-	-	-	-	-	1	802	1335	-	6	688	1140	-
Virginia	-	-	-	-	33	781	1066	893	73	1020	1393	1166	47	933	1274	1066	-	-	-	-
Washington	-	-	-	-	-	-	-	-	17	1367	1585	1581	59	1239	1932	1434	16	1436	1666	1661
West Virginia	-	-	-	-	10	889	1946	1020	-	-	-	-	7	889	2138	1259	10	842	1234	1077
Wisconsin	39	1278	1590	1434	24	1236	1526	1436	39	1192	1460	1386	10	-	-	1987	40	1192	1460	1356
Wyoming	2	1226	1902	1608	7	1167	1809	1527	2	1167	1809	1286	4	1353	2099	1667	33	1007	1902	1222
1981 Average					1377				1383				1209				1418			1204
1944 Average					-				-				-				-			-
\$Increase 1944-1981					-				-				-				-			-
\$Increase 1980-1981					18.8				40.1				26.7				19.2			13.4

OTHER RELATED PERSONNEL:

(35) (36)

No.	Chief Engineer			Project Engineer			State	
	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.
1	2497	3308	3308	150	1305	2019	1726	Alabama
-	-	-	-	-	-	-	-	Alaska
1	3605	4897	4897	43	1499	2833	2413	Arizona
1	3911	4380	4115	33	1694	2654	2648	Arkansas
2	3413	4415	3891	219	2226	3093	2684	California
1	3298	4419	4419	6	1929	2584	2461	Colorado
1	3365	4130	3747	21	1528	1860	1694	Connecticut
2	2382	2811	3562	-	-	-	-	Delaware
-	-	-	-	-	-	-	-	Florida
1	2499	3895	3895	302	1253	1922	1843	Georgia
1	2267	3780	3609	6	1806	2727	2607	Hawaii
1	-	4264	-	45	1684	2488	2110	Idaho
1	3065	4195	3835	-	1260	2715	2230	Illinois
-	-	-	-	55	1547	2290	1921	Indiana
1	2976	3801	3801	20	1853	2340	2287	Iowa
1	-	-	3487	22	1773	2757	2323	Kansas
1	3625	3625	3625	61	1405	2644	2176	Kentucky
1	2394	3267	3267	80	1637	2902	2624	Louisiana
-	2060	2747	2747	-	-	-	-	Maine
1	-	-	-	86	856	1706	1365	Maryland
1	2456	3066	-	89	1516	1873	-	Massachusetts
1	2982	4005	4005	64	2027	2768	2532	Michigan
1	-	-	3849	-	-	-	-	Minnesota
1	2243	3942	3196	36	1829	2555	2452	Mississippi
1	3333	3958	3958	48	1649	2184	2184	Missouri
-	-	-	3263	-	-	-	-	Montana
2	2979	3321	4170	52	1445	2023	1832	Nebraska
1	-	-	-	13	1833	2497	2335	Nevada
1	-	3203	3203	60	1307	1999	1740	New Hampshire
1	3892	5254	4574	19	1966	2655	2310	New Jersey
1	-	-	4167	46	1673	3480	2538	New Mexico
-	-	-	-	-	-	-	-	New York
1	2483	3641	3641	55	1623	2371	1997	North Carolina
1	2931	4294	3930	7	1985	2908	2520	North Dakota
3	2099	2983	2983	118	1428	1993	1795	Ohio
-	-	-	-	26	2269	3041	2512	Oklahoma
1	3281	4192	4192	46	1917	2448	2448	Oregon
1	2868	3416	3416	315	-	-	-	Pennsylvania
-	-	-	-	-	-	-	-	Rhode Island
1	-	-	-	50	1362	2089	1888	South Carolina
1	-	-	3014	14	1613	2510	2185	South Dakota
1	-	-	-	52	1524	1916	1740	Tennessee
1	2562	3724	3724	78	1278	1740	1470	Texas
1	-	-	4370	198	2066	2600	-	Utah
1	3042	4440	3741	27	1780	2890	2335	Vermont
1	2501	4299	-	30	894	2236	-	Virginia
1	2972	4060	3397	39	1333	1820	1523	Washington
1	-	5191	5191	65	1932	2473	2467	West Virginia
-	-	-	-	185	1857	2908	2260	Wisconsin
1	4004	6212	5110	34	2327	3609	2693	Wyoming

3797 2192 1981 Average

- - 1944 Average

- - \$Increase 1944-1981

17.0 17.0 \$Increase 1980-1981

MAINTENANCE QUESTIONNAIRE ON POLICIES AFFECTING MAINTENANCE AND TRAFFIC OPERATIONS PERSONNEL (as of July 1, 1981)

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 PLAN

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 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 years 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 on full pay?
7. What is your annual vacation schedule for maintenance and operations personnel (working hours per year per years of service)?

State	CIVIL SERVICE OR MERIT SYSTEM				RETIREMENT PLAN					VACATION							
	(1a)	(1b)	(1c)	(1d)	State Plan	Fed. Soc. Sec.	Compulsory Retirement	Voluntary Retirement	Min. Yrs. Service	Min. Age	Annual Vacation Schedule	Minimum Hrs. /Yrs.	Yrs. of Service	Maximum Hrs. /Yrs.	Yrs. of Service	Cumulative Maximum	
	(2)	(3)	(4)	(4a)	(4b)	(5)	(5a)	(5b)	(6)	(7)	(8)						
Alabama	-	x	-	-	Yes	Yes	Yes	Statute	70	Yes	30	-	Yes	104	1to5	234	25 Yes 480
Alaska	-	x	-	-	Yes	No	No	-	-	Yes	5	-	Yes	9.375	0to2	18.75	10 Yes 450
Arizona	x	-	-	-	Yes	Yes	Yes	Statute	65	Yes	5	50	Yes	96	0to3	168	15 Yes 240 Annual Accrual+40
Arkansas	-	-	-	x	Yes	Yes	Yes	Both	70	Yes	10	Any	Yes	96	0to3	264	20 Yes
California	x	-	-	-	Yes	Yes	Yes	Statute	70	Yes	5	50	Yes	80	1to3	160	24 Yes 320
Colorado	-	x	-	-	Yes	No	Yes	Statute	70	Yes	20at60 30atAny	55	Yes	96	1to5	168	15 Yes 336
Connecticut	x	-	-	-	Yes	Yes	Yes	Statute	70	Yes	10	55	Yes	70	0to5	140	20 Yes 35
Delaware	-	x	-	-	Yes	Yes	Yes	Statute	70	Yes	5	Var.	Yes	112.5	0to10	157.5	15 Yes 315
Florida	-	x	-	-	Yes	Yes	No	-	-	Yes	10	Any	Yes	104	1to5	156	10 Yes 240
Georgia	x	-	-	-	Yes	Yes	Yes	Policy	70	Yes	Var	Any	Yes	120	1to5	168	10 Yes 360
Hawaii	x	-	-	-	Yes	Yes	Yes	Statute	70	Yes	5	55	Yes	168	Any	168	Any Yes 720
Idaho	x	-	-	-	Yes	Yes	No	-	-	Yes	5at55	Var.	Yes	96	0to5	168	15 Yes 336
Illinois	-	x	-	-	Yes	Yes	No	-	-	Yes	8	60	Yes	80	1to5	200	25 Yes 80-200
Indiana	-	-	x	-	Yes	Yes	Yes	Statute	70	Yes	15	50	Yes	96	1to10	160	20 Yes No Max
Iowa	x	-	-	-	Yes	Yes	No	-	-	Yes	None	55	Yes	80	1to4	200	24 Yes 2xAnnual
Kansas	-	x	-	-	Yes	Yes	Yes	Statute	70	No	-	-	Yes	96	0to5	240	15 Yes 240
Kentucky	-	x	-	-	Yes	Yes	No	-	70	Yes	30	Any	Yes	96	1to5	168	15 Yes 450
Louisiana	-	x	-	-	Yes	No	Yes	Policy	72	Yes	30	55	Yes	96	1to3	192	15 Yes A11
Maine	x	-	-	-	Yes	No	No	-	-	Yes	10	50	Yes	96	0to5	192	20 Yes 288
Maryland	x	-	-	-	Yes	Yes	Yes	Policy	70	Yes	15	55	Yes	71	1to5	177.5	20 Yes 280
Massachusetts	x	-	-	-	Yes	No	No	-	-	Yes	-	55	Yes	80	1to5	200	20 Yes 200
Michigan	x	-	-	-	Yes	Yes	Yes	Statute	70	Yes	10	55	Yes	104	1/2to6	265	45 Yes 240
Minnesota	-	x	-	-	Yes	Yes	Yes	Statute	70	Yes	10	58	Yes	78	0to3	208	20 Yes 240
Mississippi	x	-	-	-	Yes	Yes	Yes	Statute	70	Yes	30	-	Yes	120	1to5	144	5 Yes 360
Missouri	x	-	-	-	Yes	Yes	Yes	Statute	70	Yes	15	55	Yes	120	0to10	168	15 Yes 240 or 336
Montana	-	-	-	x	Yes	Yes	No	-	-	Yes	5at65	Var	Yes	120	1to10	192	20 Yes 384
Nebraska	x	-	-	-	Yes	Yes	Yes	Statute	70	Yes	30	60	Yes	96	1to5	200	16 Yes 200
Nevada	x	-	-	-	Yes	No	No	-	-	Yes	10	55	Yes	120	1/2to10	168	15 Yes 240
New Hampshire	x	-	-	-	Yes	Yes	No	-	-	Yes	30	60	Yes	120	0to8	168	18 Yes 288
New Jersey	-	x	-	-	Yes	Yes	Yes	Policy	70	Yes	10at60 25at55 7at60	55	Yes	96	0to5	200	20 Yes 200
New Mexico	x	-	-	-	Yes	Yes	No	-	-	Yes	-	Any	Yes	120	Year	120	1 Yes 240
New York	x	-	-	-	Yes	Yes	Yes	Statute	70	Yes	10	55	Yes	104	1to7	160	8 Yes 320
North Carolina	-	x	-	-	Yes	Yes	Yes	Policy	70	Yes	20	50	Yes	80	0to2	192	20 Yes 240
North Dakota	-	-	-	x	Yes	Yes	Yes	Policy	70	Yes	10	55	Yes	96	1to3	192	19 Yes 240
Ohio	x	-	-	-	Yes	No	Yes	Statute	70	Yes	5at60	Any	Yes	80	1to7	200	25 Yes 3Yrs.
Oklahoma	x	-	-	-	Yes	Yes	Yes	Policy	70	Yes	Var	55	Yes	120	0to5	144	5 Yes 528
Oregon	-	x	-	-	Yes	Yes	Yes	Statute	70	Yes	30	55	Yes	96	1/2to5	192	20 Yes 250
Pennsylvania	-	-	-	x	Yes	Yes	No	-	-	Yes	10	Any	Yes	112.5	2to15	150	15 Yes 337.5
Rhode Island	x	-	-	-	Yes	Yes	Yes	Statute	70	Yes	10	62	Yes	56	6Mo.	224	25 Yes 224
South Carolina	-	-	-	x	Yes	Yes	Yes	Statute	72	Yes	30	60	Yes	120	0to10	240	22 Yes 360
South Dakota	-	x	-	-	Yes	Yes	Yes	Statute	70	Yes	5	55	Yes	120	1to15	160	15 Yes Var
Tennessee	x	-	-	-	Yes	Yes	Yes	Policy	70	Yes	30	60	Yes	225	1to5	315	20 Yes Var
Texas	-	-	x	-	Yes	Yes	Yes	Policy	70	Yes	10	50	Yes	84	0to2	168	20 Yes 336
Utah	x	-	-	-	Yes	Yes	No	-	-	Yes	30	None	Yes	96	1to4	144	10 Yes 240
Vermont	-	x	-	-	Yes	Yes	Yes	Statute	70	Yes	10	55	Yes	96	0to5	168	20 Yes 360
Virginia	-	x	-	-	Yes	Yes	Yes	Statute	70	Yes	5	55	Yes	96	0to5	168	20 Yes 336
Washington	x	-	-	-	Yes	Yes	Yes	Statute	70	Yes	5	48	Yes	96	0to1	176	26 Yes 240
West Virginia	-	-	x	-	Yes	Yes	No	-	-	Yes	5	60	Yes	120	0to5	192	15 Yes 240
Wisconsin	x	-	-	-	Yes	Yes	No	-	-	No	-	55	Yes	80	1to5	200	26 Yes 40
Wyoming	x	-	-	-	Yes	Yes	Yes	Policy	70	Yes	4	50	Yes	96	0to4	192	19 Yes 384

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 minimum?

SICK LEAVE

(9)	Annual Sick Leave Schedule						State
	Hrs. /Yrs.	Yrs. of Service	Hrs. /Yrs.	Hrs. of Service	Cumulative Maximum	(10)	
Yes	104	1toMax	104	1	Yes	1200	Alabama
Yes	9.375	All	9.375	All	Yes	None	Alaska
Yes	8	All	8	All	Yes	Unlimited	Arizona
Yes	96	Any	96	Any	Yes	Unlimited	Arkansas
Yes	96	-	96	-	Yes	Unlimited	California
Yes	120	1	120	1	Yes	Unlimited	Colorado
Yes	105	-	105	-	Yes	None	Connecticut
Yes	112.5	-	112.5	-	Yes	8	Delaware
Yes	-	-	104	1	Yes	None	Florida
Yes	120	Any	120	Any	Yes	720	Georgia
Yes	168	Any	168	Any	Yes	Unlimited	Hawaii
Yes	96	All	96	All	Yes	Unlimited	Idaho
Yes	96	1	96	1	Yes	Unlimited	Illinois
Yes	96	1to5	136	5	Yes	Unlimited	Indiana
Yes	144	-	144	-	Yes	Unlimited	Iowa
Yes	96	0to1	96	1	Yes	Unlimited	Kansas
Yes	96	All	-	-	Yes	Unlimited	Kentucky
Yes	96	1to3	192	15	Yes	Unlimited	Louisiana
Yes	96	Any	96	Any	Yes	960	Maine
Yes	120	All	-	-	Yes	Unlimited	Maryland
Yes	120	All	120	All	Yes	Unlimited	Massachusetts
Yes	104	0to1	104	1	Yes	None	Michigan
Yes	104	0to1	104	1	Yes	900	Minnesota
Yes	120	1	120	1	Yes	960	Mississippi
Yes	120	Any	120	Any	Yes	Unlimited	Missouri
Yes	8	Month	96	All	Yes	Unlimited	Montana
Yes	96	1to5	240	19	Yes	1440	Nebraska
Yes	120	-	-	-	Yes	Unlimited	Nevada
Yes	120	0to8	120	18	Yes	720/0to8 960/Over 18 Unlimited	New Hampshire
Yes	96	0to1	120	1	Yes	Unlimited	New Jersey
Yes	96	Any	96	1	Yes	Unlimited	New Mexico
Yes	104	-	104	-	Yes	1350	New York
Yes	80	-	80	-	Yes	Unlimited	North Carolina
Yes	96	Any	96	Any	Yes	Unlimited	North Dakota
Yes	120	All	-	-	Yes	Unlimited	Ohio
Yes	120	-	120	-	Yes	-	Oklahoma
Yes	96	All	-	-	Yes	Unlimited	Oregon
Yes	-	-	112.5	1	Yes	1500	Pennsylvania
Yes	120	1	120	1	Yes	960	Rhode Island
Yes	120	-	120	-	Yes	720	South Carolina
Yes	-	-	112	1	Yes	Unlimited	South Dakota
Yes	90	1	-	-	Yes	Unlimited	Tennessee
Yes	96	1	96	1	Yes	Unlimited	Texas
Yes	96	All	96	-	Yes	Unlimited	Utah
Yes	96	0to3	168	20	Yes	Unlimited	Vermont
Yes	120	Any	120	Any	Yes	Unlimited	Virginia
Yes	96	Any	96	Any	Yes	Unlimited	Washington
Yes	144	Any	144	Any	Yes	Unlimited	West Virginia
Yes	104	1	-	-	Yes	Unlimited	Wisconsin
Yes	96	All	96	Any	Yes	Unlimited	Wyoming

MAINTENANCE QUESTIONNAIRE ON POLICIES AFFECTING MAINTENANCE AND TRAFFIC OPERATIONS PERSONNEL (Cont'd)

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 employee?
 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 employee?
 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?
Supervisory or Non-supervisory.
 - 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.

State	INSURANCE								UNIONIZATION					
	Hospitalization			Life Insurance			Public Liability		Supv. (15)	Non-Supv. (15)	National Union		Supervisory Local Union	
	(12)	(12a)	(12b)	(13)	(13a)	(13b)	(14a)	(14b)	(14c)	(14d)	(16a)	(16b)		
Alabama	Yes	Wholly	Mandatory	No	-	-	-	-	-	x	No	No	-	Yes Voluntary
Alaska	Yes	Wholly	Mandatory	Yes	Wholly& Partially Wholly	Optional& Mandatory	x	-	-	-	Yes	Yes	Yes	Mandatory -
Arizona	Yes	Wholly	Optional	Yes	Wholly	Optional	x	-	-	-	No	No	-	Yes Voluntary
Arkansas	Yes	Partially	Optional	Yes	Partially	Optional	-	-	-	x	No	No	-	No -
California	Yes	Partially	Optional	Yes	Wholly	Mandatory	-	-	-	x	No	Yes	No	Voluntary Yes Voluntary
Colorado	Yes	Partially	Optional	Yes	Wholly& Partially	Mandatory	x	-	-	-	No	No	-	Yes Voluntary
Connecticut	Yes	Wholly	Optional	Yes	Partially	Optional	x	-	-	-	Yes	Yes	No	- Yes Voluntary
Delaware	Yes	Partially	Optional	No	-	Optional	-	-	-	x	Yes	Yes	Yes	Mandatory& Voluntary No -
Florida	Yes	Partially	Optional	Yes	Partially	Optional	-	-	-	x	No	Yes	No	- No -
Georgia	Yes	Partially	Optional	Yes	Partially	Mandatory	x	-	-	-	No	No	-	No -
Hawaii	Yes	Partially	Optional	Yes	Wholly	Optional	-	-	-	x	Yes	Yes	No	- Yes Voluntary
Idaho	Yes	Partially	Optional	Yes	Wholly	Optional	x	-	-	-	No	No	No	- Yes Voluntary
Illinois	Yes	Wholly	Mandatory	Yes	Wholly	Mandatory	x	-	-	-	No	Yes	No	- -
Indiana	Yes	Partially	Optional	Yes	Partially	Optional	x	-	-	-	No	No	-	Yes Voluntary
Iowa	Yes	Wholly& Partially	Optional	Yes	Wholly& Partially	Optional	x	-	-	-	No	Yes	No	- No -
Kansas	Yes	Wholly& Partially	Optional	Yes	Wholly	Mandatory	-	-	-	x	No	Yes	No	- No -
Kentucky	Yes	Wholly& Partially	Mandatory	Yes	Wholly	Mandatory	-	-	-	x	No	No	No	- No -
Louisiana	Yes	Partially	Optional	Yes	Partially	Optional	-	-	-	x	No	Yes	No	- No -
Maine	Yes	Wholly	Optional	No	-	Optional	-	-	-	x	Yes	Yes	No	- Yes Voluntary
Maryland	Yes	Partially	Optional	No	-	-	-	-	-	x	No	No	Yes	Voluntary Yes Voluntary
Massachusetts	Yes	Partially	Optional	Yes	Wholly	Optional	-	-	-	x	Yes	Yes	Yes	Mandatory Yes Mandatory
Michigan	Yes	Partially	Optional	Yes	Partially	Optional	x	-	-	-	No	Yes	No	- Yes Voluntary
Minnesota	Yes	Wholly	Optional	Yes	Wholly	Mandatory	-	-	-	x	Yes	Yes	No	- Yes Voluntary
Mississippi	Yes	Wholly	Optional	Yes	Partially	Optional	-	-	-	x	No	-	No	- Yes Voluntary
Missouri	Yes	Partially	Optional	Yes	Wholly	Mandatory	x	-	-	-	No	Yes	No	Yes Voluntary
Montana	Yes	Partially	Optional	No	-	-	-	-	-	x	-	-	-	- -
Nebraska	Yes	Partially	Optional	Yes	Wholly	Optional	-	-	-	x	No	Yes	No	- No -
Nevada	Yes	Wholly	Mandatory	Yes	Wholly	Mandatory	x	-	-	-	No	No	-	Yes Voluntary
New Hampshire	Yes	Wholly	Optional	Yes	Partially	Optional	x	-	-	-	Yes	Yes	No	- Yes Voluntary
New Jersey	Yes	Wholly& Partially	Optional	Yes	Wholly& Partially	Optional& Mandatory	-	-	-	x	Yes	Yes	Yes	Voluntary Yes Voluntary
New Mexico	Yes	Partially	Optional	Yes	Partially	Optional	x	-	-	-	No	Yes	No	- No -
New York	Yes	Partially	Optional	No	-	-	-	-	-	x	-	-	-	- No -
North Carolina	Yes	Wholly	Optional	Yes	Partially	Mandatory	x	-	-	-	No	No	No	- Yes Voluntary
North Dakota	Yes	Wholly	Optional	Yes	Wholly	Mandatory	-	-	-	x	No	Yes	No	- Yes Voluntary
Ohio	Yes	Partially	Optional	Yes	Wholly	Mandatory	x	-	-	-	No	No	Yes	Voluntary Yes Voluntary
Oklahoma	Yes	Wholly	Mandatory	Yes	Wholly	Mandatory	-	-	-	x	No	No	-	Yes Voluntary
Oregon	Yes	Wholly	Optional	No	-	-	x	-	-	-	No	Yes	No	- -
Pennsylvania	Yes	Wholly	Optional	Yes	Wholly	Mandatory	x	-	-	-	Yes	Yes	No	- Yes Voluntary
Rhode Island	Yes	Wholly	Mandatory	No	-	Mandatory	-	-	-	x	Yes	Yes	Yes	Mandatory - -
South Carolina	Yes	Wholly	Mandatory	Yes	Wholly	Mandatory	-	x	-	-	No	No	No	- Yes Voluntary
South Dakota	Yes	Wholly	Mandatory	No	-	Optional	x	-	-	-	No	No	No	- Yes Voluntary
Tennessee	Yes	Partially	Optional	Yes	Partially	Optional	-	-	-	x	No	No	No	- Yes Voluntary
Texas	Yes	Wholly	Optional	Yes	Wholly	Optional	x	-	-	-	No	No	-	Yes Voluntary
Utah	Yes	Partially	Optional	Yes	Partially	Optional	x	-	-	-	No	No	No	- Yes Voluntary
Vermont	Yes	Partially	Optional	Yes	Partially	Optional	-	-	-	x	Yes	Yes	No	- Yes Voluntary
Virginia	Yes	Wholly	Optional	Yes	Partially	Mandatory	x	-	-	-	No	No	-	- -
Washington	Yes	Wholly	Mandatory	Yes	Partially	Optional	x	-	-	-	Yes	Yes	Yes	Mandatory - -
West Virginia	Yes	Wholly& Partially	Optional	Yes	Wholly& Partially	Optional	x	-	-	-	No	No	-	- -
Wisconsin	Yes	Partially	Optional	Yes	Partially	Optional	x	-	-	-	No	Yes	No	- No -
Wyoming	Yes	Wholly	Optional	Yes	Partially	Optional	x	-	-	-	No	No	-	Yes Voluntary

WORKING CONDITIONS

18. Check which of your maintenance and operations field employees are paid on a salaried basis and which are paid on an 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.

				SERVICE AWARDS	WORKING CONDITIONS							State	
Non-Supervisory					Salary Basis			Working Hrs. Per Day		Per Week			
National Union (16a)	Local Union (16b)	(17)	(18a)	(18b)	(18c)	(18d)	(19)						
Yes	Voluntary	Yes	Voluntary	Yes	-	S	S	H	8	40		Alabama	
Yes	Mandatory	-	-	Yes	-	H	S	H	7.5	37.5		Alaska	
-	-	Yes	Voluntary	Yes	S	-	-	-	8	40		Arizona	
No	-	No	-	Yes	S	-	-	-	8	40		Arkansas	
No	-	Yes	Voluntary	Yes	-	S	S	H	8	40		California	
No	-	Yes	Voluntary	Yes	-	S	S	H	8	40		Colorado	
No	-	Yes	Voluntary	No	-	H	S	H	7	35		Connecticut	
Yes	Mandatory	No	-	No	-	H	S	H	7.5	37.5		Delaware	
No	-	Yes	Voluntary	No	-	H	H	H	8	40		Florida	
No	-	No	-	Yes	S	-	-	-	8	40		Georgia	
No	-	Yes	Voluntary	Yes	S	-	-	-	8	40		Hawaii	
No	-	-	-	Yes	-	S	S	H	8	40		Idaho	
Yes	Voluntary	-	-	Yes	-	S	S	S	8	40		Illinois	
No	-	Yes	Voluntary	Yes	-	H	S	H	8	40		Indiana	
Yes	Voluntary	Yes	Voluntary	Yes	-	S	S	H	8	40		Iowa	
Yes	Voluntary	Yes	Voluntary	Yes	-	S	S	H	8	40		Kansas	
No	-	No	-	Yes	-	H	S	S	7.5	37.5		Kentucky	
Yes	Voluntary	Yes	Voluntary	Yes	-	S	S	H	8	40		Louisiana	
No	-	Yes	Voluntary	Yes	-	H	S	H	8	40		Maine	
Yes	Voluntary	Yes	Mandatory	No	-	H	S	H	9	43.5		Maryland	
Yes	Mandatory	Yes	Mandatory	No	H	-	-	-	8	40		Massachusetts	
-	-	Yes	Mandatory	Yes	H	H	S	H	8	40		Michigan	
Yes	Voluntary	Yes	Voluntary	Yes	S	S	S	H	8	40		Minnesota	
No	-	Yes	Voluntary	Yes	S	-	-	-	8	40		Mississippi	
Yes	Voluntary	Yes	Voluntary	Yes	-	S	S	H	8	40		Missouri	
Yes	Mandatory	Yes	Mandatory	Yes	-	S	S	H	8	40		Montana	
No	-	Yes	Voluntary	Yes	H	-	-	-	8	40		Nebraska	
-	-	Yes	Voluntary	Yes	S	S	S	S	8	40		Nevada	
No	-	Yes	Voluntary	Yes	H	H	S	H	8	40		New Hampshire	
Yes	Voluntary	Yes	Voluntary	Yes	S	-	-	-	8	40		New Jersey	
Yes	Voluntary	-	-	Yes	-	S	S	H	8	40		New Mexico	
No	-	Yes	Voluntary	No	S	-	-	-	8	40		New York	
No	-	Yes	Voluntary	Yes	-	S	S	H	8	40		North Carolina	
Yes	Voluntary	Yes	Voluntary	Yes	S	-	-	-	8	40		North Dakota	
Yes	Voluntary	Yes	Voluntary	Yes	H	-	-	-	8	40		Ohio	
No	-	Yes	Voluntary	No	S	S	S	S	8	40		Oklahoma	
-	-	Yes	Voluntary	Yes	S	-	-	-	8	40		Oregon	
No	-	Yes	Voluntary	Yes	-	S	S	H	7.5	37.5		Pennsylvania	
Yes	Mandatory	-	-	Yes	H	-	-	-	8	40		Rhode Island	
No	-	Yes	Voluntary	Yes	-	H	S	H	8	40		South Carolina	
No	-	Yes	Voluntary	Yes	-	H	S	H	8	40		South Dakota	
No	-	Yes	Voluntary	Yes	S	S	S	S	7.5	37.5		Tennessee	
-	-	Yes	Voluntary	Yes	-	H	S	H	8	40		Texas	
No	-	Yes	Voluntary	Yes	H	-	-	-	8	40		Utah	
No	-	Yes	Voluntary	Yes	-	H	S	H	8	40		Vermont	
-	-	-	-	Yes	-	S	S	H	8	40		Virginia	
Yes	Mandatory	-	-	Yes	-	S	S	H	8	40		Washington	
No	-	-	-	Yes	-	H	S	H	8	40		West Virginia	
No	-	Yes	Voluntary	Yes	H	H	H	H	8	40		Wisconsin	
No	-	Yes	Voluntary	Yes	-	S	S	H	8	40		Wyoming	

MAINTENANCE QUESTIONNAIRE ON POLICIES AFFECTING MAINTENANCE AND TRAFFIC OPERATIONS PERSONNEL (Cont'd)

WORKING CONDITIONS (Cont'd)

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 (portals to portals)?
22. Are 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 under-garments, etc.)
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

WORKING CONDITIONS (Cont'd)

State	Adjustment for Overtime			Travel Time		Protective Clothing						Travel Expenses								
	(20)	(20a)	(20b)	(20c)	(21)	(21a)	(22a)	(22b)	(22c)	(22d)	(23)	(24)	(25)	(26)	(26a)	(26b)	(26c)			
Alabama	Yes	1-1/2	Comp	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	X	-	-		
Alaska	Yes	1-1/2	None	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	-	-	X	-	-	
Arizona	Yes	1-1/2	1-1/2	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	-	-	X	-	-		
Arkansas	Yes	1-1/2	None	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	-	X	-	-		
California	Yes	1-1/2	Comp	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	-	-	X	-	-	
Colorado	Yes	1-1/2	None	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	-	-	X	-	
Connecticut	Yes	1-1/2	1-1/2	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	-	-	-	-	-	
Delaware	Yes	1-1/2	1-1/2	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	-	-	-	-	-	
Florida	-	1-1/2	None	-	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	-	-	X	-	-	
Georgia	Yes	1-1/2	Comp	1-1/2	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	X	-	-	X	
Hawaii	Ycs	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	-	-	X	-	-
Idaho	Yes	1-1/2	Straight	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	-	X	-	X	-	-
Illinois	Yes	1-1/2	1-1/2	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	-	-	X	-	X	
Indiana	Yes	1-1/2	Straight	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	-	-	X	-	X	
Iowa	Yes	1-1/2	None	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	-	X	-	-	X	
Kansas	Yes	1-1/2	None	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	-	-	X	-	-	
Kentucky	-	1-1/2	Comp	-	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	-	X	-	-	X	
Louisiana	Yes	1-1/2	Comp	None	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	-	X	-	X	
Maine	Yes	1-1/2	-	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	-	-	X	-	-	
Maryland	Yes	1-1/2	Comp	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	X	X	-	
Massachusetts	Yes	1-1/2	1-1/2	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	-	X	-	X	
Michigan	Yes	1-1/2	1-1/2	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	X	X	-	X	
Minnesota	Yes	1-1/2	Straight	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	-	X	-	X	-	
Mississippi	No	-	-	-	Yes	-	Yes	Yes	Yes	Yes	No	No	Yes	Yes	X	-	-	X	-	
Missouri	Yes	1-1/2	Straight	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	X	-	-	X	
Montana	Yes	1-1/2	Comp	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	-	-	X	-	
Nebraska	Yes	1-1/2	Straight	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	-	X	-	X	
Nevada	Yes	1-1/2	1-1/2 & Straight	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	-	-	X	-	
New Hampshire	Yes	1-1/2	Straight	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	-	X	-	X	
New Jersey	Yes	1-1/2	1-1/2	Straight	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	-	X	-	X	
New Mexico	Yes	1-1/2	Straight	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	-	-	X	-	
New York	Yes	1-1/2	1-1/2	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	Limit	No	Yes	Yes	No	Yes	-	-	X	
North Carolina	Yes	1-1/2	None	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	-	-	X	-	-	
North Dakota	Yes	1-1/2	Straight	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	-	-	X	-	X	
Ohio	Yes	1-1/2	-	-	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	-	X	-	X	
Oklahoma	Yes	1-1/2	1-1/2	1-1/2	Yes	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	-	-	X	-	
Oregon	Yes	1-1/2	1-1/2	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	-	-	X	-	
Pennsylvania	Yes	1-1/2	Comp & 1-1/2	1-1/2	Yes	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	-	-	X	-	
Rhode Island	Yes	1-1/2	1-1/2	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	X	-	X	
South Carolina	Yes	1-1/2	Comp	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	-	X	-	X	
South Dakota	Yes	1-1/2	Comp	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	-	-	X	-	
Tennessee	Yes	Straight & Comp	1-1/2	Comp	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	X	-		
Texas	Yes	Comp	None	Straight	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	-	-	X	-	
Utah	Yes	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	-	-	X	X	
Vermont	Yes	1-1/2	Straight or Comp	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	-	X	-	
Virginia	Yes	1-1/2	1-1/2	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	X	-	-	X	
Washington	Yes	1-1/2	1-1/2	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	-	-	X	-	
West Virginia	Yes	1-1/2	Straight	1-1/2	No	-	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	-	X	-	X	
Wisconsin	Yes	Var	None	1-1/2	No	-	Yes	Yes	Yes	Yes	No	No	No	Yes	No	Yes	-	X	-	
Wyoming	Yes	1-1/2	None	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	X	-	X	

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
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

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

MAINTENANCE RESPONSIBILITY

Moving Expense (27a)	Signing & Marking Responsibility (28a) (28b) (28c)			Vehicle Maintenance (29a) (29b) (29c)	State
	(27b)	(27c)	(29)		
- X -	Yes	Yes	Yes	Yes	Alabama
- X -	No	Yes	Yes	Yes	Alaska
- X -	Yes	Yes	Yes	Yes	Arizona
- X -	No	No	No	Yes	Arkansas
- X -	No	Yes	Yes	Yes	California
- X -	No	Yes	Yes	Yes	Colorado
- - X	No	Yes	Yes	Yes	Connecticut
- - X	No	No	No	Yes	Delaware
- X -	Some	Yes	Yes	Yes	Florida
- X -	Yes	Yes	Yes	Yes	Georgia
- X -	No	Yes	Yes	Yes	Hawaii
- X -	Yes	Yes	Yes	Yes	Idaho
- X -	No	No	No	No	Illinois
- X -	No	Yes	No	Yes	Indiana
- X -	Yes	Yes	Yes	Yes	Iowa
X - -	Yes	Yes	Yes	Yes	Kansas
X - -	No	No	No	Yes	Kentucky
X - -	No	Yes	Yes	Yes	Louisiana
X - -	No	Yes	No	Yes	Maine
- - X	Yes	Yes	Yes	Yes	Maryland
- - X	Yes	Yes	Yes	Yes	Massachusetts
- X -	Yes	Yes	Yes	Yes	Michigan
- X -	Yes	Yes	Yes	Yes	Minnesota
- - X	No	No	No	Yes	Mississippi
X - -	Yes	Yes	Yes	Yes	Missouri
- X -	No	Yes	Yes	Yes	Montana
X - -	Yes	Yes	Yes	Yes	Nebraska
X - -	No	Yes	Yes	Yes	Nevada
- - X	No	No	No	Yes	New Hampshire
- - X	Some	Yes	Yes	Yes	New Jersey
- X -	No	Yes	Yes	Yes	New Mexico
- X -	Yes	Yes	Yes	Yes	New York
- X -	No	Yes	Yes	Yes	North Carolina
- X -	Yes	Yes	Yes	Yes	North Dakota
X - -	No	No	No	Yes	Ohio
- X -	No	Yes	Yes	Yes	Oklahoma
- X -	Yes	Yes	Yes	Yes	Oregon
X - -	Yes	Yes	No	Yes	Pennsylvania
- - X	No	Yes	Yes	Yes	Rhode Island
- X -	Yes	Yes	Yes	Yes	South Carolina
- X -	Yes	Yes	Yes	Yes	South Dakota
- - X	No	Yes	Yes	Yes	Tennessee
- X -	Yes	Yes	Yes	Yes	Texas
- X -	No	Yes	Yes	Yes	Utah
X - -	Yes	Yes	Yes	Yes	Vermont
- X -	No	Yes	Yes	Yes	Virginia
- X -	No	Yes	Yes	Yes	Washington
- X -	No	Yes	Yes	Yes	West Virginia
X - -	Yes	Yes	Yes	No	Wisconsin
X - -	No	Yes	Yes	Yes	Wyoming

MAINTENANCE QUESTIONNAIRE ON POLICIES AFFECTING MAINTENANCE AND TRAFFIC OPERATIONS (Cont'd)

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
32. Average lane miles per man using information from Questions 30 and 31.

BASIS OF OPERATIONS

33. Have you changed or do you contemplate changing to a maintenance management system or maintenance performance budget method of operations?
 a. Contemplate changing
 b. Have changed
 c. Are in the process of changing
 d. Not under consideration
34. If answer to Question 33 is (b) or (c), for what percentage of your total maintenance work functions has this change been made?
35. If answer to Question 33 is (b) or (c), what percentage of your maintenance work function cost is based on the use of a maintenance management system or maintenance performance budget?

State	RELATIONSHIP, MILES TO NUMBER OF EMPLOYEES								BASIS OF OPERATIONS					
	Lane Miles				Average Number of Employees				Maintenance Management System					
	(30a)	(30b)	(30c)	(30d)	(31a)	(31b)	(31c)	(32)	(35a)	(35b)	(35c)	(35d)	(34)	(35)
Alabama	3,812	24,308	-	28,120	1,016	231	1,247	22.55	-	X	-	-	100%	100%
Alaska	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arizona	4,623	10,709	1,185	16,517	779	15	794	20.80	-	X	-	-	100%	97%
Arkansas	2,659	32,047	-	34,706	1,784	36	1,820	19	-	X	-	-	100%	100%
California	21,755	25,868	-	47,623	4,400	220	4,620	10	-	X	-	-	100%	100%
Colorado	7,557	17,500	400	25,457	1,230	80	1,310	20	-	X	-	-	100%	80%
Connecticut	3,090	7,070	-	10,160	1,618	-	1,618	6.28	-	-	X	-	100%	None
Delaware	170	3,238	6,164	9,572	461	5	466	20.8	-	X	-	-	75%	75%
Florida	7,550	27,370	-	34,920	2,326	-	2,326	-	-	X	X	-	100%	-
Georgia	4,683	36,872	582	42,137	3,119	113	3,232	12.4	-	X	-	-	95%	95%
Hawaii	299	1,988	-	2,287	323	-	323	7.08	X	-	-	-	-	-
Idaho	2,206	9,193	-	11,399	502	100	602	18	-	X	-	-	90%	95%
Illinois	7,132	31,159	1,462	39,753	2,894	160	3,054	13.0	X	-	-	-	-	-
Indiana	4,724	24,951	-	29,675	2,193	71	2,264	15.1	-	X	-	-	100%	100%
Iowa	3,533	20,667	-	24,200	1,403	20	1,423	17.01	-	X	-	-	100%	100%
Kansas	3,295	18,975	1,523	23,793	1,358	8	1,366	17.42	-	X	-	-	100%	100%
Kentucky	5,449	23,422	25,014	53,885	3,289	-	3,289	16.384	-	X	-	-	100%	100%
Louisiana	3,164	19,367	15,479	38,010	3,250	-	3,250	12	-	X	-	-	100%	100%
Maine	1,128	7,002	13,639	21,769	1,110	23	1,133	19.2	-	-	X	-	100%	100%
Maryland	317	4,872	2,243	6,432	1,616	-	1,616	-	-	X	-	-	100%	100%
Massachusetts	3,436	8,077	481	11,994	1,906	73	1,979	7 6 33	-	X	-	-	100%	100%
Michigan	2,868	4,544	-	7,412	798	9	807	9.2	-	X	-	-	35%	36%
Minnesota	3,541	29,948	-	33,489	2,035	38	2,073	-	-	X	-	-	-	-
Mississippi	2,640	19,912	44	22,596	1,760	24	1,784	12.67	-	X	-	-	80%	75%
Missouri	5,184	64,158	3,313	72,655	3,330	-	3,330	21.8	-	-	X	-	100%	100%
Montana	4,584	11,912	2,187	18,683	539	10	549	34	-	-	X	-	-	-
Nebraska	1,977	19,739	130	21,846	-	-	-	-	-	X	-	-	100%	100%
Nevada	2,875	9,150	2,250	14,275	391	25	416	-	-	X	-	-	100%	100%
New Hampshire	771	7,791	457	9,019	740	80	820	11.0	X	-	-	-	-	-
New Jersey	2,608	7,713	941	11,262	-	-	-	-	-	X	-	-	100%	100%
New Mexico	4,371	15,833	6,758	26,963	1,156	17	1,173	22.99	-	X	-	-	100%	80%
New York	4,197	36,027	1,494	41,718	5,193	26	5,219	8.0	-	-	X	-	100%	90%
North Carolina	2,828	144,134	11,894	158,856	6,031	386	6,417	24.76	-	X	-	-	100%	95%
North Dakota	2,284	13,615	-	15,899	362	32	394	40.4	-	X	-	-	100%	100%
Ohio	12,029	30,129	-	42,159	2,378	-	2,378	17.73	-	X	-	-	100%	None
Oklahoma	3,400	24,226	-	27,626	1,510	25	1,535	-	-	X	-	-	100%	100%
Oregon	3,264	17,859	-	21,123	1,230	20	1,250	16.9	-	X	-	-	100%	100%
Pennsylvania	19,152	55,012	24,119	98,283	8,500	260	8,760	-	-	X	-	-	100%	75%
Rhode Island	434	2,547	-	2,981	487	10	497	6	-	-	X	-	90%	75%
South Carolina	2,925	80,944	-	83,869	2,558	-	2,558	32.78	X	-	-	-	-	-
South Dakota	2,632	15,608	-	18,240	565	39	604	30	-	X	-	-	100%	100%
Tennessee	4,774	20,314	-	25,088	1,874	-	1,874	13.39	-	X	-	-	100%	100%
Texas	29,631	112,630	31,941	174,202	6,600	110	6,710	26.0	-	-	X	-	95%	100%
Utah	3,646	10,394	-	14,040	531	39	570	24.6	-	X	-	-	100%	100%
Vermont	1,534	4,481	-	6,015	491	20	511	11.8	-	-	X	-	25-40%	25%
Virginia	9,702	102,548	594	112,844	5,781	8	5,789	19.5	-	X	-	-	100%	100%
Washington	5,364	11,414	-	16,778	1,018	117	1,135	14.8	-	X	-	-	99%	87%
West Virginia	2,565	66,200	-	68,765	2,363	-	2,363	-	-	X	-	-	100%	100%
Wisconsin	2,421	23,611	-	26,032	68	-	68	-	-	-	-	X	-	-
Wyoming	4,321	11,155	135	15,611	485	50	535	29	-	X	-	-	80%	95%

- .36. Average lane miles covered by each general maintenance crew working out of one location (gang or section headquarters)?
- .37. Average travel distance for each general maintenance crew from gang or section headquarters to farthest point of work?
- .38. Do you have special crews for traffic signs and striping; and if so, what are the lane miles handled by each crew?
- Same crew handles traffic signs and striping
 - Traffic signs
 - Striping
- .39. Have you implemented an equipment management system?
- .40. If the answer to Question 39 is "No", do you intend to implement one?
41. If the answer to Question 39 is "Yes", does your system provide for:
- Control of numbers of units
 - Determination of optimum replacement intervals
 - Determination of shop personnel requirements
 - Determination of parts requirements
 - Managing preventative maintenance programs
 - Control of utilization
42. Do you work four 10-hour-day work week? If "Yes", check the applicable statements:
- Field crews
 - Shop personnel
 - Summer months
 - Winter months
 - Management's prerogative
 - Union concurrence

BASIS OF OPERATIONS

Basis of Crew Operations												Equipment Management System												State
(36)	(37)	(38a)	(38b)	(38c)	(39)	(40)	(41a)	(41b)	(41c)	(41d)	(41e)	(41f)	(42)	(42a)	(42b)	(42c)	(42d)	(42e)	(42f)					
625	20	No	-	Yes	625	Yes	3,124	No	Yes	-	-	-	-	-	-	Yes	X	X	X	-	-	-	-	Alabama
-	-	Yes	Var	-	-	-	-	-	Yes	-	X	X	X	X	X	-	Yes	X	X	X	X	X	X	Alaska
359.07	55.8	No	-	Yes	1,540	Yes	5,300	No	Yes	-	-	-	-	-	-	Yes	X	-	X	-	X	-	-	Arizona
423	40	No	-	Yes	5,784	Yes	5,784	Yes	-	-	X	X	X	X	-	Yes	X	X	X	-	X	-	-	Arkansas
161	30	No	-	Yes	2,000	Yes	3,000	No	Yes	-	-	-	-	-	-	Yes	-	-	-	-	X	-	-	California
65	20	Yes	3,130	Yes	-	Yes	-	Yes	-	X	X	X	X	X	X	No	-	-	-	-	-	-	-	Colorado
200	15	No	-	Yes	2,500	Yes	2,500	No	Yes	-	-	-	-	-	-	No	-	-	-	-	-	-	-	Connecticut
190	20	No	-	Yes	870	No	-	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Delaware
-	20	No	-	Yes	1,058	Yes	3,880	No	Yes	X	X	-	-	X	-	Yes	X	X	-	-	-	-	-	Florida
235+	35	No	-	Yes	880	Yes	4,967	No	Yes	-	-	-	-	-	-	Yes	X	-	X	-	X	-	-	Georgia
114	28	Yes	446	Yes	796	Yes	530	No	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Hawaii
141	23	No	-	Yes	1,900	Yes	3,800	Yes	-	X	X	X	X	X	X	-	-	-	-	-	-	-	-	Idaho
370	20	Yes	5,060	-	-	-	-	No	Yes	X	X	-	-	X	X	Yes	X	-	X	-	X	X	-	Illinois
263	25	No	-	Yes	2,473	Yes	2,473	Yes	-	-	X	X	X	X	-	No	-	-	-	-	-	-	-	Indiana
169	20	No	-	No	-	Yes	4,033	No	Yes	-	-	-	-	-	-	Yes	-	-	X	-	X	-	-	Iowa
207	20	No	-	No	-	Yes	3,966	Yes	Yes	X	X	X	-	X	-	Yes	X	X	X	-	X	X	-	Kansas
450	15	No	4,490	Yes	4,490	Yes	4,490	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Kentucky
613	40	No	-	Yes	3,800	Yes	4,700	Yes	Yes	X	X	X	X	X	X	Yes	X	-	X	-	X	-	-	Louisiana
300	18	No	-	Yes	1,000	Yes	3,500	Yes	Yes	X	X	-	X	X	-	No	-	-	-	-	-	-	-	Maine
50	20	No	-	Yes	280	Yes	620	Yes	-	X	X	X	X	X	X	No	-	-	-	-	-	-	-	Maryland
123	20	Yes	270	-	-	-	-	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Massachusetts
212	25	No	-	Yes	581	Yes	1,500	No	Yes	-	-	-	-	-	-	Yes	X	-	X	-	X	-	-	Michigan
40	23	No	-	Yes	1,700	Yes	3,400	No	Yes	-	-	-	-	-	-	Yes	X	X	X	-	X	-	-	Minnesota
250	20	No	-	Yes	250	Yes	3,600	Yes	-	X	X	-	-	-	-	Yes	X	-	X	-	X	-	-	Mississippi
202	-	No	-	No	-	Yes	4,840	No	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Missouri
138	35	No	-	No	-	Yes	1,450	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Montana
270	25	No	-	Yes	500	Yes	3,000	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Nebraska
150	27	Yes	950	Yes	950	Yes	950	Yes	-	X	X	X	X	X	X	Yes	X	-	X	-	-	-	-	Nevada
93.0	12+	No	-	Yes	1,288	Yes	1,503	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	New Hampshire
150	12	Yes	2,245	-	-	-	-	Yes	-	X	X	X	X	X	X	-	-	-	-	-	-	-	-	New Jersey
321	42	No	-	Yes	5,393	Yes	8,988	No	Yes	X	X	X	X	X	X	Yes	X	-	X	-	X	X	-	New Mexico
200-250	20	No	-	Yes	350-	Yes	1,400-	Yes	-	X	X	X	X	X	X	Yes	X	-	X	-	X	-	-	New York
350	15	No	-	Yes	1,573	Yes	8,624	Yes	-	X	X	X	X	X	-	Yes	X	X	X	-	X	-	-	North Carolina
196	30	No	-	Yes	1,987	Yes	7,950	No	No	-	-	-	-	-	-	Yes	X	X	X	-	-	X	-	North Dakota
243	20	Yes	Varies	-	-	-	-	No	-	-	-	-	-	-	-	Yes	X	X	X	-	X	-	-	Ohio
300	30	No	-	Yes	3,200	Yes	3,200	No	-	-	-	-	-	-	-	Yes	-	-	-	-	X	-	-	Oklahoma
228	30	No	-	Yes	1,200	Yes	3,800	No	No	-	-	-	-	-	-	Yes	X	-	X	-	X	X	-	Oregon
125-150	30	No	-	Yes	1,100	Yes	3,000	Yes	-	X	-	-	-	X	X	-	-	-	-	-	-	-	Pennsylvania	
187.5	8	No	-	Yes	745	Yes	1,000	No	Yes	-	-	-	-	-	-	No	-	-	-	-	-	-	-	Rhode Island
350	20	No	-	Yes	1,780	Yes	9,070	No	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	South Carolina
217	45	Yes	2,027	-	-	-	-	No	Yes	-	-	-	-	-	-	Yes	X	-	X	-	-	-	-	South Dakota
-	20	Yes	-	Yes	-	No	-	No	Yes	-	-	-	-	-	-	Yes	-	-	-	-	-	-	-	Tennessee
26	25	No	-	Yes	550	Yes	5,000	Yes	-	-	-	-	-	X	-	Yes	X	-	X	-	-	-	-	Texas
195	40	Yes	2,340	Yes	2,340	Yes	2,340	Yes	-	X	X	-	-	X	X	Yes	X	-	X	-	X	-	-	Utah
150	25	No	-	Yes	1,500	Yes	2,000	No	Yes	-	-	-	-	-	-	No	-	-	-	-	-	-	-	Vermont
460	18	No	-	Yes	1,800	Yes	4,500	Yes	-	X	X	X	-	X	X	Yes	X	-	X	-	-	-	-	Virginia
280	30	No	-	Yes	3,300	Yes	3,300	Yes	-	X	X	X	-	X	-	Yes	X	X	X	X	X	X	-	Washington
-	-	Yes	2,000	Yes	2,000	Yes	2,000	Yes	-	X	X	X	X	X	X	Yes	X	-	X	-	X	-	-	West Virginia
-	-	No	-	Yes	744	Yes	2,367	No	No	-	-	-	-	-	-	Yes	X	-	-	-	X	-	-	Wisconsin
290	50	No	-	Yes	1,500	Yes	1,500	No	No	-	-	-	-	-	-	Yes	X	-	X	-	X	-	-	Wyoming