

**NATIONAL HIGHWAY SYSTEM LENGTH - 1995**  
**RURAL MILES BY MEASURED PAVEMENT ROUGHNESS**

TABLE HM-47  
 SHEET 1 OF 4  
 OCTOBER 1996

COMPILED FROM REPORTS OF STATE AUTHORITIES

STATE	INTERNATIONAL ROUGHNESS INDEX (IRI) 1/																			TOTAL REPORTED	
	INTERSTATE SYSTEM 2/										OTHER										
	NOT REPORTED 3/	< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220	TOTAL REPORTED	NOT REPORTED 3/	< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220		TOTAL REPORTED
Alabama	-	521	63	7	6	-	-	-	4	601	-	593	910	377	89	32	9	1	24	2,035	
Alaska	-	1	255	297	265	121	18	15	60	1,032	-	457	71	112	170	83	22	2	31	491	
Arizona	-	265	521	113	56	21	7	8	-	991	-	42	458	315	187	70	42	25	3	1,142	
Arkansas	9	5	48	36	95	84	59	41	23	391	1,607	8	104	105	30	27	16	2	1	293	
California	124	17	550	229	214	100	57	21	34	1,222	-	548	32	955	861	634	365	84	50	10	2,991
Colorado	-	17	151	132	112	97	87	58	114	768	-	19	237	466	397	227	181	122	180	1,829	
Connecticut 4/	-	3	-	43	13	13	16	6	7	98	-	2	-	91	73	30	27	21	7	2	251
Delaware	-	-	-	-	-	-	-	-	-	-	-	-	-	54	50	41	15	14	9	15	198
Dist. of Columbia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Florida	-	34	268	299	269	72	2	1	1	946	-	32	422	523	532	149	66	29	8	1,761	
Georgia	334	151	269	48	5	-	-	-	-	473	2,098	288	47	1	-	-	-	-	-	-	336
Hawaii 4/	-	-	-	-	-	-	-	-	-	-	136	-	-	-	1	1	1	1	-	4	
Idaho	-	8	166	151	118	64	13	9	3	532	-	-	34	131	432	617	336	114	14	1,678	
Illinois	-	69	380	498	367	163	32	10	9	1,528	-	9	396	676	386	182	94	58	35	1,836	
Indiana	27	8	437	228	55	83	10	-	4	825	20	1	393	306	312	134	49	29	21	1,245	
Iowa 4/	16	26	258	192	99	40	3	-	-	618	174	123	425	327	402	343	134	30	8	1,792	
Kansas	-	44	288	220	98	41	6	1	-	698	-	165	1,038	677	473	170	43	26	5	2,597	
Kentucky	-	10	273	61	59	92	39	2	-	536	-	51	646	468	261	235	33	17	4	1,715	
Louisiana	-	244	305	56	6	-	-	1	-	612	-	33	478	421	223	50	6	-	-	1,178	
Maine	5	78	203	9	15	-	-	-	-	305	-	111	379	162	43	26	12	9	6	748	
Maryland	-	38	145	36	7	-	-	1	-	227	-	43	293	131	36	22	18	6	9	558	
Massachusetts	-	-	93	46	19	-	-	1	1	162	208	-	18	44	24	10	7	5	3	111	
Michigan	-	89	280	207	97	45	17	5	-	740	-	314	943	452	331	179	39	28	7	2,293	
Minnesota	-	-	19	52	129	118	107	128	128	681	-	-	144	372	333	357	449	257	666	2,578	
Mississippi	-	11	201	160	104	38	23	12	9	558	-	5	464	503	325	212	41	50	53	1,653	
Missouri	-	38	379	300	81	10	1	1	-	810	11	77	744	1,047	484	159	29	8	5	2,553	
Montana	1	196	508	164	132	93	26	12	5	1,136	-	17	586	794	548	404	160	57	39	2,605	
Nebraska	-	11	66	81	139	86	26	16	12	437	-	31	503	414	435	347	216	150	168	2,264	
Nevada	67	216	151	20	18	8	-	-	-	413	-	78	328	448	408	153	23	-	-	1,360	
New Hampshire	-	25	148	3	-	-	-	-	-	176	-	-	252	140	38	14	3	-	7	454	
New Jersey	6	-	10	32	39	17	9	3	1	111	94	-	20	26	213	154	34	10	-	457	
New Mexico	-	23	393	207	111	78	47	26	7	892	-	152	586	274	271	170	75	77	138	1,743	
New York	3	8	421	221	71	34	17	3	18	793	5	23	741	538	275	148	86	68	83	1,962	
North Carolina	-	5	230	146	79	112	45	6	8	631	2	8	528	590	536	216	69	30	46	2,023	
North Dakota	-	-	147	188	115	47	33	-	-	530	-	19	297	418	688	364	217	69	18	2,090	
Ohio	-	265	435	97	30	3	-	-	-	830	-	263	1,210	192	114	37	23	5	1	1,845	
Oklahoma	-	-	226	237	154	68	25	11	-	721	-	13	592	514	421	295	96	97	82	2,110	
Oregon	-	9	150	337	78	8	-	-	-	582	176	229	168	235	180	130	110	113	1,344	2,509	
Pennsylvania	-	24	506	224	142	70	46	37	32	1,081	23	8	487	691	567	345	151	68	45	2,362	
Rhode Island	9	-	1	4	4	2	1	-	-	12	-	-	2	19	9	7	4	1	21	63	
South Carolina	5	164	282	158	59	3	-	-	-	666	32	24	661	259	159	105	17	5	4	1,234	
South Dakota	-	5	133	159	228	75	29	-	-	629	20	160	317	398	482	449	240	83	20	2,149	
Tennessee	-	67	399	176	81	15	1	-	-	739	-	66	730	283	215	98	41	16	10	1,459	
Texas	717	970	150	60	131	39	49	24	63	1,486	2,105	2,868	471	193	148	142	61	56	162	4,101	
Utah	-	364	289	87	30	1	-	-	-	771	-	254	617	88	20	17	2	8	1	1,007	
Vermont	-	61	148	57	3	10	1	-	-	280	-	15	72	86	73	39	15	2	2	317	
Virginia	-	1	278	294	44	37	6	48	-	708	4	1	351	506	348	145	38	9	20	1,418	
Washington	-	15	111	216	105	38	6	-	-	501	11	-	261	678	606	321	171	38	9	2,084	
West Virginia	-	54	133	84	115	38	34	1	-	459	-	74	362	236	204	112	38	10	7	1,043	
Wisconsin	-	37	173	176	76	19	4	-	5	490	-	265	970	701	357	222	87	50	21	2,673	
Wyoming	-	144	455	147	60	20	-	-	-	826	-	86	742	439	189	119	29	1	-	1,605	
U.S. Total	1,326	4,338	11,538	6,965	4,333	2,126	896	507	551	31,254	7,844	7,295	21,661	17,522	13,252	8,071	3,723	1,921	3,358	76,803	
Puerto Rico	11	-	-	14	28	21	6	6	14	89	19	-	-	2	6	6	3	1	1	19	
Grand Total	1,337	4,338	11,538	6,979	4,361	2,147	902	513	565	31,343	7,863	7,295	21,661	17,524	13,258	8,077	3,726	1,922	3,359	76,822	
Distribution of Reported IRI	-	13.8	36.8	22.3	13.9	6.9	2.9	1.6	1.8	100.0	-	9.5	28.2	22.8	17.3	10.5	4.9	2.5	4.4	100.0	

# NATIONAL HIGHWAY SYSTEM LENGTH - 1995

## RURAL MILES BY MEASURED PAVEMENT ROUGHNESS

TABLE HM-47  
SHEET 2 OF 4  
OCTOBER 1996

COMPILED FROM REPORTS OF STATE AUTHORITIES

STATE	INTERNATIONAL ROUGHNESS INDEX (IRI) 1/									
	TOTAL RURAL NHS									TOTAL REPORTED
	NOT REPORTED 3/	< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220	
Alabama	-	1,114	973	384	95	32	9	1	28	2,636
Alaska	457	1	326	409	435	204	40	17	91	1,523
Arizona	-	307	979	428	243	91	49	33	3	2,133
Arkansas	1,616	13	152	141	125	111	75	43	24	684
California	672	49	1,505	1,090	848	465	141	71	44	4,213
Colorado	-	36	388	598	509	324	268	180	294	2,597
Connecticut 4/	5	-	134	86	43	43	27	14	2	349
Delaware	-	-	54	50	41	15	14	9	15	198
Dist. of Columbia	-	-	-	-	-	-	-	-	-	-
Florida	-	66	690	822	801	221	68	30	9	2,707
Georgia	2,432	439	316	49	5	-	-	-	-	809
Hawaii 4/	136	-	-	-	1	1	1	1	-	4
Idaho	-	8	200	282	550	681	349	123	17	2,210
Illinois	-	78	776	1,174	753	345	126	68	44	3,364
Indiana	47	9	830	534	367	217	59	29	25	2,070
Iowa 4/	190	149	683	519	501	383	137	30	8	2,410
Kansas	-	209	1,326	897	571	211	49	27	5	3,295
Kentucky	-	61	919	529	320	327	72	19	4	2,251
Louisiana	-	722	726	279	56	6	1	-	-	1,790
Maine	38	189	582	171	58	26	12	9	6	1,053
Maryland	-	81	438	167	43	22	19	6	9	785
Massachusetts	208	-	111	90	43	10	9	6	4	273
Michigan	-	403	1,223	659	428	224	56	33	7	3,033
Minnesota	-	-	163	424	462	475	556	385	794	3,259
Mississippi	-	16	665	663	429	250	64	62	62	2,211
Missouri	11	115	1,123	1,347	565	169	30	9	5	3,363
Montana	1	213	1,094	958	680	497	186	69	44	3,741
Nebraska	-	42	569	495	574	433	242	166	180	2,701
Nevada	145	544	599	428	171	31	-	-	-	1,773
New Hampshire	-	25	400	143	38	14	3	-	7	630
New Jersey	100	-	30	58	252	171	43	13	1	568
New Mexico	-	175	979	481	382	248	122	103	145	2,635
New York	8	31	1,162	759	346	182	103	71	101	2,755
North Carolina	2	13	758	736	615	328	114	36	54	2,654
North Dakota	-	19	444	606	803	411	250	69	18	2,620
Ohio	-	528	1,645	289	144	40	23	5	1	2,675
Oklahoma	-	13	818	751	575	363	121	108	82	2,831
Oregon	176	238	318	572	258	138	110	113	1,344	3,091
Pennsylvania	23	32	993	915	709	415	197	105	77	3,443
Rhode Island	9	-	3	23	13	9	5	1	21	75
South Carolina	37	188	943	417	218	108	17	5	4	1,900
South Dakota	20	165	450	557	710	524	269	83	20	2,778
Tennessee	-	133	1,129	459	296	113	42	16	10	2,198
Texas	2,822	3,838	621	253	279	181	110	80	225	5,587
Utah	-	618	906	175	50	18	2	8	1	1,778
Vermont	-	76	220	143	76	49	16	15	2	597
Virginia	4	2	629	800	392	182	44	57	20	2,126
Washington	11	15	372	894	711	359	177	38	19	2,585
West Virginia	-	128	495	320	319	150	72	11	7	1,502
Wisconsin	-	302	1,143	877	433	241	91	50	26	3,163
Wyoming	-	230	1,197	586	249	139	29	1	-	2,431
U.S. Total	9,170	11,633	33,199	24,487	17,585	10,197	4,619	2,428	3,909	108,057
Puerto Rico	30	-	-	16	34	27	9	7	15	108
Grand Total	9,200	11,633	33,199	24,503	17,619	10,224	4,628	2,435	3,924	108,165
Distribution of Reported IRI	-	10.8	30.7	22.7	16.3	9.5	4.3	2.3	3.6	100.0

**NATIONAL HIGHWAY SYSTEM LENGTH - 1995**  
**URBAN MILES BY MEASURED PAVEMENT ROUGHNESS**

TABLE HM-47  
 SHEET 3 OF 4  
 OCTOBER 1996

COMPILED FROM REPORTS OF STATE AUTHORITIES

STATE	INTERNATIONAL ROUGHNESS INDEX (IRI) 1/																			
	INTERSTATE SYSTEM 2/										OTHER									
	NOT REPORTED 3/	< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220	TOTAL REPORTED	NOT REPORTED 3/	< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220	TOTAL REPORTED
Alabama	-	226	67	8	2	-	-	-	-	303	-	234	254	108	38	13	4	2	5	658
Alaska	-	-	24	11	12	3	4	-	-	54	-	1	13	26	11	11	4	4	2	72
Arizona	-	67	65	35	10	1	-	-	-	178	-	34	83	86	32	14	2	2	2	321
Arkansas	4	1	10	31	28	34	18	13	5	140	181	-	8	13	13	8	7	-	5	54
California	160	11	195	216	221	141	78	45	9	916	451	46	242	252	239	187	79	31	25	1,101
Colorado	-	-	34	36	42	41	21	11	-	185	-	6	66	93	105	96	43	72	63	544
Connecticut 4/	-	-	53	65	56	24	16	24	7	245	27	6	62	101	48	60	19	41	5	336
Delaware	-	-	10	6	4	8	4	3	5	40	-	-	15	18	13	4	2	-	10	62
Dist. of Columbia 5/	-	-	-	1	3	-	3	3	2	12	32	-	-	-	1	1	2	6	18	30
Florida	-	12	121	125	198	60	8	2	-	526	-	24	225	241	284	114	18	12	9	927
Georgia	270	57	101	7	-	-	-	-	-	165	665	67	15	1	-	-	-	-	-	83
Hawaii 4/	40	-	-	-	-	2	1	-	-	3	89	-	-	2	1	8	5	2	-	18
Idaho	-	-	24	31	12	12	2	-	-	81	-	-	8	9	11	11	10	13	7	69
Illinois	-	38	87	187	140	69	88	18	8	635	-	14	87	246	236	249	174	185	320	1,511
Indiana	6	22	93	96	39	19	32	10	2	313	35	8	52	55	44	58	35	27	35	314
Iowa 4/	14	-	28	37	37	19	12	-	-	133	169	6	17	26	39	24	11	1	-	124
Kansas	-	2	81	67	22	2	-	-	-	174	-	25	38	57	62	16	4	4	12	218
Kentucky	-	4	52	51	27	54	20	12	6	226	-	9	88	92	67	47	40	14	20	377
Louisiana	2	69	157	21	14	3	4	-	2	270	-	72	150	159	47	16	5	1	3	453
Maine	-	11	42	-	2	-	-	-	-	55	8	6	48	21	14	8	4	2	3	106
Maryland	-	14	131	58	21	9	10	5	7	255	-	5	105	64	40	35	21	12	38	320
Massachusetts	-	4	175	143	55	18	4	1	3	403	690	2	38	97	73	64	29	12	21	336
Michigan	-	29	193	108	93	51	15	9	2	500	35	7	132	170	179	210	154	107	194	1,153
Minnesota	-	3	6	56	58	43	21	27	19	233	-	-	17	48	70	78	80	47	117	457
Mississippi	-	-	26	40	40	11	5	2	3	127	-	5	73	53	48	37	7	3	4	230
Missouri	-	4	93	153	72	30	10	5	1	368	54	-	41	140	139	112	49	22	32	535
Montana	1	3	24	11	3	4	5	2	-	52	-	-	10	11	14	12	7	4	6	64
Nebraska	-	-	5	11	5	10	4	6	2	43	16	-	8	16	28	30	30	79	221	
Nevada	4	19	18	32	5	4	1	-	-	79	17	17	60	10	4	3	2	-	2	98
New Hampshire	-	11	29	8	-	-	-	-	-	48	-	-	81	11	7	2	-	1	3	105
New Jersey	38	-	21	59	77	72	22	9	5	265	191	-	28	67	279	340	98	17	3	832
New Mexico	-	7	28	27	18	14	5	5	4	108	-	6	57	37	28	17	9	10	13	177
New York	21	3	200	170	93	69	45	54	47	681	36	5	248	333	232	198	123	98	347	1,584
North Carolina	1	5	76	56	87	51	37	15	11	338	15	1	88	104	93	59	31	12	19	407
North Dakota	-	-	5	17	11	7	-	-	-	40	-	-	4	17	12	10	9	6	5	63
Ohio	-	135	359	160	40	29	8	10	1	742	-	44	291	194	129	81	34	13	18	804
Oklahoma	-	1	26	57	33	25	26	24	17	209	-	-	34	53	65	51	37	20	11	271
Oregon	-	-	22	52	64	7	1	-	-	146	16	19	31	33	39	16	9	15	121	283
Pennsylvania	-	2	130	148	100	52	39	21	15	507	12	3	154	249	268	261	176	116	158	1,385
Rhode Island	-	-	17	20	9	-	1	-	1	48	2	-	19	21	27	13	12	8	22	122
South Carolina	10	20	72	30	21	5	-	-	-	148	48	15	158	94	69	40	16	8	11	411
South Dakota	5	1	-	3	20	11	9	-	-	44	5	3	1	5	7	13	5	7	5	46
Tennessee	-	14	115	76	52	37	14	10	5	323	-	22	245	145	81	53	21	15	12	594
Texas	279	528	99	25	24	30	14	10	22	752	862	1,403	378	144	150	123	74	55	217	2,544
Utah	-	39	65	44	15	6	-	-	-	169	-	39	89	37	21	11	6	3	-	206
Vermont	-	1	25	13	-	1	-	-	-	40	-	4	5	11	10	2	5	1	7	45
Virginia	-	2	92	124	85	55	21	16	3	398	-	-	90	273	177	122	62	48	68	840
Washington	-	-	40	88	57	41	25	9	2	262	91	1	32	90	130	89	38	15	20	415
West Virginia	-	25	13	20	13	10	9	1	-	91	-	3	19	29	12	16	7	5	8	99
Wisconsin	-	8	13	67	30	15	5	5	6	149	-	26	115	135	146	105	67	57	113	764
Wyoming	-	4	28	29	14	9	1	2	-	87	47	-	10	3	-	-	-	-	-	17
U.S. Total	855	1,402	3,390	2,936	2,084	1,218	668	389	222	12,309	3,784	2,182	4,132	4,301	3,918	3,168	1,698	1,189	2,218	22,806
Puerto Rico	41	-	-	19	29	18	10	10	15	102	50	-	1	12	11	8	8	1	5	46
Grand Total	896	1,402	3,391	2,955	2,113	1,236	678	399	237	12,411	3,834	2,182	4,133	4,313	3,929	3,176	1,706	1,190	2,223	22,852
Distribution of Reported IRI	-	11.3	27.3	23.8	17.0	10.0	5.5	3.2	1.9	100.0	-	9.5	18.1	18.9	17.2	13.9	7.5	5.2	9.7	100.0

# NATIONAL HIGHWAY SYSTEM LENGTH - 1995

## URBAN MILES BY MEASURED PAVEMENT ROUGHNESS

TABLE HM-47  
SHEET 4 OF 4  
OCTOBER 1996

COMPILED FROM REPORTS OF STATE AUTHORITIES

STATE	INTERNATIONAL ROUGHNESS INDEX (IRI) 1/									
	TOTAL URBAN NHS									TOTAL REPORTED
	NOT REPORTED 3/	< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220	
Alabama	-	460	321	116	40	13	4	2	5	961
Alaska	-	1	37	37	23	14	8	4	2	126
Arizona	-	101	148	121	78	33	14	2	2	499
Arkansas	185	1	18	44	41	42	25	13	10	194
California	611	57	437	468	460	328	157	76	34	2,017
Colorado	-	6	100	129	147	137	64	83	63	729
Connecticut 4/	27	-	115	166	104	84	35	65	12	581
Delaware	-	-	25	24	17	12	6	3	15	102
Dist. of Columbia 5/	32	-	-	2	4	2	5	9	20	42
Florida	-	36	346	366	482	174	26	14	9	1,453
Georgia	935	124	116	8	-	-	-	-	-	248
Hawaii 4/	129	-	-	2	1	10	6	2	-	21
Idaho	-	-	32	40	23	23	12	13	7	150
Illinois	-	52	174	433	376	318	262	203	328	2,146
Indiana	41	30	145	151	83	77	67	37	37	627
Iowa 4/	183	6	45	63	76	43	23	1	-	257
Kansas	-	27	119	124	84	18	4	4	12	392
Kentucky	-	13	140	143	94	101	60	26	26	603
Louisiana	2	141	307	180	61	19	9	1	5	723
Maine	8	17	90	21	16	8	4	2	3	161
Maryland	-	19	236	122	61	44	31	17	45	575
Massachusetts	680	6	213	240	128	82	33	13	24	739
Michigan	35	36	325	278	272	261	169	116	196	1,653
Minnesota	-	3	23	104	128	121	101	74	136	690
Mississippi	-	5	99	93	88	48	12	5	7	357
Missouri	54	4	134	293	211	142	59	27	33	903
Montana	1	3	34	22	17	16	12	6	6	116
Nebraska	16	-	13	27	33	40	34	36	81	264
Nevada	21	36	78	42	9	7	3	-	2	177
New Hampshire	-	11	110	19	7	2	-	1	3	153
New Jersey	229	-	49	126	356	412	120	26	8	1,097
New Mexico	-	13	85	64	46	31	14	15	17	285
New York	57	8	448	503	325	267	168	152	394	2,265
North Carolina	16	6	164	160	180	110	68	27	30	745
North Dakota	-	-	9	34	23	17	9	6	5	103
Ohio	-	179	650	354	169	110	42	23	19	1,546
Oklahoma	-	1	60	110	98	76	63	44	28	480
Oregon	16	19	53	85	103	23	10	15	121	429
Pennsylvania	12	5	284	397	368	313	215	137	173	1,892
Rhode Island	2	-	36	41	36	13	13	8	23	170
South Carolina	58	35	230	124	90	45	16	8	11	559
South Dakota	10	4	1	8	27	24	14	7	5	90
Tennessee	-	36	360	221	133	90	35	25	17	917
Texas	1,141	1,931	477	169	174	153	88	65	239	3,296
Utah	-	78	154	81	36	17	6	3	-	375
Vermont	-	5	30	24	10	3	5	1	7	85
Virginia	-	2	182	397	262	177	83	64	71	1,238
Washington	91	1	72	178	187	130	63	24	22	677
West Virginia	-	28	32	49	25	26	16	6	8	190
Wisconsin	-	34	128	202	176	120	72	62	119	913
Wyoming	47	4	38	32	14	10	1	5	-	104
U.S. Total	4,639	3,584	7,522	7,237	6,002	4,386	2,366	1,578	2,440	35,115
Puerto Rico	91	-	2	31	40	26	18	11	20	148
Grand Total	4,730	3,584	7,524	7,268	6,042	4,412	2,384	1,589	2,460	35,263
Distribution of Reported IRI	-	10.2	21.3	20.6	17.1	12.5	6.8	4.5	7.0	100.0

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.

2/ Although the Interstate System is part of the National Highway System, its mileage is shown separately.

3/ Some States did not report for all required systems. Includes unpaved mileage not represented in the remaining columns: rural other NHS - 457 miles in Alaska; urban other NHS - 2 miles in Georgia and 3 miles in Michigan.

4/ 1995 data estimated by FHWA.

5/ 1994 data used (1995 data not available).