

CIRCULAR

Transportation Research Board, National Academy of Sciences, 2101 Constitution Avenue, Washington, D.C. 20418

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**PROGRESS REPORT ON MAINTENANCE AND
OPERATIONS PERSONNEL**mode
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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 36th 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, 1980, 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	2957	2887	2986	3400
District Engineer	2712	2719	2839	3386
Area Supervisor	1536	1310	1635	2070
Laborer	863	706	905	1102
Mechanic	1149	1002	1205	1554
Equipment Operator I	935	793	947	1225
Equipment Operator II	1007	917	1148	1415
Equipment Operator III	1113	1025	1198	1542

These averages all show an increase over 1979.

Using 1967, the current cost index base year, the relative change in selected classifications for 1980 is as follows: State Maintenance Engineer - 216.92%, Equipment Operator I - 218.22%, Laborer - 228.35% and Mechanic 219.86%. 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 & North Carolina
Western States	Montana

Retirement Plan

All States indicate their employees are protected by a state-sponsored retirement plan. In 44 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 31 States, and 72 in two States. The retirement age is established by statute in 27 States and by policy in 8 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 30 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 168 hours per year, and maximum from 120 to 248 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 40 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 96 to 120 hours per year, and the maximum from 96 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 360 hours to unlimited, with 32 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 of these plans are wholly state-financed. The plan is mandatory in 11 States.

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

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

Unionization

Fifteen States report that supervisory employees have collective bargaining rights, while in 27 States non-supervisory employees have collective bargaining rights.

Thirty-two States report voluntary or mandatory organization of maintenance and operations supervisory personnel in unions or employee associations, with 18 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 6 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 six States.

Service Awards

Forty-four States have some type of award for years of service.

Maintenance Management System

Forty-two 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.

Equipment Management System

Fifteen States reported they have implemented an equipment management system. Another 19 States indicated they intend to implement such a system.

Basis of Crew Operations

The average number of lane miles handled by a general maintenance crew working out of one location varies from 36 to 640 according to the answers given.

The travel distance from a gang or section headquarters to their farthest point of work varies from 12 to 187.

Ten States report that the same crew handles traffic signs and striping, with the lane miles handled by each crew varying from 270 to 4,500.

Thirty-eight States have special crews for traffic signs, with the lane miles handled by each crew varying from 135 to 6,408.

Forty States have special crews for striping, with the lane miles handled by each crew varying from 15 to 9,270 miles.

Working Hours and Conditions

Thirteen States pay all employees on a salaried basis, with 16 other States paying all permanent field and supervisory employees on a salaried basis. Eight States pay all employees on an hourly basis.

Forty-four 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, 48 States report non-supervisory personnel earn time-and-a-half compensation for overtime. In eight 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; 47 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; 40 States furnish some other types of protective clothing, even though minor, to their maintenance employees.

Thirty-five States have automatic or automatically recommended salary advances.

Forty-nine States have a formalized job classification plan.

Only 9 States use convict labor.

Only four 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 five States; actual expenses with a maximum in 11 States, and on a per diem basis in 15 States. In 15 States, the basis of reimbursement for meals and lodging differs.

Forty 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 39 States.

In 47 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 10 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 5.79 to 39.0.

TRB-AASHTO JOINT COMMITTEE ON MAINTENANCE AND OPERATIONS PERSONNEL

DEFINITIONS OF MAINTENANCE AND OPERATIONS PERSONNEL TITLES

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

MAINTENANCE PERSONNEL TITLES

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

Title No.	<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.

Title No.	<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.

(7-1-80)

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 word "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, 1980)

MAINTENANCE PERSONNEL:

<u>State</u>	<u>(1) State Maintenance Engineer</u>	<u>(2) Assistant State Maintenance Engineer</u>	<u>(3) District Engineer</u>	<u>(4) District Maintenance Engineer</u>
Alabama	State Mtce Engineer	Asst State Mtce Engr	Division Engineer	Division Mtce Engr
Alaska	Dept Comm, M&O	Asst Dept Comm & Transp Engr, M&O	Regional Dir, M&O	Transp Mtce Mgr I & II
Arizona	Asst State Engr, Mtce	Mtce Oper Engineer	District Engineer	District Mtce Engr or District Mtce Supv
Arkansas	State Mtce Engineer	Asst State Mtce Engr	District Engineer	District Mtce Supt
California	Chief, Div of Mtce	Chief, Hwy Mtce Chief, Structures Mtce	Dist Dir of Transp	District Mtce Engr
Colorado	Staff Mtce Supt	-	District Engineer	District Mtce Supt
Connecticut	Director of Mtce	Mtce Oper Manager	-	District Mtce Mgr
Delaware	Chief Mtce Engineer (Civil Engr V)	-	District Engineer	District Mtce Engr
Florida	State Mtce Engineer	Dept State Mtce Engr	District Engineer	District Mtce Engr (Civil Engr III)
Georgia	State Mtce Engineer	Asst State Mtce Engr	District Engineer	Asst Dist Engr, Mtce
Hawaii	Chief, Hwys Division	Assistant Chief, Constr & Mtce	District Engineer	District Mtce Engr
Idaho	Mtce Supervisor Engineer Mgr 3	Asst Mtce Engineer Engineer Mgr 1	District Engineer Engineer Mgr 3	District Mtce Engr Engineer Manager
Illinois	Engineer of Mtce	Mtce Section Chiefs	District Engineer	District Mtce Engr
Indiana	Chief, Div of Mtce	Assistant Chief, Division of Mtce	District Engineer	District Mtce Engr
Iowa	Maintenance Engineer	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	District Engineer	Asst Dist Engr, Oper
Louisiana	Director of Mtce & Field Operations	Chief, Mtce & Oper Engr	District Admin	District Mtce Engr
Maine	Engr of Mtce & Oper	Mtce System Engr et al	Division Engineer	-
Maryland	Asst Chief Engr, Mtce	Chief, Bureau of Highway Maintenance	District Engineer	Asst Dist Engr, Mtce
Massachusetts	Maintenance Engineer	Asst Mtce Engineer	District Hwy Engr	District Mtce Engr
Michigan	Engr of Mtce XIII	Asst Engr of Mtce XI	District Engr XI	District Mtce Engr
Minnesota	State Mtce Engineer	Mtce Engr Coordinator, Equipment et al	District Engineer	Area Mtce Engineer
Mississippi	State Mtce Engineer	Asst State Mtce Engr	District Engineer	District Mtce Engr
Missouri	Div Engr, Mtce & Traf	Asst Div Engr, Mtce	District Engineer	District Mtce & Traffic Engineer
Montana	Admin, Mtce Division	Asst Admin, Mtce Div	-	Chief, Field Mtce Bureau
Nebraska	Maintenance Engineer	Mtce Oper Manager	Dist Hwy Engineer	Hwy Mtce Dist Supt
Nevada	Chief Mtce Engineer	Asst Mtce Engineer	District Engineer	Asst Dist Engr, Mtce
New Hampshire	State Mtce Engineer	Asst Mtce Engineer	Division Engineer	-
New Jersey	Chief Engineer, Constr & Mtce	Chief, Bureau of Mtce	Regional Engr, Transp	Regional Mtce Engr
New Mexico	Dir of Engr & Oper	Chief, Mtce Bureau	District Engineer	District Mtce Engr
New York	Dir of Transp Mtce	Dir of Hwy Mtce	Regional Dir of Transp	Regional Hwy Mtce Engineer, A-B-C
North Carolina	Mgr of Mtce & Equip	Head of Maintenance	Division Engineer	Asst Div Engr, Mtce
Ohio	State Mtce Engineer	Asst State Mtce Engr	District Engineer	Asst District Engr
Oklahoma	Engineer of Mtce	-	District Dept Dir	District Oper Engr
Oregon	Maintenance Engineer	Asst Mtce Engineer	Division Engineer	Division Mtce Engr
Pennsylvania	Asst State Hwy Engr, Maintenance Branch	Mtce Oper Engineer & Mtce Serv Engineer	Regional Engineer	Regional Mtce Engr
Rhode Island	Dir, Highway Mtce	Civil Engineer 5	Hwy Dist Engineer 3	Civil Engineer 5 Hwy District Engr 1 Sr Civil Engineer
South Carolina	Asst Director, DOT	Dept Asst Dir, DOT	Chief of Mtce Oper	District Mtce Engr
South Dakota	Maintenance Engineer	Asst Mtce Engineer	District Engineer	Asst Dist Engr, Mtce
Tennessee	Engineer of Mtce	Engr of Mtce Oper, Engr of Bridge Mtce,	District Engineer	Regional Mtce Engr
Texas	State Mtce Engineer	Mtce Plan Prog Mgr Asst State Mtce Engr	Regional Engineer	District Mtce Engr
Utah	Chief Engineer of Safety & Mtce Oper Engineer for Mtce	Asst Chief Engr of Safety Mtce Oper	District Engineer	District Mtce Engr
Vermont	Director of Mtce	Chief, Mtce Support	Dist Transp Admin	-
Virginia	State Hwy Mtce Engr	State Hwy Mtce Engr, Assistant	Hwy Dist Engineer	Hwy Asst Dist Engr
Washington	Mtce & Oper Engineer	Hwy Mtce Engineer	Dist Administrator	Dist Mtce Engineer
West Virginia	Director of Mtce	Asst Dir of Mtce	District Engineer	Asst Dist Mtce Engr
Wisconsin	Chief Mtce Engr	Asst Chief Mtce Engr	District Director	Dist Chief Mtce Engr
Wyoming	State Constr & Mtce Engineer	-	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 Title 16, 17 & 18	Alabama
Transp Mtce Mgr III	Transp Mtce Supt	Hwy Mtce Fr I	Hwy Mtce Fr II	Equip Oper III (Leadman)	Alaska
		Hwy Mtce Crew Supv	Inc Title 7	Hwy Mtce Wkr III (Leadman)	Arizona
Asst Mtce Supt		Area Foreman	Constr & Seal Job Supt	Crew Leader	Arkansas
Asst Dist Mtce Engr		Hwy Supt or Sr Hwy Supt	Mtce Supt	Hwy Mtce Worker et al	California
Asst Dist Mtce Supt		Sr Hwy Foreman	Tree Mtce Supv Hwy Foreman	Sr Hwy Mtceman	Colorado
Mtce Oper Supt		Mtce Gen Supv	Mtce Supervisor	Mtce Crew Leader	Connecticut
Hwy Mtce Oper Mgr		Hwy Mtce Supt	Hwy Mtce Asst Supt	Labor Foreman II	Delaware
Asst Dist Mtce Engr	Maintenance Engineer	Hwy Mtce Supv	Labor Fr III	Labor Foreman I	Florida
Mtce Assistant	Mtce Area Manager	Hwy Mtce Fr II	Hwy Mtce Fr I		Georgia
		Constr & Mtce Supt VI	Hwy Constr & Mtce Supv, Br Mtce Supt	Hwy Labor Supv Hwy Mtce Supv et al	Hawaii
		Transp Mtce Foreman		Hwy Mtce Operator Leadworker	Idaho
	Mtce Field Engineer		Hwy Maintenance Lead Worker	Hwy Maintainer	Illinois
Asst Dist Mtce Engr	Sub-Dist Coordinator	Sub-Dist Supt	General Foreman	Unit Foreman	Indiana
	Resident Mtce Engr	Hwy Mtce Supt 2,364	Hwy Mtce Supv 1		Iowa
Asst Dist Mtce Engr	Area Engineer	Dist & Area Supt	Dist & Area Supv	Sub-Area Supv	Kansas
Dist Mtce Engr		Mtce Superintendent	Hwy Foreman	Asst Hwy Foreman	Kentucky
Asst Mtce Engineer		Hwy Mtce Supt Equip Supt et al	Foreman 1,2&3		Louisiana
		District Supv	Highway Foreman	Crew Leader	Maine
	Resident Mtce Engr	Hwy Mtce Supv	Supv, Road Mtce		Maryland
Asst Dist Mtce Engr		Hwy Mtce Engr	Hwy Repair Foreman	Hwy Repair Wkr	Massachusetts
Asst Dist Mtce Engr		Area Supt VII	Mtce Supv VI	Transp Mtce Supv IV	Michigan
Mtce Oper Engineer	Dist Methods Engr Senior Engineer	Bridge Supv Hwy Mtce Supt et al	Bridge Foreman Hwy Mtce Foreman	Hwy Mtce Wkr Hwy Mtce Wkr Sr Equip Oper I	Minnesota
Mtce Superintendent		Superintendent II	Foreman I		Mississippi
		Mtce Area Supv	Special Mtce Fr	Hwy Mtce Foreman	Missouri
		Mtce Supervisor		Field Mtce Supv	Montana
		Hwy Mtce Supt	Hwy Mtce Supv		Nebraska
		Hwy Mtce Supt	Sr Hwy Mtce Fr	Hwy Mtce Foreman	Nevada
Asst Div Engineer	Mtce Supervisor	Mtce Superintendent	Const Foreman	Hwy Patrol Fr	New Hampshire
Project Engr Mtce	Regional Mtce Supv	Area Supervisor	Fr, Hwy Mtce	Asst Fr, Hwy Mtce	New Jersey
Mtce Superintendent		Asst Mtce Supt	Hwy Mtce Fr I & II	Inc Title 8	New Mexico
Sr Civil Engineer Asst Civil Engineer	Resident Engineer		Br Repair Supv II Hwy Mtce Supv II	Br Repair Supv I Hwy Mtce Supv I	New York
	District Engineer	Mtce Supervisor	Mtce Crew Ldr IV	Mtce Crew	North Carolina
		Hwy Mtce Supt	Hwy Mtce Foreman	Leader I, II et al (Leadman)	North Dakota
Dist Mtce Engineer		County Supt	Hwy Worker 3	Equip Oper III Hwy Worker 2	Ohio
Area Mtce Engineer		Superintendent	Superintendent	Foreman	Oklahoma
Asst Region Engr	District Engineer		Hwy Mtce Supv	Asst Supv or Special Supv	Oregon
Civil Engineer 4 or Hwy Mgt Mgr 4		Hwy Maintenance Mgr 2, 3 or 4	Hwy Fr 1, 2 & 3		Pennsylvania
	Chief Hwy Mtce Supv	Hwy Mtce Supv	Rd Mtce Foreman	Labor Foreman	Rhode Island
			Hwy Mtce Crew Supv I-III		South Carolina
	Res Mtce Engineer	Hwy Mtce Supt	Hwy Mtce Supv	Hwy Mtce Foreman	South Dakota
Asst Reg Mtce Engr	Dist Mtce Engr/Supt	Asst Dist Mtce Engr/Supt		Mtce Crew Leader	Tennessee
Asst Dist Mtce Engr		Mtce Constr Supt I & II	Mtce Construction Fr I, II & III	Mtce Construction Supv I & II	Texas
		Mtce Supervisor	Hwy Oper Foreman	Station Foreman	Utah
Asst Dist Transp Administrator		Gen Mtce Supv	Br Mtce Supv	Transp Mtce Wkr B	Vermont
Hwy Asst Dist Engr	Hwy Res Mtce Supv	Hwy Mtce Supt B	Transp Mtce Wkr C Hwy Foreman		Virginia
Asst Dist Mtce Engr		Hwy Superintendent	Mtce Supervisor	Mtce Lead Tech	Washington
		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, 1980)

MAINTENANCE PERSONNEL (cont'd.):

State		(10)	(11)	(12)	(13)	(14)
	Laborer	Skilled Craftsman	Shop Superintendent	Garage or Shop Foreman	Mechanic	
Alabama	Laborer	Skilled Craftsman	Div Equip Mtce Engr	Mechanic Foreman	Auto & Heavy Equip Mechanic	
Alaska	Laborer	Elec, Painter, Carpenter, etc	-	Shop Foreman I	Hvy Duty Mech III	
Arizona	Groundskeeper I & II, Laborer	Bldg Mtce Wkr I & II	Equip Service Mgr	Equip Shop Supv, et al	Equip Mech I & II	
Arkansas	Laborer	Carpenter, et al	Dist Equip Supv	Shop Foreman	Mechanic	
California	Hwy Mtce Wkr Ldscp Mtce Wkr	Carpenter Struc Steel Painter	Hwy Equip Supt I & II	Hwy Mech Supv I & II	Heavy Equip Mech	
Colorado	Utility Worker		Sr Shop Foreman	Asst Shop Foreman	Auto & Equip Mech	
Connecticut	Maintainer II	Qualified Craft Wkr	Repair Garage Supv	-	Auto & Equip Mech	
Delaware	Laborer	-	Hwy Equip Supt	Auto Supervisor	Auto Mech III & II	
Florida	Hwy Mtce Tech I or II	Plumber, Carpenter	Auto Equip Rpr Fr	Auto Equip Rpr Fr	Auto Equip Rpr Mechanic I & II	
Georgia	Laborer I	Skilled Laborer	Mtce Shop Manager	Mech Shop Supervisor	Mechanic, Senior	
Hawaii	Gen Laborer & Trades Helper	Bridge Mtce Wkr Carpenters, et al	Auto Mechanic Supv	Auto Mechanic II	Auto Mech I & Machinist	
Idaho	Laborer	Utility Craftsman	Shop Superintendent	Shop Foreman	Mechanic	
Illinois	-	-	-	-	Auto Mechanic	
Indiana	Inc Title 16	Mechanic II	Hwy Shop Supv IV	Inc Title 12	Mechanic III	
Iowa	Custodial Wkr Mtce Wkr I & 2	-	-	Hwy Mtce Supt 2	Auto Mechanic	
Kansas	-	-	Shop Superintendent	Auto Mechanic II	Auto Mechanic I	
Kentucky	Mtce Laborer	Carp, Bridgeman, Welders	-	Garage Foreman	Mechanic Senior	
Louisiana	Laborer Utility Br Tender, et al	Mtce Repairman Painter, Carp, et al	Auto Shop Supt Equip Specialist Equip Supt	-	Auto Mechanic Auto Repair, et al	
Maine	Hwy Mtceman I	Mech, Elec, Carp & other Trades	Equip Supt	Auto Mechanic Fr	Auto Mechanic	
Maryland	Hwy Worker I	Hwy Worker II	Dist Equip Supv	Auto Serv Supv	Auto Serv Mech & Specialist	
Massachusetts	Laborer	-	Supt Shop & Equip	Dist Hwy Equip Fr	Motor Equip Rpr	
Michigan	Laborer I	Bridge Wkr III	Motor Equip Supt VII	Transp Mtce Supt VI	Auto Mechanic IV	
Minnesota	Laborer I & II, et al	Bridge Worker	Equip Fabricator Supt Hwy Equip Supv	Hwy Equip Mech Fr	Hwy Equip Field Mech	
Mississippi	Gen Laborer II	Facilities Mtce Repairman II	Equip Mtce Supt	Equip Repair Foreman	Hwy Equip Mechanic	
Missouri	-	-	Dist Garage Foreman	Chief Shop Mechanic	Equip Mech I-III	
Montana	Laborer	Carp & Painter Fr	Equip Mech Foreman	Shop Mechanic		
Nebraska	-	-	Auto Equipment Repair Supt	Working Shop Foreman	Mechanic/Machinist	
Nevada	Hwy Mtce Laborer	Hwy Maintainer	Hwy Equip Oper Supv	Auto Equipment Repair Supv	Auto Mechanic II	
New Hampshire	Hwy Maintainer I	Asst Hwy Patrol Fr	Equip Engineer	Equip Mechanic II		
New Jersey	Mtce Workers	Br & Constr Repair	Supv Garage Fr Master Mechanic	Garage Foreman Shop Foreman	Heavy Equip Mech	
New Mexico	Utility Worker Mtce Worker	Mtce Specialist	-	Foreman & Asst Foreman, Mech	Auto Mechanic	
New York	Laborer	Mtce Asst, Bridge Repair Asst, et al	Motor Equip Mtce Supervisor	Auto Shop Fr I & II	Auto Mech, Hwy Equip Specialist	
North Carolina	Gen Utility Wkr	Mtce Mech I, II, etc	Equip Superintendent	Motor Equip Mtce Supervisor I Mech Supv I & II	Motor Equip Mech	
North Dakota	Mtce Worker I	-	Motor Vehicle Shop Foreman	-	Mechanic I & II	
Ohio	Hwy Worker I	Painter, Welder, et al	Equip Mtce Supt 3	Equip Mtce Supt 2	Auto Mechanic	
Oklahoma	Traf Serv Wkr I	Welder	Shop Superintendent	-	Auto Mechanic III	
Oregon	Laborer	Elec or Carpenter	Hwy Shop Supt	Auto Shop Supv		
Pennsylvania	Hwy Mtce Wkr Semi-Skld Labr	Welder, Carpenter Mason & Painter	-	Hwy Shop Supv		
Rhode Island	Laborer	Semi-Skld Laborer	Auto Specialist	Hwy Equip Manager 1, 2 or 3	Auto Mech 1 & 2 & Diesel Mech	
South Carolina	Hwy Mtce Wkr I	Hwy Mtce Wkr II-IV	-	-	Auto Mechanic	
South Dakota	-	Mechanic II	Equip Shop Foreman	Trades Wkr Supv	Trades Wkr Auto Mechanic	
Tennessee	Utilityman I & II	Carpenter, Welder Electrician, et al	Reg Garage Supt	Dist Chief Mechanic	Mechanic	
Texas	Mtce Tech I & II	Mtce Tech III	Shop Foreman I-IV	Shop Foreman I-IV	Mtce Mech III & IV	
Utah	Mtce Worker	Welder, Auto Body Wkr, Carpenter	Shop Supervisor	Shop Foreman	Mechanic	
Vermont	Transp Mtce Worker A	Bridge Mtce Mech	Supt Central Garage	Motor Shop Supv	Motor Equip Repair	
Virginia	Hwy Mtce Helper	Carp, Carp Leadman Skld Labr (Plumber)	Hwy Engineer B	Hwy Equip Rpr Fr A	Hwy Equip Mech A & B	
Washington	Laborer	Mtce Specialist	Equip Superintendent	Equip Supervisor	Equip Mech I	
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	Hwy Mtce Tech I	Hwy Mtce Tech II	Hwy Mtce Tech III	Clerk I & Engr Asst II	Alabama
Mechanic IV	Equip Oper V	Equip Oper IV	Equip Oper III	-	Alaska
Auto Serv Atten I, et al	Hwy Mtce Wkr I	Hwy Mtce Wkr II	Hwy Mtce Wkr III	Clerk Typist I, II, & III Payroll Clerk	Arizona
Mechanic Trainee	Mower Oper, S Axle Truck Driver, et al	Backhoe Oper, M Axle Truck Driver, et al	Dist Oper, Lowboy Truck Driver, et al	-	Arkansas
Mechanic Helper	Hwy Mtce Worker Ldscp Mtce Worker	Equipment Operator	Hvy Equipment Oper	Hwy Field Office Assistant	California
Auto Mtceaman	-	Hwy Mtceaman	Heavy Equip Oper	-	Colorado
-	DOT Maintainer III	DOT Maintainer IV	DOT Maintainer V	Foreman's Clerk	Connecticut
Auto Mech I	Equip Oper I	Equip Oper II	Equip Oper III	Area Clerk Clerk II & III Clerk V	Delaware
Auto Serviceman	Hwy Mtce Tech I & II	Hvy Equip Oper I	Hvy Equip Oper II	-	Florida
Mechanic	Laborer II	Equip Oper I	Mtce Equip Oper	Clerk Senior, or Mtce Clerk Acct Clerk IV	Georgia
Auto Mech Hlpr	Equip Oper I	Equip Oper II & III	Equip Oper IV	-	Hawaii
Auto Serv Wkr	Tractor Oper, et al	Truck Driver, et al	Grader Oper, et al	Mtce Clerk	Idaho
Mech Helper/ Serviceman	Hwy Mtce Oper Trainee	-	Hwy Mtce Oper	-	Illinois
-	Hwy Mtce Equip Oper	Hwy Constr Equip Oper	Power Shovel Oper	-	-
Mechanic IV	Mtce Worker IV	Mtce Worker III	Mtce Worker II	Clerk V	Indiana
Auto Mech Hlpr	Equip Oper I	Equip Oper 2	Equip Oper 3	-	Iowa
Auto Mech Hlpr	Equip Oper I	Equip Oper II	Equip Oper III	Area Office Mgr	Kansas
Mechanic Hlpr	Lt. Equip Oper	Hvy Equip Oper	Spec Equip Oper	Timekeeper	Kentucky
Trades Helper	Equip Oper 1	Equip Oper 2	Equip Oper 3	Clerk 2, 3, 4 Leadman	Louisiana
Laborer I & II	Hwy Mtceaman II & IIA	Hwy Mtceaman III	Hwy Mtceaman IV	-	Maine
Auto Serv Hlpr	Motor Equip Oper I	Motor Equip Oper II	Motor Equip Oper III	Shop Clerk Shop Clerk Senior Clerk Tallyman	Maryland
Skilled Labr	Skilled Laborer	-	Mtce Equip Oper	-	Massachusetts
Mech Handyman	-	-	-	-	-
Trades Hlpr II	Laborer II	Equip Oper III	Equip Oper IV	Calculations Clerk IV Inc Title 8	Michigan
Equip Mech Appr	Inc Title 9	Hvy Equip Oper	Inc Title 9	-	Minnesota
Auto Serv Attn et al	-	-	-	Clerk II	Mississippi
Equip Mtce Trainee	Equip Oper I	Equip Oper II	Equip Oper III	-	-
Mechanic Hlpr	Maintenanceman	Mtce Crew Leader	Dragline Oper	Dist Stock Clerk	Missouri
Stockman & Serv/ Comb A & B	Equip Oper I	Equip Oper II	-	Admin Officer I	Montana
Auto Mech I	Hwy Mtce Wkr	-	Hwy Mtce Sr Wkr	Office Clerk II	Nebraska
-	-	-	Mtce Spec Rdwy	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
Mechanic Hlpr	Truck Driver	Equipment Oper	Hvy Equip Oper	-	New Jersey
-	Equip Oper I	Equip Oper II	Equip Oper III	Timekeeper or Clerk I & II	New Mexico
Asst Mechanic	Hwy Equip Oper	Constr Equip Oper	Crane & Shovel Oper	Sr Clerk Tkpk, Typist Hwy Rep & Inv Asst Clerk III	New York
Inc Title 14	Truck Driver & Machine Oper I Equip Oper I	Machine Oper II & III	Machine Oper IV & V	-	North Carolina
-	-	Equip Oper II	Inc Title 9	Clerk III	North Dakota
Asst Auto Mech	Equip Oper 1	Equip Oper 2	Equip Oper 3	Timekeeper	Ohio
Auto Mech I	Traf Serv Wkr I	Traf Serv Wkr II	Traf Serv Wkr III	Traf Serv Wkr I	Oklahoma
Hwy Equip Mech Trainee	Hwy Mtce Wkr 2	Hwy Mtce Wkr 3	Hwy Mtce Wkr 4	Inc Title 16	Oregon
Tradesman Hlpr	Equip Oper 1 & 2	Equip Oper 3	Equip Oper 4	Clerk 2	Pennsylvania
Auto Mech Hlpr	Motor Equip Oper	Utility Equip Oper	Hvy Motor Equip Oper	Sr Clerk Typist	Rhode Island
Trades Helper	Inc Title 11	Inc Title 11	Inc Title 11	Clerk I-III Chief Clerk Admin Serv Asst Office Supv Jr Acct Clerk	South Carolina
Equip Serv Wkr I & II	Hwy Mtce Wkr I	Hwy Mtce Wkr II	Hwy Mtce Wkr III	-	South Dakota
-	Utilityman III	-	-	-	Tennessee
Mtce Mech I & II	Mtce Tech I	Mtce Tech II	Mtce Tech III	-	Texas
Auto Serviceman	Hwy Oper Spec 10W	Hwy Oper Spec 11W	Hwy Oper Spec 12W	-	Utah
-	Inc Title 10	Inc Title 9	Equip Oper C	Storekeeper	Vermont
Hwy Equip Mech Apprentice Shop Assistant	Hwy Equip Oper A	Hwy Equip Oper B	Hwy Equip Oper C	Hwy Timekeeper	Virginia
-	-	Mtce Tech I & II	Mtce Tech III	Mtce & Area Off Asst	Washington
-	Equip Oper I	Equip Oper II	Equip Oper III	Field Clerk	West Virginia
(County)	(County)	(County)	(County)	(County)	Wisconsin
Mechanic I	Hwy Mtce Wkr II	Equip Operator	Hvy Equip Oper	-	Wyoming

MAINTENANCE AND TRAFFIC OPERATIONS PERSONNEL TITLES USED BY STATE HIGHWAY DEPARTMENTS (as of July 1, 1980)

TRAFFIC OPERATIONS PERSONNEL

State	(20) State Traffic Engineer	(21) Assistant State Traffic Engineer	(22) State Traffic Maintenance Engineer	(23) District Traffic Engineer	(24) Assistant District Traffic Engineer
Alabama	Traffic Engr (Design)	-	Traffic Serv Engr	Div Traf Engr	-
Alaska	-	-	-	Transp Mtce Mgr III	-
Arizona	Asst State Engr, Traf	Traf Engr, Oper & Design	-	Dist Traf Engr	-
Arkansas	Div Head, Traffic	Asst Div Head, Traf	-	-	-
California	Chief, Div of Oper	Chief, Traf Engr	-	Dist Traf Engr	Asst Dist Traf Engr
Colorado	Staff Traf Engineer	Chief, Transp Oper Asst Staff Traf Engr	-	Traf & Safety Engr	-
Connecticut	Manager of Traffic	Chief Traf Engr	Transp Engr of Traf	Transp Asst Engr	Dist Serv Agent II
Delaware	Chief, Bureau of Traf (Civil Engr V)	-	-	Civil Engr III & IV	Civil Engr II
Florida	State Traf Oper Engr	Dep State Traf Oper Engineer	State Traf Serv Engr	Dist Traf Oper Engineer	Asst Dist Traf Oper Engineer
Georgia	State Traf & Mtce Engr	Asst State Traf & Safety Engr	-	Dist Traf & Safety Engr	Transp Engineer I
Hawaii	Traffic Engineer	Asst Traf Engr	-	-	-
Idaho	Traffic Supv Engineer Mgr 2	Asst Traf Engr Engineer Mgr 1	-	Dist Traf Engr Engr Proj Supv	-
Illinois	Engineer of Traffic	Traf Oper Engr	-	Dist Traf Engr	Dist Oper Engineer Engr Design & Plan
Indiana	Chief, Div of Traf	Asst Chief, Div of Traffic	Hwy Engr Supv IV	Dist Traf Engr	Asst Dist Traf Engr
Iowa	State Traf Oper Engr	Traf Sign & Mkr	-	-	-
Kansas	Hwy Marking Engineer	Engineer	-	-	-
Kentucky	Dir, Div of Traffic	Asst Dir, Div of Traffic	Chief Traf Engineer	Dist Traf Engr	Asst Dist Traf Engr
Louisiana	Asst Traf Plan Engr	Hdq Traf Engr	-	Dist Traf Oper Engineer	Traffic Engineer
Maine	Traffic Engineer	Asst Traf Engr	-	Div Traf Engr	-
Maryland	Asst Chief Engr, Traf	Asst Chief, Traf Division	Chief, Bureau of Traffic Oper	Reg Traf Engr	Traffic Engr IV
Massachusetts	Traffic Engineer	Asst Traf Engr	Traf Mtce Engr	Dist Traf Engr	Asst Dist Traf Engr
Michigan	Engr of Safety & Traffic XIII	Asst Engineer of Traf & Safety XII	Field Admin Engr XI	Dist Traf Engr IX	Asst Dist Traf Engr VII
Minnesota	Traffic Engineer	Asst Traf Engr	Inc Title 20	Dist Traf Engr	Inc Title 23
Mississippi	Traf Control & Safety Engineer	Asst Traf Control & Safety Engineer	-	-	-
Missouri	Inc Title 1	Asst Div Engr, Traffic	-	Traffic Engineer	Dist Traf Studies Engineer
Montana	Mgr, Traf Unit	Asst Mgr, Traf Unit	-	Engr Traffic II	-
Nebraska	Traffic Engineer	-	-	-	-
Nevada	Chief Traf Engr	Hwy Engr IV, Traf	-	Hwy Engr II, Traf	-
New Hampshire	Traffic Engineer	Traf Constr Engr	-	-	-
New Jersey	Chief Engr, Transp Oper & Local Aids	Chief, Bureau of Electrical Oper	Supt Elec, Constr Mtce & Oper	Dist Supv, Elec	Asst Dist Supv, Elec
New Mexico	Traf Serv Engr	Asst Traf Serv Engineer	-	Dist Traf Engr	-
New York	Dir, Traf & Safety Division	Dep Dir, Traf & Safety Division	Traf Signal Coord	Reg Traf Engr	-
North Carolina	Mgr of Traf Engr	Asst Mgr, Tech Oper Traf Engr, Fld Oper	-	Div Traf Engr	-
North Dakota	Transp Serv Engr	-	Hwy Engineer III	-	-
Ohio	Engr of Traffic	Asst Traf Engr	-	Dist Traf Engr	Asst Dist Traf Engr
Oklahoma	State Traf Engr	Asst State Traf Engineer	-	Div Traf Engr	-
Oregon	State Traf Engr	-	Inc Title 2	Inc Title 3	Reg Traf Engineer
Pennsylvania	Civil Engr 6	Civil Engr 5	-	Civil Engr 4 or 5	Civ Engr 3 or Traf Centl Spec Supv
Rhode Island	-	-	Chief Traf Mtce Supervisor	-	-
South Carolina	Traf & Plan Engr	Asst Traf & Plan Engineer	-	Dist Traf & Plan Engineer	-
South Dakota	Traffic Engineer	Traf Oper Engr	-	Dist Traf Engr	-
Tennessee	State Traf Engr	Traf Design Engr	-	Reg Traf Engr	-
Texas	Engr of Traffic	Asst State Traf Engineer Supv Traf Engr	Signing & Marking Coordinator	Inc Title 4 & 5	-
Utah	Engr for Safety	-	Traffic Engineer	Dist Traf Engr	Asst Dist Traf Engr
Vermont	State Traf Engr	-	Inc Title 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 Engineer
West Virginia	Dir of Traf Engr Division	Asst Dir, Traf Engr Division	-	Reg Traf Engr	Asst Reg Traf Engr
Wisconsin	Chief Traf Engr	Traf Engr, Supv	-	Dist Chief Traf Engineer	Dist Traf Engr, Supversion
Wyoming	State Traf Engr, Operations	Traf Staff Engr	-	Dist Traf Engr	-

(25)	(26)	(27)	(28)	(29)
Traffic Supervisor	Sign Supervisor	Sign Shop Foreman	Traffic Signal & Lighting Foreman	Striper Foreman
-	-	Sign Fab Plant Mgr	Signal Shop Supv	-
Hwy Engr Asst III	-	-	Traf Control Tech III (Leadman) Traf Signal & Light Crew Supv I & II	Hwy Mtce Fr II
Hwy Marking Crew Supervisor	Hwy Mtce Crew Supv	Hwy Marking Crew Supervisor Sign Shop Supv	-	Alaska
-	Sec Head, Traf Service	-	-	Hwy Mtce Wkr III
-	Mtce Supv (ONS)	Mtce Supv (ONS)	Hwy Elec Supv	Arizona
Traffic Foreman	-	Traf Shop Foreman	Traf Signal Fr	Striping Supv
Transp Asst Engr	Sign & Marking Coord	Supt Portland Plant	Dist Elec Supv	Arkansas
Traf Oper Mgr	-	Sign Shop Foreman	General Supv	California
-	-	Sign Shop Supv	Signal Supt (Hwy Mtce Supt)	Inc Title 25
-	Chief of Sign Shop Operations	Sign Shop Prod Manager	-	Colorado
-	Traffic Signs & Marking Supv	-	Elec Signal Engr	Connecticut
-	-	Sign Shop Supt	Traf Signal & Hwy Light Supv	Delaware
-	Field Engineer Oper Engineer	Field Engineer Oper Engineer	Traf Signal Supt	Hwy Foreman II
-	-	Sign Shop Supv	-	Florida
-	-	Sign Shop Foreman	Electronic Tech Supv IV-III	Hwy Mtce Fr II
-	-	Mtce Worker II	Traf Signal Tech 2	Georgia
-	-	-	-	Hawaiii
-	-	Sign Shop Supt	Lead Wkr, Pvt Mkg Foreman, et al	Idaho
-	-	-	Mtce Worker II	Illinois
-	-	Sign Shop Wkr Supervisor	Hwy Mtce Supv 2	Indiana
Dist Traf Supv	Traf Foreman	Sign Painter	Striper Foreman	Iowa
Sign & Traf Supt	Hwy Sign & Strp	Sign Shop Foreman	Traf Signal Inst (Jr-Pr)	Kansas
-	-	Sign Shop Foreman	Statewide Elec Fr	Kentucky
-	-	-	Elec Foreman	Louisiana
-	-	Sign Shop Foreman	Elec Foreman	Maine
Traf Engineer III	Chief, Sign Design Section	Traf Sign Shop Supv	Traf Control Electrician II	Maryland
Hwy Traf Mtce Fr	Supv of Traf Equip	Sign Shop Foreman	Traf Elec Foreman	Massachusetts
Sign Supv VIII	Traf Sec Foreman	Sign Supv VII	Electrician VI	Michigan
Principal Hwy Tech	Sign Supervisor	Inc Title 8	Supv Rd Markings	Minnesota
-	-	Foreman II	Elec Traf Mtce Supv	Mississippi
-	-	Sign Shop Foreman	Inc Title 25	Missouri
-	-	Painter Foreman	Foreman II	Montana
-	-	Sign Shop Supt	Signal & Light Fr	Nebraska
-	-	Sign Shop Supv	Communications Mgr	Nevada
Traffic Mtce Supv	-	Sign Shop Foreman	Traf Signal Foreman	New Hampshire
-	Supv of Hwy Mkr	Foreman Sign Shop	Pvt Mkr Foreman	New Jersey
Traffic Serv Supv	-	Sign Shop Foreman	Foreman Electrician	New Mexico
Engr, Signal Crew	Sign Shop Supv II	Sign Shop Supv I	Traf Elec Supv	New York
Traf Serv Supv	Traf Serv Crew Leader	-	Supv Electrician	North Carolina
-	-	Sign Shop Foreman	Traf Control Tech Supervisor	North Dakota
Traf Control Supt	Sign Superintendent	Sign Supv I	Traf Service Crew Leader	Ohio
Traf Superintendent	-	-	Signal Elec Supv	Oklahoma
Inc Title 4 & 5	-	Sign Shop Supt	Hwy Worker 3	Oregon
-	Traf Cntl Tech 3	Sign Shop Foreman	Electrical Supt	Striping Crew Supv
Hwy Mtce Supv Traf	-	Commercial Art	Civil Engineer 2 or Traf Cntl Specl	Pennsylvania
-	-	Hwy Mtce Crew Supv I-III	Elec Foreman	Rhode Island
-	Sign Supervisor	Sign Shop Foreman	Trades Worker Supv	South Caroline
Hwy Marking Supt	-	-	Hwy Mtce Crew Supv I-III	South Dakota
-	-	-	Hwy Mtce Wkr II & III	Tennessee
-	-	-	-	Texas
Signal Supervisor	Sign Supervisor	Sign Shop Foreman	Traffic Signal Fr	Utah
Supt Traf Shop	Inc Title 25	Inc Title 25	Traf Signal Supv	Vermont
Engineer A	Mtce Supt B	Hwy Foreman	Hwy Equipment Elec Foreman A & B	Virginia
Mtce Superintendent	-	Sign Fabricator	Traf Signal Supv	Washington
-	-	Traf Tech III	Hwy Engr Tech IV	West Virginia
Dist Traf Supv	Mkr & Sign Supv	Traf Oper Tech II	Traf Oper Tech IV	Wisconsin
Dist Traf Tech	-	Mkr & Sign Coord	Elec Supervisor	Pvt Mkr Crew Chief
-	-	Sign Shop Supv	Sign & Elec Foreman	Hwy Strip Foreman
-	-	-	-	Wyoming

MAINTENANCE AND TRAFFIC OPERATIONS PERSONNEL TITLES USED BY STATE HIGHWAY DEPARTMENT (as of July 1, 1980)

TRAFFIC OPERATIONS PERSONNEL (Cont'd):

State	(30) Sign Erection Foreman	(31) Sign Fabricator	(32) Sign Technician	(33) Traffic Signal & Lighting technician
Alabama	-	Sign Painter	Mtce Technician (Utility Laborer)	Traffic Signal Tech
Alaska	-	-	-	Traf Cntrl Tech II
Arizona	Hwy Mtce Wkr III	Hwy Sign Fab	Hwy Sign Installer	Traf Signal & Light Tech I & II
Arkansas	Signing Supervisor	Sign Maker	Sign Specialist	-
California	Inc Title 8	Inc Title 8	-	Hwy Elec I or II
Colorado	Inc Title 25	-	Inc Title 17	Traffic Signal Tech I & II
Connecticut	Signs & Marking	QCW & Maintainer V	-	Electronics Tech
Delaware	Sign Supervisor (Hwy Mtce Supv)	Trades Helper	-	Signal Repairman I & II
Florida	Hwy Foreman I	Sign Fab I & II	Sign Shop Foreman	Instr Tech I & II
Georgia	Hwy Mtce Foreman II	Skilled Labr (DOT)	Sign Technician	Engineer Tech IV
Hawaii	-	Sign Painter & Painter	-	Hwy Light Wkr & Elec
Idaho	Transp Mtce Foreman	Hwy Sign Fab	-	Electrician
Illinois	Inc Title 29	Silk Screen Oper	Inc Title 25	Traf Signal Engineer
Indiana	Mtce Worker II	Sign Painter	Mtce Worker III	Traf Signal Tech
Iowa	-	Mtce Worker IV	Sign Shop Worker	Elec Technician II & I
Kansas	-	-	Sign Shop Worker	Traf Signal Tech I
Kentucky	Inc Title 26	Inc Title 27	Lt Equip Oper & Hwy Laborers	Elec Technician I-V
Louisiana	Statewide Signal Fr	C. Sign Tradesman	Stw Sign Trades	Trades Helpers, et al
Maine	Sign Foreman	Welder, et al	-	Statewide Electrician
Maryland	Hwy Mtcman IV	Sign Painter	Sign Shop Tech	Traf Signal & Light Tech (Engr Tech IV)
Massachusetts	Supv, Road Mtce	Sign Fabricator	-	Traf Const Elec I
Michigan	Traf Sec Foreman	Sign Painter & Letterer	Sign Shop Fr (Fab)	Traffic Electrician
Minnesota	Sign Mechanic III	Sign Mech II & III	Traf Sec Fr (Sign Erec)	Elec III, IV, V
Mississippi	Sign Mech III	Sign Mech III	Sign Shop Fr	-
Missouri	Inc Title 8	Inc Title 9	Inc Title 26	Hwy Signal Tech
Montana	Foreman II	Silk Screen Painter	-	Electrical Tech
Nebraska	Inc Title 8	Silk Screen Oper	Sign Painter	Electrical Tech
Nevada	Hwy Mtce Foreman	Painter	Sign Printer II	Engr Tech I, II & III
New Hampshire	Dist Sign Supv	Sign Painter	Painter	Electrical Tech II
New Jersey	Hwy Sign Mtce Fr	Sign Fabricator	Sign Printer II	-
New Mexico	Inc Title 29	Sign Letterer	Sign Printer II	-
New York	Inc Title 8	Sign Fabricator	Sign Letterer	-
North Carolina	Laborer Supervisor	Hwy Marker	Sign Painter	Traf Electrician
North Dakota	Traf Sign Erector	Hwy Marker	Sign Tech I & II	Tech I, II & III
Ohio	Routemarker 2	Hwy Sign Fr	Sign Tech I & II	Elec & Mtce Asst Elec
Oklahoma	Sign Foreman	Sign Painter	Sign Tech I or 2	-
Oregon	Sign Crew Supv	Inc Title 16, 17 & 18	Sign Tech 1 or 2	Civil Engr 2 or Traf Central Spec
Pennsylvania	Hwy Foreman 3	Sign Tech 2	Sign Tech 1 or 2	Elec Equip Mech
Rhode Island	Sign Erec Foreman	Sign Painter	-	-
South Carolina	Inc Title 8	Inc Title 11	-	Elec Trades Helper
South Dakota	Hwy Mtce Foreman	Traf Sign Fab II	-	-
Tennessee	Hwy Mtce Worker III	-	-	-
Texas	-	-	-	-
Utah	Sign Foreman	Sign Fabricator	-	Traf Signal Tech
Vermont	Sign Crew Leader	Sign Painter	-	Mechanic B
Virginia	Highway Foreman	Hwy Sign Fab	Traf Technician C	Hwy Equipment Elec
Washington	-	-	Sign Install Tech	Traf Signal Tech 1, 2 & 3
West Virginia	Traf Tech IV	-	-	Engr Techs I-IV
Wisconsin	Traf Oper Tech III	-	-	Traf Oper Tech I-IV
Wyoming	Sign Crew Chief	Various	Sign Crew Member	Electrician
	Hwy Traf Sign Technician II	Sign Fabricator	Hwy Traf Sign Technician I	Hwy Traf Signal Tech

(34)	(35)	OTHER RELATED PERSONNEL: (36)	
Striper Technician	Chief Engineer	Project Engineer	State
*	Chief Engineer	Civil Engr I, II, & III	Alabama
*	*	*	Alaska
Hwy Mtce Wkr II	State Engineer	Res Engineer or Chief Proj Engineer	Arizona
Striper	Dep Director of Chief Engineer	Resident Engineer	Arkansas
Inc Title 9	Dep Director for Proj Devp & Constr	Resident Engineer	California
Inc Title 17	Chief Engineer	Resident Engineer	Colorado
DOT Maintainers III, IV & V	Chief Engineer	*	Connecticut
*	Chief Engineer	*	Delaware
Hwy Mtce Foreman I	*	*	Florida
Mtce Equip Oper	Asst State Hwy Engineer	Project Engineer	Georgia
Traf Strip Mach Operator	Chief, Hwys Div	Area Engineer	Hawaii
Hwy Mtce Operator	State Hwy Admin	Proj Engineer Engr Proj Coord	Idaho
Inc Title 29	Dir of Highways	Proj Engineer or Res Constr Engr	Illinois
Mtce Wkr IV & III	Chief Hwy Engineer	Project Engineer	Indiana
Equip Oper 2 & 3	Director of Hwys Chief Engineer State Transp Engr	Res Constr Engineer Constr Engineer	Iowa Kansas
Hvy Equip Oper	State Hwy Engr	Res Constr Engineer	Kentucky
Equip Oper 1, 2 & 3 Strp Mch Oper, et al	Chief Engineer	Constr Engineer A Res Constr Engineer	Louisiana Maine
Mtnr Equip Oper II	Chief Engineer	Project Engineer	Maryland
Spray Painter Wkr Fr	Chief Engineer	Sr. Civil Engineer	Massachusetts
Sign Mech III	*	*	Michigan
Inc Title 9	Deputy Commissioner	Inc Title 6	Minnesota
Equip Oper 1	Chief Engineer	Project Engineer	Mississippi
Inc Title 17	Chief Engineer	Resident Engineer	Missouri
*	Dir of Highways	*	Montana
Inc Title 8	Dep State Engr	Hwy Proj Mgr II	Nebraska
Mtce Spec Strip & Sign	Dir of Transp	Hwy Engineer III	Nevada
Carriage Helper	Dep Commissioner	Project Engineer	New Hampshire
Tradas Helper	& Chief Engineer	Proj Engr, Mtce	New Jersey
Inc Title 32	Dir of Engr & Oper	Proj Engr, Constr	New Mexico
Inc Title 8	Chief Hwy Admin	Proj Mgr I, II & III	New York
Constr Equip Oper	*	*	North Carolina
Machine Oper III	Chief Engr, Oper	Resident Engineer	North Dakota
Equip Oper I	Chief Engineer	Project Coordinator	Ohio
Routemarker 1	Chief Engr, Plan & Des Chief Engr, Constr Chief Engr, Oper Dir, Chief Engineer	Project Engr 2 Resident Engineer	Oklahoma
Inc Title 16 & 17	State Hwy Engineer	Resident Engineer	Oregon
Equip Oper 1, 2 or 3	Chief Hwy Engineer	Civ Engr 2 or 3 or Trans Constr Mgr 1 or 2	Pennsylvania Rhode Island
Traf Line Painter	*	*	
Inc Title 10 & 11	State Hwy Engineer	Assoc Res Constr Engr Res Constr Engr	South Carolina
*	Dir & State Hwy Engr	Resident Engineer	South Dakota
*	Dir, Bureau of Hwys	Engineer II	Tennessee
*	State Engr, Dir	Engineer IV	Texas
*	Asst Dir, UDOT	Proj & Res Engineer	Utah
Marking Crew Leader A	Dir of Engr & Constr	Resident Engineer	Vermont
Hwy Foreman	Chief Engineer	Constr Proj Engr	Virginia
Mtce Technician 3	Sec of Transp	Project Engineer	Washington
Centerline Paint Machine Operator Pvt Marking Crew Mbr	Chief Engineer, Oper	*	West Virginia
Hwy Painting Tech I & II	Supt & Chief Engr	Project Engineer Resident Engineer	Wisconsin Wyoming

MONTHLY SALARIES OF HIGHWAY PERSONNEL (as of July 1, 1980)

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.	No.	Min.	Max.	No.	Min.	Max.	No.	Min.	Max.	No.	Min.	Max.	
Alabama	1	2323	3078	3078	3	1605	2549	2315	9	1964	3078	2902	9	1879	2549	2310
Alaska	1	4540	8645	4888	2	4377	8358	4709	5	4220	8077	4540	13	3781	7273	4066
Arizona	1	2537	3444	3444	1	2314	3142	3142	7	2537	3444	3444	7	1627	2623	2465
Arkansas	1	2718	2718	2	1554	2386	2386	10	-	2628	2628	10	1395	2143	1143	10
California	1	2988	3973	3620	2	2784	3699	3065	11	2716	4165	3795	12	2418	3364	2918
Colorado	1	2461	3298	3298	-	-	-	-	6	2584	3463	3463	9	2294	3073	3073
Connecticut	1	2688	3299	2886	2	2485	3050	2769	-	-	-	-	4	2297	2820	2559
Delaware	1	2102	3365	3068	-	-	-	-	3	2102	3365	3217	1	1571	2483	2150
Florida	1	2085	2876	3164	2	1956	2690	2959	6	2224	3080	2652	6	1719	2339	2029
Georgia	1	2029	3146	2885	2	1703	2638	2526	7	2029	3146	2758	7	1563	2415	2237
Hawaii	1	2099	3166	3166	1	2005	3166	3166	4	2005	3166	3106	1	1828	2771	2647
Idaho	2	2441	3607	3354	1	2009	2968	2692	6	2441	3607	3133	6	2009	2968	2393
Illinois	1	2635	3575	3280	3	2070	3360	2915	9	2635	3795	3225	9	2070	3145	2660
Indiana	1	2355	3657	2984	2	2041	3187	2596	6	2041	3187	2596	6	1892	2895	2355
Iowa	1	2167	2898	2756	1	1972	2628	2628	6	2167	2898	2827	6	1792	2382	2382
Kansas	1	2404	3863	3333	1	2137	3433	2937	6	2404	3863	3281	6	2137	3433	3074
Kentucky	1	1882	2915	2915	6	1707	2915	2487	12	2074	2915	2915	12	1707	2915	2563
Louisiana	1	2293	3089	3089	11	1591	2813	2515	9	2072	2868	2771	9	1833	2646	2634
Maine	1	2060	2747	2747	1	1811	2411	2411	7	1811	2411	1411	-	-	-	-
Maryland	1	2204	2895	2895	1	1889	2482	2482	7	2204	3128	2800	7	1889	2482	2482
Massachusetts	1	2035	2526	-	2	1957	2430	-	8	2111	2629	-	8	1814	2250	-
Michigan	1	2970	3438	3438	1	2347	2911	2911	9	2347	2911	2911	9	2191	2720	2720
Minnesota	1	2346	3095	3095	3	1895	2645	2559	9	2346	3095	3095	16	2178	2928	2867
Mississippi	1	1840	3240	2860	1	1670	2935	2470	6	1840	3240	2935	6	1670	2935	2598
Missouri	1	2658	3267	2833	1	2142	2679	2679	10	2375	3067	2733	10	1881	2479	2443
Montana	1	2280	2876	2876	1	1707	2117	1726	-	-	-	-	11	1912	2514	2171
Nebraska	1	2143	3075	2587	1	1573	2246	2098	8	2143	3075	2470	8	1483	2114	1772
Nevada	1	2119	2947	2947	1	1931	2681	2681	6	2119	2947	2947	6	1931	2681	2498
New Hampshire	1	2053	2525	2525	1	1799	2212	2212	7	1684	2081	2081	-	-	-	7
New Jersey	1	2965	4003	3484	1	2213	2987	2600	4	2561	3457	3009	4	2213	2987	2600
New Mexico	1	-	-	3378	1	1975	3378	2919	5	2286	3378	3324	5	2075	3378	2898
New York	1	3810	4281	4165	1	3104	3530	3422	10	3619	4063	3936	9	2274	3175	3032
North Carolina	1	2371	3313	3313	1	2159	3009	3009	14	2159	3009	3009	14	1869	2607	2238
North Dakota	1	2028	2995	2840	1	1752	2587	2525	8	2028	2995	2717	9	1752	2587	2395
Ohio	1	2090	2931	2535	-	-	-	-	12	1903	2732	2317	12	1899	2660	2301
Oklahoma	1	2019	3108	2718	1	1837	2888	2413	8	2019	3108	2718	8	1837	2888	2413
Oregon	1	2601	3322	3322	2	2360	3011	3011	5	2360	3011	3011	4	2037	2601	2580
Pennsylvania	1	2541	2541	2541	4	2151	2766	2766	11	2766	3436	3436	11	2339	3009	3009
Rhode Island	1	2729	2729	2729	1	1294	1294	1294	1	1889	1889	1889	1	1896	1896	1896
South Carolina	1	2180	3090	3090	2	1938	2747	2584	7	2015	2856	2652	7	1656	2348	2238
South Dakota	1	1907	3011	2750	3	1754	2749	2290	5	1754	2749	2502	5	1613	2510	2250
Tennessee	1	1743	2512	2512	2	1594	2292	1997	4	1906	2757	2632	4	1600	2118	1938
Texas	1	-	-	3092	1	2207	2777	-	26	-	-	3050	26	2207	2777	-
Utah	1	2612	3814	3323	-	-	-	-	6	2612	3814	3102	6	1712	2499	2105
Vermont	1	2004	3336	-	1	1601	2617	-	9	1601	2617	-	-	-	-	9
Virginia	1	2088	2851	2386	1	1747	2386	1996	8	2088	2851	2386	4	1747	2386	1996
Washington	1	2704	3462	3462	1	2450	3136	3136	6	2841	3821	3669	6	2220	2841	2841
West Virginia	1	2324	3962	2662	1	1651	2403	2209	10	2324	3962	2580	10	2008	3433	2294
Wisconsin	1	2785	3872	3742	4	2345	3261	3003	8	2785	3872	3445	8	2345	3261	2940
Wyoming	1	2704	4195	3407	-	-	-	-	5	2704	4195	3375	5	2333	3619	3122
1980 Average		3345	3076			2901	2643			3274	2937			2828	2490	
1944 Average		434				341								292		264
% Increase 1944-1980		671				751								868		853
% Increase 1979-1980		8.2				7.1								8.4		11.6

(6) Resident Maintenance Engineer				(7) Area Supervisor				(8) Gang Foreman				(9) Sectionman				(10) Laborer					
No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	State	
43	1605	2048	2025	-	1067	1368	1285	7	845	1033	1026	-	-	-	-	318	628	768	751	Alabama	
17	2845	5446	3055	32	2247	2769	2686	20	2124	2620	2538	-	-	-	-	5	1478	1747	1830	Alaska	
-	-	-	-	48	1388	1825	1760	-	-	-	-	48	1200	1358	1490	38	816	1170	950	Arizona	
-	-	-	-	82	1077	1655	1641	42	1077	1655	1655	135	869	1333	1244	52	546	836	692	Arkansas	
-	-	-	-	104	2100	2784	2532	503	1553	1867	1781	698	1416	1702	1551	1333	1237	1352	1295	California	
-	-	-	-	40	1798	2409	2409	46	1552	2081	2081	375	1341	1798	1755	54	747	1216	1050	Colorado	
-	-	-	-	29	1450	2322	1588	63	1315	1577	1446	147	1034	1262	1148	353	853	1002	928	Connecticut	
-	-	-	-	1	1212	1894	1590	17	949	1445	1320	46	809	1231	1108	25	605	923	836	Delaware	
-	-	-	-	18	1109	1735	1513	4	878	1343	1193	11	765	1129	930	-	632	806	719	Florida	
22	1512	2050	1781	105	896	1175	1035	187	806	1047	926	262	766	992	879	1991	694	892	793	Georgia	
44	1316	2029	1856	-	-	-	-	236	948	1433	1170	-	-	-	-	385	646	866	703	Hawaii	
-	-	-	-	4	1672	2525	2071	20	1263	1702	1506	9	887	1263	1155	93	833	1023	875	Idaho	
36	1610	2515	2220	-	-	-	-	287	-	-	1575	1869	-	-	1525	-	-	-	Illinois		
18	1619	2392	1967	37	1324	1967	1619	38	1216	1820	1493	150	1066	1616	1324	-	-	-	Indiana		
24	1640	2167	2126	18	1229	1716	1519	27	1116	1453	1387	-	-	-	-	1	730	1064	907	Iowa	
21	1900	2953	2414	35	1362	2115	1892	37	1193	1795	1529	115	1193	1795	1529	-	-	-	Kansas		
-	-	-	-	44	862	1626	1160	209	782	1475	1072	127	710	1338	942	837	530	998	758	Kentucky	
-	-	-	-	87	821	1612	1520	260	738	1612	1253	-	-	-	-	779	552	1146	710	Louisiana	
-	-	-	-	21	1345	1754	1600	126	1121	1431	1350	43	910	1133	1080	136	800	978	904	Maine	
23	1624	2132	2030	32	1299	1706	1600	191	912	1189	1090	-	-	-	-	213	638	806	720	Maryland	
-	-	-	-	35	1102	1452	-	96	939	1205	-	100	885	1141	-	484	737	950	-	Massachusetts	
-	-	-	-	13	1618	1945	1784	53	1512	1801	1665	57	1322	1512	1429	37	980	1188	1094	Michigan	
7	1763	2365	2144	37	2032	2075	2131	104	1444	1884	1800	1447	1213	1350	1318	107	948	1350	971	Minnesota	
-	-	-	-	25	1035	1800	1322	54	835	1410	939	476	665	1120	773	419	600	995	663	Mississippi	
-	-	-	-	101	1290	1719	1644	38	1158	1515	1399	361	1033	1357	1287	-	-	-	-	Missouri	
-	-	-	-	20	1353	1784	1716	-	-	-	135	1039	1131	1085	12	1097	1097	1097	-	Montana	
-	-	-	-	30	1240	1757	1454	86	983	1380	1151	-	-	-	-	-	-	-	-	Nebraska	
-	-	-	-	6	1465	2023	1969	26	1224	1680	1611	48	1119	1533	1482	-	825	1119	-	-	Nevada
10	1304	1598	1598	10	1178	1437	1437	21	1026	1240	1187	98	1026	1240	1133	265	708	813	759	New Hampshire	
4	1497	2021	1759	27	1293	1747	1520	118	1117	1508	1313	132	1013	1368	1191	578	865	973	919	New Jersey	
-	-	-	-	16	1077	1791	1574	131	885	1625	1331	-	-	-	-	102	583	1130	719	New Mexico	
65	2032	2604	2371	-	-	-	-	217	1130	1473	1233	670	871	1004	938	1630	749	871	817	New York	
35	1623	2261	1942	87	1131	1551	1341	169	735	1239	987	715	995	1355	1175	1113	647	873	760	North Carolina	
-	-	-	-	8	1245	1839	1749	4	1024	1513	1372	89	975	1441	1231	2	693	1024	953	-	North Dakota
-	-	-	-	88	1080	1428	1238	316	905	1060	983	632	789	945	863	87	738	884	808	-	Ohio
-	-	-	-	11	1326	2118	1590	16	1199	1925	1495	107	1095	1749	1345	881	781	1199	847	-	Oklahoma
16	1850	2360	2360	-	-	-	-	130	1249	1759	1506	126	1226	1420	1363	18	771	972	890	-	Oregon
-	-	-	-	67	1395	1817	1817	779	1042	1343	1343	-	-	-	-	2908	846	1042	1042	Pennsylvania	
1	1596	1596	1596	10	926	1051	1290	26	870	957	1147	3	818	869	1130	257	715	752	793	-	Rhode Island
47	1361	2087	1765	-	-	-	-	273	786	1410	1130	-	-	-	-	879	574	814	670	-	South Carolina
1	1484	2292	2042	10	1365	2092	1725	5	1255	1910	1487	83	1154	1744	1401	-	-	-	-	-	South Dakota
22	995	1761	1517	45	341	1158	1035	-	-	-	-	95	653	995	876	1700	545	876	690	-	Tennessee
-	-	-	-	51	1642	2066	-	98	968	1969	-	347	1346	1935	-	2500	536	1086	-	-	Texas
-	-	-	-	3	1366	1998	1682	25	1446	1937	1691	70	1446	1937	1691	18	736	1498	1117	-	Utah
-	-	-	-	9	1020	1612	-	9	804	1274	-	126	650	1036	-	213	589	934	-	-	Vermont
57	1223	1670	1398	300	1118	1528	1278	626	936	1278	1070	-	-	-	-	206	548	749	627	-	Virginia
-	-	-	-	32	1822	2332	2306	66	1423	1822	1811	173	1423	1650	1642	2	959	1112	1048	-	Washington
-	-	-	-	55	1142	2187	1330	47	1043	1991	1172	306	911	1097	995	371	749	Fixed Rate	749	-	West Virginia
-	-	-	-	28	1655	2180	1750	-	-	-	-	-	-	-	-	-	-	-	-	Wisconsin	
-	-	-	-	29	1353	2047	1933	35	1228	1902	1648	-	-	-	-	56	827	1283	868	-	Wyoming

2317 1998 1865 1661 1576 1395 1375 1247 1033 886 1980 Average
 - - 141 152 121 1944 Average
 - - 1018 805 754 %Increase
 12.1 13.3 11.0 9.7 14.0 1944-1980
 - - - - - %Increase
 - - - - - 1979-1980

MONTHLY SALARIES OF HIGHWAY PERSONNEL (as of July 1, 1980)

MAINTENANCE PERSONNEL (cont'd):

State	(11)				(12)				(13)				(14)				(15)			
	Skilled Craftsman				Shop Superintendent				Garage or Shop Foreman				Mechanic				Mechanic Helper			
	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.
Alabama	34	934	1141	1101	9	1670	2133	2095	8	1142	1368	1320	95	934	1177	1171	14	794	966	895
Alaska	5	1980	2465	2383	-	-	-	-	-	-	-	-	12	1980	2465	2383	-	1858	2234	2317
Arizona	24	983	1435	1265	1	2314	3142	2780	9	1503	2387	1930	93	1122	1825	1566	10	864	1256	1048
Arkansas	115	644	1112	1049	11	1077	1655	1655	10	999	1532	1516	99	644	1112	1091	2	568	871	804
California	8	1590	2004	1743	17	2050	2716	2473	52	1782	2149	1956	316	1626	1956	1782	38	1237	1352	1295
Colorado	-	-	-	-	8	1798	2409	2409	10	1552	2081	2081	105	1341	1798	1712	24	1050	1408	1158
Connecticut	58	987	1208	1097	15	1315	1577	1446	-	-	-	-	222	987	1208	1097	-	-	-	-
Delaware	16	718	1343	1043	4	1212	1894	1735	4	1109	1735	1351	32	949	1445	1256	9	718	1082	765
Florida	-	896	1175	1035	26	945	1242	1094	114	945	1242	1094	22	766	992	579	50	602	764	683
Georgia	128	717	1025	909	8	1261	1944	1516	9	1116	1703	1459	99	877	1316	1093	9	816	1210	874
Hawaii	32	1068	1397	1281	4	1272	1598	1547	2	1169	1352	1352	18	1100	1293	1253	7	910	1023	926
Idaho	12	1118	1574	1302	6	1428	2109	1831	6	1233	1822	1478	50	1118	1652	1298	11	835	1233	931
Illinois	-	-	-	-	-	-	-	-	-	-	-	-	29	-	-	1599	-	-	-	-
Indiana	91	1066	1616	1324	37	1216	1820	1493	-	-	-	-	150	904	1365	1114	36	758	1148	940
Iowa	-	-	-	-	-	-	-	-	1	1229	1577	1577	142	1110	1208	1199	19	981	1064	1053
Kansas	-	-	-	-	6	1303	1959	1735	7	1157	1642	1384	99	1004	1348	1142	31	761	1020	837
Kentucky	50	480	1213	891	-	-	-	-	21	722	1475	1100	85	643	1213	906	22	457	862	643
Louisiana	150	706	1462	1130	24	943	1615	1528	-	-	-	-	171	776	1393	1147	138	676	1091	819
Maine	41	959	1329	1190	7	1406	1842	1842	14	1122	1431	1380	129	959	1202	1170	13	784	1021	970
Maryland	579	672	856	760	7	1043	1388	1340	27	912	1272	1220	80	856	1189	1090	22	711	910	810
Massachusetts	-	-	-	-	1	1641	2154	-	8	988	1289	-	19	885	1141	-	42	772	998	-
Michigan	59	1133	1322	1211	1	1618	1945	1784	17	1512	1801	1665	77	1322	1512	1429	32	1028	1248	1155
Minnesota	97	1456	1523	1493	5	1618	2279	2156	18	1557	2112	2027	163	1502	1616	1548	39	886	1389	1151
Mississippi	7	905	1560	958	6	1035	1800	1154	9	945	1650	1080	68	695	1560	893	2	665	1120	713
Missouri	-	-	-	-	9	1366	1818	1747	10	1158	1540	1465	50	1004	1312	1171	27	854	1122	925
Montana	6	1381	1381	1381	12	1353	1784	1720	6	1438	1438	1438	57	1381	1381	1381	45	1097	1211	1125
Nebraska	-	-	-	-	1	1169	1653	1497	4	877	1227	1113	95	829	1157	1005	26	739	1026	798
Nevada	225	939	1279	1226	-	1533	2119	-	8	1279	1759	1729	70	1169	1604	1576	-	-	-	-
New Hampshire	112	905	1081	1037	1	1451	1781	1781	8	1057	1280	1224	23	929	1128	1128	5	731	840	840
New Jersey	132	1013	1368	1191	5	1497	2021	1759	38	1173	1584	1379	143	1013	1368	1191	62	824	927	876
New Mexico	26	765	1475	1131	-	-	-	-	15	976	1881	1502	72	729	1402	1063	-	-	-	-
New York	580	833	1174	927	10	1443	1598	1521	19	1094	1278	1188	278	975	1143	1075	47	778	919	875
North Carolina	218	735	1295	1015	15	1485	2159	1822	130	1039	1551	1295	550	801	1295	1048	-	-	-	-
North Dakota	-	-	-	-	8	1024	1513	1219	-	-	-	-	5	842	1245	978	-	-	-	-
Ohio	98	967	1180	1080	2	1428	1993	1496	20	1298	1728	1496	323	967	1180	1038	14	844	998	926
Oklahoma	7	1045	1667	1188	9	1260	2019	1590	-	-	-	-	52	1095	1749	1307	7	919	1452	1045
Oregon	18	1353	1567	1476	5	1378	1759	1628	5	1249	1596	1596	76	1288	1493	1390	17	972	1226	1080
Pennsylvania	244	1004	1284	1284	-	-	-	-	67	1284	1663	1663	563	1081	1395	1395	137	846	1042	1042
Rhode Island	16	752	790	940	1	962	990	990	-	-	-	-	1	759	1133	1133	1	715	752	793
South Carolina	1304	597	1030	843	-	-	-	-	47	995	1410	1254	194	727	1304	974	50	621	881	775
South Dakota	5	946	1403	1089	9	1255	1910	1501	-	-	-	-	11	808	1169	965	4	609	974	804
Tennessee	45	621	915	764	4	955	1301	1206	31	764	1075	995	154	653	995	876	-	808	1169	834
Texas	3500	1012	1317	-	-	-	-	58	968	1815	-	1	848	1142	-	1	743	1001	-	
Utah	35	1035	1481	1258	1	1543	2252	1898	13	1446	1937	1691	83	1035	1592	1314	6	834	1035	934
Vermont	18	728	1155	-	1	1346	2195	-	1	1020	1612	-	43	728	1215	-	-	-	-	-
Virginia	60	856	1169	978	8	1462	1996	1670	75	1023	1398	1169	339	856	1278	1070	68	655	895	749
Washington	20	1355	1571	1542	6	1734	2220	2202	7	1495	1914	1914	83	1423	1650	1623	28	1168	1355	1287
West Virginia	144	953	1097	973	36	953	2187	1301	258	953	996	966	115	871	911	884	43	790	830	801
Wisconsin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wyoming	-	-	-	-	6	1569	2433	1925	9	1422	2205	1661	61	1226	1902	1365	3	912	1415	1140

1980 Average 1336 1171 - 1925 1698 - 1616 1451 - 1387 1240 - 1106 966

1944 Average 155 - 206 177 136

% Increase 1944-1980 762 684 706 713

% Increase 1979-1980 11.0 8.5 10.9 11.0

(16)				(17)				(18)				(19)				State	
Equipment Operator I				Equipment Operator II				Equipment Operator III				Timekeeper or Clerk				State	
No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.		
349	717	871	837	199	845	1033	1019	193	966	1177	1174	100	669	1068	1046	Alabama	
8	1756	2105	2188	54	1858	2234	2317	178	1980	2383	2465	-	-	-	-	Alaska	
269	917	1171	1018	168	1053	1344	1264	70	1200	1538	1490	51	655	1043	956	Arizona	
719	568	871	806	486	579	886	875	74	644	984	964	10	579	886	886	Arkansas	
-	-	-	-	1036	1416	1553	1482	549	1483	1626	1557	86	1146	1372	1250	California	
-	-	-	-	829	1216	1630	1478	38	1341	1798	1750	-	-	-	-	Colorado	
706	908	1075	988	265	936	1113	1022	108	987	1208	1097	353	853	1002	928	Connecticut	
166	671	994	826	49	747	1129	952	59	843	1286	1081	14	626	994	796	Delaware	
1991	632	806	719	120	729	941	835	148	766	992	879	38	766	992	879	Florida	
694	893	794	-	772	421	693	949	-	231	877	1316	1020	52	695	912	793	Georgia
1061	668	904	-	-	-	-	-	-	-	-	-	-	-	-	-	Hawaii	
67	840	1023	954	60	943	1215	1109	13	1068	1296	1250	4	905	1336	1138	Idaho	
31	920	1360	962	-	-	-	-	321	1065	1574	1228	6	876	1295	1004	Illinois	
455	-	-	1525	72	-	-	-	1739	17	-	-	1539	-	-	-	Indiana	
1154	789	1200	982	332	904	1365	1114	92	1025	1549	1265	38	667	1011	828	Iowa	
853	844	1064	997	276	907	1161	1126	131	943	1208	1181	-	-	-	-	Kansas	
648	839	1125	892	429	920	1235	1061	178	1004	1348	1213	29	956	1348	1079	Kentucky	
1227	530	998	746	831	503	1213	874	74	710	1338	1086	107	583	1100	861	Louisiana	
728	676	1091	886	564	738	1203	1092	165	814	1327	1281	136	602	1086	924	Maine	
436	831	1074	990	164	910	1133	1080	112	959	1202	1140	-	-	-	-	Maryland	
315	754	971	910	180	802	1040	980	47	856	1114	1050	31	802	1114	1080	Massachusetts	
749	772	998	-	-	-	-	-	95	843	1090	-	35	716	918	-	Michigan	
54	1028	1248	1155	1133	1322	1322	1248	-	1322	1512	1429	32	1074	1244	1185	Minnesota	
-	-	-	-	18	1456	1523	1516	-	-	-	-	-	-	-	-	Mississippi	
476	665	1120	773	163	765	1285	926	10	905	1560	1039	35	600	995	714	Missouri	
1835	805	1066	932	1034	897	1181	1099	7	1004	1312	1205	20	887	1168	1054	Montana	
312	1211	1268	1239	64	1324	1324	1324	-	-	-	-	12	1230	1624	1439	Nebraska	
275	702	972	766	-	-	-	-	499	781	1088	937	30	597	822	710	New Hampshire	
-	-	-	-	-	-	-	-	76	1024	1400	1362	6	1119	1533	1533	New Jersey	
125	761	887	824	12	814	940	908	39	841	978	936	6	738	857	857	New Mexico	
432	870	1021	946	149	876	1125	1001	43	1013	1368	1191	-	-	-	-	North Carolina	
217	630	1077	765	374	694	1188	968	110	804	1373	1139	40	583	1025	768	North Dakota	
1180	794	905	866	373	833	960	899	102	1012	1182	1105	147	672	992	817	Ohio	
881	781	1199	847	228	880	1386	989	82	957	1524	1144	107	781	1199	847	Oklahoma	
710	1020	1166	1140	257	1114	1226	1201	52	1166	1288	1263	-	-	-	-	Oregon	
564	846	1042	1042	2024	970	1227	1227	282	1042	1343	1343	67	846	1042	1042	Pennsylvania	
905	1126	1126	-	-	-	-	-	-	-	-	-	-	-	-	-	Rhode Island	
127	771	817	913	17	793	843	998	22	843	897	1098	2	725	794	825	South Carolina	
-	-	-	-	-	-	-	-	-	-	-	-	128	574	1159	898	Texas	
166	1035	1387	1211	164	1105	1481	1293	102	1188	1592	1390	-	-	-	-	Utah	
-	-	-	-	-	-	-	-	37	728	1155	-	9	691	1100	-	Vermont	
2846	655	895	749	952	716	978	819	88	783	1070	895	232	717	819	978	Virginia	
-	-	-	-	557	1112	1423	1368	97	1355	1571	1565	39	827	1058	995	Washington	
352	790	830	803	1113	871	911	885	556	953	996	964	66	790	852	816	West Virginia	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Wisconsin		
64	912	1415	1086	178	1058	1641	1315	74	1167	1811	1644	-	-	-	-	Wyoming	

1076 958 1223 1132 1354 1229 1077 956 1980 Average
 - - - 142 1944 Average
 - - - 658 % Increase
 10.9 11.4 9.4 7.7 1944-1980
 - - - 658 % Increase
 - - - 1979-1980

MONTHLY SALARIES OF HIGHWAY PERSONNEL (as of July 1, 1980)

TRAFFIC OPERATIONS PERSONNEL:

State	(20) State Traffic Engineer				(21) Assistant State Traffic Engineer				(22) State Traffic Maintenance Engineer				(23) District Traffic Engineer				(24) Assistant District Traffic Engineer			
	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.
Alabama	1	1964	2550	2550	-	-	-	-	1	1478	1879	1879	9	1329	2048	1678	-	-	-	-
Alaska	-	-	-	-	-	-	-	-	-	-	-	-	6	3278	6282	3518	-	-	-	-
Arizona	1	2537	3444	3444	2	2314	3142	3142	-	-	-	-	2	1928	2623	2623	-	-	-	-
Arkansas	1	-	2628	2628	1	1554	2385	2385	-	-	-	-	-	-	-	-	-	-	-	-
California	1	3220	4165	3722	2	3061	3699	3370	-	-	-	-	17	2418	3364	2918	48	2100	2918	2532
Colorado	1	2584	3463	3463	1	2461	3298	2650	-	-	-	-	5	1808	2529	2529	-	-	-	-
Connecticut	1	2485	3050	3050	1	2297	2820	2559	4	2297	2820	2559	4	1487	1817	1653	4	1450	1725	1588
Delaware	1	2102	3365	3217	-	-	-	-	-	-	-	-	1	1799	2800	2548	2	1469	2251	1838
Florida	1	2085	2876	2480	3	1956	2690	2323	1	1719	2339	2029	5	1719	2339	2029	-	1512	2050	1781
Georgia	1	2029	3145	3146	2	1703	2638	2524	-	-	-	-	7	1433	2215	1944	7	1160	1780	1631
Hawaii	1	1828	2899	2899	1	1672	2525	2414	-	-	-	-	-	-	-	-	-	-	-	-
Idaho	1	2214	3272	2826	1	2009	2968	2692	-	-	-	-	6	1735	2563	2261	-	-	-	-
Illinois	1	2635	3575	3245	1	2285	3320	2900	-	-	-	-	9	2070	3145	2587	15	1610	2675	2235
Indiana	1	2355	3657	2984	1	2041	3187	2596	1	1892	2895	2355	6	1742	2626	2143	6	1619	2392	1967
Iowa	1	1793	2382	2382	1	1515	1973	1973	-	-	-	-	-	-	-	-	-	-	-	-
Kansas	1	1900	2953	2773	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kentucky	1	1882	2915	2915	2	1707	2915	2779	6	1549	2915	2420	15	1504	2644	2207	18	862	2399	2467
Louisiana	1	1955	2757	2757	1	1712	2536	2536	-	-	-	-	9	1712	2536	2429	1	1591	2253	2167
Maine	1	1811	2411	2411	1	1672	2224	2224	-	-	-	-	7	1442	2018	1760	-	-	-	-
Maryland	1	2204	2895	2895	1	1889	2482	2482	1	1889	2482	2240	4	1624	2132	2020	7	1399	1921	1800
Massachusetts	1	2035	2526	-	1	1957	2430	-	1	1814	2251	-	8	1589	1970	-	8	1431	1783	-
Michigan	1	2828	3438	3438	1	2591	3181	3181	1	2347	2911	2911	9	2046	2516	2516	6	1768	2149	2149
Minnesota	1	2346	3095	3095	5	2178	2928	2867	-	-	-	-	9	1895	2645	2559	-	-	-	-
Mississippi	1	1670	2935	2585	1	1510	2670	2350	-	-	-	-	-	-	-	-	-	-	-	-
Missouri	-	-	-	-	1	2142	2679	2679	-	-	-	-	3	1766	2336	2336	14	1534	2027	1927
Montana	1	1752	2306	2041	1	1607	2117	1798	-	-	-	-	5	1353	1784	1634	-	-	-	-
Nebraska	1	2006	2879	2414	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nevada	1	1931	2681	2681	1	1759	2439	2439	-	-	-	-	2	1399	1931	1931	-	-	-	-
New Hampshire	1	1799	2212	2212	1	1636	2015	2015	-	-	-	-	-	-	-	-	-	-	-	-
New Jersey	1	2965	4003	3484	1	2323	3136	2730	1	1911	2580	2246	4	1497	2021	1759	7	1293	1747	1520
New Mexico	1	1975	3378	2919	1	1525	2779	2286	-	-	-	-	4	1791	3065	2616	-	-	-	-
New York	1	3461	3818	3600	1	3461	3818	3600	1	1979	2293	2100	10	2284	2734	2500	-	-	-	-
North Carolina	1	2159	3009	3009	2	1869	2607	2607	-	-	-	-	14	1551	2159	1855	-	-	-	-
North Dakota	-	1	2028	2995	2840	-	-	-	1	1513	2235	2085	-	-	-	-	-	-	-	-
Ohio	1	2090	2931	2535	1	1899	2660	2301	-	-	-	-	12	1726	2416	2090	12	1428	1993	1726
Oklahoma	1	2019	3108	2718	1	1837	2888	2413	-	-	-	-	8	1524	2448	1940	-	-	-	-
Oregon	1	2360	3011	3011	-	-	-	-	-	-	-	-	-	-	-	-	5	1759	2246	2230
Pennsylvania	1	2435	3141	3141	2	2152	2766	2766	-	-	-	-	11	1817	2339	2339	40	1593	2064	2064
Rhode Island	-	-	-	-	-	-	-	-	1	1120	1300	1553	-	-	-	-	11	1743	2248	2248
South Carolina	1	2180	3090	2981	2	1938	2747	2661	-	-	-	-	4	1656	2348	2135	-	-	-	-
South Dakota	1	1754	2749	2500	1	1484	2292	2144	-	-	-	-	5	1513	2510	2041	-	-	-	-
Tennessee	1	1743	2512	2188	2	1594	2292	1823	1	1348	1819	1819	4	1600	2118	1706	-	-	-	-
Texas	1	2207	2777	2770	5	2066	2600	-	-	-	-	-	-	-	-	-	-	-	-	-
Utah	1	2467	3602	3035	-	-	-	-	5	1712	3078	2395	3	1712	3078	2395	1	1543	2252	1898
Vermont	1	1425	2323	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Virginia	1	2088	2851	2386	1	1747	2386	1996	8	1462	1996	1670	-	-	-	-	8	1337	1826	1528
Washington	1	2220	2841	2841	1	1914	2450	2450	-	-	-	-	6	1822	2332	2332	6	1495	1914	1895
West Virginia	1	2324	3962	2662	1	2008	3433	2519	-	-	-	-	1	2008	3433	2519	1	1651	2707	1651
Wisconsin	1	2785	3872	3328	4	2340	3278	2780	-	-	-	-	7	2044	2778	2675	8	2044	2693	2462
Wyoming	1	2333	3619	2978	2	2113	3280	2447	-	-	-	-	5	1915	2972	2329	-	-	-	-

1980 Average 3065 2063 2767 2534 2386 2167 2584 2244 2171 1902

1944 Average -

% Increase 1944-1980 -

% Increase 1979-1980 8.1

9.0

5.7

13.7

6.2

(25)				(26)				(27)				(28)				(29)									
No.	Traffic Supervisor	Supervisor	No.	Sign Supervisor	Sign Supervisor	No.	Shop Foreman	No.	Traffic Signal & Lighting	Foreman	No.	Striper Foreman	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	State
-	-	-	-	-	-	-	-	-	1142	1368	1255	1	1478	1880	1880	-	-	-	-	-	-	-	-	Alabama	
7	2465	4709	2652	-	-	-	-	-	-	-	-	1	2124	2620	2538	-	-	-	-	-	-	-	-	Alaska	
7	1284	1690	1595	1	1388	1825	1760	1	1284	1690	1557	12	1388	1975	1842	11	1200	1538	1490	-	-	-	-	Arizona	
-	-	-	-	1	1395	2143	2143	1	1077	1655	1655	-	-	-	-	2	1077	1655	1612	-	-	-	-	Arkansas	
-	-	-	-	503	1553	1867	1781	503	1553	1867	1781	27	-	-	-	503	1553	1867	1781	-	-	-	-	California	
8	1552	2081	2081	-	-	-	-	1	1408	1888	1888	5	1712	2294	2185	-	-	-	-	-	-	-	-	Colorado	
-	-	-	-	1	1560	1901	1844	1	1253	1507	1465	63	1315	1577	1446	29	1450	2322	1588	-	-	-	-	Connecticut	
2	1469	2251	2012	-	-	-	-	1	949	1445	1212	1	1212	1894	1735	-	-	-	-	-	-	-	-	Delaware	
-	1342	1804	1573	-	-	-	-	1	1187	1583	1385	-	-	-	-	10	896	1175	1035	-	-	-	-	Florida	
-	-	-	-	1	1563	2415	2314	1	1316	2029	1944	1	1433	2215	1944	12	948	1343	1239	-	-	-	-	Georgia	
-	-	-	-	3	1223	1436	1314	-	-	-	-	1	1467	1734	1562	1	1064	1242	1242	-	-	-	-	Hawaii	
-	-	-	-	-	-	-	-	1	1233	1822	1360	2	1499	2214	1872	2	1360	1913	1735	-	-	-	-	Idaho	
28	1355	2515	1757	-	-	-	-	10	1466	2170	1690	-	-	-	-	16	1575	1769	1608	-	-	-	-	Illinois	
-	-	-	-	7	1066	1967	1554	6	1024	1549	1265	7	1114	1967	1554	20	1025	1549	1265	-	-	-	-	Indiana	
-	-	-	-	-	-	-	-	1	1175	1515	1335	1	1175	1515	1515	6	1229	1577	1504	-	-	-	-	Iowa	
-	-	-	-	-	-	-	-	1	1097	1470	1295	-	-	-	-	6	1195	1795	1529	-	-	-	-	Kansas	
11	862	1626	1268	12	710	1338	1090	9	583	1213	1050	32	583	1475	1045	13	643	1338	1014	-	-	-	-	Kentucky	
8	888	1445	1344	2	990	1612	1612	5	738	1462	1211	10	990	1612	1567	19	736	1462	1401	-	-	-	-	Louisiana	
-	-	-	-	-	-	-	-	1	1121	1431	1431	1	1164	1492	1492	1	1121	1431	1431	-	-	-	-	Maine	
9	1299	1706	1590	1	1299	1706	1706	2	1207	1584	1584	9	912	1189	1170	7	912	1189	1189	-	-	-	-	Maryland	
7	1102	1452	-	1	1289	1701	-	1	990	1289	-	1	990	1289	-	32	939	1205	-	-	-	-	-	Massachusetts	
1	1834	2246	2246	33	939	1206	-	11	1618	1945	1784	10	1373	1665	1512	1	1512	1801	1665	12	1322	1512	1429	-	Michigan
14	1580	2114	2064	14	1289	1618	1528	-	-	-	-	1	1557	2112	1966	-	-	-	-	-	-	-	-	Minnesota	
-	-	-	-	-	-	-	-	70	905	1560	1029	70	905	1560	1029	70	905	1560	1029	-	-	-	-	Mississippi	
-	-	-	-	-	-	-	-	1	1226	1607	1458	6	1158	1540	1516	-	-	-	-	-	-	-	-	Missouri	
-	-	-	-	-	-	-	-	1	1381	1381	1381	-	-	-	-	-	-	-	-	-	-	-	-	Montana	
-	-	-	-	1	1169	1653	1409	1	928	1303	1183	1	1483	2114	1729	-	-	-	-	-	-	-	-	Nebraska	
-	-	-	-	1	1399	1931	1931	-	-	-	-	-	-	-	-	6	1119	1533	1533	-	-	-	-	Nevada	
1	1062	1292	1292	-	-	-	-	1	929	1128	1128	1	1088	1319	1319	8	929	1128	1128	-	-	-	-	New Hampshire	
-	-	-	-	1	1293	1747	1520	1	1173	1584	1379	29	1173	1584	1379	5	1117	1508	1313	-	-	-	-	New Jersey	
6	885	1625	1223	-	-	-	-	1	765	1309	1247	2	1247	2075	1627	-	-	-	-	-	-	-	-	New Mexico	
10	1158	1691	1400	1	1409	1627	1533	1	1134	1328	1229	11	1096	1278	1200	20	871	1004	938	-	-	-	-	New York	
14	1131	1551	1341	14	911	1239	1075	-	-	-	-	14	1039	1419	1229	14	911	1239	1075	-	-	-	-	North Carolina	
-	-	-	-	-	-	-	-	8	1024	1513	1308	-	-	-	-	-	-	-	-	-	-	-	-	North Dakota	
12	998	1298	1238	1	1180	1570	1180	1	967	1180	1126	7	1180	1570	1362	24	905	1060	983	-	-	-	-	Ohio	
6	1260	2019	1524	-	-	-	-	1	1378	1759	1759	2	1759	1940	1940	8	1249	1447	1430	-	-	-	-	Oklahoma	
-	-	-	-	11	1179	1527	1527	1	1081	1395	1395	11	1343	1743	1743	21	1042	1343	1343	-	-	-	-	Pennsylvania	
2	962	1031	1290	-	-	-	-	1	1044	1200	1062	1	966	1033	1343	1	870	926	1092	-	-	-	-	Rhode Island	
-	-	-	-	-	-	-	-	7	786	1410	1130	8	995	1410	1266	9	786	1410	1130	-	-	-	-	South Carolina	
-	-	-	-	1	1024	1537	1444	1	946	1403	1307	-	-	-	-	2	808	1169	942	-	-	-	-	South Dakota	
5	955	1301	1158	-	-	-	-	-	-	-	-	5	874	1281	1142	-	-	-	-	-	-	-	-	Tennessee	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Texas		
1	1712	2499	2105	1	1543	2252	1898	1	1228	1794	1511	3	1366	2095	1730	6	1446	1937	1691	-	-	-	-	Utah	
1	1020	1612	-	-	-	-	-	-	-	-	-	1	804	1274	-	7	765	1215	-	-	-	-	-	Vermont	
-	-	-	-	3	1118	1278	1528	-	-	-	-	18	1023	1528	1278	-	-	-	-	-	-	-	-	Virginia	
2	1822	2332	2306	-	-	-	-	6	1423	1822	1637	4	1495	1914	1914	6	1423	1822	1811	-	-	-	-	Washington	
-	-	-	-	-	-	-	-	8	1043	1505	1129	15	1505	2187	1864	6	833	1251	1160	-	-	-	-	West Virginia	
3	1650	2169	1779	1	1719	2262	2073	10	1466	1924	1620	1	1719	2262	2171	17	1183	1472	1328	-	-	-	-	Wisconsin	
5	1228	1902	1613	-	-	-	-	1	1493	2316	1815	5	1422	2205	1814	10	1288	1997	1643	-	-	-	-	Wyoming	
1918 1663				1754 1635				1566 1400				1761 1614				1473 1307				1980 Average					
-				-				-				-				-				1944 Average					
-				-				-				-				-				%					
19.4				10.7				11.0				9.1				8.3				Increase 1944-1980					
																				Tennessee 1979-1980					

MONTHLY SALARIES OF HIGHWAY PERSONNEL (as of July 1, 1980)

TRAFFIC OPERATIONS PERSONNEL (cont'd):

State	(30) Sign Erection Foreman				(31) Sign Fabricator				(32) Sign Technician				(33) Traffic Signal & Lighting Technician				(34) Striper Technician				
	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	
Alabama	-	-	-	-	2	935	1142	983	14	935	1177	1039	24	1068	1478	1325	-	-	-	-	
Alaska	-	-	-	-	-	-	-	-	-	-	-	-	4	2124	2620	2538	-	-	-	-	
Arizona	4	1200	1538	1490	8	1053	1344	1260	23	983	1256	1188	25	1053	1690	1545	10	1053	1344	1168	
Arkansas	1	1077	1655	1655	8	644	984	769	2	644	984	934	-	-	-	-	3	644	984	984	
California	-	-	-	-	-	-	-	-	-	-	-	-	70	-	-	-	-	-	-	-	
Colorado	-	-	-	-	-	-	-	-	-	-	-	-	102	1662	2004	1825	-	-	-	-	
Connecticut	-	-	-	-	3	987	1208	1097	-	-	-	-	4	936	1113	1022	-	-	-	-	
Delaware	3	1109	1735	1446	3	718	1082	844	-	-	-	-	5	747	1286	988	-	-	-	-	
Florida	47	806	1047	927	3	766	992	879	10	694	893	794	-	7	949	1735	1348	-	806	1047	926
Georgia	13	948	1343	1210	15	717	1025	909	80	717	1025	900	6	986	1210	1077	19	816	1210	992	
Hawaii	-	-	-	-	5	1068	1215	1160	-	-	-	-	9	1100	1397	1287	3	943	1064	1009	
Idaho	6	1360	1913	1800	3	876	1295	1093	-	-	-	-	6	1295	1913	1566	9	1065	1574	1228	
Illinois	-	-	-	-	13	1592	1761	1612	-	-	-	-	9	945	2330	1630	-	-	-	-	
Indiana	18	1025	1549	1265	12	904	1365	1114	42	789	1200	982	39	940	1681	1324	60	789	1365	1114	
Iowa	-	-	-	-	9	873	1111	1025	-	-	-	-	2	1012	1321	1241	20	907	1208	1079	
Kansas	-	-	-	-	3	960	1289	1052	-	-	-	-	-	-	-	-	-	-	-		
Kentucky	-	-	-	-	-	-	-	-	172	583	1100	806	4	710	1792	1196	21	643	1213	983	
Louisiana	33	618	1327	842	24	676	1462	940	30	676	1091	730	55	676	1462	1018	84	676	1327	987	
Maine	3	959	1202	1202	2	959	1202	1202	1	1016	1284	1284	1	1212	1577	1577	-	-	-	-	
Maryland	7	912	1189	1140	8	672	1114	980	-	-	-	-	6	856	1114	1060	7	802	1040	980	
Massachusetts	32	939	1205	-	6	885	1141	-	1	990	1289	-	20	885	1141	-	18	885	1141	-	
Michigan	31	1133	1322	1248	15	1028	1248	1155	42	1133	1322	1248	35	1322	1512	1429	22	1133	1322	1248	
Minnesota	-	-	-	-	-	-	-	-	-	-	-	-	11	1183	1667	1507	-	-	-	-	
Mississippi	70	905	1560	1029	4	665	1120	959	-	-	-	-	6	905	1560	1113	476	665	1120	773	
Missouri	-	-	-	-	2	854	1087	987	1	805	1031	850	34	1089	1453	1269	-	-	-	-	
Montana	-	-	-	-	4	1324	1324	1324	-	-	-	-	6	1230	1942	1508	-	-	-	-	
Nebraska	-	-	-	-	7	829	1157	966	-	-	-	-	6	928	1303	1090	-	-	-	-	
Nevada	2	1119	1533	1533	2	1279	1759	1759	2	1169	1604	1548	-	-	-	-	6	1024	1400	1400	
New Hampshire	7	929	1128	1128	1	929	1128	1128	7	731	840	840	2	905	1081	993	5	867	1025	946	
New Jersey	-	-	-	-	11	876	1125	1001	37	874	1072	973	117	1013	1368	1191	-	731	840	840	
New Mexico	-	-	-	-	4	598	1130	901	-	-	-	-	7	844	1881	1221	-	-	-	-	
New York	61	871	1004	938	18	833	960	893	-	-	-	-	106	779	1155	1000	52	833	960	899	
North Carolina	101	735	995	865	14	735	995	865	-	-	-	-	27	873	1183	1028	70	767	1039	903	
North Dakota	-	-	-	-	3	842	1245	901	-	-	-	-	-	-	-	1	693	1024	838		
Ohio	36	905	1060	1019	16	930	1372	1116	3	789	945	863	-	844	998	926	9	1038	1298	1126	
Oklahoma	-	-	-	-	8	693	1045	748	3	721	1095	781	-	-	-	-	-	-	-		
Oregon	17	1249	1378	1378	-	-	-	-	-	-	-	-	-	-	-	-	-	846	1042	1042	
Pennsylvania	67	1126	1461	1461	2	905	1126	1126	10	846	1042	1042	11	1395	1817	1817	905	1126	1126	1126	
Rhode Island	1	896	956	1125	3	843	897	1032	-	905	1126	1126	2	870	926	1003	123	970	1227	1227	
South Carolina	-	-	-	-	-	-	-	-	-	-	-	-	27	621	1358	958	-	-	-	-	
South Dakota	5	1154	1744	1401	3	874	1281	1131	-	-	-	-	-	-	-	-	-	-	-	-	
Tennessee	3	874	1281	1142	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Texas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Utah	8	1446	2095	1770	6	1112	1622	1367	-	-	-	-	17	1035	1900	1468	-	-	-	-	
Vermont	4	691	1100	-	1	728	1154	-	-	-	-	-	1	765	1215	-	6	650	1036	-	
Virginia	-	-	-	-	35	717	978	819	75	936	1278	1070	50	856	1169	978	-	-	-	-	
Washington	-	-	-	-	-	-	-	-	18	1289	1495	1495	33	1168	1822	1686	18	1355	1571	1565	
West Virginia	5	1142	1651	1305	-	-	-	-	-	-	-	-	53	1043	2187	1451	-	-	-	-	
Wisconsin	39	1183	1472	1328	24	1144	1413	1330	39	1104	1352	1283	10	-	-	1840	40	1104	1352	1256	
Wyoming	2	1167	1811	1455	7	1058	1641	1300	1	1058	1641	1111	5	1228	1902	1446	35	912	1723	1124	

1980 Average 1406 1276 1218 1080 1189 1054 1563 1340 1197 1069

1944 Average

% Increase 1944-1980 9.7 12.1 11.9 12.6 3.5

% Increase 1979-1980

OTHER RELATED PERSONNEL

(35)

(36)

	Chief Engineer				Project Engineer				State
	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	
1	2323	3078	3078	150	1215	1880	1499	Alabama	
-	-	-	-	-	-	-	-	Alaska	
1	3338	4594	3936	30	1627	2623	2130	Arizona	
1	-	3492	3492	36	1473	2262	2259	Arkansas	
2	3220	4165	3671	219	2100	2918	2532	California	
1	2849	3818	3818	24	1888	2529	2529	Colorado	
1	3144	3860	3502	-	-	-	-	Connecticut	
2	2310	3692	3611	-	-	-	-	Delaware	
-	-	-	-	-	-	-	-	Florida	
1	2314	3606	3606	305	1160	1780	1631	Georgia	
1	2099	3166	3166	6	1672	2525	2414	Hawaii	
1	-	3983	-	49	1574	2325	1941	Idaho	
1	3065	4120	3625	-	1610	2515	2065	Illinois	
1	3122	4890	3969	100	1493	2392	1967	Indiana	
1	2628	3520	3520	21	1640	2167	2102	Iowa	
1	-	-	3487	29	1689	2626	2161	Kansas	
1	-	-	3625	62	1224	2518	1882	Kentucky	
1	2183	2979	2979	64	1493	2646	2397	Louisiana	
-	-	-	-	-	-	-	-	Maine	
1	3358	3358	3358	50	1207	1706	1580	Maryland	
1	2456	3066	-	89	1451	1783	-	Massachusetts	
-	-	-	-	-	-	-	-	Michigan	
1	-	-	3800	-	-	-	-	Minnesota	
1	2235	3940	3150	35	1375	2420	2122	Mississippi	
1	3333	3333	3333	52	1649	2184	2178	Missouri	
1	-	-	3251	-	-	-	-	Montana	
2	2603	3500	2966	50	1316	1867	1652	Nebraska	
1	3335	3335	3335	13	1604	2220	2175	Nevada	
1	-	2938	2938	80	1598	1832	1715	New Hampshire	
1	3604	4865	4235	17	1820	2458	2139	New Jersey	
1	-	-	3416	7	1548	2779	2125	New Mexico	
-	-	-	-	-	-	-	-	New York	
1	2607	3641	3641	60	1623	2261	1942	North Carolina	
1	2463	3640	3300	7	1752	2587	2395	North Dakota	
3	2099	2983	2974	119	1428	1993	1726	Ohio	
1	-	3750	3750	26	1667	2668	2218	Oklahoma	
1	3020	3846	3846	46	1759	2246	2246	Oregon	
1	3009	3666	3666	-	1343	1743	1743	Pennsylvania	
1	-	-	-	-	1593	2064	2064	Rhode Island	
1	-	-	3839	66	1303	2089	1849	South Carolina	
1	-	-	2889	19	1619	2510	2065	South Dakota	
1	2292	3483	3322	125	1348	1761	1653	Tennessee	
1	-	-	4158	195	2066	2600	-	Texas	
1	2925	4270	3597	53	1366	3078	2222	Utah	
1	2381	3881	-	30	852	2060	-	Vermont	
1	2727	3725	3117	40	1223	1670	1398	Virginia	
1	-	4900	4900	116	1822	2332	2317	Washington	
1	2690	4574	2904	-	-	-	-	West Virginia	
-	-	-	-	185	1719	2693	2092	Wisconsin	
1	3636	5641	4420	34	2113	3280	2350	Wyoming	

3809 3518 2329 2041 1980 Average

1944 Average

↑ Increase
1944-19808.9 10.4 ↑ Increase
1979-1980

MAINTENANCE QUESTIONNAIRE ON POLICIES AFFECTING MAINTENANCE AND TRAFFIC OPERATIONS PERSONNEL (as of July 1, 1980)

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.	Maximum Yrs. of Service	Yrs. of Service	Cumulative Maximum	(7)	(8)	
	(2)	(3)	(4)	(4a)	(4b)	(5)	(5a)	(5b)	(6)	(7)	(8)	(9)	(10)	(11)	(9)	(10)	
Alabama	-	x	-	-	Yes	Yes	Yes	Statute	70	Yes	30	Any Age	Yes	104	1to5	234	25 Yes 480
Alaska	x	-	-	-	Yes	Yes	No	-	-	Yes	5	55	Yes	112.5	90Days	225	10 Yes 675
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	35	60	Yes	96	0to3	176	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	20	55	Yes	96	1to5	168	15 Yes 336
Connecticut	x	-	-	-	Yes	Yes	Yes	Statute	70	Yes	10	50	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	30	Any Age	Yes	104	1to5	156	10 Yes 240
Georgia	-	-	x	-	Yes	Yes	Yes	Policy	70	Yes	+5	Any Age	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	5	55	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, Twice the Hrs.
Iowa	x	-	-	-	Yes	Yes	No	-	-	Yes	-	55	Yes	96	1to4	216	24 Yes
Kansas	-	x	-	-	Yes	Yes	Yes	Statute	70	No	-	-	Yes	96	0to5	144	10 Yes 192
Kentucky	-	x	-	-	Yes	Yes	Yes	Statute	70	Yes	30	Any Age	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	No	-	-	Yes	25	None	Yes	80	1to5	200	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	6Mo. to 6Yrs.	248	40 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 240less10 336over15
Missouri	x	-	-	-	Yes	Yes	Yes	Statute	70	Yes	15	55	Yes	120	0to10	168	15 Yes 360 336over15
Montana	-	-	-	x	Yes	Yes	No	-	-	Yes	10	-	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	25	55	Yes	96	0to5	200	20 Yes 200
New Mexico	x	-	-	-	Yes	Yes	No	-	-	Yes	60	Any Age	Yes	120	Ea. Yr.	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 Age	Yes	80	1to7	200	25 Yes 3
Oklahoma	x	-	-	-	Yes	Yes	-	Policy	70	Yes	10	55	Yes	120	0to5	144	5 Yes 528
Oregon	-	x	-	-	Yes	Yes	Yes	Statute	70	Yes	-	55	Yes	96	0.5to5	192	20 Yes 250
Pennsylvania	-	-	-	x	Yes	Yes	No	-	-	Yes	-	Aft. 10	Yes	112.5	2to15	150	15 Yes 337.5
Rhode Island	x	-	-	-	Yes	Yes	Yes	Statute	70	Yes	10	55	Yes	56	6 Mo.	176	20 Yes 176
South Carolina	x	-	-	-	Yes	Yes	Yes	Statute	72	Yes	30	60	Yes	120	1to10	240	22 Yes 360 240under15 320over15
South Dakota	-	x	-	-	Yes	Yes	Yes	Statute	70	Yes	5	55	Yes	120	1to15	160	15 + Yes 240
Tennessee	x	-	-	-	Yes	Yes	Yes	Statute	70	Yes	30	60	Yes	90	1to5	180	20 Yes -
Texas	-	-	x	-	Yes	Yes	Yes	Statute	70	Yes	10	50	Yes	84	0to2	168	20 Yes 336
Utah	x	-	-	-	Yes	Yes	No	-	-	Yes	30	-	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	25 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 240

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		
	Minimum Hrs. /Yrs.	Yrs. of Service	Maximum Hrs. /Yrs.	Hrs. of Service			
Yes	104	1toMax.	104	1	Yes	1200	Alabama
Yes	112.5	90 Days	112.5	90 Days	Yes	Unlimited	Alaska
Yes	8	All	8	All	Yes	Unlimited	Arizona
Yes	96	-	96	-	Yes	720	Arkansas
Yes	96	-	96	-	Yes	Unlimited	California
Yes	120	0toAny	120	1	Yes	Unlimited	Colorado
Yes	105	-	105	-	Yes	None	Connecticut
Yes	112.5	-	112.5	-	Yes	8	Delaware
Yes	104	1orMore	104	-	Yes	None	Florida
Yes	120	-	120	-	Yes	720	Georgia
Yes	168	Any	168	Any	Yes	None	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	No Maximum	Iowa
Yes	96	0to1	96	1	Yes	No Maximum	Kansas
Yes	96	All	-	-	Yes	Unlimited	Kentucky
Yes	96	1to3	192	15	Yes	All	Louisiana
Yes	96	0toAny	96	-	Yes	960	Maine
Yes	120	0toAny	120	All	Yes	Unlimited	Maryland
Yes	120	-	120	-	Yes	Unlimited	Massachusetts
Yes	104	-	104	-	Yes	None	Michigan
Yes	104	0to1	104	1	Yes	900	Minnesota
Yes	120	-	120	-	Yes	960	Mississippi
Yes	120	-	120	-	Yes	Unlimited	Missouri
Yes	8	-	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 O-8Yrs. 960 over 18Yrs.	New Hampshire
Yes	96	0to1	120	1	Yes	Unlimited	New Jersey
Yes	96	Each	96	1	Yes	No Maximum	New Mexico
Yes	104	-	104	-	Yes	1350	New York
Yes	80	-	80	-	Yes	No Maximum	North Carolina
Yes	96	0toAny	96	Any	Yes	Unlimited	North Dakota
Yes	120	All	-	-	Yes	Unlimited	Ohio
Yes	120	0to3	120	3	Yes	360	Oklahoma
Yes	96	All	-	-	Yes	Unlimited	Oregon
Yes	-	-	112.5	1	Yes	1500	Pennsylvania
Yes	5	Pay Period	960	-	Yes	960	Rhode Island
Yes	120	1	-	-	Yes	720	South Carolina
Yes	112	-	112	-	Yes	Unlimited	South Dakota
Yes	90	All	90	-	Yes	None	Tennessee
Yes	96	-	96	-	Yes	Unlimited	Texas
Yes	96	-	96	-	Yes	Unlimited	Utah
Yes	96	0to5	168	20	Yes	Unlimited	Vermont
Yes	120	0toAny	120	Any	Yes	Unlimited	Virginia
Yes	96	-	96	-	Yes	-	Washington
Yes	144	-	144	-	Yes	Unlimited	West Virginia
Yes	104	-	-	-	Yes	No Maximum	Wisconsin
Yes	96	All	96	-	Yes	-	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?
 - 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.

INSURANCE

UNIONIZATION

State	INSURANCE							UNIONIZATION								
	(12)	Hospitalization (12a)	(12b)	(13)	Life Insurance (13a)	(13b)	Public Liability (14a) (14b) (14c) (14d)	Non-Supv. (15)	Supv. (15)	National Union (16a)	Local Union (16b)	Supv. (15)	National Union (16a)	Local Union (16b)		
Alabama	Yes	Wholly	Mandatory	No	Wholly & Partially	Wholly & Partially	Mandatory	-	x	No	No	-	Yes	Voluntary		
Alaska	Yes	Wholly	Mandatory	Yes	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	Optional	-	-	x	No	No	-	No		
California	Yes	Partially	Optional	Yes	Wholly	Mandatory	Mandatory	x	-	No	Yes	No	-	Yes	Voluntary	
Colorado	Yes	Partially	Optional	Yes	Wholly	Mandatory	Mandatory	x	-	No	No	No	-	Yes	Voluntary	
Connecticut	Yes	Wholly	Optional	Yes	Partially	Optional	Optional	x	-	Yes	Yes	No	-	Yes	Voluntary	
Delaware	Yes	Partially	Optional	No	-	Optional	Optional	-	-	x	Yes	Yes	Yes	No	Partially & Mandatory	
Florida	Yes	Partially	Optional	Yes	Partially	Optional	Optional	-	-	x	Yes	Yes	No	-	No	
Georgia	Yes	Partially	Optional	Yes	Partially	Mandatory	Mandatory	x	-	-	No	No	-	No	-	
Hawaii	Yes	Partially	Optional	Yes	Wholly	Optional	Optional	-	-	x	Yes	Yes	No	-	Yes	Voluntary
Idaho	Yes	Partially	Optional	Yes	Wholly	Optional	Optional	x	-	-	No	No	No	-	Yes	Voluntary
Illinois	Yes	Wholly	Mandatory	Yes	Wholly	Mandatory	Mandatory	x	-	-	No	Yes	No	-	-	-
Indiana	Yes	Partially Wholly & Partially	Optional	Yes	Partially Wholly & Partially	Optional	Optional	x	-	-	No	No	No	-	Yes	Voluntary
Iowa	Yes	Partially Wholly & Partially	Optional	Yes	Partially Wholly & Partially	Optional	Optional	x	-	-	No	Yes	No	-	No	-
Kansas	Yes	Partially Wholly & Partially	Optional	Yes	Wholly	Mandatory	Mandatory	-	-	x	No	No	No	-	No	-
Kentucky	Yes	Partially Wholly & Partially	Mandatory	Yes	Wholly	Mandatory	Mandatory	-	-	x	No	No	No	-	No	-
Louisiana	Yes	Partially	Optional	Yes	Partially	Optional	Optional	-	-	x	No	Yes	No	-	No	-
Maine	Yes	Wholly	Optional	No	-	Optional	Optional	-	-	x	Yes	Yes	No	-	Yes	Voluntary
Maryland	Yes	Partially	Optional	No	-	-	-	-	-	x	No	No	Yes	Voluntary	Yes	Voluntary
Massachusetts	Yes	Partially	Optional	Yes	Partially	Optional	Optional	-	-	x	Yes	Yes	Yes	Mandatory	Yes	Mandatory
Michigan	Yes	Partially	Optional	Yes	Partially	Optional	Optional	x	-	-	No	No	No	-	Yes	Voluntary
Minnesota	Yes	Wholly	Optional	Yes	Wholly	Mandatory	Mandatory	-	-	x	Yes	Yes	No	-	Yes	Voluntary
Mississippi	Yes	Wholly	Optional	Yes	Partially	Optional	Optional	-	-	x	No	No	No	-	Yes	Voluntary
Missouri	Yes	Partially	Optional	Yes	Wholly	Mandatory	Mandatory	x	-	-	No	Yes	No	-	Yes	Voluntary
Montana	Yes	Partially	Optional	No	-	-	-	x	-	-	No	Yes	-	-	-	-
Nebraska	Yes	Partially	Optional	Yes	Wholly	Optional	Optional	-	-	x	No	Yes	No	-	No	-
Nevada	Yes	Wholly	Mandatory	Yes	Wholly	Mandatory	Mandatory	x	-	-	No	No	-	-	Yes	Voluntary
New Hampshire	Yes	Wholly Wholly & Partially	Optional	Yes	Partially Wholly & Partially	Optional	Optional	x	-	-	Yes	Yes	No	-	Yes	Voluntary
New Jersey	Yes	Partially Wholly & Partially	Optional	Yes	Partially Wholly & Partially	Optional	Optional	-	-	x	Yes	Yes	Yes	Voluntary	Yes	Voluntary
New Mexico	Yes	Partially	Optional	Yes	Partially	Optional	Optional	x	-	-	No	Yes	No	-	-	-
New York	Yes	Partially	Optional	No	-	-	-	x	-	-	Yes	Yes	No	-	No	Voluntary
North Carolina	Yes	Wholly	Mandatory	Yes	Partially	Mandatory	Mandatory	x	-	-	No	No	No	-	Yes	Voluntary
North Dakota	Yes	Wholly	Optional	Yes	Wholly	Mandatory	Mandatory	-	-	x	No	Yes	No	-	-	-
Ohio	Yes	Partially	Optional	Yes	Wholly	Mandatory	Mandatory	x	-	-	No	No	Yes	Voluntary	Yes	Voluntary
Oklahoma	Yes	Wholly	Mandatory	Yes	Wholly	Mandatory	Mandatory	x	-	-	No	No	No	-	Yes	Voluntary
Oregon	Yes	Wholly	Optional	No	-	-	-	x	-	-	No	Yes	No	-	No	-
Pennsylvania	Yes	Wholly	Optional	Yes	Wholly	Mandatory	Mandatory	x	-	-	Yes	Yes	No	-	Yes	Voluntary
Rhode Island	Yes	Partially Wholly & Partially	Mandatory	Yes	Partially	Mandatory	Mandatory	-	-	x	Yes	Yes	Yes	Mandatory	No	-
South Carolina	Yes	Partially Wholly & Partially	Mandatory	Yes	Wholly	Mandatory	Mandatory	-	-	x	No	No	No	-	Yes	Voluntary
South Dakota	Yes	Wholly	Mandatory	No	-	Optional	Optional	x	-	-	No	Yes	No	-	-	-
Tennessee	Yes	Partially	Optional	Yes	Partially	Optional	Optional	-	-	x	No	No	No	-	No	-
Texas	Yes	Wholly	Optional	Yes	Wholly	Optional	Optional	-	x	-	No	No	No	-	Yes	Voluntary
Utah	Yes	Partially	Optional	Yes	Partially	Optional	Optional	x	-	-	No	No	No	-	Yes	Voluntary
Vermont	Yes	Partially	Optional	Yes	Partially	Optional	Optional	-	-	x	Yes	Yes	No	-	Yes	Voluntary
Virginia	Yes	Wholly	Optional	Yes	Partially	Mandatory	Mandatory	x	-	-	No	No	No	-	No	-
Washington	Yes	Wholly Wholly & Partially	Mandatory	Yes	Partially Wholly & Partially	Optional	Optional	x	-	-	Yes	Yes	Yes	Mandatory	-	-
West Virginia	Yes	Partially Wholly & Partially	Optional	Yes	Partially Wholly & Partially	Optional	Optional	x	-	-	No	No	No	-	-	-
Wisconsin	Yes	Partially	Optional	Yes	Partially	Optional	Optional	x	-	-	No	Yes	No	-	No	-
Wyoming	Yes	Wholly	Optional	Yes	Partially	Optional	Optional	x	-	-	No	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.
- All
 - Permanent Field Employees (exclusive of supervisory)
 - Supervisory
 - Temporary
19. Standard number of hours worked by each permanent field employee per day and per week.

				SERVICE AWARDS		WORKING CONDITIONS						
Non-Supervisory						Salary Basis		Working Hrs. Per Day Per Week				
National Union (16a)	Local Union (16b)			(17)		(18a)	(18b)	(18c)	(18d)	(19)		State
Yes	Voluntary	Yes	Voluntary	No	-	S	S	H	8	40		Alabama
-	-	Yes	Mandatory	Yes	H	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	H	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	-	-	Voluntary	Yes	-	S	S	H	8	40		Idaho
Yes	Voluntary	-	*	Yes	-	S	S	H	8	40		Illinois
No	-	Yes	Voluntary	Yes	-	H	S	H	8	40		Indiana
No	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	8	40		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	Voluntary	Yes	-	S	S	H	8	40		Maryland
Yes	Mandatory	-	Mandatory	No	H	-	-	-	8	40		Massachusetts
No	-	Yes	Voluntary	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	-	-	-	8	40		Montana
No	-	Yes	Voluntary	Yes	H	H	H	H	8	40		Nebraska
-	-	Yes	Voluntary	Yes	S	S	S	S	8	40		Nevada
-	-	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	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	S	-	-	-	8	40		North Dakota
Yes	Voluntary	Yes	Voluntary	Yes	H	-	-	-	8	40		Ohio
No	-	Yes	Voluntary	Yes	H	H	H	H	8	40		Oklahoma
No	-	Yes	Voluntary	Yes	S	-	-	-	8	40		Oregon
No	-	Yes	Voluntary	Yes	-	S	S	H	7.5	37.5		Pennsylvania
Yes	Mandatory	Yes	Mandatory	Yes	-	H	H	H	8	40		Rhode Island
No	-	Yes	Voluntary	Yes	-	H	S	H	8	40		South Carolina
Yes	Voluntary	Yes	Voluntary	Yes	-	H	S	H	8	40		South Dakota
No	-	No	*	Yes	S	-	-	-	7.5	37.5		Tennessee
No	-	Yes	Voluntary	Yes	-	H	S	H	8	40		Texas
No	-	Yes	Voluntary	Yes	S	-	-	-	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 half, compensatory time, none) for:
- Permanent field employees (exclusive of supervisory)
 - Supervisory
 - 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?
- If answer to Question 21 is "Yes", are they paid from the time they leave this assembly point until they return at the close of the day's work (portal to portal)?
22. Are maintenance and operations employees furnished any type of protective clothing as indicated below:
- 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:
- Actual
 - Actual with a maximum
 - Per Diem

(WORKING CONDITIONS (Continued))

State	Adjustment for Overtime				Travel Time		Protective Clothing						Travel Expenses Lodging							
	(20)	(20a)	(20b)	(20c)	(21)	(21a)	(22a)	(22b)	(22c)	(22d)	(23)	(24)	(25)	(26)	(26a)	(26b)	(26c)	(26a)	(26b)	(26c)
Alabama	Yes	1-1/2	Comp.	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	x	-	-	x	
Alaska	Yes	1-1/2	None	1-1/2	Yes	No	Yes	Yes	Yes	No	Yes	Yes	No	Yes	-	-	x	-	-	x
Arizona	Yes	1-1/2	1-1/2	1-1/2	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	-	-	x	-	-	x	
Arkansas	Yes	1-1/2	None	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	-	-	x	-	-	x	
California	Yes	1-1/2	1-1/2	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	-	-	x	-	-	x
Colorado	Yes	1-1/2	None	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	-	-	x	-	-	x
Connecticut	Yes	1-1/2	1-1/2	Straight	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	-	-	-	-	-
Delaware	Yes	1-1/2	Comp. & Straight	1-1/2	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	-	-	-	-	-
Florida	Yes	Straight	None	-	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	-	-	x	-	-	x	
Georgia	Yes	1-1/2	Comp.	1-1/2	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	x	-	-	x	
Hawaii	Yes	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	-	-	x	-	-	x
Idaho	Yes	1-1/2	Straight	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	-	x	-	x	-	-
Illinois	Yes	1-1/2	1-1/2	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	-	-	x	-	-	x
Indiana	Yes	1-1/2	Straight	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	-	-	x	-	-	x
Iowa	Yes	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	-	-	x	-	-	x
Kansas	Yes	1-1/2	None	1-1/2	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	-	-	x	-	-
Kentucky	Yes	1-1/2	Comp.	-	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	-	x	-	x	
Louisiana	Yes	1-1/2	Comp.	None	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	-	x	-	x		
Maine	-	1-1/2	-	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	-	x	-	x		
Maryland	Yes	1-1/2	Comp.	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	-	x	-	x		
Massachusetts	Yes	1-1/2	1-1/2	1-1/2	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	No	No	Yes	Yes	No	Yes	-	x	-	x	
Mississippi	No	-	-	-	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No	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	No	No	No	Yes	No	Yes	-	-	x	-	x
Nebraska	-	1-1/2	Straight	1-1/2	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	-	x	-	-	x
Nevada	Yes	1-1/2	Straight	1-1/2	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	-	-	x	-	-	x
New Hampshire	Yes	1-1/2	Straight	1-1/2	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	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	-	-	x
New York	Yes	1-1/2	Comp. & 1-1/2	1-1/2	Yes	Yes	Yes	Yes	Yes	Lmt.	No	Yes	Yes	No	Yes	-	x	-	-	x
North Carolina	Yes	1-1/2	1-1/2	None	1-1/2	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	-	x	-	-	x
North Dakota	Yes	1-1/2	-	1-1/2	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	No	Yes	-	x	-	-	x
Ohio	Yes	1-1/2	-	-	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	No	Yes	-	x	-	x
Oklahoma	Yes	1-1/2	1-1/2	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No	No	-	-	-	-	-
Oregon	Yes	1-1/2	1-1/2	1-1/2	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	-	-	x	-	-	x
Pennsylvania	Yes	1-1/2	-	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	-	-	x	-	-	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	No	Yes	Yes	No	Yes	-	x	-	-	x	
South Dakota	Yes	1-1/2	Comp.	1-1/2	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	-	-	x	-	-	x
Tennessee	Yes	1-1/2	Comp. & Straight	-	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No	-	-	-	-	-	-
Texas	Yes	1-1/2	Comp. & Straight	None	Straight	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	-	-	x	
Utah	Yes	1-1/2	Comp. & Straight	1-1/2	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Lmt.	Yes	-	-	x	-	-
Vermont	Yes	1-1/2	Comp. & Straight	1-1/2	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	-	x	-	-	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	Comp. & Straight	1-1/2	No	-	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	-	x	-	-
Wisconsin	Yes	Straight	Comp. & 1-1/2	None	1-1/2	No	-	Yes	Yes	Yes	No	No	No	Yes	No	Yes	-	x	-	-
Wyoming	Yes	1-1/2	-	-	1-1/2	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)(27b)(27c)	Signing & Marking Responsibility			Vehicle Maintenance		State
	(28a)	(28b)	(28c)	(29)	(29a)(29b)(29c)	
- x -	Yes	Yes	Yes	Yes	- - x	Alabama
- x -	No	Yes	Yes	Yes	- - x	Alaska
- x -	Yes	Yes	Yes	Yes	x - -	Arizona
- - x	Yes	Yes	Yes	-	x - -	Arkansas
- x -	No	Yes	Yes	Yes	x - -	California
- x -	No	Yes	Yes	Yes	x - -	Colorado
- - x	No	Yes	Yes	Yes	- x -	Connecticut
- - x	No	No	No	Yes	x - -	Delaware
- x -	Both	Yes	Yes	Yes	x - -	Florida
- x -	Yes	Yes	Yes	Yes	x - -	Georgia
- x -	No	Yes	Yes	Yes	x - -	Hawaii
- x -	Yes	Yes	Yes	Yes	- x -	Idaho
- x -	No	No	No	No	- - -	Illinois
- x -	No	Yes	No	Yes	x - -	Indiana
x - -	Yes	Yes	Yes	Yes	x - -	Iowa
x - -	Yes	Yes	Yes	Yes	x - -	Kansas
x - -	No	No	No	Yes	x - -	Kentucky
x - -	No	Yes	No	Yes	- x -	Louisiana
x - -	No	Yes	No	Yes	- x -	Maine
x - -	No	No	No	Yes	x - -	Maryland
- - x	Yes	Yes	Yes	Yes	x - -	Massachusetts
- x -	Yes	Yes	Yes	Yes	x - -	Michigan
- x -	Yes	Yes	Yes	Yes	- x -	Minnesota
- - x	No	No	No	Yes	x - -	Mississippi
x - -	Yes	Yes	Yes	Yes	x - -	Missouri
- x -	No	Yes	Yes	Yes	- x -	Montana
x - -	Yes	Yes	Yes	Yes	x - -	Nebraska
x - -	No	Yes	Yes	Yes	x - -	Nevada
- - x	No	No	No	Yes	x - -	New Hampshire
- - x	Part.	Yes	Yes	Yes	x - -	New Jersey
- x -	No	Yes	Yes	Yes	x - -	New Mexico
- x -	Yes	Yes	Yes	Yes	x - -	New York
- x -	No	Yes	Yes	Yes	x - -	North Carolina
- x -	Yes	Yes	Yes	Yes	x - -	North Dakota
x - -	No	No	No	Yes	- - x	Ohio
- x -	-	-	-	Yes	x - -	Oklahoma
- x -	Yes	Yes	Yes	Yes	x - -	Oregon
x - -	Yes	Yes	No	Yes	x - -	Pennsylvania
- - x	-	Yes	Yes	No	- - -	Rhode Island
- -	Yes	Yes	Yes	Yes	- x -	South Carolina
- x -	Yes	Yes	Yes	Yes	- x -	South Dakota
- - x	No	Yes	Yes	Yes	x - -	Tennessee
- - x	Yes	Yes	Yes	Yes	x - -	Texas
- x -	No	Yes	Yes	Yes	- x -	Utah
x - -	Yes	Yes	Yes	Yes	- x -	Vermont
- x -	No	Yes	Yes	Yes	- - x	Virginia
- x -	No	Yes	Yes	Yes	x - -	Washington
- x -	No	Yes	Yes	Yes	x - -	West Virginia
x - -	Yes	Yes	Yes	No	- - -	Wisconsin
x - -	No	Yes	No	Yes	x - -	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:
- Interstate and Freeways
 - Primary and Secondary
 - County, Township, Municipal and Service Roads
 - Total Lane Miles
31. What is your average number of maintenance and traffic operations field employees?
- Permanent
 - Temporary
 - 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?
- Contemplate changing
 - Have changed
 - Are in the process of changing
 - 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				
	(30a)	(30b)	(30c)	(30d)	Average Number of Employees (31a) (31b) (31c)	(32)	Maintenance Management System (33a) (33b) (33c) (33d) (34) (35)					
Alabama	3,621	23,876	-	24,497	888	481	1,369	20.09	-	x	-	All
Alaska	-	10,936	-	10,936	-	-	-	-	-	x	-	-
Arizona	4,609	10,669	1,168	16,446	818	26	844	19.49	-	x	-	100% 95%
Arkansas	2,553	29,485	-	32,038	2,400	21	1,421	13	-	x	-	100% 100%
California	16,300	31,200	-	47,500	5,000	220	5,220	-	-	x	-	100% 100%
Colorado	7,557	17,500	400	25,457	1,418	50	1,468	17.34	-	x	-	100% 80%
Connecticut	1,524	8,590	-	10,114	1,746	-	-	5.79	-	-	x	-
Delaware	170	3,238	6,164	9,572	451	6	457	20.9	-	x	-	75% 75%
Florida	7,132	27,396	-	34,528	2,731	-	-	-	-	x	-	100% -
Georgia	4,683	36,872	582	42,137	3,119	113	3,232	12.4	-	x	-	95% 95%
Hawaii	282	1,970	-	2,252	324	-	324	6.95	x	-	-	-
Idaho	2,206	9,193	-	11,399	502	100	602	18	-	x	-	90% 95%
Illinois	7,022	31,346	1,422	39,790	2,969	28	2,997	13.3	x	-	-	-
Indiana	4,725	24,950	29,675	59,350	2,491	540	3,031	-	-	x	-	100% 100%
Iowa	3,514	21,276	-	24,790	1,441	47	1,488	16.66	-	x	-	100% 100%
Kansas	3,295	19,098	1,476	23,869	1,452	43	1,495	15.97	-	x	-	100% 100%
Kentucky	5,291	23,298	25,090	53,679	3,780	-	3,780	14.20	-	x	-	100% 100%
Louisiana	3,163	19,333	15,452	37,948	3,139	-	3,139	12	-	x	-	100% 100%
Maine	1,129	6,889	13,637	21,655	1,145	14	1,159	18.7	-	-	x	-
Maryland	1,997	11,980	5,476	19,453	1,644	-	1,644	11.8	-	x	-	100% 100%
Massachusetts	2,966	8,068	481	11,515	1,979	-	1,979	-	-	x	-	100% 100%
Michigan	2,788	4,539	-	7,327	819	24	843	8.4	-	x	-	38% 44%
Minnesota	3,541	24,948	-	28,489	1,760	38	1,798	15.84	x	-	-	-
Mississippi	2,640	19,912	44	22,596	1,760	24	1,784	12.67	-	x	-	80% 75%
Missouri	5,172	64,152	5,511	12,635	3,416	-	3,416	21.3	-	-	x	-
Montana	4,278	12,042	1,977	18,297	572	14	586	31	-	x	-	-
Nebraska	2,540	19,205	-	21,745	1,085	57	1,142	-	-	x	-	100% 100%
Nevada	2,875	9,150	2,250	14,275	392	25	417	34	-	x	-	100% 100%
New Hampshire	770	7,788	457	9,015	740	80	820	11.0	x	-	-	-
New Jersey	2,608	7,665	955	11,228	-	-	-	-	-	x	-	100% 100%
New Mexico	4,065	16,296	7,440	27,801	1,016	4	1,020	27.3	-	x	-	100% 80%
New York	3,856	35,984	1,480	41,320	5,207	30	5,237	7.9	-	-	x	-
North Carolina	2,830	143,687	11,746	158,263	6,255	386	6,641	23.83	-	x	-	100% 95%
North Dakota	2,220	13,539	-	15,759	369	37	406	39	-	x	-	100% 100%
Ohio	11,921	30,158	-	42,079	3,650	-	3,650	11.52	-	-	x	-
Oklahoma	2,657	23,107	-	25,764	-	-	-	-	-	x	-	100% 100%
Oregon	3,600	15,600	-	19,200	1,340	15	1,355	15	-	x	-	100% 100%
Pennsylvania	5,758	92,415	-	98,173	7,192	165	7,357	-	-	x	-	100% 75%
Rhode Island	434	2,600	-	3,034	-	-	-	6.52	-	-	x	-
South Carolina	2,844	80,581	-	83,425	2,826	-	2,826	29.52	x	-	-	-
South Dakota	2,560	15,573	-	18,133	577	30	607	30	-	x	-	100% 100%
Tennessee	4,246	19,921	-	24,167	2,282	-	2,282	10.6	-	x	-	100% 100%
Texas	20,835	150,362	-	171,197	6,634	-	6,634	26.8	-	-	x	-
Utah	3,648	10,629	-	14,277	728	47	775	-	-	x	-	100% 100%
Vermont	1,534	4,481	-	6,015	497	20	517	11.6	-	-	x	-
Virginia	4,069	20,085	87,427	111,581	5,666	294	5,960	18.7	-	x	-	100% 100%
Washington	5,302	11,433	-	16,735	1,135	120	1,255	13.4	-	x	-	99% 84%
West Virginia	2,565	66,200	-	68,765	3,183	-	3,183	-	-	x	-	100% 100%
Wisconsin	2,256	23,519	-	25,775	68	-	68	379	-	-	x	-
Wyoming	4,321	10,909	135	15,365	480	50	530	29	-	x	-	80% 95%

36. Average lane miles covered by each general maintenance crew working out of one location (gang or action 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

BASIS OF OPERATIONS

(36)	(37)	Basis of Crew Operations			(39)	(40)	Equipment Management System					State		
		(38a)	(38b)	(38c)			(41a)	(41b)	(41c)	(41d)	(41e)			
640	20	-	-	-	-	-	-	-	-	-	-	Alabama		
200	-	Yes	4,000	-	-	-	-	X	X	-	X	X	Alaska	
357.5	49.3	No	-	Yes	1,600	Yes	5,300	No	Yes	-	-	-	Arizona	
400	25	No	-	Yes	6,408	Yes	6,408	Yes	-	X	-	X	Arkansas	
161	25	No	-	Yes	2,000	Yes	3,000	No	-	-	-	-	California	
65	20	Yes	3,130	Yes	-	Yes	-	No	Yes	-	-	-	Colorado	
200	15	No	-	Yes	2,500	Yes	2,500	No	Yes	-	-	-	Connecticut	
190	20	No	-	-	870	No	-	-	-	-	-	-	Delaware	
75	20	No	-	Yes	908	Yes	1,569	Part.	Yes	X	X	-	Florida	
235+	35	No	-	Yes	880	Yes	4,967	No	-	-	-	-	Georgia	
113	28	Yes	-	Yes	-	Yes	-	No	No	-	-	-	Hawaii	
141	23	No	-	Yes	1,900	Yes	3,800	Yes	-	X	X	X	Idaho	
380	20	Yes	4,500	-	-	-	No	Yes	X	X	-	X	Illinois	
265	30	-	*	Yes	2,473	Yes	4,945	No	-	-	-	-	Indiana	
182	20	No	-	No	-	Yes	4,132	No	Yes	-	-	-	Iowa	
208	20	No	-	No	-	Yes	3,978	No	-	X	X	X	Kansas	
450	15	No	-	Yes	4,473	Yes	4,473	No	Yes	-	-	-	Kentucky	
612	40	No	-	Yes	3,800	Yes	4,700	Yes	-	X	X	X	Louisiana	
300	18	No	-	Yes	1,000	Yes	3,500	Yes	-	X	X	-	Maine	
-	-	No	-	Yes	-	Yes	-	Yes	-	X	X	X	Maryland	
123	20	Yes	270	-	-	-	No	Yes	-	-	-	-	Massachusetts	
206	25	No	-	Yes	710	Yes	1,950	No	-	-	-	-	Michigan	
40	23	No	-	Yes	1,700	Yes	3,400	No	Yes	-	-	-	Minnesota	
250	20	No	-	Yes	250	Yes	3,600	Yes	-	X	X	-	Mississippi	
200	-	No	-	No	-	Yes	4,840	No	No	-	-	-	Missouri	
135	30	No	-	Yes	135	No	2,000	Yes	-	X	X	-	Montana	
165	25	No	-	Yes	200	Yes	3,625	No	-	-	-	-	Nebraska	
150	27	Yes	950	Yes	950	Yes	950	No	Yes	-	-	-	Nevada	
93.7	12	No	-	Yes	1,288	Yes	1,502	No	Yes	-	-	-	New Hampshire	
150	12	Yes	2,245	-	-	-	Yes	-	X	X	X	X	New Jersey	
331	42	No	-	Yes	5,560 350- 1,000	Yes	9,267 1,400- 3,000	No	Yes	X	X	X	X	New Mexico
200-250	20	No	-	Yes	250	Yes	3,600	Yes	-	X	X	-	New York	
350	15	No	-	Yes	1,567	Yes	8,494	Yes	-	X	X	X	North Carolina	
196	30	No	-	Yes	1,900	Yes	7,879	No	No	-	-	-	North Dakota	
478	20	No	-	Yes	478	Yes	3,507	No	Yes	-	-	-	Ohio	
285	25	No	-	Yes	3,437	Yes	3,437	No	Yes	-	-	-	Oklahoma	
228	30	No	-	Yes	1,200	Yes	3,800	No	No	-	-	-	Oregon	
133	15	No	-	Yes	-	Yes	-	Yes	-	X	X	X	Pennsylvania	
-	187.5	No	-	Yes	750	Yes	1,000	No	Yes	-	-	-	Rhode Island	
350	20	No	-	Yes	1,775	Yes	9,270	No	No	-	-	-	South Carolina	
206	45	Yes	2,015	-	-	-	No	Yes	-	-	-	-	South Dakota	
255	25	Yes	3,800	-	-	-	No	Yes	-	-	-	-	Tennessee	
30	25	No	-	Yes	550	Yes	5,000	No	Yes	X	X	-	Texas	
198	40	Yes	2,380	Yes	2,380	Yes	2,380	Yes	-	X	X	-	Utah	
153	25	No	-	Yes	1,500	Yes	2,000	No	Part.	-	-	-	Vermont	
460	18	No	-	Yes	1,800	Yes	4,500	Yes	-	X	X	X	Virginia	
136	30	No	-	Yes	3,300	Yes	3,300	Yes	-	X	X	X	Washington	
-	-	Yes	2,000	Yes	2,000	Yes	2,000	No	Yes	-	-	-	West Virginia	
-	-	No	-	Yes	736	Yes	2,343	No	No	-	-	-	Wisconsin	
290	50	No	-	Yes	3,000	Yes	1,500	No	No	-	-	-	Wyoming	