

**FUNCTIONAL SYSTEM LENGTH - 1997**  
**PAVED MILES BY MEASURED PAVEMENT ROUGHNESS - RURAL**

TABLE HM-64  
SHEET 1 OF 4

OCTOBER 1998

STATE	INTERNATIONAL ROUGHNESS INDEX (IRI) 1/									
	NOT REPORTED	INTERSTATE								TOTAL REPORTED
		< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220	
Alabama	-	75	367	95	42	21	-	-	-	600
Alaska	-	1	174	336	332	92	81	13	5	1,034
Arizona	-	602	304	48	30	6	-	-	7	997
Arkansas	18	-	53	44	85	84	50	40	22	378
California	-	7	608	299	235	124	40	13	27	1,353
Colorado	-	17	193	163	167	81	102	17	29	769
Connecticut	-	-	55	22	17	3	3	-	2	102
Delaware	-	-	-	-	-	-	-	-	-	-
Dist. of Columbia	-	-	-	-	-	-	-	-	-	-
Florida	15	168	265	182	246	78	-	-	-	939
Georgia 2/	606	90	98	13	1	-	-	-	-	202
Hawaii	5	-	-	-	-	-	-	-	-	-
Idaho	-	168	271	69	11	2	7	-	1	529
Illinois	-	58	553	435	274	174	22	2	-	1,518
Indiana	-	96	522	129	27	77	1	-	-	852
Iowa	9	50	331	179	65	-	-	-	-	625
Kansas	-	223	274	78	77	30	17	-	-	699
Kentucky	-	163	192	46	88	47	-	-	-	536
Louisiana	-	25	201	137	117	92	13	3	23	611
Maine	50	86	158	17	2	-	-	-	-	263
Maryland 2/	-	2	138	75	7	7	-	-	-	229
Massachusetts	-	5	112	39	1	1	2	1	-	161
Michigan	-	70	286	186	122	43	23	8	1	739
Minnesota	-	96	207	235	106	15	23	-	-	682
Mississippi	-	12	223	147	67	77	23	5	5	559
Missouri	-	40	365	270	102	14	1	-	17	809
Montana	-	275	578	154	76	43	5	5	-	1,136
Nebraska	-	172	81	53	69	43	19	-	-	437
Nevada	-	227	142	44	24	12	21	4	4	478
New Hampshire	-	25	149	3	-	-	-	-	-	177
New Jersey	6	-	32	34	18	6	12	8	3	113
New Mexico	-	2	185	216	279	113	48	33	16	892
New York	-	-	521	151	79	26	10	2	7	796
North Carolina	-	10	47	152	168	169	68	24	1	639
North Dakota	-	73	301	118	38	-	-	-	-	530
Ohio	-	218	477	101	31	3	-	-	-	830
Oklahoma	-	81	351	146	105	14	22	1	1	721
Oregon	-	-	222	295	58	5	-	-	-	580
Pennsylvania	-	78	476	307	194	65	33	27	22	1,202
Rhode Island	21	-	-	-	-	-	-	-	-	-
South Carolina	-	120	299	174	70	8	-	-	-	671
South Dakota	13	9	171	136	123	127	43	6	-	615
Tennessee	638	20	54	12	12	-	-	-	-	98
Texas	-	770	1,104	230	63	29	-	-	12	2,208
Utah	-	359	285	96	30	1	-	-	-	771
Vermont	-	45	171	24	21	18	-	-	-	279
Virginia	-	6	360	280	56	9	3	-	-	714
Washington	-	27	146	151	120	34	16	7	-	501
West Virginia	1	53	219	79	62	39	3	3	-	458
Wisconsin	-	44	185	171	126	43	5	-	-	574
Wyoming	-	251	369	134	52	19	-	-	-	825
U.S. Total	1,382	4,919	12,875	6,505	4,095	1,894	716	222	205	31,431
Puerto Rico	-	-	-	10	63	20	6	-	3	102
Grand Total	1,382	4,919	12,875	6,515	4,158	1,914	722	222	208	31,533

**FUNCTIONAL SYSTEM LENGTH - 1997**  
**PAVED MILES BY MEASURED PAVEMENT ROUGHNESS - RURAL**

OCTOBER 1998

TABLE HM-64  
 SHEET 2 OF 4

STATE	INTERNATIONAL ROUGHNESS INDEX (IRI) 1/																			
	OTHER PRINCIPAL ARTERIAL										MINOR ARTERIAL									
	NOT REPORTED	< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220	TOTAL REPORTED	NOT REPORTED	< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220	TOTAL REPORTED
Alabama	-	91	1,122	638	163	43	6	2	7	2,072	-	228	1,433	1,256	625	123	37	-	-	3,702
Alaska	454	-	72	87	134	36	22	2	3	356	214	-	129	43	19	-	-	-	37	228
Arizona	-	207	413	293	166	51	48	6	2	1,186	-	133	337	326	304	75	41	42	-	1,258
Arkansas	146	9	630	650	397	239	117	32	12	2,086	70	-	716	827	491	489	320	31	18	2,892
California	-	32	1,044	1,134	896	437	91	48	3	3,685	-	362	1,252	1,789	1,524	1,151	336	234	257	6,905
Colorado	-	26	307	436	484	303	174	152	316	2,198	-	-	354	615	579	511	403	518	701	3,681
Connecticut	-	-	51	101	61	33	10	4	3	263	-	-	2	201	186	63	19	8	20	499
Delaware	-	5	88	91	23	2	4	3	2	218	-	-	53	17	17	5	3	6	4	105
Dist. of Columbia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Florida	99	199	1,090	953	896	284	81	72	48	3,623	217	-	85	857	475	654	197	38	32	2,358
Georgia 2/	2,658	110	24	1	-	-	-	-	-	135	3,906	1,106	562	-	-	-	-	-	-	1,668
Hawaii	119	-	-	-	1	1	2	1	-	5	324	-	-	-	-	9	41	-	1	51
Idaho	2	225	641	486	237	57	20	4	8	1,678	-	155	388	481	125	100	33	-	12	1,294
Illinois	-	34	673	758	485	308	206	80	81	2,625	-	303	1,232	935	958	597	302	292	213	4,832
Indiana	4	43	632	399	370	167	42	36	13	1,702	5	102	900	633	121	295	105	74	-	2,230
Iowa	139	202	994	636	512	528	247	107	53	3,279	241	317	805	593	879	466	275	263	115	3,713
Kansas	116	552	1,534	612	224	102	21	3	11	3,059	44	189	1,976	1,374	189	431	54	6	44	4,263
Kentucky	-	235	1,290	300	150	61	5	1	1	2,043	-	53	693	532	254	66	7	-	-	1,605
Louisiana	12	43	334	150	169	176	122	92	114	1,200	-	55	507	225	174	287	76	115	177	1,616
Maine	34	111	390	150	57	21	11	7	6	753	55	70	450	183	174	31	54	30	21	1,013
Maryland 2/	-	34	319	110	38	23	11	8	6	549	-	8	431	276	153	42	31	5	5	951
Massachusetts	25	-	101	108	33	24	9	9	5	289	164	-	78	201	57	126	15	14	17	508
Michigan	12	248	1,218	582	390	164	110	10	21	2,743	-	397	1,893	532	564	387	115	101	37	4,026
Minnesota	-	569	1,326	760	448	235	81	101	53	3,573	-	423	2,866	1,321	933	499	91	177	81	6,391
Mississippi	-	15	660	487	445	170	36	16	2	1,831	-	-	1,194	1,279	962	386	31	44	19	3,915
Missouri	10	54	850	1,076	651	281	70	24	37	3,043	-	38	1,169	1,347	412	321	87	23	-	3,397
Montana	-	247	1,303	563	272	158	53	20	5	2,621	5	235	1,503	656	395	120	53	10	12	2,984
Nebraska	-	724	913	379	322	146	131	59	51	2,725	-	1,022	1,475	320	419	559	94	171	139	4,199
Nevada	-	164	571	184	356	90	23	-	2	1,390	-	94	190	202	170	71	-	4	-	731
New Hampshire	-	-	260	119	40	18	12	-	7	456	-	8	237	166	49	26	-	3	-	489
New Jersey	88	-	43	88	99	77	40	36	61	444	81	-	57	69	79	115	20	18	49	407
New Mexico	49	43	693	421	268	122	73	46	83	1,749	27	-	493	440	314	99	219	3	275	1,843
New York	16	2	996	389	183	147	111	62	93	1,983	30	7	2,002	929	419	219	125	133	258	4,092
North Carolina	20	1	404	480	600	419	169	64	62	2,199	66	20	287	647	643	765	354	105	108	2,929
North Dakota	-	348	1,381	799	265	85	43	7	2	2,930	-	166	1,138	970	206	31	1	-	-	2,512
Ohio	-	222	1,522	282	121	61	14	4	3	2,229	-	317	1,873	467	101	2	30	9	29	2,828
Oklahoma	-	37	1,038	619	339	198	92	25	18	2,366	-	6	611	1,081	566	389	54	19	23	2,749
Oregon	-	29	497	1,328	714	227	28	6	3	2,832	-	18	403	648	664	290	178	-	-	2,201
Pennsylvania	2	68	799	668	451	265	123	61	48	2,483	5,107	-	-	-	-	-	-	-	-	-
Rhode Island	67	-	-	-	-	-	-	-	-	-	76	-	-	-	-	-	-	-	-	-
South Carolina	-	26	799	300	169	119	22	13	5	1,453	15	56	1,372	1,085	756	205	153	16	-	3,643
South Dakota	291	9	465	539	517	425	136	54	105	2,250	176	48	886	900	615	309	262	75	71	3,166
Tennessee	1,592	16	109	40	28	9	8	-	-	210	65	56	1,399	754	468	505	159	-	-	3,341
Texas	-	1,857	2,779	1,558	415	113	31	11	13	6,777	-	1,809	3,768	2,739	805	241	98	8	1	9,469
Utah	-	257	612	96	20	13	2	8	1	1,009	-	266	857	357	39	8	1	7	-	1,535
Vermont	-	10	72	59	67	59	25	13	11	316	-	114	142	124	103	86	95	29	42	735
Virginia	-	6	605	530	237	112	20	25	25	1,560	-	-	634	1,088	1,187	442	59	27	6	3,443
Washington	-	-	230	555	716	447	93	37	2	2,080	22	28	100	374	354	546	367	128	62	1,959
West Virginia	104	77	435	236	127	55	7	5	7	949	63	19	415	569	306	133	24	34	-	1,500
Wisconsin	-	237	1,044	797	599	319	204	96	61	3,357	-	312	1,422	1,094	762	593	450	365	-	4,998
Wyoming	24	482	956	125	25	16	4	-	-	1,608	5	273	989	269	71	58	6	-	5	1,671
U.S. Total	6,083	7,906	34,329	22,152	14,380	7,446	3,010	1,472	1,475	92,170	10,978	8,898	42,530	31,409	19,845	12,469	5,316	3,179	2,879	126,525
Puerto Rico	36	-	-	3	3	28	18	3	11	66	168	-	-	-	4	28	51	29	11	123
Grand Total	6,119	7,906	34,329	22,155	14,383	7,474	3,028	1,475	1,486	92,236	11,146	8,898	42,530	31,409	19,849	12,497	5,367	3,208	2,890	126,648

**FUNCTIONAL SYSTEM LENGTH - 1997**  
**PAVED MILES BY MEASURED PAVEMENT ROUGHNESS - URBAN**

TABLE HM-64  
 SHEET 3 OF 4

OCTOBER 1998

STATE	INTERNATIONAL ROUGHNESS INDEX (IRI) 1/									
	INTERSTATE									TOTAL REPORTED
	NOT REPORTED	< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220	
Alabama	-	22	127	70	44	35	5	-	-	303
Alaska	-	-	14	26	9	4	-	-	-	53
Arizona	-	65	66	26	13	2	-	-	-	172
Arkansas	12	4	9	24	27	38	19	11	6	138
California	-	24	146	195	288	231	103	62	18	1,067
Colorado	-	3	50	35	43	33	16	4	-	184
Connecticut	-	-	88	73	39	24	9	6	5	244
Delaware	-	-	7	11	8	3	6	3	3	41
Dist. of Columbia	-	-	1	1	4	1	1	1	2	11
Florida	49	63	163	83	113	43	3	-	-	468
Georgia 2/	326	47	60	4	-	-	-	-	-	111
Hawaii	46	-	-	-	-	2	1	-	-	3
Idaho	-	18	35	10	9	10	-	1	-	83
Illinois	-	33	124	201	147	72	41	23	5	646
Indiana	2	25	116	79	40	16	26	8	6	316
Iowa	13	-	48	41	19	8	18	-	-	134
Kansas	4	13	78	60	16	4	-	-	-	171
Kentucky	-	60	83	38	25	16	4	2	-	228
Louisiana	-	1	62	74	64	45	17	7	12	282
Maine	3	10	35	3	1	-	-	-	-	49
Maryland 2/	-	5	127	56	29	14	11	5	5	252
Massachusetts	3	3	196	145	37	14	5	1	1	402
Michigan	-	23	192	117	88	49	19	12	2	502
Minnesota	-	29	125	50	19	8	1	-	-	232
Mississippi	-	-	12	28	57	20	3	5	-	125
Missouri	-	5	104	126	79	33	11	8	4	370
Montana	-	4	27	15	6	2	-	1	-	55
Nebraska	-	10	15	6	4	5	4	1	-	45
Nevada	-	14	27	13	15	10	1	-	-	80
New Hampshire	-	11	29	8	-	-	-	-	-	48
New Jersey	17	-	26	72	35	44	46	17	44	284
New Mexico	-	-	34	10	13	21	12	9	9	108
New York	4	-	258	131	79	66	58	31	75	698
North Carolina	-	-	59	63	106	54	29	27	12	350
North Dakota	-	13	18	9	-	-	-	-	-	40
Ohio	-	150	387	146	32	19	4	2	3	743
Oklahoma	-	3	59	44	32	30	19	11	9	207
Oregon	-	1	18	78	40	8	1	-	-	146
Pennsylvania	3	3	146	170	126	54	25	15	8	547
Rhode Island	47	-	-	-	-	-	-	-	-	-
South Carolina	-	6	90	34	19	6	1	-	-	156
South Dakota	13	-	3	6	8	16	1	2	-	36
Tennessee	229	5	46	28	12	10	3	3	2	109
Texas	-	84	466	288	129	53	2	1	3	1,026
Utah	-	36	61	51	15	6	-	-	-	169
Vermont	-	1	28	10	-	-	-	-	-	39
Virginia	-	2	94	155	93	30	8	7	3	392
Washington	-	7	42	65	75	29	27	14	4	263
West Virginia	-	15	46	11	10	5	3	-	1	91
Wisconsin	-	9	23	33	51	37	12	5	2	172
Wyoming	-	7	37	19	17	5	1	-	-	86
U.S. Total	771	834	4,107	3,041	2,135	1,235	576	305	244	12,477
Puerto Rico	3	-	-	32	38	27	19	10	20	146
Grand Total	774	834	4,107	3,073	2,173	1,262	595	315	264	12,623

## FUNCTIONAL SYSTEM LENGTH - 1997

### PAVED MILES BY MEASURED PAVEMENT ROUGHNESS - URBAN

TABLE HM-64  
SHEET 4 OF 4

OCTOBER 1998

STATE	INTERNATIONAL ROUGHNESS INDEX (IRI) 1/																			
	OTHER FREEWAYS AND EXPRESSWAYS										OTHER PRINCIPAL ARTERIAL									
	NOT REPORTED	< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220	TOTAL REPORTED	NOT REPORTED	< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220	TOTAL REPORTED
Alabama	-	-	12	4	1	2	-	1	-	20	-	59	429	298	142	42	5	6	5	986
Alaska	-	-	-	-	-	-	-	-	-	-	-	-	9	20	14	11	1	-	1	56
Arizona	-	18	45	21	9	3	-	-	-	96	-	203	496	113	107	66	22	6	14	1,027
Arkansas	12	6	26	9	16	15	11	9	3	95	108	-	58	105	92	80	39	33	64	471
California	2	39	242	300	385	271	88	45	26	1,396	1	548	731	573	2,092	690	441	283	477	5,835
Colorado	-	5	52	68	50	41	4	10	-	230	2	4	59	200	128	84	70	183	113	841
Connecticut	1	-	51	61	35	24	15	5	5	196	46	-	9	67	139	146	84	52	63	560
Delaware	-	-	5	5	-	1	-	-	-	11	-	18	49	31	14	9	4	3	7	135
Dist. of Columbia	2	-	-	-	5	3	1	2	4	15	10	1	-	-	1	1	4	6	75	88
Florida	21	8	114	134	73	49	2	2	-	382	316	86	775	554	464	258	107	71	52	2,367
Georgia 2/	146	12	3	1	-	-	-	-	-	16	1,734	16	8	-	-	-	-	-	-	24
Hawaii	25	-	-	2	-	3	3	-	-	8	116	-	-	-	2	8	8	2	1	21
Idaho	-	-	-	-	-	-	-	-	-	-	9	6	38	48	35	29	33	17	19	225
Illinois	-	-	12	19	15	18	3	3	5	75	-	41	176	398	397	406	314	262	612	2,606
Indiana	6	6	28	32	17	20	13	9	2	127	452	11	145	213	197	169	139	90	135	1,099
Iowa	-	-	-	-	-	-	-	-	-	-	167	11	89	75	97	105	49	53	71	550
Kansas	18	10	38	25	21	12	6	1	3	116	448	13	54	46	27	25	16	13	8	202
Kentucky	-	14	33	18	7	10	8	-	-	90	-	27	293	167	63	45	22	11	10	638
Louisiana	-	3	1	3	13	4	11	1	8	44	154	23	107	81	115	119	68	52	118	683
Maine	1	-	9	3	3	1	-	-	-	16	37	9	59	29	16	13	6	3	5	140
Maryland 2/	-	3	94	48	38	20	13	8	12	236	-	8	126	111	100	131	81	71	230	858
Massachusetts	35	-	61	79	14	9	1	1	3	168	705	-	53	151	202	175	93	71	103	848
Michigan	-	2	45	66	46	42	16	3	1	221	6	9	110	226	269	374	278	205	499	1,970
Minnesota	-	12	54	37	10	22	4	2	1	142	-	60	144	113	99	52	33	18	32	551
Mississippi	-	-	15	11	11	5	-	-	-	42	-	-	91	120	135	116	55	31	83	631
Missouri	18	-	25	74	87	49	23	5	7	270	466	1	49	108	146	137	101	48	63	653
Montana	-	-	-	-	-	-	-	-	-	-	4	4	27	32	30	24	14	13	26	170
Nebraska	-	-	1	7	2	7	-	-	-	17	102	25	36	23	35	56	32	36	73	316
Nevada	-	4	25	10	1	-	1	1	-	42	-	5	66	72	43	24	8	6	16	240
New Hampshire	-	-	33	3	2	3	-	-	-	41	-	5	82	35	13	19	2	10	6	172
New Jersey	96	-	31	68	46	25	14	7	26	217	346	-	85	146	248	238	96	95	52	960
New Mexico	3	-	-	-	-	-	-	-	-	-	180	9	79	89	52	46	23	17	27	342
New York	10	6	185	143	118	116	72	69	107	816	64	1	308	318	295	260	170	139	960	2,451
North Carolina	20	-	72	31	50	50	26	13	20	262	157	4	198	185	244	216	130	65	162	1,204
North Dakota	-	-	-	-	-	-	-	-	-	-	-	6	36	31	22	22	11	11	24	163
Ohio	-	19	158	102	52	32	9	5	3	380	-	33	472	440	383	261	154	107	136	1,986
Oklahoma	-	-	44	32	25	14	12	5	3	135	1	1	69	118	112	134	91	114	161	800
Oregon	-	-	6	26	18	2	-	-	-	52	-	-	17	124	212	159	70	28	46	656
Pennsylvania	16	7	66	95	115	88	52	28	18	469	23	13	189	325	374	460	266	233	386	2,246
Rhode Island	68	-	-	-	-	-	-	-	-	-	329	-	-	-	-	-	-	-	-	-
South Carolina	3	8	38	9	7	-	-	-	2	64	27	10	209	188	117	75	34	19	18	670
South Dakota	3	-	-	-	-	-	-	-	-	-	102	-	8	1	3	1	1	-	14	14
Tennessee	69	1	16	12	6	6	1	2	1	45	1,138	9	72	41	19	15	5	3	7	171
Texas	-	161	380	332	236	59	5	3	3	1,179	-	1,332	1,371	798	724	430	194	101	76	5,026
Utah	-	4	4	1	-	-	-	-	-	9	-	42	121	54	30	14	7	2	1	271
Vermont	-	1	11	5	1	2	-	-	-	20	-	3	9	17	18	18	8	8	15	96
Virginia	-	-	53	67	51	33	12	3	2	221	-	-	152	269	241	162	97	106	102	1,129
Washington	4	-	16	63	118	56	28	14	14	309	809	-	21	65	61	63	36	17	23	286
West Virginia	-	-	1	4	3	1	-	-	-	9	129	3	31	12	11	8	5	2	1	73
Wisconsin	-	9	29	33	41	36	15	9	6	178	1	24	119	171	203	218	171	145	267	1,318
Wyoming	-	-	3	-	-	-	-	-	-	3	20	28	72	27	30	11	5	6	5	184
U.S. Total	579	358	2,137	2,063	1,748	1,154	469	268	283	8,480	8,209	2,711	8,006	7,428	8,613	6,225	3,703	2,873	5,450	45,009
Puerto Rico	3	-	-	9	2	13	11	5	7	47	84	-	1	10	22	44	33	23	29	162
Grand Total	582	358	2,137	2,072	1,750	1,167	480	273	290	8,527	8,293	2,711	8,007	7,438	8,635	6,269	3,736	2,896	5,479	45,171

1/ Data are reported as the International Roughness Index (IRI) in inches per mile. Reference: World Bank Technical Paper Number 46, 1986. Lower IRI represents smoother riding roadways; to obtain a comprehensive assessment of

2/ 1996 data. pavement condition, additional measures of pavement distress are needed.