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TRANSPORTATION RESEARCH CIRCULAR

Number 162

c3

Subject Areas:
Personnel Management
Maintenance, General

December 1974

PROGRESS REPORT OF TRB-AASHTO JOINT COMMITTEE ON MAINTENANCE AND OPERATIONS PERSONNEL



Since its formation in 1944, the Joint Committee on Maintenance and Operations Personnel has submitted thirty annual reports. All state highway departments have cooperated in submitting information from which this and the previous reports were compiled.

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.

SALARIES

During the thirty-year period the average maximum salaries of state maintenance engineers have increased 404%; common laborers, 407%; mechanics, 409%. These classifications, selected at random, give a reasonable cross-section of salary increases and/or adjustments during that period.

This report, for comparative purposes, 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).

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The following are the average monthly salaries of certain positions, by regions, as of July 1, 1974, 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 Maint. Engr.	\$ 2136	\$ 1920	\$ 1977	\$ 2077
District Engr.	2000	1809	1938	2077
Area Supervisor	1030	829	1024	1286
Common Laborer	567	446	603	593
Mechanic	798	656	782	930
Equip. Oper. I	630	516	600	743
Equip. Oper. II	661	580	703	850
Equip. Oper. III	774	645	712	937

These averages all show an increase over 1973.

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 six 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 . . . 1 state (Pennsylvania) out of the 11 has no such plan.
 Southeastern States 2 states (Arkansas and Tennessee) out of the 11 have no such plan.
 Mississippi Valley States . 1 state (North Dakota) out of the 14 has no such plan.
 Western States 2 states (Montana and Nebraska) out of the 14 have no such plan.

Retirement Plan

Fifty states indicate their employees are protected by a state-sponsored retirement plan; in forty-four of those states, all or part of the employees are also covered by Federal Social Security.

Only four states do not have a compulsory retirement age; the compulsory retirement age is 65 in 23 states; between 65 and 70 in 3 states; 70 in 19 states, and 72 in 1 state. The retirement age is established by statute in 27 states and by policy in 17 states, with 1 state indicating it is governed by both policy and statute.

Forty-four states indicate voluntary retirement is possible at an earlier age after a prescribed number of years. The number of years of service at which voluntary retirement is possible varies from 3½ to 35, and the minimum age varies from 43 up to 65, with five states having no age minimum if a prescribed number of years of service has been met.

Vacations and Sick Leave

All 50 states indicated that permanent employees are granted vacation and sick leave. The minimum or starting basis on vacations ranges from 78 to 168 hours per year, and the maximum from 96 to 240 hours per year. Only one state does not allow vacation to be carried over into the ensuing year; of the 49 states where vacation time is cumulative, the maximum that may be carried over into a new year varies from 160 to unlimited, with just 2 states having no limit on the amount of vacation that may be accumulated.

The minimum or starting basis on sick leave ranges from 52 to 240 hours per year, and the maximum from 80 to 240 hours per year. All states allow sick leave to be carried over into the ensuing year; the maximum that may be carried over into a new year ranges from 192 hours to unlimited, with 29 states having no limit to the amount that may be accumulated.

Insurance

Forty-nine states have a partially or wholly state-financed hospitalization plan for their permanent employees, with 15 of these wholly state-financed. The plan is mandatory in 9 states.

Thirty-eight states have a partially or wholly state-financed life insurance plan for their permanent employees, with 17 of these wholly state-financed. The plan is mandatory in 14 states.

In 35 states all or part of the maintenance and operations personnel are protected against lawsuit by a state-financed liability plan.

Unionization

Forty-three states report partial, complete, or voluntary organization of their maintenance and operations employees in either national unions, local unions, or employee associations, with 7 states indicating no union or employee association organization.

Thirty-nine states have affiliation with local unions or employee associations and twenty-five states have affiliation with national unions. Membership in some type of union is mandatory in 5 states.

Service Awards

Thirty-nine states have some type of award for years of service.

Working Hours and Conditions

Thirteen states pay all employees on a monthly or bi-weekly salary basis, with 14 other states paying all permanent field and supervisory employees on a monthly or bi-weekly salary basis. Four states pay all employees on an hourly basis; in 16 other states either all or part of the permanent field employees are paid on an hourly basis.

Forty-three states have an 8-hour day, with 40 hours per week as the standard work week; four states have a less than 40-hour week (three 37½ and one 35), and 2 states have a more than 40-hour week (one 45-hour week and one 43½). One state reports a 40-hour per week with a 10-hour day.

All states allow either compensatory time, straight time, or time-and-a-half to their permanent field employees. The basis of the overtime allowance is variable in many states, with work on Saturdays, Sundays and holidays paid on a different basis than extra hours on a regular work day. In 21 states supervisory employees do not receive any allowance for overtime work.

Forty-seven states require their employees to report to an assembly point preparatory to their day's work; of these states 46 pay those employees from the time they leave this assembly point until they return at the close of the day's work.

All states report that they furnish hard hats and safety vests to their employees; 48 states furnish welding goggles and helmets; 42 states furnish some other types of protective clothing, even though minor, to their maintenance employees.

Forty-two states report that they have automatic or automatically recommended salary advances.

Working Hours and Conditions - Continued

Forty-eight states have a formalized job classification plan.

Only five states use convict labor.

Only two 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 7 states, of actual expenses with a maximum in 9 states, and on a per diem basis in 16 states. In 18 states, the basis for meals and lodging differs.

Thirty-seven 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 20 states, for their replacement and maintenance in 39 states, and for pavement marking in 38 states.

In 47 states garage or shop operations for vehicle maintenance are under the jurisdiction of the highway department; in 34 states this is limited to highway department vehicles only, while in 9 states servicing is performed for some other state agencies and in 5 states for all State agencies.

Lane Miles

The average lane miles per man varies from 5.2 to 40.0. Traffic volumes per man (vehicle miles per man) vary from 2.3 million to 29.1 million.

Maintenance Management System

Thirty-four states have changed or are in the process of changing to a maintenance management system or maintenance performance budget method of operation, with 21 of these states indicating 100 percent of their functions and costs are now under this system. Nine states contemplate making this change, while 6 states indicate they do not contemplate the change.

Basis of Crew Operations

The average number of lane miles handled by a general maintenance crew working out of one location varies from 16 to 845 according to the answers given.

The travel distance from a gang or section headquarters to their farthest point of work varies from 10 to 58, with 30 states reporting 25 or under.

Forty-four states have special crews for traffic signs, with the lane miles handled by each crew varying from 200 to 4,000.

Forty-eight states have special crews for striping, with the lane miles handled by each crew varying from 270 to 10,740.

The wide variance in the mileage handled by these special signing and striping crews may indicate some misinterpretation; however, the mileage per crew is sufficient to make it evident that travel time being paid does have an effect on production costs.

TRB COMMITTEE A3C03

TRB-AASHTO JOINT COMMITTEE ON MAINTENANCE AND OPERATIONS PERSONNEL

DEFINITIONS OF MAINTENANCE AND OPERATIONS PERSONNEL TITLES

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

MAINTENANCE PERSONNEL TITLES

Title
No.

Title & Description

1. State Maintenance Engineer - One in an executive capacity who supervises all activities of maintenance for the State Highway Department.
2. Assistant State Maintenance Engineer - One who assists the State Maintenance Engineer in the work of supervising the activities of maintenance.
3. District Engineer (In some state called Division Engineer) - One in an executive capacity who supervises highway activities within a district.

Definitions of Maintenance and Operations Personnel Titles
(5-30-74)

<u>Title No.</u>	<u>Title & Description</u>
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, supervise the work of operators and laborers when necessary. A highly skilled and trained man.
10.	<u>Common Laborer</u> - One who performs manual labor.
11.	<u>Skilled Laborer</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.

Definitions of Maintenance and Operations Personnel Titles
(5-30-74)

Title
No.

Title & Description

17. Equipment Operator II - Operators of heavy trucks, light graders and rollers used on resurfacing projects.
18. Equipment Operator III - Operators of specialized equipment such as cranes, shovels, heavy graders, paving machines, etc.

TRAFFIC OPERATIONS PERSONNEL TITLES

19. State Traffic Engineer - One in an executive capacity who supervises all activities related to traffic operations of the State Highway Department.
20. Assistant State Traffic Engineer - One who assists the State Traffic Engineer in the work of supervising traffic operations.
21. District Traffic Engineer - One in an executive capacity who supervises traffic operations within a district.
22. Assistant District Traffic Engineer - One who assists the District Traffic Engineer in the work of supervising traffic operations within a district.
23. Traffic Supervisor - One who directs the activities of all employees and equipment related to traffic operations within a district.
24. Sign Supervisor - One who directs the activities of all signing, both fabrication and erection.
25. Sign Shop Foreman - One who directs a crew of men in the activity of fabricating traffic signs.
26. Traffic Signal & Lighting Foreman - One who directs a crew of men in activities related to the operation and maintenance of traffic signals and lighting.
27. Striper Foreman - One who directs a crew of men in activities related to pavement markings.
28. Sign Erection Foreman - One who directs a crew of men in activities related to the erection and maintenance of all traffic signs.
29. Sign Fabricator - One who specializes in the fabrication of traffic signs.
30. Sign Technician - One who operates equipment and supervises laborers for all activities associated with signing, both fabrication and erection.

Definitions of Maintenance and Operations Personnel Titles

(5-30-74)

Page 4

Title

No.

Title & Description

31. Traffic Signal & Lighting Technician - One who works in a technical capacity for operating and maintaining traffic signal equipment and highway lighting.
32. Striper Technician - One who operates equipment and supervises laborers regarding all activities of pavement markings.

OTHER RELATED PERSONNEL TITLES

33. Chief Engineer - One in an executive capacity who supervises all engineering activities of a State Highway Department.
34. 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.
35. Clerk or Timekeeper - One who keeps the time records of employees, hours of equipment usage, quantities of materials received, used, and on hand; maintenance cost records, etc.

GENERAL DEFINITIONS

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

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

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

MAINTENANCE AND TRAFFIC OPERATIONS PERSONNEL TITLES USED BY STATE HIGHWAY DEPARTMENTS (as of JULY 1, 1974)

State	(1) State Maintenance Engineer	(2) Assistant State Maintenance Engineer	(3) District Engineer	(4) District Maintenance Engineer
Alabama	State Maint. Engr.	Asst.St. Maint. Engr.	Division Engineer	Asst.Div.Engr.-Maint.
Alaska	State Maint. Engr.	Asst.St. Maint. Engr. Maint. Oper. Engr.	District Engineer	Dist. Maint. Engr.
Arizona	Asst.State Engr.-Maint.	Maint. Planning Engr.	District Engineer	Dist.Maint.Engr.
Arkansas	Engr. of Maint.Division	Highway Civil Engr.V	District Engineer	Hwy.DistMaint.Supt.II
California	Chief, Branch	Chief Section	Dist.Dir.of Transp.	Chief, Branch
Colorado	Staff Maint. Supt.	-	District Engineer	Maint. Supt.
Connecticut	Dir. of Maintenance	Maint. Manager II	-	Maint. Manager I
Delaware	Chief, Maintenance	-	District Engineer	Dist.Engineer
Florida	State Maint. Engr.	Deputy St.Maint.Engr.	District Engineer	Dist. Maint. Engr.
Georgia	Civil Engineer VII	Civil Engineer V Asst. Chief	Civil Engineer VI	Civil Engineer IV
Hawaii	Chief, Highways Division	Conet. & Maint.	District Engineer	Dist.Maint. Engr.
Idaho	Maintenance Engineer	Asst. Maint. Engr.	District Engineer	Dist.Maint.Engr.Supt.
Illinois	Engr. of Maintenance	Maint.Section Chief Asst.Chief	District Engineer	Dist. Maint. Engr.
Indiana	Chief, Div. of Maint.	Div. of Maint.	District Engineer	Dist.Maint. Engr.
Iowa	Maintenance Engr.	Asst. Maint. Engr.	District Engineer	Dist. Maint. Engr.
Kansas	Engr. of Maint.	Asst. Engr. of Maint. Asst.Dir.,	Division Engineer	Div. Maint. Engr.
Kentucky	Dir.,Div. of Maint. Chief Maint. & Oper. Engr.	Div. of Maint. Road Maint. Engr. Bridge Maint. Engr.	District Engineer	Asst.Dist.Engr.Oper.
Louisiana	Engr. of Maint. & Operations	Highway Maint. Engr. Chief, Bureau of Highway Maint.	District Engineer	Asst.Dist.Engr.-Maint.
Maine	Engr.of Maint.& Operations	Highway Maint. Engr. Chief, Bureau of Highway Maint.	Division Engineer	Division Supervisor
Maryland	Asst.Chief Engr.-Maint.	Chief, Bureau of Highway Maint.	District Engineer	Asst.Dist.Engr.-Maint.
Massachusetts	Maintenance Engineer	Asst. Maint. Engr. Asst. Engr. of Maint. Operations	Dist. Hwy. Engr.	Dist. Maint. Engr.
Michigan	Engr. of Maint.	Maint. Admin.Engr.	District Engineer	Dist. Maint. Engr.
Minnesota	St.Maint.& Eq. Engr.	Maint. Admin.Engr.	District Engineer	Area Maint. Engr.
Mississippi	Maint. Engr.	Asst. Maint. Engr.	District Engineer	Dist.Maint. Engr.
Missouri	Div.Engr.Maint.& Traffic	Asst.Div.Engr.-Maint.	District Engineer	Dist.Maint.& Traf.Engr.
Montana	Administrator-Maint.	Asst. Admin.-Maint.	-	Chief - Field Maint.
Nebraska	Engineer VII	Maint.Oper.Manager	Dist.Hwy.Engr.I,II,III	Dist.Hwy.Maint.Supt.
Nevada	Chief Maint. Engr.	Asst. Maint. Engr.	District Engineer	-
New Hampshire	Maint. Engr. Chief Engr.	Asst. Maint. Engr.	Division Engineer	-
New Jersey	Constr. & Maint.	Chief, Bur. of Maint.	Regional Engr.-Transp.	District Supt.
New Mexico	Engr. of Maint.	Maint. Engr.	Engineer V Regional Director of Transportation	Engineer III Regional Hwy. Maint. Engr. A, B, C. Dist. Engr. & Bridge Maint. Engr.
New York	Dir.of Transp. Maint.	Dir.of Hwy. Maint.	Regional Director of Transportation	Engr. A, B, C. Dist. Engr. & Bridge Maint. Engr.
North Carolina	Head of Maint.	Area Maint. Engr.	Division Engr.	-
North Dakota	Maint. Engr.	Asst. Maint. Engr.	District Engr. Dist. Deputy Dir. of Transportation	-
Ohio	Maint. Engr.	Asst. Maint. Engr.	District Engr.	Dist. Oper. Engr.
Oklahoma	State Maint. Engr.	Asst.St.Maint. Engr.	Division Engr.	Asst.Div.Engr.for Main
Oregon	Asst.St.Hwy.Engr.-Oper.	-	Regional Engr.	-
Pennsylvania	Civil Engr. VI	Civil Engr. V	Hwy.Dist.Engr.II or III	Adm.Officer VorHMS VI
Rhode Island	Maint. Engr.	Chief Maint. Oper.	Sr. Civil Engr.	-
South Carolina	Maint. Engr.	Asst. Maint. Engr. Engr.of Maint.Planning Engr. of Maint.Oper.	District Engr.	Dist. Maint. Engr.
South Dakota	Engr. of Maint.	Engr. of Maint.Oper.	District Engr.	Dist. Maint. Engr.
Tennessee	State Maint. Engr.	Asst.St.Maint.Engr.	REgional Engr.	Regional Maint.Engr. Dist. Maint. Engr. Supv.Maint. Engr.
Texas	Chief Engineer Maint. & Operations	-	District Engr.	Supv.Maint. Engr.
Utah	Engr. for Maint.	Maint. Engr.	Dist. Maint. Engr.	Dist. Maint. Engr.
Vermont	State Maint. Engr.	Asst.St.Maint.Engr.	District Engr.	Asst. Dist. Engr.
Virginia	State Hwy.Maint. Engr.	St.Hwy.Asst.Maint.Engr.	Hwy. Dist. Engr.	Hwy.Asst.Dist.Engr.
Washington	Asst.Dir.of Hwys.for Maint.	Asst. Maint. Engr.	District Engr.	Dist. Maint. Engr.
West Virginia	Chief Engr. - Maint.	Asst. Dir. - Maint.	District Engr.	Asst.Dist.Engr.-Maint.
Wisconsin	Chief Maint. Engr. State Constr. & Maintenance Engr.	Asst. Chief Maint.Engr.	District Engr.	Dist.Chief Maint.Engr.
Wyoming	Chief Maint. Engr.	-	District Engr.	Dist. Maint. Engr.

(5) Assistant District Maintenance Engineer	(6) Resident Maintenance Engineer	(7) Area Supervisor	(8) Gang Foreman	(9) Sectionman	State
-	District Engineer	Hwy. Supt. I & II	Highway Foreman	Highway Camp Guard	Alabama
Asst. Dist. Maint. Engr.	-	Area Foreman	Maint. Foreman	Lead Foreman	Alaska
-	-	Hwy. Maint. Foreman	-	-	Arizona
Hwy. Dist. Maint. Supt. I	Hwy. Spec. Maint. Supervisor	Hwy. Area. Maint. Supv.	-	Crew Leader	Arkansas
Chief, Section	-	Highway Superintendent	Hwy. Maint. Supv.	Hwy. Maint. Worker III	California
Asst. Maint. Supt.	-	Sr. Hwy. Foreman	Highway Foreman	Sr. Hwy. Maint.	Colorado
Maint. Operations Supt.	-	Maint. Gen. Foreman	Maint. Foreman	Maint. Crew Leader	Connecticut
Asst. Dist. Maint. Engr.	Hwy. Maint. Oper. Manager	Hwy. Maint. Supt.	Hwy. Maint. Supv.	Labor Foreman I, II, III	Delaware
Asst. Dist. Maint. Engr.	Maint. Engineer	Hwy. Maint. Foreman II	Hwy. Maint. Foreman I	Hwy. Maint. Tech. III	Florida
Civil Engr. II & III	Hwy. Maint. Engr.	Hwy. Maint. Supt.	Hwy. Maint. Foreman II	Hwy. Maint. Foreman I	Georgia
-	-	Hwy. Const. & Maint. Supt.	Hwy. Const. Maint. Forem. Bridge Maint. Forem. et al	Hwy. Labor Foreman	Hawaii
-	-	-	Spec. Hwy. Maint. Foreman	Hwy. Maint. Foreman	Idaho
-	Maint. Field Engr.	-	Lead Worker	Hwy. Maint. Man	Illinois
Asst. Dist. Maint. Engr.	-	Sub-dist. Supt.	Highway Foreman	Unit Foreman	Indiana
-	Res. Maint. Engr.	Hwy. Maint. Supv.	Hwy. Maint. Foreman 263	Hwy. Maint. Foreman 1	Iowa
Division Supt.	-	District Supt.	Dist. & Div. Foreman	Sub-dist. Foreman	Kansas
Dist. Maint. Engr.	-	Maint. Supv.	Highway Foreman	-	Kentucky
Asst. Dist. Maint. Engr.	Res. Maint. Engr.	Superintendent	Foreman I, II, III et al	-	Louisiana
Asst. Div. Engr.	-	Hwy. Dist. Supervisor	Highway Foreman	Crew Leader	Maine
-	Res. Maint. Engr.	Hwy. Maint. Supervisor	Road Foreman	-	Maryland
Asst. Dist. Maint. Engr.	-	Hwy. Maint. Foreman	Hwy. Repair Foreman	Hwy. Repair Working Forem	Massachusetts
Asst. Dist. Maint. Engr.	Dist. Maint. Supt. Bridge Insp. Engr.	Area or Co. Maint. Supt.	Maint. Foreman	-	Michigan
Maint. Oper. Engr.	Included in No. 4	Area Maint. Supt.	Sub-area Maint. Forem.	Hwy. Maint. Worker	Minnesota
-	-	Superintendent II	Foreman I	Hourly Laborers	Mississippi
Maint. Supt.	-	Maint. Area Supv.	Spec. Maint. Foreman	Hwy. Maint. Foreman	Missouri
-	-	Maint. Foreman	-	Maint. Supv. I	Montana
-	-	Hwy. Maint. Supt.	Hwy. Maint. Foreman II	Hwy. Maint. Foreman I	Nebraska
Asst. Dist. Engr. Maint.	-	Hwy. Maint. Supt.	Sr. Hwy. Maint. Foreman	Hwy. Maint. Foreman	Nevada
Asst. Div. Engr.	Maint. Supervisor	Constr. Supt.	Constr. Foreman	Hwy. Patrolman	New Hampshire
Asst. Dist. Supt.	Dist. Maint. Supv.	Area Supervisor	Foreman, Hwy. Maint.	Asst. Forem. Hwy. Maint.	New Jersey
-	-	Hwy. Maint. Supt.	Hwy. Maint. Forem. 2	Hwy. Maint. Forem. 1	New Mexico
Sr. C.E. Asst. C.E.	Resident Engr. A-B	-	Hwy. Gen. Maint. Foreman Bridge Repair Foreman	Hwy. Light Maint. Forem.	New York
Asst. Dist. Engr.	Road Maint. Supv.	Maint. Foreman IV	Maint. Foreman II, III	Maint. Foreman I	North Carolina
Asst. Dist. Engr.	-	Maint. Supervisor	Foreman	Leadman	North Dakota
Dist. Maint. Engr.	Field Engr.	Hwy. Maint. Supt. 3	Hwy. Worker 4	Hwy. Worker 3	Ohio
Area Maint. Engr.	-	Dist. Foreman	Constr. Supt. I & II	-	Oklahoma
Region Maint. Engr. Civil Engr. III or Hwy. Maint. Supt. IV or V	District Engr. Hwy. Maint. Supt. III, IV or V	-	Hwy. Maint. Fore. 1, 2, 3, 4	Hwy. Maint. Foreman 1	Oregon
-	-	Hwy. Maint. Supt. II	Highway Foreman	Highway Foreman	Pennsylvania
-	-	Hwy. Maint. Supv.	Road Maint. Foreman Hwy. Maint. Crew Supv. I-III	Laborer	Rhode Island
-	Res. Maint. Engr.	-	-	-	South Carolina
-	-	Maint. Supt.	Hwy. Maint. Forem. I & II	Hwy. Maint. Forem. I & II	South Dakota
Asst. Reg. Maint. Engr.	Dist. Maint. Engr.	Co. Maint. Supv. Maint. Const. Supv. I & II Sr. Marine Supv.	Reg. Maint. Supt.	Foreman	Tennessee
Asst. Dist. Maint. Engr.	-	-	Maint. Const. Fore. II & III	Maint. Const. Forem. I	Texas
-	-	Dist. Maint. Oper. Supv.	Hwy. Foreman 11F	Station Foreman 11F	Utah
Asst. Dist. Maint. Engr.	-	Hwy. Maint. Gen. Foreman	Hwy. Maint. Man C	Hwy. Maint. Man B	Vermont
-	Hwy. Res. Engr.	Hwy. Maint. Supt. B	Hwy. Foreman	-	Virginia
Asst. Dist. Maint. Engr.	Hwy. Maint. Supt.	-	Maint. Asst. Supt. Maint. Supervisor	Maint. Tech. I & II Maint. Lead Tech.	Washington
-	-	Co. Maint. Supv.	Asst. Co. Maint. Supv.	Foreman	West Virginia
Area Maint. Supv.	-	Asst. Area Supv.	County Employees	County Employees	Wisconsin
Admin. Assistant	Included in No. 7	Hwy. Foreman II	Hwy. Foreman I	Sr. Hwy. Maint. Man	Wyoming

State	:MAINTENANCE PERSONNEL (cont'd):			
	(10) Common Laborer	(11) Skilled Laborer	(12) Shop Superintendent	(13) Garage or Shop Foreman
Alabama	Laborer	Welders, Carpenters	Equip. Maint. Dir.	Equip. Maint. Supt.
Alaska	-	Skilled Laborer	-	Garage or Shop Foreman
Arizona	Laborer	-	Equip. Service Manager	Equip. Shop Supv. Equip. Mech. Foreman
Arkansas	Laborer I & II	Carpenter, Welder	Hwy. Dist. Equip. Supv.	Auto/Diesel Mech. Supt.
California	Hwy. Maint. Worker I	Skilled Laborer	Hwy. Equip. Supt. I or II	Hwy. Mech. Supv. I or II
Colorado	Utility Worker	-	Sr. Auto Shop Foreman	Auto Shop Foreman
Connecticut	Dept. of Trans. Maintainer ^{II}	Trades Journeyman	-	Hwy. Garage Foreman
Delaware	Laborer I	Laborer II	Hwy. Equip. Supt.	Auto Supervisor
Florida	Hwy. Maint. Tech. I	Hwy. Maint. Tech. II	Shop Foreman	Mechanic II Dist. Mechanic
Georgia	Laborer I & II	Skilled Laborer H.M.	Maint. Shop Admin.	Asst. Dist. Mechanic
Hawaii	General Laborers, Trade Helpers	Bridge Maint. Man. Carpenters	Auto Mech. Foreman	Auto Mech. II
Idaho	Laborer	Maint. Carpenter	-	Shop Foreman
Illinois	Hwy. Maint. Worker Hwy. Maint. Laborer	-	-	-
Indiana	Laborer	Sign Equip. Painter	Shop Foreman	General Mechanic
Iowa	Custodial Worker Maint. Worker I	-	Auto Shop Supv.	Auto Mech. Foreman
Kansas	Laborer I	Laborer II	Shop Supt.	Auto Mech. II
Kentucky	Laborer A	Carpenters, Painters, Plumbers	Garage Foreman	-
Louisiana	Laborer, Utility Bridgeman	Welder, Painter, et al	Shop Supt. I & II	-
Maine	Hwy. Maintenance Man I	Carpenter, Painter	Equip. Supt.	Auto Mech. Foreman
Maryland	Hwy. Worker I	Hwy. Worker II	Dist. Equip. Supv.	Shop Foreman
Massachusetts	Laborer	Skilled Laborer	Supt. Shop & Equip.	Dist. Hwy. Eq. Foreman
Michigan	Worker 05-06 Tree Trimmer 06	Electrician 07-09 Maint. Mech. 07	-	Hwy. Str. Maint. Foreman Hwy. Maint. Foreman 07
Minnesota	Laborer I	Bridge Worker	Shop Supervisor	Chief Shop Foreman
Mississippi	General Laborer I	General Laborer II	Shop Foreman III	Shop Foreman I
Missouri	-	-	Dist. Garage Foreman	Chief Shop Mechanic
Montana	Maintenance Man I	Maintenance Man II	Maintenance Man VI	Shop Foreman
Nebraska	-	-	Auto Equip. Repair Supt.	Auto Equip. Repair Supt.
Nevada	Hwy. Maint. Laborer	Hwy. Maintenance	Hwy. Equip. Opr. Supv.	Supv. Equip. Mech. 2
New Hampshire	Hwy. Maintainer I	Hwy. Patrolman Asst.	Equip. Engr.	Garage Foreman Garage Sub-Foreman
New Jersey	Maint. Worker I	Bridge Repair I&II Const. Repair I & II	Master Mechanic	Foreman Mechanic M/W
New Mexico	Utility Work. 1	Utility Work 2	Auto Shop Foreman 2	Auto Shop Foreman 1
New York	Laborer	Maint. Man, Tree Pruner Bridge Repairman	Motor Equip. Manager	Motor Eq. Maint. Supv.
North Carolina	Gen. Utility Man Laborer	Mant. Mechanic Skilled Bridgeman	Equip. Supt.	Mechanic Foreman I&II
North Dakota	-	Tradesman, Trades Helper	Shop Foreman	-
Ohio	Hwy. Worker 1	Carpenter, Electrician	Executive 5	Hwy. Maint. Supt. 2
Oklahoma	-	Hwy. Maintenance Man II	Auto Shop Supervisor	Shop Foreman
Oregon	Laborer	-	Hwy. Shop. Supt.	Hwy. Shop Foreman
Pennsylvania	Hwy. Maint. Worker Semi-Skill Laborer	Welder, Carpenter, Mason Painter	-	Auto. Eq. Foreman
Rhode Island	Semi-Skilled Lab.	-	-	-
South Carolina	Hwy. Maint. Worker I Hwy. Maint. Laborer	Hwy. Maint. Worker II, IV	-	Trades Worker Supv.
South Dakota	-	Mechanic II	Equip. Shop Foreman I&II	-
Tennessee	Utilityman	Electrician, Welder, Carpenter	Reg. Garage Supt.	Dist. Chief Mechanic
Texas	Maint. Tech. I	Maint. Tech. II & III Carpenter, Painter	Shop Foreman IV	Shop Foreman II & III
Utah	Maintenance Worker	Electrician	Shop Supervisor	Shop Foreman IIF
Vermont	Hwy. Maintenance Man A	Bridge Maint. Mechanic	Supt. Hwy. Garage	Garage or Shop Fore.
Virginia	Hwy. Maint. Helper	Skilled Laborer	Hwy. Dist. Equip. Supt.	Hwy. Eq. Repair Foreman
Washington	Laborer	Hwy. Maint. Specialist	Hwy. Equip. Supt.	Equip. Supv. - Hws.
West Virginia	Laborer	Craftsman III	Dist. Equip. Supv.	Dist. Shop Foreman
Wisconsin	-	-	-	-
Wyoming	Laborer	Hwy. Maintenance Man	Dist. Shop Foreman	Shop Foreman I & II

(14)	(15)	(16)	(17)	(18)	
Mechanic	Mechanic Helper	Equipment Operator I	Equipment Operator II	Equipment Operator III	State
Auto Mechanic Heavy Equip. Mech.	Asst. Mechanic	Equipment Operator I	Equipment Operator II	Equipment Operator III	Alabama
Mechanic	Mechanic Helper	Light Duty Mechanic	Equipment Operator II	Equipment Operator III	Alaska
Equipment Mechanic 2	Equip. Mech. 1 Auto Serviceman 1&2	Hwy. Maintenceman 1	Hwy. Maintenceman 2	Hwy. Maintenceman 3	Arizona
Auto/Diesel Mech.	Maint. Repairman I	Equipment Operator I	Equipment Operator II	Equipment Operator III	Arkansas
Heavy Equip. Mech.	Mechanic Helper	Hwy. Maint. Worker I	Hwy. Maint. Worker II	-	California
Auto & Equip. Mech.	Auto Maint. Man	Hwy. Maint. Man	Equipment Operator	Heavy Equip. Oper	Colorado
Trades Journeyman Auto Mechanic III	DOT Maintainer 364	Included in No. 10	DOT Maintainer 2	DOT Maintainer 3	Connecticut
Auto Mechanic I, II, III	Auto Serviceman	Equipment Oper. I	Equipment Operator II	Equipment Operator III	Delaware
Mechanic II	Mechanic I	Hwy. Maint. Tech. I	Heavy Equip. Oper. I	Heavy Equip. Oper. II	Florida
Hwy. Maint. Mech. I&II	Laborer II	Equip. Oper. I	Hwy. Maint. Equip. Oper. I	Hwy. Maint. Equip. Opr. II	Georgia
Auto Mech. I, Machinist	Auto Mech. Helper & Auto Serviceman	Tractor Opr., Equip. Opr. I	Heavy Truck Drive Truck Driver	Equip. Opr. IV Grader Operator	Hawaii
Mechanic	Mechanic Helper	Hwy. Maint. Opr. I	Hwy. Maint. Opr. II	Hwy. Maint. Opr. III	Idaho
Auto Mechanic	Auto Mech. Helper	Hwy. Maint. Eq. Opr.	Hwy. Const. Eq. Opr.	Power Shovel Opr.	Illinois
Mechanic	Mechanic Helper	Equip. Opr. I	Equipment Operator II	Equipment Operator III	Indiana
Auto Mechanic	Auto Mech. Helper	Hwy. Maint. Man. 1	Hwy. Maint. Man 2	Hwy. Maint. Man 3	Iowa
Auto Mech. I	Auto Mech. Helper	Equip. Opr. I	Equipment Operator II	Equipment Operator III	Kansas
Mechanic	Mechanic Helper	Lt. Equip. Oper.	Heavy Equip. Operator	Spec. Equip. Operator	Kentucky
Mechanic I, II, III	Trades Helper Mech. Apprentice	Equipment Operator I	Equipment Operator II	Equipment Operator III	Louisiana
Auto Mechanic Auto Electrician	Laborer II	Hwy. Maintenceman II, IIA	Hwy. Maintenceman III	Hwy. Maintenceman IV	Maine
Auto Service Mech.	Auto. Service Helper	Motor Equip. Opr. I	Motor Equip. Opr. II	Motor Equip. Opr. III	Maryland
Motor Eq. Repairman	Mech. Handyman Skilled Lab.	-	-	Maint. Equip. Opr.	Massachusetts
Auto Repair Foreman	-	Hwy. Equip. Opr. 05	Hwy. Equip. Opr. 06	-	Michigan
Heavy Eq. Mechanic	Heavy Eq. Mech. Apprentice	Included in No. 9	Heavy Eq. Opr.	Included in No. 17	Minnesota
Equip. Mechanic II	Equip. Mech. I	Equip. Opr. I	Equip. Opr. II	Equip. Opr. III	Mississippi
Shop Mechanic	Mechanic Helper	Maintenceman	Maint. Crew Leader	Dragline Opr.	Missouri
Maintenceman V	Maintenceman III	Maintenceman III	Maintenceman IV	Maintenceman V	Montana
Auto Mechanic II	Auto Mechanic I	Hwy. Maintenceman I	Hwy. Maintenceman II	Hwy. Maintenceman III	Nebraska
Equip. Mech. 2 Heavy Equip. Mech. Auto Mechanic	- Trades Helper	- Hwy. Maintainer II	- Hwy. Maintainer III	Spec. Eq. Opr. -	Nevada New Hampshire
Mechanic	Mechanic Helper	Truck Driver	Equip. Operator	Heavy Eq. Operator	New Jersey
Auto Mechanic	-	Equip. Operator 1	Equip. Operator 2	Equip. Operator 3	New Mexico
Motor Eq. Repairman	Maint. Man Mech.	Hwy. Equip. Opr.	Const. Equip. Opr.	Cranes & Shovel Opr.	New York
Mechanic I & II	Trades Helper	Truck Dr. & Mach. Opr. I	Machine Opr. II & III	Machine Opr. IV & V	North Carolina
Mechanic A & B	Apprentice B	Included in No. 17	Equip. Operator	Included in No. 17	North Dakota
Auto Mechanic 3	Auto Mech. 1	Equip. Opr. 2 Highway Worker 1	Equip. Opr. 3 Hwy. Worker 2	Equip. Opr. 4 Hwy. Worker 4	Ohio
Auto Mechanic I&II	Auto Mech. 1	Equip. Operator I	Equipment Operator II	Equip. Operator III	Oklahoma
Heavy Equip. Mech. Auto Mech. I & II Diesel Mechanic	- Tradesman Helper	Hwy. Maint. Man 1 & 2	Hwy. Maint. Man 3	Hwy. Maint. Man 4	Oregon
-	Mechanic Helper	Equip. Opr. I & II	Equip. Opr. III	Equip. Opr. IV	Pennsylvania
-	-	Heavy Motor Eq. Opr.	Motor Eq. Opr.	-	Rhode Island
Auto Mechanic	Trades Helper	Included in No. 11	Included in No. 11	Included in No. 11	South Carolina
Mechanic I & II	Eq. Service Worker I&II	Hwy. Maint. Worker I	Hwy. Maint. Worker II	Hwy. Maint. Worker III	South Dakota
Mechanic	-	Dist. Heavy Eq. Opr.	Reg. Heavy Eq. Opr.	-	Tennessee
-	-	-	-	-	Texas
Mechanic 10W Mechanic 11W	Auto Serviceman	Highway 8W Operations Specialist	Highway 10W Operations Specialist	Highway 11W Operations Specialist	Utah
Motor Eq. Repairman C	Motor Eq. Repairman B	-	Equip. Operator B	Equip. Operator C	Vermont
Hwy. Equip. Mech. A-B	Hwy. Eq. Mech. Helper	Hwy. Eq. Opr. A	Hwy. Equip. Opr. B	Hwy. Equip. Opr. C	Virginia
Hwy. Eq. Mechan. I&II	Shop Asst. & Equip. Service	-	Equip. Opr. II - Hwys.	Equip. Opr. III - Hwys.	Washington
Mechanic	-	Equip. Opr. I	Equip. Opr. II	Equip. Opr. III	West Virginia
COUNTY EMPLOYEES					
Mechanic II	Mechanic I	Equipment Operator	Heavy Eq. Operator	Included in No. 17	Wisconsin
					Wyoming

TRAFFIC OPERATIONS PERSONNEL:(19)

State	State Traffic Engineer	(20)	(21)	(22)
		Assistant State Traffic Engineer	District Traffic Engineer	Assistant District Traffic Engineer
Alabama	Traffic Engineer	-	Div. Traffic Engr.	Asst.Div.Traf. Engr.
Alaska	St.Traf.& Planning Engr.	Asst.St.Traf.Engr.	Dist.Traf. Engr.	Asst.Dist.Traf.Engr.
Arizona	Asst.St.Engr.-Traffic	Traf.Engr.Operations	Dist. Traf. Engr.	-
Arkansas	Chief Traf. Div.	Asst. Chief Traf.Div.	-	-
California	Chief, Branch	Chief, Section	Chief, Branch	Chief, Section
Colorado	Traffic Engr.	Asst. Traf. Engr. Chief of	Traf. & Safety Engr.	-
Connecticut	Manager of Traffic	Traffic Engineering	Admin. Section Chief	-
Delaware	Chief, Bur. of Traf. State Traf.	-	Dist.Traf.Oper.Engr.	Asst.Dist.Tr.Op.Engr.
Florida	Operations Engr.	Deputy St. Traf. Oper. Engr.	Dist.Traf.Oper.Engr.	Asst.Dist.Tr.Op.Engr.
Georgia	Civil Engr. VII	Civil Engr. V& VI	Civil Engr.II & III	Traf.Survey Engr.CE II
Hawaii	Traffic Engr.	Asst. Traf. Engr.	-	-
Idaho	Traffic Engr.	Asst. Traf. Engr. Operations,	Dist.Traf Engr./Supt.	-
Illinois	Engr. of Traffic	Section Chief	Dist. Traf. Engr.	Traf. Oper. Engr.
Indiana	Chief,Div. of Traf.	Asst. Chief Div. of Traf.	Dist. Traf. Engr.	Asst. Chief, Dist. Traf. Engr.
Iowa	Safety & Traf.Engr.	Traf. Engr.	Dit. Traf. Engr.	-
Kansas	Hwy. Marking Engr. Director,	-	-	-
Kentucky	Div. of Traffic	Asst.Dlt. Div.of Traf.	Dist. Traf. Engr.	Asst.Dist. Traf. Engr.
Louisiana	Traf. & Planning Engr.	Asst.Traf.& Plan.Engr.	Dist. Traf. Engr.	-
Maine	Traffic Engr.	Asst. Traf. Engr.	Distr. Traf. Engr.	-
Maryland	Asst.Chief Engr.-Traf.	Asst.Chief-Traf. Div.	Regional Traf. Engr. TE V	Traf. Engr. TE IV
Massachusetts	Traffic Engineer	Asst. Traf. Engr.	Dist. Traf. Engr.	Asst,Dist.Traf.Engr.
Michigan	Engr.ofTraf.& Safety	Asst.Engr. of Traf.& Safety	Engr. Dist. Traf. & Safety	Asst.Dist.Traf.& Sat.En
Minnesota	State Traffic Engineer	Traf.Control Engr.	Dist.Traf. Engr.	Asst.Dist.Traf. Engr.
Mississippi	Traffic Control & Safety Engr.	Asst. Traf. Control & Safety Engr.	-	-
Missouri	Div.Engr.Maint.& Traf.	Asst.Div. Engr. Traf.	Traffic Engr.	Dist. Traffic Studies Engr.
Montana	Manager Traf. Design	Asst. Manager Traf. Design	Field Traf. Engr.	-
Nebraska	Engineer VI	-	-	-
Nevada	Chief Traf. Engr.	Hwy.Engr. 4 - Traf.	Hwy. Engr. 2 -Traf.	-
New Hampshire	Traffic Engr. Chief,	-	-	-
New Jersey	Bureau of Electrical	Supt.Electrical, Const.Maint.& Oper.	Dist. Supv.Electrical	Asst. Dist.Supv. Electrical
New Mexico	Engineer IV Director,	Engineer I Chief, Safety Stds. & Systems Bureau	Engineer II	-
New York	Traffic and Safety Manager of	Asst. Manager of Traffic Engineering	Reg. Traf. Engr.	Sr.Civil Engr.-Traf.
North Carolina	Traffic Engineering	-	Included in No. 3	Asst.Div.Engr.-Maint.
North Dakota	Traffic Engr.	-	-	-
Ohio	Traffic Engr.	Asst. Traf. Engr.	Dist. Traf. Engr.	Asst.Dist.Traf.Engr.
Oklahoma	Chief Traf. Engr.	-	Div. Traf. Engr.	-
Oregon	TRAFFIC OPERATIONS UNDER DIRECTION OF REGIONAL ENGINEERS Incl. in No. 5			-
Pennsylvania	Civil Engineer VI	Civil Engr. V	Civil Engr. IV or III Traf.Control Specialist	Civil Engr. III
Rhode Island	State Traf. Engr.	-	-	-
South Carolina	Traf. & Planning Engr.	Asst. Traf. & Planning Engr.	Dist. Traf. & Planning Engr.	-
South Dakota	Traffic Engr.	Traf. Oper. Engr. Traf. Design Engr.	Dist. Traf. Engr.	Traf.Engr. Asst.
Tennessee	State Traf. Engr.	Asst.St.Traf.Engr.	Regional Traf.Engr.	-
Texas	-	-	Included in Nos.4 & 5	-
Utah	Engineer for Traf. & Safety	Traf.Design-Traf.Safety Traf.Oper.-Office Mgr.	Dist. Traf. Engr.	Traffic Engr.
Vermont	State Traffic Engr.	Asst.St.Traf.Engr.	-	-
Virginia	State Traffic & Safety Engineer	Asst. Traf. & & Safety Engr.	Hwy.Dist.Traf.Engr.	Hwy.Traf. Engr.A
Washington	Traffic Engr. Director,	Traf.Operations Engr.	Dist. Traf. Engr.	Asst.Dist.Traf.Engr.
West Virginia	Traffic Engr. Div.	Asst.Dir.,Traf. Engr.	Regional Traf.Engr.	Asst.Reg.Traf.Engr.
Wisconsin	Chief, Traffic Engr.	Asst.Chief Traf.Engr.	Dist.Chief Traf.Engr.	Asst.Dist.Traf.Engr.
Wyoming	St.Traffic Engr.Oper.	Section Supervisor	Dist. Traf. Engr.	-

(23)	(24)	(25)	(26)	(27)	
Traffic Supervisor:	Sign Supervisor	Sign Shop Foreman	Traffic Signal & Lighting Foreman	Striper Foreman	State
-	-	Sign Shop Foreman	-	-	Alabama
-	-	Sign Shop Foreman	-	Striper Foreman	Alaska
Hwy. Marking Supt.	Hwy. Maint. Supv.	Sign Shop Foreman	Traffic Sig.Supt. Traf.Sig& Lt.Foreman	Hwy.Marking Foreman	Arizona
-	Hwy. Sign Supv.	Hwy. Sign Supv.	-	Hwy. Sign Man II	Arkansas
-	Hwy.Supt.Spec.Crews	Hwy. Maint. Supv.	Hwy. Maint. Supv.	Hwy. Maint. Supv.	California
Traffic Foreman	-	Traf. Shop Foreman	Sr.Traf.Sig. Tech.	-	Colorado
Dist. Traf.Engr.	Signs & Markings Coordinator	Supt. Portland Plant	Dist. Elec. Supv.	Signs & Marking Foreman	Connecticut
Hwy. Maint. Supt.	Dist. Supv.	Sign Shop Supv.	Labor Foreman III	Labor Foreman I&II (C. L. Painting)	Delaware
Supervisor of Opers.	Sign Shop Supt.	Asst.Sign Shop Supt.	Traffic Signal & Lighting Supv.	Hwy.Maint.Foreman II	Florida
Traffic Survey Engr.	Civil Engineer IV Traffic Sign & Marking Foreman	Hwy. Maint.Foreman I	Elec.Facilities Engr. Traffic Signal & Hwy.Lighting Foreman	Hwy.Maint.Foreman II Traffic Marking Foreman	Georgia
-	-	-	-	Hwy. Maint. Foreman(Striping)	Hawaii
-	-	Sign Shop Supt.	Traf.Signal Supt.	-	Idaho
-	Silk Screen Operat.	Sign Shop Foreman	-	Lead Worker	Illinois
Engr. Asst. V	Engineer Asst.IV	Highway Foreman	Engineer Asst. IV	Engineer Asst.IV	Indiana
-	Sign Shop Supt.	Sign Shop Foreman	-	Hwy.Maint.Foreman 2	Iowa
-	-	Sign Shop Foreman	-	Striper Foreman	Kansas
Traffic Supervisor	Traffic Foreman	Sign Painter,Sr.	Traf.Signal Repairman,Pr.	Striper Crew Foreman	Kentucky
Sign & Traf. Supt.	Sign Foreman	Shop Sign Foreman	Electrical Foreman	Striping Gang Foreman	Louisiana
-	-	Sign Shop Foreman	Electrical Foreman	Hwy.Maint.Man. IV Foreman,	Maine
Traf. Engr. TE III	-	Sign Shop Foreman	Traf. Signal Tech.	Hwy. Markings Spray Painter	Maryland
Traf.Maint.Foreman	Supt. of Traf.Equip.	Sign Shop Foreman	Traf.Elec.Foreman	Working Foreman	Massachusetts
Hwy.Traf.Engr.	Hwy.Sign Supv.	Hwy.Sign Foreman	Electrical Engr. Signal & Lighting Supv.	Hwy.Traf.Engr.	Michigan
Proj. Hwy. Tech	Signing Supv.	Shop Signman Foreman	-	Included in No.23	Minnesota
Engr. Aide VII	Supt. II	-	Supt. II Signal & Lighting Foreman	Foreman I	Mississippi
-	-	Sign Shop Foreman	-	Included in No.8	Missouri
-	-	Maint. Supv. I	-	-	Montana
-	-	Sign Shop Foreman	Signal Maint. Supt.	Hwy.Maint.Foreman II	Nebraska
-	Sign Shop Supv.	-	-	Hwy.Maint.Foreman Pavement Marking Foreman	Nevada
Traf.Maint.Supv. Supv. Traffic Investigation	Supv. of Signs & Traffic Lines	Sign Shop Foreman	Traf.Signal Foreman	Foreman Hwy.Marking Hwy. Traf. Marking Supv.	New Hampshire
Traf. Supv. I Engineer in Charge of Crews	Sign Shop Foreman	Foreman Sign Shop	Electrical Foreman	Foreman Hwy.Marking Hwy. Traf. Marking Supv.	New Jersey
Traf.Services Supv.	Sign Shop Supv.	Sign Shop Foreman	Traf. Elec. Supv.	Laborer Foreman	New Mexico
-	Included in No.23	Traf.Sign Shop Foreman	Elec. Foreman	Laborer Foreman	New York
-	Sign Foreman	Included in No.24 Sheet Metal Worker Foreman	Traf.Control Tech.II	Included in No. 28	North Carolina
Traffic Control Spec.	Executive 5	-	-	Leadman	North Dakota
Traffic Supt.	-	-	Signal Electrician 3	Painter Foreman Hwy.Traf. Marking Foreman Striping or Legend Crew Foreman	Ohio
Included in No. 5	-	Sign Shop Foreman	Elec. Crew Foreman C. E. II or Traf.Control Spec.I	Painter Foreman Hwy.Traf. Marking Foreman Striping or Legend Crew Foreman	Oklahoma
Traf.Control Supv. Chief, Traf.Maint. Supv.	Traf.Control Spec.I	Traf.Control Spec.	Elec. Foreman	Hwy. Foreman II	Oregon
-	Traf.Maint.Supv.	-	Elec. Foreman	Hwy. Foreman II	Pennsylvania
-	-	Hwy. Maint.Crew Supv. I -III	Trades Worker Supv.	Traf.Maint.Supv. Hwy. Maint.Crew Supv. I - III	Rhode Island
-	Sign Supv.	Sign Shop Foreman	-	Hwy. Maint. Worker II & III	South Carolina
Signing & Marking Coord.	Hwy. Marking Supt.	Included in No. 8	-	Worker II & III	South Dakota
-	Sign Supv.	-	-	Included in No. 8	Tennessee
-	Sign Supv. 21	Lead Highway Sign. Spec. 10L	Signal Supv. 23	-	Texas
-	-	Traf. Shop Foreman	-	Marking Crew Leader	Utah
Hwy.Traf.Tech.Supv.	Sign Foreman	Hwy. Foreman	Hwy.Equip. Electrician ForemanA-B	Hwy. Foreman	Vermont
-	-	-	Traf.Signal Supv.	Maint.Asst.Supt.	Virginia
-	Traf.Tech, V	Traf.Tech. III	Traf.Elec.Tech. III	Signman Shop Supv.	Washington
Traffic Supv.	Sign Supv.	Sign Shop Foreman	Traf. Signal & Lighting Foreman	Striper Foreman	West Virginia
Included in No. 21	Included in No. 25	St.Sign Shop Supv.	Included in No. 20	Dist.Striping Forem.	Wisconsin
					Wyoming

MAINTENANCE AND TRAFFIC OPERATIONS PERSONNEL TITLES USED BY STATE HIGHWAY DEPARTMENTS (AS OF JULY 1, 1974)-Page 4
 TRAFFIC OPERATIONS PERSONNEL (Cont'd):

State	(28) Sign Erection Foreman	(29) Sign Fabricator	(30) Sign Technician	(31) Traffic Signal & Lighting Technician
Alabama	-	-	-	Traf. Signal Tech.
Alaska	Sign Man	Sign Painter	-	-
Arizona	Included in No. 27	Hwy.Maint. Man	Hwy.Maint.Man 1 & 2	Traf.Signal & Lighting Tech.
Arkansas	Hwy. Sign Man II	Hwy. Sign. Supv. Hwy. Maint.	Hwy. Sign Supv.	-
California	Hwy. Maint. Supv.	Worker II or III Sr. Traf. Sign Fabricator	-	Elec.Engineering Tech. I or II
Colorado	-	-	-	Signal Tech. Elec.Tech.
Connecticut	Included in No. 27	Portland Plant Worker	Included in No. 29 Equip.Opr.I,II,III Trades Helper	T. J. (Elec.) Traf. Sign Repairman I & II Traf. Signal & Lighting Supv.
Delaware	Included in No. 27 Hwy. Maint.	Sign Fab. I & II	-	-
Florida	Foreman I (signs)	Sign Tech. Hwy. Maint. skilled Laborer	-	Electrician Lineman & Electrician
Georgia	-	Sign Painter & Painter	-	Traf. Signal Tech. II
Hawaii	Sign - Hwy. Maint. Foreman	Painter	-	-
Idaho	-	-	Hwy. Maint. Equip. Opr. Sign & Equip. Painter	-
Illinois	Included in No. 27	Sign Hangers Equip. Operator II-III Sign Shop Worker 1 & 2	-	Traf. Sign Tech. II - III Traf. Signal Tech. 1
Indiana	Unit Foreman	-	-	-
Iowa	-	Sign Shop Worker	-	-
Kansas	-	-	-	Traf. Signal Repairman Sr.& Jr. Statewide Signal Tradesman
Kentucky	Included in No. 24 Statewide Sign Foreman	Sign Painter	Included in No.24 Statewide Sign Tradesman	-
Louisiana	-	Sign Tradesman	-	Electrician Traf. Control Electrician I & II
Maine	Hwy. Foreman	Sign Painter Sign Fabricator SF II - SF III	-	-
Maryland	Sign Foreman Spray Painter Working Foreman	Sign Painter & Letterer	-	Traf. Elec.Foreman Electrician & Electronic Tech.
Massachusetts	-	Hwy Sign Foreman	Hwy. Sign. Mech.	-
Michigan	Hwy. Sign Supt.	-	-	Electronic Tech. Electronic Equip. Tech. II
Minnesota	Included in No. 24	Included in No. 9 Silk - Screen Printer Silk - Screen Operator	Included in No. 23	-
Mississippi	Foreman I	-	-	Signal Electrician
Missouri	Included in No. 8	-	Sign Painter	-
Montana	-	Maint. Man V	-	Designer III
Nebraska	-	Sign Printer II	-	Signal Maint.Tech.II
Nevada	Hwy. Maint. Foreman Dist. Sign Supv.	Sign Painter Sign Fabricator Sign Letterer	Silk-Screen Oper.	-
New Hampshire	Heavy Sign Maint.Foreman	-	Trades Helper	Intricate Repairman
New Jersey	-	Sign Fabricator	-	Elec.Mechanic I
New Mexico	Sign Foreman	Sign Tech. 1	Sign Tech. 2	Engineer 1 Electrician - Maint. Man Elect. Traf.Control Tech. I
New York	Laborer Foreman Traf. Services Foreman	Sign Shop Worker	-	-
North Carolina	-	Traf.Sign Painter	Traf.Sign Erector	-
North Dakota	Included in No. 24	Included in No. 11	-	-
Ohio	Hwy. Worker 4	Sheet Metal Worker	-	Signal Electrician 2
Oklahoma	Sign Foreman	-	Sign Maker I & II	-
Oregon	Sign Foreman	Included in 16 - 18	-	Included in No. 26 Civil Engr. II or Traf. Control Spec.I
Pennsylvania	Hwy. Foreman II	Sign Tech. III	Sign Tech.I & II	-
Rhode Island	-	Sign Painter	-	Elec.Equip.Mechanic
South Carolina	Included in No. 8 Hwy. Maint.	Included in 10 - 11	-	Electrician
South Dakota	Foreman I & II	Sign Fabricator	-	-
Tennessee	-	-	-	-
Texas	-	-	-	-
Utah	Hwy. Foreman II F	Hwy.Sign Spec. 10 W	Hwy. Sign Spec.10 W	Elec.I2W- El.Spec. El.&El'tronic Forema Traf. Signal & Lighting Tech. Hwy. Equip. Electrician Traffic Signal Tech. I & II Traf. Electronics Tech. I & II Traf. Signal & Lighting Tech.
Vermont	Sign Crew Leader	Sign Painter	-	-
Virginia	Hwy. Foreman	Hwy. Sign Fabricator	-	-
Washington	Maint. Asst. Supt.	Sign Fabricator, Hwys.	-	-
West Virginia	Included in No. 27	-	-	-
Wisconsin	Sign Erection Foreman	Sign Fabricator	Sign Technician	-
Wyoming	Dist. Sign Foreman	Sign Fabricator	Sign Helper	Signal Technician

OTHER RELATED PERSONNEL:

(32)	(33)	(34)	(35)	State
Striper Technician	Chief Engineer	Project Engineer	Clerk or Timekeeper	
-	-	Project Engineer	Clerk	Alabama
Equip. Operator	-	-	-	Alaska
Hwy. Maint. Man 1, 2 & 3	ADOT Asst. Director Hwy. Div. & State Engr.	Resident Engineer	Clerk	Arizona
Hwy. Signman I	Chief Engineer	Resident Engineer	Clerk II and III	Arkansas
Hwy. Maint. Worker I-II	State Hwy. Engr.	Resident Engineer	Hwy. Field Office Asst.	California
-	Chief Engineer	Resident Engineer	-	Colorado
Sign & Mark. Maintainer	-	-	DOT Maintainer	-
Traf. Signal Repairman	Chief Engineer	Project Engr. Sr.	Gen. Foreman Clerk	Connecticut
Included in No. 30	Chief Engineer	Project Engr.	Buyer	Delaware
Hwy. Maint. Foreman I (Pavement Symbols)	St. Trans. Ops. Engr.	Res. Proj. Engr.	Clerk or Timekeeper	Florida
Hwy. Maint. Eq. Oper.	State Hwy. Engr.	-	Clerk or Storekeeper	Georgia
Traf. Strip. Mach. Opr.	Chief, Highways Div.	Area Engr.	Account Clerk III	Hawaii
-	Admin. Div. of Hwys.	Resident Engineer	Maint. Clerk	Idaho
Hwy. Maint. Man	Chief Transp. Engr.	Proj. Engr. or Resident Engr. (CE IV)	Acct. Tech. II	Illinois
Equip. Opr. I - II	Chief Engineer	Project Engr.	Stock Room Clerk	Indiana
Hwy. Maint. Man 1 & 2	Chief Engineer	Res. Const. Engr.	-	Iowa
-	Chief Engineer	Resident Engr.	Hwy. Dist. Clerk	Kansas
Heavy Equip. Opr.	State Hwy. Engr.	-	-	Kentucky
Striping Mach. Opr.	Chief Engineer	Project Engr. Asst. Engr. to Civil Engr. II	Clerk II	Louisiana
-	-	-	Clerk III	Maine
Motor Equip. Operator MEO II	Chief Engineer	Proj. Engr. EA V	Shop Clerk	Maryland
Painter	Chief Engineer	Sr. Civil Engineer	Clerk - Tallyman	Massachusetts
Hwy. Sign Mechanic	-	-	-	Michigan
Included in No. 23	Asst. Comm. Operations	Included in No. 7	Dist. Office Manager Clerk	Minnesota
Equip. Oper. II	Chief Engineer	Project Engr.	Clerk I	Mississippi
Included in No. 17	Chief Engineer	Resident Engr.	Dist. Stock Clerk	Missouri
-	Dir. of Highways	-	Office Manager	Montana
-	Dir. State Engr.	Hwy. Proj. Manager II	Hwy. Maint. Clerk Hwy. Dist. Office Manager	Nebraska
Maint. Specialist (Striping & Signs) Carriage Operator Trades Helper	State Highway Engr. Deputy Commissioner & Chief Engineer Director, Engr. Operations	Project Engr.	Acct. Clerk III Clerk IV	Nevada
Hwy. Marker	-	Principal Engr. - Transp.	Head Clerk	New Hampshire
Equip. Opr. 2	State Highway Engr.	Engineer I	Engineer Tech. 1 Sr. Clerk Transp. Maint. & Typist	New Jersey
Const. Equip. Opr.	Chief Engineer	Sr. Civil Engr.	-	New Mexico
Included in NO. 17	Chief Engineer	Resident Engr. Project Engr. Senior Engr.	Maint. Yard Foreman Clerk Typist II Clerical Supv.	New York
Equip. Opr.	Chief Engineer	Project Engr.	Hwy. Worker 3	North Carolina
Painter	Chief Engineer Asst. Director, Traf. Services Administrator & State Hwy. Engr.	Resident Engr.	Field Clerk II	North Dakota
Included in No. 27	-	Resident Engr.	-	Ohio
Equip. Opr. I - IV	Chief Hwy. Engr.	Civil Engr. III	Clerk II	Oklahoma
-	-	-	-	Oregon
-	-	Assoc. Res. Const. Engr. Res. Const. Engr.	Sr. Clerk Typist Clerk I - III & Chief Clerk	Pennsylvania
-	State Hwy. Engr. Director and State Hwy. Engr.	Resident Engr.	Admin. Asst.	Rhode Island
-	Dir, Bur of Hwys.	Civil Engr.	Const. Records Clerk	South Carolina
-	State Hwy. Engr.	Resident Engr. Sr. Res. Engr.	-	South Dakota
-	State Hwy. Engr. 35	Proj. & Res. Engrs.	Dist. Maint. Oper. Analyst	Tennessee
Equip. Opr. B	Chief Engineer	Project Engr. Hwy. Const. Project Engr.	Dist. Office Clerk	Texas
-	Hwy. Chief Engineer	Project Engr.	Hwy. Timekeeper Maint. Div. Office Man	Utah
-	Dir. of Highways	Project Engr.	-	Vermont
Centerline Paint Mach. Operator	State Hwy. Engineer	-	Field Clerk	Virginia
Striper Tech.	State Hwy. Engineer	Project Engr.	COUNTY EMPLOYEE	Washington
Highway Striper	Supt. & Chief Engr.	Resident Engr.	-	West Virginia
-	-	-	-	Wisconsin
-	-	-	-	Wyoming

MONTHLY SALARIES OF HIGHWAY PERSONNEL (AS OF JULY 1, 1974)

MAINTENANCE PERSONNEL:

State	(1) State Maintenance Engineer				(2) Asst. State Maintenance Engineer				(3) District Engineer				(4) District Maintenance Engineer				(5) Asst. Dist. Maintenance Engineer				(6) Resident Maintenance Engineer			
	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.
Alabama	1	1433	1880	1880	2	957	1569	1390	9	1211	1880	1723	9	1109	1569	1481	-	-	-	-	47	865	1319	1255
Alaska	1	2503	3008	2756	1	2241	2694	2468	5	2412	2900	2656	4	1934	2325	2241	5	1669	2007	1838	-	-	-	-
Arizona	1	1756	2384	2241	1	1602	2175	2044	7	1756	2384	2241	7	1116	1653	-	-	-	-	-	-	-	-	-
Arkansas	1	1376	1887	1887	1	1265	1735	1611	10	1265	1735	1735	10	905	1253	1253	10	774	1066	1066	46	716	983	964
California	1	2035	2474	2474	5	1846	2245	2035	11	2035	2741	2593	11	1595	2245	1896	31	1377	1939	1588	-	-	-	-
Colorado	1	1667	2232	2232	-	-	-	-	6	1712	2294	2200	9	1440	1929	1929	7	1244	1667	1512	-	-	-	-
Connecticut	1	1591	1966	1779	1	1421	1739	1580	-	-	-	-	4	1285	1580	1433	6	1164	1436	1300	-	-	-	-
Delaware	1	1317	2031	1842	-	-	-	-	3	1317	2031	1842	4	1201	1842	1675	3	1080	1674	1203	-	-	-	-
Florida	1	1612	2246	2205	2	1494	2079	2037	5	1612	2246	2205	5	1376	1920	1886	5	1176	1654	1666	21	1033	1421	1373
Georgia	1	1617	2359	2146	3	1342	1953	1807	7	1473	2146	1953	7	1115	1617	1473	38	929	1473	1144	12	776	1115	2019
Hawaii	1	1531	2376	2264	1	1458	2264	2155	4	1458	2264	2131	1	1321	2052	1955	-	-	-	-	-	-	-	-
Idaho	1	1507	2070	1876	1	1230	1702	1507	6	1507	2070	1816	6	1012	1544	1239	-	-	-	-	-	-	-	-
Illinois	1	1933	2680	2380	3	1660	2299	2195	9	1933	2680	2460	9	1434	1979	1970	-	-	-	-	49	1251	1724	1450
Indiana	1	1722	2195	2089	1	1513	1893	1722	6	1513	1893	1804	6	1356	1659	1509	6	1200	1464	1304	-	-	-	-
Iowa	1	1504	2116	2016	1	1364	1920	1828	6	1432	2016	1874	6	1238	1742	1645	-	-	-	-	24	1124	1580	1460
Kansas	1	1472	2284	2080	1	1272	1973	1875	6	1472	2284	1820	6	1272	1973	1553	6	707	1099	1050	-	-	-	-
Kentucky	1	1549	2074	1812	4	1405	2074	1740	12	1549	2074	1812	12	1155	1583	1369	26	1048	1475	1226	-	-	-	-
Louisiana	1	1234	1656	1572	5	1066	1572	1530	9	1234	1657	1614	9	1066	1488	1445	5	981	1403	1361	1	897	1319	1319
Maine	1	1448	1902	1902	1	1314	1739	1739	7	1314	1739	1739	7	890	1192	1135	7	1192	1590	1590	-	-	-	-
Maryland	1	1744	2291	2202	1	1496	1964	1888	7	1615	2122	2039	7	1385	1819	1748	-	-	-	-	23	1099	1444	1388
Massachusetts	1	1786	2269	2269	2	1638	2085	2085	8	1786	2269	2269	8	1503	1906	1906	8	1284	1632	1516	-	-	-	-
Michigan	1	2286	2524	2524	4	1992	2136	2136	-	-	-	-	9	1830	2133	2015	4	1527	1694	1611	14	1395	1694	1595
Minnesota	1	1643	2249	2000	5	1400	1849	1678	9	1643	2249	2000	13	1520	2000	1868	4	1406	1849	1658	-	-	-	-
Mississippi	1	1430	2013	1917	1	1297	1826	1826	6	1430	2013	1951	6	1297	1826	1702	-	-	-	-	-	-	-	-
Missouri	1	1788	2000	1788	1	1502	1733	1615	10	1700	1933	1711	10	1280	1608	1547	18	1124	1407	1343	-	-	-	-
Montana	1	1616	1925	1685	1	1081	1293	1179	-	-	-	-	11	1179	1411	1295	-	-	-	-	-	-	-	-
Nebraska	1	1398	1957	1614	1	1162	1625	1219	7	1314	1539	2092	6	1093	1528	1146	-	-	-	-	-	-	-	-
Nevada	1	1490	1808	1808	1	1357	1717	1717	6	1490	1808	1808	-	-	-	-	6	1357	1717	1717	-	-	-	-
New Hampshire	1	1569	1935	1935	1	1283	1591	1514	7	1283	1591	1591	-	-	-	-	7	1137	1398	1398	10	868	1057	1057
New Jersey	1	2236	3020	2628	1	1589	2146	1867	4	1932	2608	2207	4	1514	2044	1779	4	1186	1602	1394	4	1130	1525	1327
New Mexico	1	1478	1900	1478	1	1350	1735	1670	5	1450	1880	1880	5	1250	1610	1415	-	-	-	-	-	-	-	-
New York	1	3000	3370	3100	1	2445	2780	2535	10	2850	3200	3090	10	1790	2500	2300	64	1180	1670	1500	65	1600	2050	1860
North Carolina	1	1641	2089	2089	3	1353	1722	1489	14	1641	2089	1806	40	1228	1565	1353	35	1118	1421	1228	82	847	1068	929
North Dakota	1	1640	2030	1750	1	1520	1800	1635	8	1640	2030	1750	-	-	-	-	2	1075	1400	1385	-	-	-	-
Ohio	1	1641	2214	1962	1	1501	2033	1680	12	1803	2402	2122	12	1381	1853	1680	6	1262	1700	1501	5	1381	1853	1680
Oklahoma	1	1410	1905	1480	1	1275	1725	1410	8	1410	1905	1641	8	1275	1725	1527	9	855	1275	1088	-	-	-	-
Oregon	1	1898	2422	2308	-	-	-	-	5	1562	1993	1950	-	-	-	-	5	1348	1721	1700	16	1224	1562	1555
Pennsylvania	1	1805	2299	1897	2	1570	1992	1723	11	1897	2413	2089	11	1495	1897	1645	22	1125	1426	1237	67	1074	1360	1182
Rhode Island	1	1550	1750	1925	1	825	1000	1050	1	1050	1250	1375	-	-	-	-	-	-	-	-	-	-	-	-
South Carolina	1	1510	2162	1846	2	1307	1858	1635	7	1307	1858	1707	7	1146	1630	1421	-	-	-	-	48	815	1428	1124
South Dakota	1	1420	1929	1721	3	1231	1661	1510	5	1357	1832	1673	5	1066	1501	1384	-	-	-	-	-	-	-	-
Tennessee	1	1340	1887	1797	1	1216	1710	1630	4	1479	2080	1710	4	1107	1478	1389	8	977	1340	1194	24	896	1194	1107
Texas	1	2000	2000	2000	-	-	-	-	5	2000	2000	2000	21	1958	1958	1958	28	1437	1935	1738	15	1141	1697	1441
Utah	1	1600	2337	1896	4	935	1965	1339	6	1431	2089	1755	4	1115	1786	1610	-	-	-	-	-	-	-	-
Vermont	1	1406	2082	2018	2	1112	1623	1623	9	1252	1840	1756	9	988	1434	1359	9	767	1096	1000	-	-	-	-
Virginia	1	1558	2042	1867	2	1250	1633	1525	8	1429	1867	1867	8	1250	1633	1633	-	-	-	-	46	1094	1429	1429
Washington	1	1792	2282	2282	1	1551	1975	1975	7	1708	2282	2228	7	1409	1792	1708	6	1280	1627	1551	26	1083	1378	1251
West Virginia	1	1655	2315	1915	1	1360	1360	1360	10	1500	2010	1625	10	1235	1655	1296	-	-	-	-	-	-	-	-
Wisconsin	1	1904	2479	2466	4	1603	2087	1979	9	1904	2479	2438	9	1603	2087	2020	29	1350	1762	1697	-	-	-	-
Wyoming	1	1243	1993	1702	-	-	-	-	5	1243	1993	1702	5	1155	1852	1575	5	613	975	788	-	-	-	-
1974 Average		2186	2028			1916	1769			2142	2002			1762	1616			1586	1451			1437	1311	
1944 Average		434				341				-				292				264						
% Increase 1944-1974		404				462				-				503				501						
% Increase 1973-1974		7.3%				8.0%				8.1%				8.3%				8.2%						9.5%

TRAFFIC OPERATIONS PERSONNEL:																																													
(19)				(20)				(21)				(22)				(23)				(24)				:																					
State				Asst. State				District				Asst. District				Traffic Supervisor				Sign Supervisor				:																					
Traffic Engineer				Traffic Engineer				Traffic Engineer				Traffic Engineer				Traffic Supervisor				Sign Supervisor				:																					
No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	State																					
1	1109	1433	1263	-	-	-	-	9	806	1319	1028	4	806	1063	942	-	-	-	-	-	-	-	-	Alabama																					
1	-	-	-	1	1579	-	1579	4	1266	1638	1442	2	1092	1521	1307	-	-	-	-	-	-	-	-	Alaska																					
1	1756	2384	2241	1	1461	1984	1865	3	1335	1816	1706	-	-	-	-	1	1030	1354	1281	2	951	1251	1184	Arizona																					
1	1265	1735	1735	1	1172	1611	1611	-	-	-	-	-	-	-	-	-	-	-	-	2	491	650	573	Arkansas																					
1	2035	2474	2474	25	1377	2245	1589	14	1377	2245	1781	98	1377	1674	1519	-	-	-	-	11	1377	1674	1674	California																					
1	1552	2081	1982	1	1408	1888	1888	3	1277	1712	1712	-	-	-	-	8	884	1185	1185	-	-	-	-	Colorado																					
1	1515	1842	1678	1	1367	1672	1519	4	1119	1381	1250	-	-	-	-	4	967	1179	1073	1	1018	1236	1127	Connecticut																					
1	1443	2230	2031	-	-	-	-	2	1007	1387	1197	2	966	1339	1152	2	918	1268	1093	3	673	922	797	Delaware																					
1	1447	2028	1738	2	1328	1872	1607	5	1148	1731	1441	5	988	1374	1181	10	815	1127	971	1	816	1106	1067	Florida																					
1	1617	2359	2146	3	1115	1953	1266	7	929	1473	1282	14	776	1342	1021	7	776	1115	961	1	1115	1617	1342	Georgia																					
1	1321	2052	1955	1	1200	1861	1688	-	-	-	-	-	-	-	-	-	-	-	-	3	830	1008	961	Hawaii																					
1	1367	1876	1662	1	1230	1702	1507	6	1012	1544	1233	-	-	-	-	-	-	-	-	-	-	-	-	Idaho																					
1	1933	2680	2300	1	1660	2299	2050	9	1434	1979	1975	17	1251	1724	1670	-	-	-	-	16	-	-	974	Illinois																					
1	1722	2195	2195	1	1513	1893	1810	6	1200	1464	1429	6	1012	1251	1109	2	971	1200	1200	7	810	1012	810	Indiana																					
1	1364	1920	1920	1	1238	1742	1658	6	1238	1742	1645	-	-	-	-	-	-	-	-	1	778	1072	925	Iowa																					
1	1099	1704	1480	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Kansas																					
1	1549	2074	1707	2	1405	1882	1628	14	1048	1475	1299	6	782	1338	887	12	643	906	756	12	583	782	661	Kentucky																					
1	1234	1656	1656	11	981	1488	1445	8	981	1403	1403	-	-	-	-	9	528	739	739	31	422	633	591	Louisiana																					
1	1314	1739	1739	1	1192	1590	1448	5	1081	1448	1192	-	-	-	-	-	-	-	-	-	-	-	-	Maine																					
1	1744	2291	2202	1	1496	1964	1888	4	1282	1684	1619	7	1099	1444	1388	7	1018	1337	1285	-	-	-	-	Maryland																					
1	1786	2269	2269	1	1638	2085	2085	8	1355	1727	1603	8	1220	1544	1436	8	852	1062	992	1	1031	1300	1210	Massachusetts																					
1	2286	2524	2524	1	2025	2136	2136	9	1694	1992	1843	10	1329	1560	1445	1	1611	1694	1694	1	1237	1475	1356	Michigan																					
1	1643	2249	2000	2	1520	2000	1868	9	1406	1849	1678	2	1250	1643	1450	9	1068	1462	1352	13	845	1068	950	Minnesota																					
1	1297	1826	1739	1	1176	1656	1656	-	-	-	-	-	-	-	-	1	878	1235	968	2	758	1067	837	Mississippi																					
1	1788	2000	1788	1	1502	1733	1615	3	1200	1506	1434	13	1046	1304	1239	-	-	-	-	-	-	-	-	Missouri																					
1	1179	1411	1293	1	994	1179	1179	5	953	1130	1042	-	-	-	-	-	-	-	-	-	-	-	-	Montana																					
1	1314	1839	1517	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Nebraska																					
1	1357	1717	1717	1	1237	1563	1563	2	982	1237	1237	-	-	-	-	-	-	-	-	1	982	1237	1237	Nevada																					
1	1283	1591	1591	-	-	-	-	-	-	-	-	-	-	-	-	1	768	936	936	-	-	-	-	New Hampshire																					
1	1669	2254	1961	1	1398	1854	1626	4	1076	1455	1265	7	976	1618	1297	1	1025	1384	1204	1	976	1318	1147	New Jersey																					
1	1350	1735	1555	1	1070	1400	1205	1	1160	1500	1350	-	-	-	-	7	660	900	751	1	575	785	785	New Mexico																					
1	2723	3063	2893	1	2456	2776	2616	10	1795	2057	1926	10	1452	1677	1565	10	1452	1677	1261	1	1117	1281	1207	New York																					
1	1641	2089	2089	1	1421	1806	1806	-	-	-	-	14	1421	1806	1565	14	847	1068	929	-	-	-	-	North Carolina																					
1	1640	2030	1790	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	685	885	780	North Dakota																					
1	1641	2214	1962	1	1501	2033	1680	12	1262	1700	1501	8	1120	1553	1390	13	673	860	780	1	1120	1553	1390	Ohio																					
1	1410	1905	1480	-	-	-	-	6	855	1560	1205	-	-	-	-	4	775	1045	888	-	-	-	-	Oklahoma																					
Traffic operations under direction of Region Engineers ←																							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Oregon
1	1805	2299	1897	2	1570	1992	1723	11	1296	1645	1426	40	1125	1426	1237	11	708	892	777	11	933	1182	1027	Pennsylvania																					
1	725	800	825	-	-	-	-	-	-	-	-	-	-	-	-	1	825	1000	1100	1	700	800	850	Rhode Island																					
1	1510	2162	1948	1	1307	1858	1759	3	1020	1630	1372	-	-	-	-	-	-	-	-	-	-	-	-	South Carolina																					
1	1231	1661	1581	1	1120	1501	1461	5	1021	1501	1166	2	884	1291	990	-	-	-	-	1	730	934	830	South Dakota																					
1	1340	1887	1710	2	1216	1710	1479	4	1107	1487	1243	-	-	-	-	1	1107	1487	1243	5	608	858	744	Tennessee																					
-	-	-	-	-	-	-	-	Incl. in Nos. 4 & 5				-	-	-	-	-	-	-	-	-	2	794	1000	952	Texas																				
1	1431	2089	1638	1	1223	1786	1356	3	982	1628	1248	-	-	-	-	-	-	-	-	1	894	1260	1217	Utah																					
1	1252	1840	1820	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Vermont																					
1	1558	2042	2042	2	1250	1633	1633	8	1094	1429	1342	3	1000	1306	1016	35	876	1144	1000	8	612	764	670	Virginia																					
1	1708	2175	2175	1	1409	1792	1792	7	1162	1627	1428	6	960	1219	1162	-	-	-	-	-	-	-	-	-	Washington																				
1	1500	2010	1740	1	1235	1655	1360	3	825	1500	1132	2	745	1120	904	-	-	-	-	1	745	1120	1015	West Virginia																					
1	1904	2479	2451	4	1603	2087	1990	6	1603	2087	1820	6	1360	1774	1649	3	1059	1378	1227	1	1152	1500	1415	Wisconsin																					
1	1155	1852	1667	3	804	1484	1284	5	697	1284	1000	-	-	-	-	-	-	-	-	-	-	-	-	Wyoming																					
2016 1867				1821 1657				1605 1418				1455 1272				1178 1063				1108 1019																									
4.7%				5.7%				5.5%				5.9%				6.8%				7.4%																									

(31)				(32)				:OTHER RELATED PERSONNEL (33)				(34)				(35)				State	
Traffic Signal & Lighting Technician				Striper Technician				Chief Engineer				Project Engineer				Clark or Timekeeper					
No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.	No.	Min.	Max.	Aver.		
20	549	957	692	-	-	-	-	-	-	-	-	294	806	1319	1000	106	370	895	547	Alabama	
-	-	-	-	8	1331	1705	1543	-	-	-	-	-	-	-	-	-	-	-	-	Alaska	
47	586	1159	926	43	625	980	809	1	2311	3139	2951	48	1030	1984	1461	26	492	708	679	Arizona	
-	-	-	-	16	419	551	469	1	1593	2150	2150	34	982	1611	1326	21	402	551	505	Arkansas	
68	933	1311	1107	Incl. in 9617	933	1133	1056	1	2598	2878	2727	302	1377	1939	1522	84	749	911	826	California	
4	727	975	884	-	-	-	-	1	2081	2788	2788	56	1277	1712	1552	-	-	-	-	Colorado	
35	674	819	746	75	650	789	719	1	2127	2581	2354	28	1074	1297	1186	18	604	731	667	Connecticut	
6	569	777	673	Included in No. 30	-	-	-	1	1750	2692	2451	8	1201	1842	1542	3	643	966	882	Delaware	
10	696	956	826	35	609	809	651	1	1891	2563	2520	32	1033	1421	1324	39	448	708	660	Florida	
1	546	776	570	16	546	776	602	1	2146	3126	2843	-	-	-	-	65	390	929	536	Georgia	
6	740	1022	887	3	598	719	603	1	1531	2376	2264	6	1200	1861	1540	4	607	940	792	Hawaii	
4	691	941	812	-	-	-	-	1	-	-	2339	11	1116	1544	1324	6	577	784	686	Idaho	
-	-	-	-	90	-	-	907	1	2902	4054	3100	-	1251	1742	1500	-	694	947	863	Illinois	
18	568	955	646	43	513	645	566	1	2195	2782	2314	134	971	1802	1192	37	513	593	537	Indiana	
3	676	934	805	18	590	814	745	1	1828	2570	2448	22	1124	1580	1485	-	-	-	-	Iowa	
-	-	-	-	-	-	-	-	1	-	-	2518	42	948	1472	1350	29	484	743	669	Kansas	
22	376	643	455	29	415	583	480	1	1882	2074	-	-	-	-	-	-	-	-	-	Kentucky	
25	369	528	528	21	485	696	612	1	1530	2057	2057	66	897	1403	1361	63	401	612	591	Louisiana	
2	566	735	674	-	-	-	-	-	-	-	-	107	808	1379	1135	8	520	674	674	Maine	
17	696	914	879	15	561	791	760	1	2500	2500	2500	108	942	1238	1190	39	602	791	760	Maryland	
1	801	981	921	5	670	819	769	1	2201	2796	2796	89	1151	1464	1360	1	554	665	595	Massachusetts	
23	894	995	944	16	699	805	752	-	-	-	-	-	-	-	-	-	-	-	-	Michigan	
22	710	1009	882	Included in No. 23	-	-	-	1	1849	2432	2200	Included in No. 7	19	780	1352	1086	158	492	732	556	Minnesota
4	688	968	740	Included in No. 17	-	-	-	1	1577	2157	2157	35	1067	1502	1425	30	366	513	411	Mississippi	
27	740	912	851	Included in No. 17	-	-	-	1	2500	-	2500	59	1124	1407	1354	22	580	719	676	Missouri	
6	953	1130	1041	-	-	-	-	1	2112	2112	2112	-	-	-	-	12	841	994	940	Montana	
3	670	933	712	-	-	-	-	1	2083	-	-	60	966	1349	1000	24	469	650	525	Nebraska	
-	-	-	-	6	717	897	897	1	2387	2387	2387	-	-	-	-	4	784	982	982	Nevada	
5	569	798	798	5 7	509	661	661	1	2061	2311	2311	80	746	1398	1072	6	550	642	642	New Hampshire	
90	765	1062	914	27	599	809	699	1	-	3541	-	209	1186	1602	1394	9	728	983	855	New Jersey	
1	1070	1400	1205	16	460	630	548	1	2000	2434	2340	10	1070	1400	1184	33	600	820	676	New Mexico	
104	635	933	778	195	635	750	690	1	-	-	3380	-	1454	1677	1566	130	490	778	614	New York	
15	646	809	707	Included in No. 17	-	-	-	1	-	-	2504	66	1228	1565	1353	95	538	676	590	North Carolina	
-	-	-	-	1	445	830	625	1	2000	2410	2167	21	940	1320	1100	8	400	510	440	North Dakota	
24	673	860	780	24	652	835	750	1	1962	2601	2302	120	1120	1553	1390	7	560	720	625	Ohio	
-	-	-	-	-	-	-	-	1	1560	2100	1690	27	1150	1560	1327	103	470	605	506	Oklahoma	
Included in No. 26	-	-	-	Included in No. 27	-	-	-	1	-	-	2675	65	1006	1487	1460	-	-	-	-	Oregon	
11	979	1237	1074	100	651	810	709	1	2299	2928	2656	120	1125	1426	1237	67	549	679	598	Pennsylvania	
1	650	700	725	-	-	-	-	-	-	-	-	-	-	-	-	-	450	500	550	Rhode Island	
21	625	863	600	-	-	-	-	1	-	-	2306	67	732	1630	1123	146	379	768	542	South Carolina	
-	-	-	-	-	-	-	-	1	1420	1929	1866	28	1021	1501	1188	5	766	1005	876	South Dakota	
-	-	-	-	-	-	-	-	1	1630	2292	2184	125	858	1194	1020	68	673	934	800	Tennessee	
-	-	-	-	-	-	-	-	1	2708	2708	2708	66	1259	1587	1310	-	-	-	-	Texas	
5-3	779	946	779	-	-	-	-	1	1726	2520	2049	276	1345	1697	1492	-	-	-	-	Texas	
2	946	1150	993	-	-	-	-	1	1726	2520	2049	38	1115	1786	1419	6	741	1047	944	Utah	
1	633	895	895	7	449	620	498	1	1677	2516	2477	48	988	1434	1328	9	566	793	758	Vermont	
20	586	764	670	-	-	-	-	1	1050	2550	2550	40	916	1194	1144	160	490	612	560	Virginia	
22	722	1033	889	-	-	-	-	1	2958	2958	2958	62	1162	1478	1409	33	656	832	794	Washington	
6	485	915	607	10	458	489	460	1	2010	2690	2110	-	-	-	-	158	433	489	454	West Virginia	
10	Hourly	-	-	44	668	859	679	1	2263	2946	2725	195	1152	1500	1410	-	-	-	-	County Employee	
3	501	1027	870	25	501	879	750	1	2000	-	-	19	928	1484	1336	-	-	-	-	Wyoming	
942 807				803 715				2601 2450				1597 1385				829 729					
																142					
																484					
3.9%				12.2%				6.0%				12.7%				18.8%					

INSURANCE

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

UNIONIZATION

15. Are your maintenance and operations employees organized by the following, and if so, is membership mandatory or voluntary?
 a. Regional Union
 b. Local Union or Employee Association

SERVICE AWARDS

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

Cumulative (11)	Maximum	INSURANCE				UNIONIZATION				SERVICE AWARDS (16)	State					
		Hospitalization (12)		Life Insurance (13)		Public Liability (14)		Regional Union (15A)	Local Union (15B)							
		(12A)	(12B)	(13A)	(13B)	(14A)	(14B)	(14C)	(14D)							
Yes	1,200	Yes	Partially	Optional	No	-	-	-	-	Yes	Voluntary	Yes	Voluntary	Yes	Alabama	
Yes	No limit	Yes	Wholly	Mandatory	Yes	Both	Optional	X	-	No	-	Yes	Mandatory	Yes	Alaska	
Yes	No limit	Yes	Partially	Optional	No	-	-	-	-	No	-	Yes	Voluntary	Yes	Arizona	
Yes	720	Yes	Partially	Optional	No	-	-	-	-	No	-	Yes	Voluntary	Yes	Arkansas	
Yes	No limit	Yes	Partially	Optional	Yes	Wholly	Mandatory	X	-	No	-	Yes	Voluntary	Yes	California	
Yes	No limit	Yes	Partially	Optional	Yes	Partially	Optional	X	-	No	-	Yes	Voluntary	Yes	Colorado	
Yes	No limit	Yes	Wholly	Optional	Yes	Partially	Optional	-	-	Yes	Voluntary	Yes	Voluntary	No	Connecticut	
Yes	675	Yes	Partially	Optional	Yes	Partially	Optional	-	X	-	Yes	Mandatory	Yes	Mandatory	Yes	Delaware
Yes	No limit	Yes	Partially	Mandatory	No	Wholly	Mandatory	X	-	Yes	Voluntary	-	-	No	Florida	
Yes	720	Yes	Partially	Mandatory	Yes	Partially	Mandatory	X	-	No	-	No	-	Yes	Georgia	
Yes	No limit	Yes	Partially	Optional	Yes	Wholly	Optional	-	-	X	-	Yes	Voluntary	Yes	Hawaii	
Yes	No limit	Yes	Partially	Optional	Yes	Wholly	Mandatory	X	-	No	-	Yes	Voluntary	Yes	Idaho	
Yes	No limit	Yes	Wholly	Mandatory	Yes	Wholly	Mandatory	-	-	Yes	Voluntary	Yes	Voluntary	No	Illinois	
Yes	No limit	Yes	Partially	Optional	Yes	Partially	Optional	X	-	Yes	Voluntary	Yes	Voluntary	Yes	Indiana	
Yes	720	Yes	Partially	Optional	Yes	Wholly	Mandatory	X	-	No	-	Yes	Voluntary	Yes	Iowa	
Yes	No limit	Yes	Partially	Optional	Yes	Partially	Mandatory	X	-	Yes	Voluntary	Yes	Voluntary	Yes	Kansas	
Yes	No limit	Yes	Wholly	Optional	Yes	Wholly	Mandatory	-	-	-	-	No	-	Yes	Kentucky	
Yes	No limit	Yes	Partially	Optional	Yes	Partially	Optional	-	-	X	-	Yes	Voluntary	Yes	Louisiana	
Yes	720	Yes	Partially	Optional	No	-	-	X	-	Yes	Voluntary	Yes	Voluntary	No	Maine	
Yes	800	Yes	Partially	Optional	No	-	-	X	-	Yes	Voluntary	Yes	Voluntary	Yes	Maryland	
Yes	No limit	Yes	Partially	Optional	Yes	Partially	Optional	-	-	Yes	Voluntary	No	-	No	Massachusetts	
Yes	No limit	Yes	Partially	Optional	Yes	Partially	Optional	X	-	Yes	Voluntary	Yes	Voluntary	Yes	Michigan	
Yes	800	Yes	Wholly	Optional	Yes	Wholly	Optional	-	Pt.	-	Yes	Voluntary	Yes	Voluntary	Yes	Minnesota
Yes	No limit	Yes	Partially	Optional	Yes	Partially	Optional	-	-	X	-	No	-	Yes	Mississippi	
Yes	No limit	No	-	-	No	-	-	X	-	Yes	Voluntary	Yes	Voluntary	Yes	Missouri	
Yes	No limit	Yes	Partially	Optional	Yes	Partially	Optional	X	-	Yes	Mandatory	No	-	Yes	Montana	
Yes	1,440	Yes	Partially	Optional	Yes	Wholly	Mandatory	-	-	X	-	Yes	Voluntary	Yes	Nebraska	
Yes	No limit	Yes	Wholly	Optional	Yes	Wholly	Optional	X	-	No	-	Yes	Voluntary	Yes	Nevada	
Yes	720	Yes	Wholly	Optional	Yes	Partially	Optional	-	-	X	-	Yes	Voluntary	Yes	New Hampshire	
Yes	No limit	Yes	Wholly	Mandatory	Yes	Wholly	Mandatory	-	-	X	-	Yes	Voluntary	Yes	New Jersey	
Yes	No limit	Yes	Partially	Optional	Yes	Partially	Optional	X	-	Yes	Voluntary	Yes	Voluntary	Yes	New Mexico	
Yes	1,350	Yes	Partially	Optional	No	-	-	-	-	No	-	Yes	Voluntary	No	New York	
Yes	No limit	Yes	Wholly	Optional	No	-	-	X	-	No	-	Yes	Voluntary	Yes	North Carolina	
Yes	No limit	Yes	Both	Optional	Yes	Wholly	Optional	X	-	Yes	Voluntary	Yes	Voluntary	Yes	North Dakota	
Yes	No limit	Yes	Partially	Optional	Yes	Wholly	Mandatory	X	-	Yes	Voluntary	Yes	Voluntary	No	Ohio	
Yes	360	Yes	Wholly	Mandatory	Yes	Wholly	Mandatory	-	-	X	-	No	-	Yes	Oklahoma	
Yes	No limit	Yes	Partially	Optional	No	-	-	X	-	No	-	Yes	Voluntary	Yes	Oregon	
Yes	675	Yes	Wholly	Optional	Yes	Wholly	Optional	X	-	Yes	Voluntary	No	-	Yes	Pennsylvania	
Yes	960	Yes	Partially	Optional	Yes	Partially	Optional	-	-	X	-	Yes	Mandatory	Yes	Rhode Island	
Yes	720	Yes	Wholly	Mandatory	Yes	Wholly	Mandatory	-	-	X	-	Yes	Voluntary	Yes	South Carolina	
Yes	672	Yes	Partially	Mandatory	No	-	-	X	72	Yes	Voluntary	Yes	Voluntary	Yes	South Dakota	
Yes	960	Yes	Partially	Optional	Yes	Partially	Optional	-	-	X	-	No	-	Yes	Tennessee	
Yes	192	Yes	Partially	Optional	Yes	Partially	Optional	-	-	X	-	No	-	Yes	Texas	
Yes	4,512	Yes	Wholly	Mandatory	Yes	Partially	Optional	-	-	X	-	Yes	Voluntary	Yes	Utah	
Yes	No limit	Yes	Partially	Optional	Yes	Partially	Optional	-	-	X	-	Yes	Voluntary	Yes	Vermont	
Yes	No limit	Yes	Wholly	Optional	Yes	Partially	Mandatory	X	-	No	-	No	-	Yes	Virginia	
Yes	No limit	Yes	Partially	Optional	Yes	Partially	Optional	X	-	Yes	Mandatory	Yes	Mandatory	Yes	Washington	
Yes	720	Yes	Wholly	Optional	Yes	Wholly	Optional	X	-	No	-	No	-	No	West Virginia	
Yes	No limit	Yes	Partially	Optional	Yes	Partially	Optional	X	-	No	-	Yes	Voluntary	No	Wisconsin	
Yes	960	Yes	Partially	Optional	No	-	-	-	-	X	-	Yes	Voluntary	Yes	Wyoming	

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