

Light-Duty Automotive Technology and Fuel Economy Trends: 1975 Through 2008

Appendix F Data Stratified by EPA Car Class

Compliance and Innovative Strategies Division
and
Transportation and Climate Division

Office of Transportation and Air Quality
U.S. Environmental Protection Agency

NOTICE

This technical report does not necessarily represent final EPA decisions or positions. It is intended to present technical analysis of issues using data that are currently available. The purpose in the release of such reports is to facilitate the exchange of technical information and to inform the public of technical developments.



Table F-1

Characteristics of 1975 to 2008 Two-Seater

MODEL YEAR	SALES (000)	FRAC	<---- FUEL ECONOMY ---->				WGHT LB	VOL CU-FT	ENGINE		0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
			LAB 55/45	ADJ CITY	ADJ HWY	ADJ COMP			CID	HP							
1975	244	.030	19.7	15.1	19.5	16.8	3015		173	125	12.6	117	.764	.0406	25.2		
1976	203	.021	19.4	14.9	19.2	16.5	3032		187	136	12.1	120	.752	.0429	25.1		
1977	221	.020	20.0	15.5	19.5	17.1	3062	50.0	183	134	12.4	119	.755	.0421	26.2	880	1308
1978	191	.017	19.4	15.0	19.1	16.6	3079	50.0	187	143	11.8	122	.795	.0446	25.5	855	1276
1979	256	.024	20.1	15.3	20.0	17.1	3026	50.0	180	128	12.2	118	.735	.0411	26.1	887	1305
1980	200	.021	20.6	15.6	20.8	17.6	2954	50.0	180	121	12.3	116	.702	.0400	26.3	904	1315
1981	162	.019	21.9	17.1	21.1	18.7	3005	50.0	202	142	10.6	124	.758	.0469	28.3	959	1415
1982	263	.034	25.7	19.7	25.5	21.9	2726	50.0	146	106	13.0	112	.734	.0377	30.5	1141	1523
1983	137	.017	23.9	18.4	23.4	20.3	2756	50.0	146	115	11.8	116	.778	.0411	28.3	1038	1416
1984	348	.033	26.7	20.3	27.0	22.8	2886	50.0	174	121	12.1	117	.717	.0410	33.9	1215	1694
1985	335	.031	26.9	20.5	26.9	23.0	2826	50.1	158	123	11.6	118	.806	.0425	33.4	1234	1672
1986	303	.028	28.1	21.3	28.2	24.0	2915	50.0	166	130	11.7	119	.818	.0430	35.7	1278	1784
1987	282	.026	27.5	20.5	27.7	23.3	2920	50.0	167	134	11.5	121	.830	.0442	35.2	1259	1758
1988	203	.019	27.4	20.3	27.5	23.2	2940	50.0	170	138	11.2	122	.845	.0455	35.3	1268	1765
1989	113	.011	26.9	19.9	26.9	22.7	3030	50.0	198	160	10.2	130	.891	.0509	35.6	1264	1782
1990	177	.020	27.7	20.5	27.1	23.2	2979	50.0	164	160	10.3	130	1.019	.0511	35.2	1239	1759
1991	178	.021	29.0	21.4	27.9	24.2	2890	50.0	149	150	10.8	127	1.040	.0491	35.7	1305	1784
1992	81	.010	26.7	19.4	26.1	22.3	3022	50.0	187	183	10.0	137	1.018	.0565	33.8	1189	1690
1993	118	.014	28.4	20.6	27.6	23.6	2975	50.0	169	178	9.6	137	1.138	.0572	35.8	1255	1791
1994	84	.010	26.0	18.7	25.5	21.6	3134	50.0	207	197	8.8	143	1.073	.0613	34.4	1132	1718
1995	79	.008	26.3	18.7	25.9	21.8	3176	50.0	204	199	8.9	142	1.077	.0606	35.0	1144	1752
1996	65	.008	26.0	18.2	25.8	21.5	3168	50.0	216	205	8.6	145	1.050	.0632	34.1	1101	1705
1997	72	.009	26.7	18.7	26.1	21.9	3056	50.0	178	198	8.7	144	1.157	.0628	33.9	1131	1693
1998	78	.010	24.4	17.0	24.0	20.0	3458	50.0	243	255	7.7	160	1.108	.0732	35.1	1021	1753
1999	118	.014	25.8	17.9	25.0	21.1	3179	50.0	208	225	7.9	153	1.152	.0695	33.6	1076	1682
2000	122	.013	25.9	17.9	25.0	21.1	3124	50.0	208	232	7.7	156	1.192	.0723	33.8	1125	1688
2001	143	.017	26.2	18.0	25.1	21.3	3207	50.0	200	239	7.6	158	1.292	.0732	34.6	1100	1732
2002	132	.016	24.9	16.9	24.1	20.2	3397	50.0	224	251	7.6	159	1.212	.0732	34.6	1040	1732
2003	180	.023	25.0	16.9	24.1	20.3	3439	50.0	229	266	7.3	164	1.223	.0765	35.0	1031	1749
2004	168	.022	24.5	16.4	23.5	19.8	3540	50.0	235	271	7.4	164	1.203	.0762	35.3	1004	1763
2005	163	.020	24.6	16.3	23.6	19.8	3502	50.0	241	291	7.1	172	1.243	.0828	34.9	1004	1745
2006	168	.021	25.3	16.8	24.3	20.4	3378	50.0	226	282	7.1	171	1.288	.0824	34.6	1037	1731
2007	158	.020	25.6	16.9	24.7	20.6	3392	50.0	227	285	7.1	172	1.323	.0831	35.1	1043	1755
2008	236	.028	27.4	18.3	25.8	21.9	3198	50.0	193	248	8.0	160	1.320	.0744	35.3	1150	1765

Percent of Two-Seater:

MODEL YEAR	DRIVETRAIN		TRANSMISSION			FUEL METERING				NUMBER OF VALVES					
	FRONT	4WD	MANUAL	LOCK	CVT	GDI	PORT	TBI	DSL	TWO	THREE	FOUR	FIVE	VVT	HYBRID
1975			74.6				42.4								
1976			70.5				37.1								
1977			70.5				40.2								
1978			71.8				46.9								
1979			72.8				31.5								
1980			74.0	13.6			34.4								
1981			61.3	20.1			55.4								
1982			69.2	9.5			23.3	9.5							
1983	17.1		81.0	4.5			40.3								
1984	17.9		60.4	33.7			20.5	53.1							
1985	25.0		67.4	26.3			53.3	11.6							
1986	29.8		62.4	30.7			70.0	11.7			81.2	7.3	11.5		
1987	32.7		64.0	28.5			71.3	14.6			70.4	22.2	7.4		
1988	41.9		62.1	27.4			73.9	26.1			76.2		23.8		
1989	32.6	16.5	51.5	36.6			85.8	14.2			61.5		38.5		
1990	31.3		66.9	27.2			88.5	11.5			33.0		67.0		
1991	34.9		68.5	21.1			81.4	18.6			33.1		66.9	1.8	
1992	16.1	.1	55.3	26.3			86.3	13.7			49.7		50.3	8.7	
1993	42.3	.0	59.8	35.5			94.4	5.6			51.4		48.6	22.1	
1994	24.1	.1	57.5	35.6			100.0				34.4		65.6	22.0	
1995	23.5	.1	57.9	31.4			100.0				33.9		65.4	.7	31.2
1996	4.7	.0	55.6	40.8			100.0				35.3		64.3	.4	27.1
1997	10.8	.1	64.0	34.3			100.0				14.8		84.3	.9	51.8
1998		.1	36.6	61.2			100.0				38.2		61.1	.7	45.3
1999	28.5	.1	54.1	42.6			100.0				26.1	7.7	65.2	.9	22.6
2000	4.6		63.0	34.6			100.0				26.9		72.7	.5	49.1
2001	5.0	7.1	60.9	36.1	1.1		100.0				24.4	9.6	56.8	9.2	42.4
2002	3.0	2.9	47.3	49.8	1.0		100.0				26.5	5.6	63.3	4.6	30.6
2003	1.5	.8	45.8	53.8	.4		100.0				19.3	13.6	64.9	2.2	50.6
2004	1.0	9.5	38.9	60.2	.2		100.0				20.0	8.3	69.0	2.8	51.4
2005	.7	.8	38.2	60.8	.2		100.0				21.7	7.5	69.8	1.0	50.5
2006	.8	.5	50.7	47.5	.2		100.0				19.8	4.8	74.4	.3	75.1
2007		.5	44.4	55.6			100.0				23.9	7.8	68.2	.0	68.2
2008	.7	1.5	39.1	60.9			3.9	96.1			14.0	5.8	80.2		59.3

Table F-2

Characteristics of 1975 to 2008 Minicompact

MODEL YEAR	SALES (000)	FRAC	<---- FUEL ECONOMY ---->				WGHT LB	VOL CU-FT	ENGINE		0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
			LAB 55/45	ADJ CITY	ADJ HWY	ADJ COMP			CID	HP							
1975	941	.114	23.0	17.6	22.8	19.6	2721		128	82	15.2	102	.669	.0298	27.4		
1976	913	.094	26.0	20.2	25.2	22.2	2688		124	80	15.1	102	.673	.0297	30.1		
1977	915	.081	27.9	21.7	26.8	23.8	2544	78.8	116	83	14.0	105	.756	.0326	30.7	1957	2420
1978	901	.081	27.4	21.7	25.6	23.3	2583	79.1	120	83	14.1	105	.730	.0322	30.6	1920	2422
1979	436	.040	27.6	21.7	26.3	23.5	2450	79.7	113	77	14.4	103	.689	.0312	29.0	1906	2315
1980	383	.041	28.1	22.1	26.8	24.0	2458	82.8	116	78	14.4	103	.675	.0314	29.6	2031	2449
1981	227	.026	34.3	27.6	31.3	29.1	2164	82.6	92	67	14.5	101	.723	.0307	31.9	2472	2639
1982	178	.023	35.5	28.5	32.3	30.1	2193	82.7	95	70	14.6	102	.727	.0311	33.7	2604	2792
1983	156	.020	35.7	28.4	33.3	30.4	2273	82.0	99	77	14.2	104	.754	.0327	35.3	2630	2901
1984	42	.004	25.6	19.5	25.7	21.8	2855	75.9	151	141	10.5	125	.927	.0484	31.6	1721	2400
1985	73	.007	36.0	28.0	34.9	30.7	2300	79.2	114	95	13.1	111	.818	.0380	37.6	2896	2994
1986	176	.016	30.7	23.3	30.4	26.1	2407	80.5	113	104	12.8	114	.881	.0403	33.4	2458	2693
1987	71	.007	30.7	23.3	30.0	26.0	2636	77.2	128	130	11.3	123	.985	.0469	35.8	2294	2786
1988	43	.004	31.1	23.7	29.8	26.2	2619	77.9	128	129	11.7	122	.954	.0462	36.4	2408	2861
1989	28	.003	26.9	20.2	25.9	22.6	2866	77.2	146	148	10.7	128	.985	.0504	32.9	1810	2561
1990	76	.009	26.3	19.6	25.6	22.1	3019	80.7	148	145	10.5	125	.969	.0475	33.4	1799	2696
1991	95	.011	28.6	21.3	27.3	23.8	2912	75.5	127	137	10.8	123	1.076	.0464	34.9	1820	2639
1992	118	.015	31.4	23.2	29.7	26.0	2691	81.0	110	118	11.2	118	1.073	.0435	35.0	2140	2834
1993	74	.009	30.0	22.1	28.3	24.8	2818	79.5	118	130	10.9	121	1.089	.0454	35.0	2012	2778
1994	39	.005	28.1	20.2	27.3	23.3	3146	81.0	132	163	10.3	129	1.202	.0501	36.4	1934	2957
1995	56	.006	27.3	19.6	26.3	22.5	3218	79.9	147	166	9.9	131	1.122	.0513	36.3	1823	2906
1996	43	.006	26.9	19.0	26.1	22.1	3270	76.8	157	179	9.8	134	1.127	.0538	36.5	1763	2820
1997	43	.005	26.6	18.7	25.9	21.9	3338	76.6	154	185	9.7	136	1.194	.0547	36.8	1713	2833
1998	37	.005	25.8	17.9	25.4	21.2	3522	78.9	169	195	9.6	137	1.146	.0548	37.5	1688	2960
1999	51	.006	25.2	17.3	25.1	20.7	3602	79.3	181	220	9.0	145	1.199	.0609	37.5	1658	2983
2000	40	.004	24.2	16.6	23.9	19.9	3729	79.6	192	244	8.3	152	1.300	.0656	37.2	1599	2970
2001	80	.010	24.9	16.9	24.4	20.3	3711	80.5	178	228	8.8	147	1.293	.0615	37.9	1650	3059
2002	96	.012	25.6	17.4	24.5	20.7	3649	81.5	187	238	8.5	150	1.301	.0646	38.0	1728	3102
2003	92	.012	27.8	18.7	26.4	22.3	3407	82.1	152	199	9.8	140	1.309	.0571	38.4	1894	3156
2004	132	.018	27.6	18.4	26.2	22.1	3491	82.3	149	185	10.2	134	1.241	.0522	38.8	1860	3196
2005	107	.013	28.5	19.0	26.8	22.7	3368	81.7	142	186	9.9	136	1.328	.0544	38.4	1901	3144
2006	111	.014	28.7	19.1	27.0	22.9	3353	81.4	150	197	9.4	140	1.338	.0578	38.5	1903	3136
2007	91	.011	29.4	19.6	27.4	23.4	3391	80.4	157	212	9.2	145	1.369	.0614	40.0	1936	3224
2008	85	.010	30.0	19.9	28.0	23.9	3422	80.9	158	209	9.2	143	1.352	.0600	41.3	1996	3345

Percent of Minicompact:

MODEL YEAR	DRIVETRAIN		TRANSMISSION			FUEL METERING				NUMBER OF VALVES					
	FRONT	4WD	MANUAL	LOCK	CVT	GDI	PORT	TBI	DSL	TWO	THREE	FOUR	FIVE	VVT	HYBRID
1975	19.6		67.7							11.5					
1976	22.1		63.5							4.5					
1977	25.4		70.6							1.9					
1978	22.3		63.0							1.5					
1979	44.8		73.4							3.4					
1980	47.2		60.0							1.6					
1981	83.2		81.2							1.0					
1982	80.4		80.8							6.4					
1983	81.8		80.9	.2						20.6					
1984	30.6		84.3	.2						92.6					
1985	67.7		86.1	.1						46.9					
1986	54.6		82.7	5.1						52.2			5.8		
1987	54.9		81.9	3.9						85.9			18.6		
1988	62.4		76.6	8.3						77.0			23.5		
1989	62.4	3.5	65.3	16.1						100.0			36.9		
1990	11.4		61.6	32.1						100.0			3.2		
1991	50.9		59.8	36.3						100.0			9.4	4.0	
1992	71.5		55.3	41.3						100.0			8.2	4.9	
1993	64.9		52.5	45.7						100.0			18.0	6.6	
1994	44.5		43.2	51.4						100.0			5.4	29.5	
1995	17.3		40.8	50.6						100.0			5.3	23.1	
1996	37.7	6.7	36.3	50.2						100.0			19.2	45.3	
1997	48.1	4.7	47.8	50.2						100.0			17.7	40.3	
1998	38.5	1.1	34.4	64.6						100.0			8.9	54.4	
1999	25.7	3.2	38.4	55.9						100.0			11.8	62.5	
2000	8.3	13.5	46.9	48.4						100.0			22.8	54.2	
2001	33.7	16.0	37.2	59.2						100.0			7.6	47.0	
2002	29.0	10.7	38.8	55.4	3.3					100.0			94.0	64.1	
2003	58.3	7.0	44.4	46.0	9.7					100.0			16.6	39.4	
2004	65.0	5.4	28.8	62.9	7.2					100.0			11.1	34.3	
2005	67.0	2.3	39.1	49.1	11.8					100.0			12.9	32.5	
2006	64.5	5.2	37.7	51.6	10.6					100.0			98.2	35.4	
2007	72.3	7.0	36.3	51.1	12.7					100.0			100.0	86.3	
2008	75.6	6.6	36.2	61.7	2.1	20.0	80.0			100.0			100.0	74.2	

Table F-3

Characteristics of 1975 to 2008 Subcompact

MODEL YEAR	SALES (000)	FRAC	<---- FUEL ECONOMY ---->				WGHT LB	VOL CU-FT	ENGINE		0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
			LAB 55/45	ADJ CITY	ADJ HWY	ADJ COMP			CID	HP							
1975	1011	.123	19.2	15.0	18.6	16.4	3242		206	107	14.2	108	.585	.0329	26.8		
1976	1368	.141	22.2	17.4	21.1	18.9	3033		181	97	14.7	106	.607	.0316	28.8		
1977	1577	.140	23.9	18.8	22.6	20.3	2966	90.7	174	98	14.2	107	.633	.0325	30.7	1983	2783
1978	2056	.184	24.6	19.4	23.4	21.0	2842	89.7	159	93	14.4	106	.649	.0321	30.4	2032	2726
1979	3044	.282	24.1	19.0	22.8	20.5	2847	90.4	155	94	14.2	106	.659	.0323	29.6	1955	2674
1980	3552	.376	27.1	21.3	25.7	23.1	2640	89.9	128	82	14.7	103	.669	.0308	30.8	2148	2768
1981	2712	.311	29.3	23.3	27.3	24.9	2604	90.3	124	81	14.7	103	.676	.0308	32.9	2334	2971
1982	2329	.298	29.1	22.8	27.7	24.8	2657	91.8	133	86	14.5	105	.666	.0317	33.6	2377	3077
1983	1968	.246	30.0	23.4	29.0	25.6	2687	93.3	136	90	14.0	106	.693	.0330	34.9	2505	3262
1984	2545	.238	29.6	22.9	28.8	25.2	2737	93.3	140	97	13.5	108	.722	.0348	35.0	2457	3265
1985	2181	.202	30.1	23.3	29.2	25.6	2734	93.9	136	100	13.2	110	.760	.0358	35.4	2506	3325
1986	2376	.216	30.6	23.6	29.5	25.9	2764	94.7	136	100	13.4	109	.765	.0354	36.2	2560	3434
1987	2088	.195	31.1	23.9	29.7	26.3	2728	92.7	128	99	13.7	109	.795	.0350	36.1	2528	3348
1988	2143	.200	32.0	24.6	30.1	26.9	2668	93.2	122	99	13.5	110	.823	.0358	36.2	2615	3375
1989	1950	.195	31.2	23.6	29.6	26.1	2748	93.1	129	104	13.0	111	.852	.0369	36.2	2545	3377
1990	1974	.224	31.5	23.9	29.5	26.3	2762	94.5	117	108	12.5	113	.962	.0385	36.5	2557	3456
1991	2303	.270	31.5	23.4	29.9	26.2	2779	94.8	124	111	12.3	114	.938	.0392	36.6	2562	3474
1992	2021	.249	31.8	23.5	30.3	26.4	2806	93.8	122	117	12.0	116	.987	.0408	37.4	2570	3509
1993	1872	.221	32.0	23.3	30.4	26.4	2797	94.4	124	120	11.8	117	.977	.0418	37.3	2585	3522
1994	1995	.237	31.6	22.7	30.4	26.0	2879	94.4	134	125	11.7	118	.973	.0423	37.8	2547	3568
1995	1623	.173	31.5	22.5	30.4	25.9	2949	93.6	141	134	11.3	121	1.015	.0443	38.5	2531	3610
1996	1108	.140	32.9	23.3	31.4	26.9	2875	94.9	136	131	11.2	121	1.024	.0446	38.9	2649	3691
1997	1487	.178	32.5	23.1	30.5	26.4	2909	95.5	126	128	11.5	119	1.058	.0431	38.6	2588	3693
1998	1601	.201	31.6	22.1	30.0	25.7	2984	96.4	138	135	11.1	122	1.022	.0447	38.5	2529	3714
1999	1382	.165	31.3	21.8	29.5	25.3	2973	96.4	137	137	11.0	122	1.032	.0454	37.8	2490	3646
2000	1492	.163	30.7	21.3	28.7	24.7	3026	96.5	145	144	10.7	124	1.040	.0469	37.6	2433	3629
2001	644	.077	28.4	19.4	27.1	22.9	3226	93.5	173	173	9.9	133	1.035	.0528	37.2	2195	3480
2002	575	.069	28.2	19.1	27.0	22.8	3293	94.3	183	186	9.5	137	1.074	.0557	37.7	2201	3555
2003	614	.077	26.8	18.2	25.2	21.5	3488	90.5	181	189	9.7	136	1.072	.0538	37.7	2006	3416
2004	453	.060	27.3	18.3	25.7	21.9	3365	95.9	174	191	9.5	138	1.144	.0559	37.1	2154	3555
2005	573	.071	28.0	18.7	26.2	22.4	3352	97.3	170	189	9.4	137	1.170	.0555	37.7	2226	3667
2006	1098	.137	31.3	20.7	29.1	24.8	3223	98.0	149	171	9.9	132	1.178	.0521	40.5	2508	3973
2007	1229	.153	32.0	21.2	29.5	25.3	3176	98.1	145	169	9.9	132	1.191	.0521	40.6	2565	3983
2008	1276	.149	31.5	20.9	29.2	24.9	3293	97.8	152	182	9.6	135	1.212	.0541	41.4	2515	4050

Percent of Subcompact:

MODEL YEAR	DRIVETRAIN		TRANSMISSION			FUEL METERING				NUMBER OF VALVES					VVT	HYBRID
	FRONT	4WD	MANUAL	LOCK	CVT	GDI	PORT	TBI	DSL	TWO	THREE	FOUR	FIVE			
1975	17.6		40.9				8.9									
1976	13.1		42.8				3.1									
1977	19.4		46.5				12.5		1.2							
1978	22.3		54.4				11.7		1.8							
1979	25.9		51.5				7.3		1.5							
1980	35.3	.4	58.2	3.5			10.9		3.4							
1981	36.0	.3	58.9	8.5			12.1		5.5							
1982	39.8	.2	55.1	23.6			14.8	3.2	4.1							
1983	53.4	.2	55.8	32.0			21.5	2.7	1.2							
1984	49.8	.5	51.5	35.1			28.9	3.0	1.7							
1985	58.7	.3	49.4	34.1			28.8	5.1	.2							
1986	64.5	1.1	50.3	34.0			36.5	4.9	.1	82.5	13.8	3.7				
1987	69.1	.5	51.3	39.4			40.3	6.8	.1	59.7	26.9	13.4				
1988	77.7	1.2	53.6	40.0			35.7	15.2	.0	53.6	21.8	24.6				
1989	72.3	1.1	46.5	45.3	.6		44.5	20.6	.0	58.1	12.6	29.3				
1990	87.9	.5	44.9	51.1	.2		71.5	24.0		35.0	8.2	56.8				
1991	84.3	1.4	39.1	56.2	.2		59.6	40.3		45.1	11.8	43.1		5.7		
1992	84.2	1.6	38.0	56.4	.0		84.5	15.5		41.6	11.0	47.4		12.3		
1993	84.6	1.7	42.6	51.9	.0		91.7	8.3		43.3	11.5	45.2		13.4		
1994	81.8	.2	37.7	58.0			93.6	6.4		45.2	7.8	47.0		17.6		
1995	72.1	1.4	40.4	55.4			95.0	5.0		34.9	3.1	62.0		18.0		
1996	75.8	1.1	41.4	52.1	.1		92.2	7.8		32.4	2.6	64.9		26.0		
1997	83.3	.6	31.4	64.9	.4		95.5	4.5		21.3		78.7		26.9		
1998	81.3	.6	30.1	68.3	.3		99.1	.7	.2	39.1	2.4	58.4		28.2		
1999	83.2	.5	27.5	71.0	.1		99.2	.6	.2	41.3	6.8	51.7	.2	24.7		
2000	76.7	.5	26.2	71.9	.1		99.2	.3	.5	45.3	1.5	51.4	1.8	22.5		
2001	57.7	.8	32.1	64.4	.2		98.9		1.1	47.4	1.4	47.5	3.7	27.7		
2002	51.0	5.9	34.2	65.5	.1		98.6		1.4	47.5	4.8	44.0	3.7	23.8		
2003	62.4	6.7	26.2	72.7	1.1		99.3		.7	30.2	5.0	61.5	3.3	15.0		
2004	44.3	6.6	34.2	64.6	1.2		99.5		.5	38.8	4.4	53.8	2.9	21.1		
2005	59.1	4.8	25.5	73.7	.9		99.5		.5	21.8	12.8	63.6	1.8	36.7		
2006	75.3	3.8	21.2	78.3	.5		99.5		.5	13.3	6.9	79.0	.7	60.9		
2007	75.2	4.1	19.9	79.8	.2		100.0			11.0	4.5	84.4	.0	63.9		
2008	76.4	2.6	22.0	73.7	4.2		4.6	95.4		5.0	4.6	90.4	.1	66.9		

Table F-4

Characteristics of 1975 to 2008 Compact

MODEL YEAR	SALES (000)	FRAC	<---- FUEL ECONOMY ---->				WGHT LB	VOL CU-FT	ENGINE		0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
			LAB 55/45	ADJ CITY	ADJ HWY	ADJ COMP			CID	HP							
1975	1893	.230	16.2	12.9	15.0	13.8	3958		287	129	14.6	110	.454	.0322	27.6		
1976	2557	.263	17.5	13.9	16.4	14.9	4025		289	125	15.2	108	.434	.0307	30.2		
1977	2767	.245	17.9	14.2	16.7	15.2	4128	107.3	291	131	14.6	110	.452	.0315	31.6	1655	3391
1978	1482	.133	20.2	15.8	19.3	17.2	3552	105.1	236	113	14.5	108	.506	.0318	30.6	1842	3221
1979	668	.062	19.5	15.4	18.3	16.6	3624	105.3	246	117	14.4	109	.495	.0321	30.4	1783	3201
1980	690	.073	22.4	17.4	21.6	19.1	3184	106.2	186	102	14.4	107	.577	.0324	30.7	2078	3265
1981	976	.112	26.7	20.7	26.1	22.8	2825	104.3	142	91	14.2	106	.671	.0325	32.4	2433	3377
1982	1268	.162	29.0	22.2	28.8	24.8	2794	102.9	128	86	14.6	104	.695	.0310	34.8	2591	3579
1983	1456	.182	28.8	22.2	28.2	24.5	2844	103.2	141	91	14.4	105	.677	.0318	35.2	2602	3633
1984	2731	.256	29.7	23.0	28.8	25.3	2798	103.1	136	90	14.3	106	.687	.0321	35.7	2672	3682
1985	2929	.271	29.8	23.1	29.0	25.5	2804	102.9	138	98	13.5	109	.727	.0347	36.0	2684	3706
1986	3348	.304	29.8	23.0	28.9	25.3	2819	103.2	137	98	13.5	109	.735	.0346	36.0	2669	3713
1987	4012	.374	29.7	22.7	28.9	25.2	2836	102.8	135	100	13.3	109	.759	.0351	35.9	2631	3688
1988	4317	.402	29.9	22.6	28.9	25.2	2889	103.6	136	106	13.0	111	.794	.0365	36.6	2652	3793
1989	3585	.358	29.9	22.5	28.8	25.1	2886	102.8	130	108	12.7	112	.837	.0372	36.4	2611	3738
1990	2771	.315	29.0	21.6	28.1	24.3	2984	103.3	138	118	12.3	115	.857	.0393	36.4	2534	3755
1991	2455	.288	29.0	21.4	27.9	24.2	2984	104.5	136	120	12.1	116	.887	.0400	36.3	2568	3797
1992	2221	.274	28.6	20.9	27.8	23.8	3034	104.3	143	127	11.8	118	.893	.0416	36.2	2509	3776
1993	2473	.292	29.6	21.5	28.6	24.5	2982	104.1	139	121	12.0	116	.886	.0405	36.7	2584	3821
1994	2602	.309	29.8	21.5	28.7	24.6	3023	103.9	138	124	11.9	117	.912	.0408	37.3	2584	3874
1995	3432	.365	30.6	21.8	29.5	25.1	2998	103.9	134	132	11.2	121	.992	.0439	37.8	2642	3927
1996	2981	.378	30.3	21.4	29.3	24.9	3007	103.1	134	133	11.1	121	.999	.0441	37.5	2589	3865
1997	2840	.341	30.3	21.2	29.3	24.8	3004	102.6	135	133	11.1	121	.988	.0442	37.3	2568	3829
1998	2126	.267	30.9	21.4	29.7	25.2	3010	102.7	131	134	11.0	121	1.028	.0444	38.0	2619	3902
1999	2368	.283	30.1	20.8	28.8	24.4	3135	103.2	139	141	11.0	122	1.028	.0448	38.4	2557	3962
2000	2612	.286	30.5	21.0	28.9	24.6	3097	103.6	132	138	11.1	121	1.049	.0441	38.3	2587	3964
2001	3197	.380	31.7	21.8	29.6	25.5	3055	103.0	130	139	11.0	122	1.074	.0449	39.1	2670	4032
2002	2998	.361	31.8	21.6	29.5	25.4	3065	102.5	128	140	11.0	122	1.091	.0451	39.2	2651	4012
2003	2812	.354	32.1	21.7	29.6	25.5	3087	104.0	131	146	10.6	124	1.121	.0467	39.8	2710	4138
2004	2521	.334	31.9	21.3	29.5	25.3	3122	103.6	135	153	10.4	127	1.137	.0483	39.8	2669	4119
2005	2341	.292	32.7	21.8	29.8	25.7	3084	103.8	130	150	10.4	126	1.152	.0479	40.0	2723	4146
2006	1819	.228	31.8	21.2	29.3	25.1	3256	104.8	145	167	10.0	130	1.164	.0506	41.3	2704	4333
2007	1664	.207	32.3	21.5	29.7	25.5	3240	105.3	140	163	10.1	129	1.168	.0495	41.6	2744	4373
2008	1579	.185	32.6	21.6	30.1	25.8	3249	104.2	139	166	10.0	130	1.202	.0503	42.1	2751	4381

Percent of Compact:

MODEL YEAR	DRIVETRAIN		TRANSMISSION			FUEL METERING				NUMBER OF VALVES					
	FRONT	4WD	MANUAL	LOCK	CVT	GDI	PORT	TBI	DSL	TWO	THREE	FOUR	FIVE	VVT	HYBRID
1975	2.4		8.1				4.4		1.0						
1976	2.5		6.3				3.6		.9						
1977	2.3		4.4				3.8		1.1						
1978	17.8		10.0	16.3			9.1		2.2						
1979	13.6		9.0				14.8		8.0						
1980	56.8	5.8	14.5	6.7			10.8		8.4						
1981	81.4	2.1	32.9	5.8			8.0		6.0						
1982	84.8	1.9	34.8	39.7			8.3	13.1	5.3						
1983	74.7	2.2	32.3	42.4			13.2	37.4	4.4						
1984	82.0	.8	28.4	41.0			21.6	32.4	2.8						
1985	85.3	.2	28.3	42.8			24.0	46.9	2.4						
1986	86.6	.2	28.5	50.0			33.0	43.4	.7			99.0	1.0		
1987	90.5	.4	29.5	49.3			32.4	42.2	.3	86.4	8.3	5.3			
1988	91.2	.2	25.6	59.0			48.7	42.7		79.6	9.5	10.9			
1989	95.8	.5	26.0	56.2			54.9	40.0	.1	62.4	21.8	15.8			
1990	95.5	.8	19.3	63.6			66.7	33.2	.1	60.0	5.5	34.5			
1991	95.0	1.6	21.7	65.3			82.3	17.3	.4	55.1	6.1	38.8		.5	
1992	96.1	.9	19.2	66.2			89.0	10.8	.2	58.8	4.7	36.6		1.0	
1993	97.5	.5	18.3	69.9			87.7	12.3		55.5	1.5	43.0		.6	
1994	96.2	.4	18.8	72.8			91.7	8.3		49.3		50.7		7.4	
1995	95.4	.8	19.5	78.7			99.8		.2	32.3	1.5	66.2		9.9	
1996	97.3	.9	17.2	81.9			100.0			32.5	1.5	65.9		10.3	
1997	95.5	1.1	16.8	83.2			100.0		.0	35.5	2.9	61.3	.3	7.4	
1998	93.8	1.8	15.3	84.4			99.6		.4	22.6	1.9	74.2	1.2	12.5	
1999	93.5	1.7	13.1	86.4			99.7		.3	27.0	.7	71.1	1.2	13.7	
2000	92.0	1.4	15.3	83.2			99.5		.5	26.2	2.5	69.9	1.3	25.5	
2001	92.0	2.2	15.8	82.8	.5		99.5		.5	24.2	2.0	70.9	2.9	39.0	
2002	90.2	3.5	16.5	82.3	.9		99.2		.8	26.0	2.4	68.4	3.2	38.1	.8
2003	86.6	3.8	16.2	81.8	2.0		99.3		.7	13.7	1.5	81.4	3.3	48.0	1.7
2004	87.8	5.2	14.6	83.9	1.5		99.5		.5	11.3	1.1	84.7	2.8	54.2	.9
2005	88.1	5.3	14.1	84.6	1.3		99.5		.5	11.1	1.2	86.2	1.6	61.3	1.2
2006	80.6	5.4	12.5	85.2	2.2		97.8		2.2	12.3	1.3	86.3	.1	71.0	1.7
2007	85.4	5.8	12.9	78.6	8.6		100.0			9.9	.0	90.0	.1	61.3	2.2
2008	83.6	8.9	12.7	81.5	5.8		6.7	93.3		7.5	.1	92.3	.1	61.0	2.5

Table F-5

Characteristics of 1975 to 2008 Mid-Size Car

MODEL YEAR	SALES (000)	FRAC	<---- FUEL ECONOMY ---->				WGHT LB	VOL CU-FT	ENGINE		0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
			LAB 55/45	ADJ CITY	ADJ HWY	ADJ COMP			CID	HP							
1975	1631	.198	13.6	10.5	13.1	11.6	4630		353	158	13.9	115	.447	.0341	27.2		
1976	1964	.202	15.7	12.2	15.1	13.4	4558		343	156	13.8	114	.454	.0340	30.7		
1977	2226	.197	16.4	12.9	15.7	14.0	4473	112.9	332	151	13.9	114	.454	.0337	31.6	1601	3565
1978	3339	.299	18.6	14.4	17.9	15.8	3820	113.0	292	135	13.4	113	.464	.0353	30.3	1823	3422
1979	3211	.297	19.1	15.0	18.1	16.3	3710	113.1	272	128	13.6	112	.474	.0345	30.3	1870	3425
1980	2987	.316	21.6	16.8	21.0	18.4	3362	113.2	228	113	13.8	109	.512	.0336	31.1	2113	3523
1981	2902	.332	22.9	17.8	22.3	19.6	3346	113.9	220	107	14.2	108	.509	.0322	32.9	2255	3746
1982	2136	.273	24.0	18.4	23.8	20.5	3321	113.9	211	107	14.2	108	.529	.0324	34.3	2377	3906
1983	2269	.284	23.9	18.4	23.6	20.4	3316	113.8	212	111	13.8	109	.544	.0336	34.0	2363	3876
1984	2770	.260	24.1	18.5	23.9	20.6	3318	113.7	210	113	13.6	110	.563	.0342	34.3	2373	3896
1985	2777	.257	24.9	19.0	24.9	21.3	3318	113.6	205	117	13.3	112	.606	.0354	35.4	2453	4025
1986	2666	.242	25.9	19.6	25.9	22.0	3241	113.8	194	118	13.0	113	.640	.0364	35.8	2535	4074
1987	2252	.210	26.0	19.5	26.0	22.1	3247	113.7	188	123	12.7	114	.684	.0379	35.9	2540	4087
1988	2113	.197	26.7	19.7	27.1	22.6	3293	113.4	183	129	12.3	116	.718	.0389	37.3	2588	4230
1989	2591	.259	26.6	19.5	27.1	22.5	3314	113.6	181	131	12.2	117	.735	.0396	37.4	2574	4245
1990	2342	.266	26.2	19.0	26.8	22.1	3450	113.7	187	140	12.0	119	.758	.0407	38.2	2528	4342
1991	2114	.248	26.0	18.8	26.5	21.9	3412	113.5	191	146	11.5	121	.773	.0428	37.4	2497	4242
1992	2120	.261	25.8	18.4	26.3	21.6	3515	113.9	191	151	11.5	122	.801	.0427	38.0	2471	4333
1993	2330	.276	26.1	18.6	26.4	21.8	3515	113.9	192	153	11.4	123	.812	.0434	38.4	2497	4376
1994	2057	.244	25.9	18.3	26.0	21.5	3529	113.5	189	155	11.4	123	.827	.0437	38.0	2457	4320
1995	2515	.268	26.1	18.2	26.5	21.7	3546	114.3	189	166	10.7	127	.889	.0465	38.5	2491	4402
1996	2359	.299	26.5	18.5	26.5	21.9	3527	114.1	181	162	10.9	126	.906	.0459	38.6	2505	4407
1997	2399	.288	26.5	18.4	26.7	21.9	3551	114.5	184	170	10.6	128	.933	.0476	39.0	2522	4464
1998	2967	.372	27.1	18.7	26.9	22.3	3534	114.0	177	169	10.5	128	.965	.0477	39.5	2552	4500
1999	3141	.375	27.1	18.5	26.8	22.2	3540	114.0	175	170	10.5	128	.984	.0480	39.4	2538	4485
2000	2894	.317	27.0	18.4	26.5	22.0	3550	113.6	174	178	10.2	131	1.027	.0499	39.2	2512	4447
2001	2480	.295	27.2	18.5	26.5	22.1	3566	113.7	175	180	10.1	132	1.034	.0503	39.6	2529	4500
2002	2807	.338	27.7	18.8	26.5	22.4	3549	114.8	177	185	9.8	134	1.055	.0519	39.8	2581	4571
2003	2483	.312	28.3	18.9	27.3	22.8	3567	114.6	174	189	9.7	135	1.096	.0529	40.8	2628	4675
2004	2522	.335	28.7	19.0	27.5	23.0	3577	114.0	174	190	9.7	135	1.100	.0528	41.6	2667	4737
2005	2886	.360	29.8	19.7	28.2	23.8	3544	114.5	168	185	9.8	133	1.096	.0515	42.8	2793	4900
2006	2413	.302	29.6	19.6	28.0	23.6	3568	114.0	169	191	9.6	135	1.137	.0531	42.8	2759	4874
2007	3084	.384	31.2	20.6	29.1	24.7	3586	113.8	166	191	9.6	135	1.139	.0524	45.3	2914	5157
2008	2911	.341	31.5	20.9	29.1	24.9	3588	113.8	166	192	9.6	135	1.144	.0524	45.8	2949	5210

Percent of Mid-Size Car:

MODEL YEAR	DRIVETRAIN		TRANSMISSION			FUEL METERING				NUMBER OF VALVES					VVT	HYBRID	
	FRONT	4WD	MANUAL	LOCK	CVT	GDI	PORT	TBI	DSL	TWO	THREE	FOUR	FIVE				
1975		2.7		.6				.7									
1976		2.5		.4				.6									
1977		2.1		.3				.7									
1978		1.4		1.7	11.1			1.4									
1979		5.2		1.9	21.4			2.3									
1980		30.2		7.8	25.3			1.0	1.5	2.5							
1981		32.3		5.6	52.2			.1	2.3	4.0							
1982		44.7		2.0	82.6			.2	15.4	3.8							
1983		48.9		1.2	80.0			.5	17.2	1.7							
1984		55.1		.9	82.0			3.8	25.6	1.0							
1985		61.9		1.3	77.6			13.0	37.1	.3							
1986		71.0	.1	1.8	76.4			25.4	42.3	.2			100.0				
1987		77.3	.2	1.5	77.6			40.7	43.4	.4			100.0				
1988		87.0	.1	3.8	91.1			66.9	28.0			93.4	6.5	.1			
1989		86.5	.1	4.7	91.7			78.3	21.0			94.3	4.9	.8			
1990		85.2	.2	3.9	93.9			86.6	13.3	.0		90.6	4.3	5.1		2.3	
1991		87.2	.1	3.6	94.5			88.7	11.2	.1		89.7	4.9	5.3		2.7	
1992		79.1	.1	2.7	96.6			94.7	5.3			77.0	1.6	21.4		3.6	
1993		85.4	.2	2.3	97.2			95.6	4.4			72.7		27.3		4.0	
1994		84.7		2.0	97.7			96.0	4.0			68.1		31.9		3.9	
1995		79.6		2.7	97.2			98.9	1.1			61.5		38.5		8.9	
1996		91.9		4.3	94.9			99.7				52.6		47.4		11.0	
1997		90.6	.1	2.5	97.5			99.8		.2		50.1		49.9		10.1	
1998		95.2	.5	3.0	97.0			99.9		.1		44.5	1.2	53.1	1.3	22.0	
1999		95.2	.7	3.3	96.3			99.8		.2		36.1	1.4	59.7	2.7	20.9	
2000		92.3	.9	3.5	95.7			100.0				25.1	1.4	71.1	2.4	29.4	
2001		93.0	1.2	3.1	96.1			100.0				28.2	1.8	66.6	3.4	25.3	
2002		94.2	.8	2.6	97.1	.1		100.0				21.4	.9	74.7	3.0	45.0	
2003		91.7	.6	2.8	97.0	.1		100.0				21.9	2.5	72.1	3.6	55.3	
2004		91.7	1.0	3.2	94.2	1.9		99.9		.1		16.2	1.6	80.0	2.2	54.7	1.9
2005		91.4	1.9	3.2	92.4	4.2		99.6		.4		13.6	1.1	84.6	.7	68.5	4.9
2006		89.4	3.0	3.7	92.5	3.7		99.8		.2		12.5	.2	87.2	.2	78.5	3.8
2007		89.4	3.6	2.7	77.6	19.8		99.7		.3		7.3		92.7		79.3	7.8
2008		86.4	6.4	4.5	69.0	26.5	2.0	97.8		.1		7.9		92.1		73.0	9.6

Table F-6

Characteristics of 1975 to 2008 Large Car

MODEL YEAR	SALES (000)	FRAC	<---- FUEL ECONOMY ---->				WGHT LB	VOL CU-FT	ENGINE		0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
			LAB 55/45	ADJ CITY	ADJ HWY	ADJ COMP			CID	HP							
1975	1555	.189	13.1	10.2	12.6	11.2	5142		409	180	13.5	117	.439	.0348	28.9		
1976	1679	.173	14.2	11.1	13.5	12.1	5156		410	180	13.4	117	.440	.0349	31.1		
1977	2319	.205	15.9	12.4	15.2	13.5	4482	128.1	366	165	12.8	118	.453	.0370	30.4	1759	3895
1978	2048	.183	16.8	13.0	16.3	14.3	4394	128.5	357	162	12.8	118	.457	.0370	31.7	1869	4071
1979	2111	.196	17.4	13.7	16.5	14.8	4210	130.0	339	154	12.9	116	.454	.0365	31.3	1940	4073
1980	963	.102	19.1	14.7	18.8	16.3	4130	130.9	314	137	14.0	112	.440	.0331	34.0	2156	4448
1981	956	.109	20.4	15.4	20.8	17.4	4108	131.0	304	133	14.3	111	.444	.0325	36.4	2318	4762
1982	832	.106	20.7	15.6	21.0	17.7	4034	131.0	292	135	13.9	112	.468	.0337	36.0	2333	4715
1983	1079	.135	20.2	15.2	20.6	17.3	4041	131.3	292	140	13.4	113	.481	.0347	35.0	2272	4590
1984	1236	.116	20.5	15.5	21.0	17.5	4022	130.9	294	140	13.4	114	.478	.0349	35.3	2298	4622
1985	1512	.140	22.3	16.6	23.3	19.1	3841	129.3	279	143	12.7	116	.512	.0371	36.7	2470	4743
1986	1267	.115	23.9	17.6	25.4	20.4	3719	127.4	260	147	12.1	119	.577	.0396	38.0	2610	4845
1987	1218	.113	23.9	17.4	25.4	20.3	3696	127.0	259	149	11.8	120	.587	.0405	37.6	2588	4774
1988	1303	.121	24.2	17.6	25.6	20.6	3730	128.1	262	150	11.9	120	.587	.0405	38.4	2644	4923
1989	1289	.129	24.0	17.3	25.3	20.4	3721	127.4	261	158	11.4	122	.619	.0427	37.9	2598	4829
1990	1092	.124	23.7	16.9	25.1	20.0	3799	126.7	258	161	11.4	123	.639	.0427	38.0	2542	4819
1991	1012	.119	23.6	16.8	24.8	19.9	3893	129.0	264	178	10.7	127	.685	.0459	38.8	2575	5011
1992	1240	.153	23.8	16.8	25.0	20.0	3872	129.6	262	185	10.4	130	.715	.0480	38.8	2601	5032
1993	1103	.130	24.2	17.0	25.2	20.3	3831	128.9	256	181	10.5	129	.720	.0473	38.9	2627	5024
1994	1277	.152	24.1	16.8	24.9	20.1	3859	128.3	248	188	10.2	131	.766	.0487	38.8	2587	4986
1995	1305	.139	24.4	16.9	25.4	20.4	3830	127.9	248	206	9.4	138	.845	.0539	39.1	2618	5003
1996	1066	.135	24.3	16.7	25.3	20.3	3894	128.1	250	217	9.2	140	.879	.0557	39.5	2601	5058
1997	1195	.143	24.5	16.8	25.4	20.4	3821	127.4	242	216	9.1	141	.903	.0567	39.0	2606	4968
1998	912	.114	24.6	16.8	25.2	20.4	3784	127.4	240	218	8.9	142	.922	.0575	38.5	2601	4909
1999	1059	.126	24.8	16.8	25.2	20.5	3854	127.0	235	222	8.9	143	.971	.0576	39.5	2608	5014
2000	1665	.182	25.6	17.3	25.7	21.0	3782	124.9	221	215	9.2	141	.980	.0564	39.7	2627	4958
2001	1416	.168	25.4	17.1	25.5	20.8	3774	124.8	221	204	9.5	137	.932	.0538	39.3	2607	4912
2002	1252	.151	26.0	17.4	25.7	21.2	3767	124.0	218	209	9.3	139	.975	.0554	39.9	2637	4951
2003	1261	.159	26.0	17.3	25.6	21.1	3841	124.8	224	208	9.5	138	.929	.0538	40.6	2648	5068
2004	1185	.157	26.0	17.2	25.6	21.1	3858	124.7	225	211	9.4	139	.944	.0546	40.6	2642	5073
2005	1234	.154	26.4	17.4	25.5	21.2	3933	125.0	225	216	9.5	139	.964	.0545	41.8	2670	5230
2006	1570	.196	26.0	17.1	25.2	20.9	4014	124.7	229	238	8.9	145	1.045	.0589	42.2	2630	5263
2007	1162	.145	26.1	17.1	25.4	21.0	4022	123.7	227	234	9.1	144	1.035	.0578	42.5	2628	5262
2008	1646	.193	26.8	17.5	26.3	21.6	3980	123.4	221	241	8.7	147	1.109	.0602	43.3	2703	5343

Percent of Large Car:

MODEL YEAR	DRIVETRAIN		TRANSMISSION			FUEL METERING				NUMBER OF VALVES					
	FRONT	4WD	MANUAL	LOCK	CVT	GDI	PORT	TBI	DSL	TWO	THREE	FOUR	FIVE	VVT	HYBRID
1975	1.5		.0												
1976	1.5		.0				1.2								
1977	1.5						.5								
1978	1.1			2.5			.2		1.4						
1979				6.5			.2		3.5						
1980				41.6				2.0	10.4						
1981				89.8				17.1	15.2						
1982				93.1				20.1	10.0						
1983				99.9				37.3	2.4						
1984				99.9				39.0	.8						
1985	31.9			100.0			19.1	44.9	.3						
1986	55.9		.7	99.2			65.4	15.8		99.3		.7			
1987	60.9		.5	99.5			69.9	15.2		98.9		1.1			
1988	58.7		.4	99.6			76.9	12.6		98.9		1.1			
1989	61.9		.3	99.7			74.8	22.2		99.2		.8			
1990	69.0		.2	99.8			92.9	6.0		99.5		.5			
1991	59.8		.4	99.6			83.3	16.7		99.1		.9			
1992	58.5		.3	98.5			89.2	10.7	.1	98.1		1.9		.7	
1993	64.8		.4	98.2			89.7	10.3		92.0		8.0		.9	
1994	69.2		.2	99.0			99.9		.1	82.9		17.1		.5	
1995	71.3		.2	98.3			100.0		.0	76.5		23.5		.7	
1996	67.7		.1	99.3			100.0			61.6		38.4		1.2	
1997	72.4		.4	99.6			100.0			64.4		35.6		1.8	
1998	74.2		.1	99.9			100.0			60.2		39.8		2.5	
1999	72.5			100.0			100.0			49.7		50.3		1.8	
2000	80.9	.0		100.0			100.0			60.2	1.2	38.6	.0	7.2	
2001	79.3	.1		100.0			100.0			64.0	2.3	33.6	.1	9.1	
2002	86.6	.0		100.0			100.0			62.8	2.1	35.0	.0	6.9	
2003	77.1	.3		100.0			100.0			72.7	1.7	25.5	.0	8.9	
2004	77.1	1.3		100.0			100.0			65.9	1.4	31.9	.8	10.6	
2005	68.6	3.8		96.7	3.2		100.0			64.4	.9	34.4	.4	8.8	
2006	62.7	3.8	.1	96.8	3.0		100.0			48.6	.9	50.2	.3	29.2	
2007	70.8	3.9	.1	98.7	1.1		100.0			52.9	.4	46.8		49.8	
2008	71.6	3.7	.8	99.1			.0 100.0			28.5	.2	71.3		57.4	

Table F-7

Characteristics of 1975 to 2008 Small Wagon

MODEL YEAR	SALES (000)	FRAC	<---- FUEL ECONOMY ---->				WGHT LB	VOL CU-FT	ENGINE		0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
			LAB 55/45	ADJ CITY	ADJ HWY	ADJ COMP			CID	HP							
1975	477	.058	22.4	17.4	21.6	19.1	2833		128	87	14.8	104	.713	.0307	27.3		
1976	345	.036	23.9	18.7	22.9	20.4	2902		136	86	15.2	103	.668	.0297	29.8		
1977	384	.034	25.5	20.2	23.8	21.7	2801	108.0	134	85	14.9	104	.685	.0305	30.8	2404	3317
1978	361	.032	24.3	19.2	22.9	20.7	2805	108.0	134	90	14.3	105	.709	.0319	29.5	2291	3176
1979	310	.029	25.7	20.3	24.3	21.9	2711	105.1	123	81	15.1	102	.684	.0295	29.8	2335	3135
1980	310	.033	28.6	22.6	27.0	24.4	2591	108.2	113	75	15.4	101	.685	.0289	32.0	2702	3463
1981	418	.048	30.0	23.6	28.5	25.6	2531	110.6	108	79	14.4	103	.755	.0313	32.6	2858	3601
1982	382	.049	30.6	23.9	29.4	26.1	2580	112.2	109	75	15.3	101	.698	.0289	33.8	2951	3789
1983	531	.066	32.2	25.3	30.5	27.4	2565	108.2	105	74	15.3	101	.713	.0289	35.3	2986	3817
1984	461	.043	31.9	24.9	30.7	27.2	2620	116.5	107	77	15.2	102	.719	.0294	35.9	3206	4180
1985	496	.046	32.5	25.4	30.9	27.7	2579	117.7	106	78	15.0	102	.727	.0300	35.9	3296	4227
1986	348	.032	31.0	24.2	29.2	26.3	2647	118.4	113	82	14.7	103	.730	.0308	35.1	3162	4150
1987	361	.034	30.7	23.8	28.9	25.9	2795	120.0	116	91	14.2	106	.788	.0324	36.5	3152	4378
1988	253	.024	31.3	24.3	29.0	26.3	2757	118.7	113	93	13.7	107	.829	.0336	36.4	3147	4317
1989	159	.016	31.5	24.2	29.4	26.4	2766	118.6	112	96	13.5	108	.862	.0344	36.6	3154	4339
1990	160	.018	29.6	22.4	27.7	24.7	3026	122.2	120	110	12.9	111	.920	.0361	37.4	3047	4577
1991	209	.025	30.6	22.8	28.9	25.4	3005	123.3	120	106	13.3	110	.880	.0350	38.3	3174	4726
1992	143	.018	30.2	22.3	28.6	25.0	3076	123.7	122	123	12.4	116	1.017	.0399	38.6	3133	4774
1993	301	.036	32.5	23.7	31.0	26.9	2882	123.0	118	99	13.5	108	.842	.0343	38.9	3342	4784
1994	206	.025	32.9	23.6	31.7	27.1	2908	122.9	121	103	13.3	110	.848	.0352	39.6	3381	4872
1995	198	.021	33.3	23.9	31.8	27.3	2859	122.1	118	100	13.4	109	.844	.0348	39.2	3372	4782
1996	90	.011	31.6	22.5	30.0	25.8	2952	118.0	122	114	12.5	113	.928	.0382	38.2	3079	4507
1997	149	.018	32.2	22.7	30.8	26.3	2901	119.5	124	117	11.8	116	.943	.0404	38.2	3173	4562
1998	98	.012	32.1	22.3	30.7	26.1	2874	116.9	124	119	11.7	117	.959	.0412	37.5	3079	4393
1999	78	.009	31.5	21.8	30.1	25.5	2923	117.9	125	126	11.3	119	1.004	.0428	37.4	3046	4413
2000	68	.007	29.2	20.0	28.2	23.7	3107	119.7	127	143	10.7	123	1.129	.0459	36.9	2860	4414
2001	212	.025	27.3	19.0	25.4	22.0	3470	119.6	145	148	11.3	121	1.022	.0426	38.2	2639	4570
2002	236	.028	26.1	18.0	24.4	21.1	3504	118.2	145	156	11.0	124	1.085	.0445	37.1	2504	4384
2003	338	.042	30.2	20.8	27.1	23.9	3262	115.2	127	146	11.0	123	1.162	.0448	39.6	2812	4557
2004	300	.040	31.4	21.6	27.7	24.7	3235	117.5	126	166	10.1	130	1.298	.0506	40.1	2943	4719
2005	365	.045	32.4	22.2	28.4	25.3	3160	115.9	122	156	10.4	127	1.268	.0487	40.3	2984	4671
2006	493	.062	31.4	21.3	27.8	24.6	3255	118.4	127	160	10.5	128	1.244	.0486	40.1	2940	4755
2007	393	.049	31.6	21.4	28.2	24.8	3267	111.9	127	160	10.4	128	1.249	.0485	40.7	2832	4571
2008	556	.065	32.1	21.8	28.6	25.2	3294	114.6	129	164	10.3	129	1.258	.0492	41.7	2937	4799

Percent of Small Wagon:

MODEL YEAR	DRIVETRAIN		TRANSMISSION			FUEL METERING				NUMBER OF VALVES					
	FRONT	4WD	MANUAL	LOCK	CVT	GDI	PORT	TBI	DSL	TWO	THREE	FOUR	FIVE	VVT	HYBRID
1975	13.3		48.6				.8								
1976	12.2		42.8				3.2								
1977	23.3		52.9				6.4		.6						
1978	23.0		56.3				6.9								
1979	13.3	12.1	59.3				1.0								
1980	24.4	9.8	67.3	4.6			1.1		6.3						
1981	57.9	8.0	62.0	8.1			4.0		2.2						
1982	68.3	8.9	54.0	19.4			4.8	.7	1.2						
1983	55.4	39.3	51.0	23.7			3.7	17.0	.3						
1984	81.4	15.6	43.7	39.2			5.1	32.2	1.6						
1985	60.0	39.6	42.7	42.2			6.2	15.4	.5						
1986	78.4	20.7	43.3	29.0			6.8	24.3	.8	100.0					
1987	76.6	23.4	34.4	41.0			29.2	42.6		78.8	4.9	16.3			
1988	80.2	19.8	37.8	34.6			30.6	62.8		80.5	.6	18.9			
1989	89.9	10.1	26.6	51.8			41.0	48.8		59.8	3.2	36.9			
1990	68.3	31.7	30.6	58.8			59.4	40.6		35.5		64.5			
1991	79.1	20.9	24.4	74.1			80.0	20.0		51.4		48.6			
1992	73.0	25.5	30.9	68.2			95.3	4.7		54.7		45.3		1.4	
1993	83.2	16.2	28.9	70.6			95.8	4.2		73.5		26.5		.5	
1994	88.6	10.6	26.3	72.1			97.8	2.2		79.2		20.8		3.5	
1995	92.8	4.6	23.8	76.2			100.0			74.3		25.7		4.5	
1996	84.5	11.2	20.8	79.2			100.0			48.9		51.1		4.5	
1997	82.9	14.4	19.6	80.4			100.0			59.3		40.7		3.0	
1998	78.9	18.3	18.8	81.2			100.0			50.9		45.6	3.5	3.5	
1999	71.8	22.8	20.1	77.6			100.0			36.8		58.7	4.4	16.3	
2000	71.5	17.9	15.2	78.0			100.0			.8		95.8	3.4	43.1	
2001	92.6	5.1	14.9	84.5			100.0			2.6		95.2	2.2	4.1	
2002	82.0	14.9	19.6	79.8			99.1		.9	4.7	1.6	91.5	2.2	2.2	
2003	86.2	11.7	16.6	83.4			98.0		2.0	3.8	1.1	93.2	1.9	48.3	
2004	85.7	13.4	15.7	84.3			98.8		1.2	2.5	.9	95.0	1.6	51.5	
2005	89.0	10.7	15.5	84.5			98.9		1.1	20.9	.6	77.9	.6	60.4	
2006	90.8	8.8	11.9	88.1			100.0			10.4		89.6	.1	55.5	
2007	90.0	9.0	11.0	89.0			100.0			8.3		91.7	.1	49.2	
2008	90.0	9.8	22.6	77.4			4.4	95.6				100.0	.0	58.5	

Table F-8

Characteristics of 1975 to 2008 Mid-Size Wagon

MODEL YEAR	SALES (000)	FRAC	<---- FUEL ECONOMY ---->				WGHT LB	VOL CU-FT	ENGINE		0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
			LAB 55/45	ADJ CITY	ADJ HWY	ADJ COMP			CID	HP							
1975	289	.035	13.2	10.2	12.9	11.3	4791		361	162	13.8	115	.473	.0338	27.4		
1976	485	.050	16.0	12.6	15.1	13.6	4555		315	142	14.8	110	.458	.0311	31.2		
1977	548	.048	16.3	12.9	15.3	13.9	4410	143.6	297	135	15.1	109	.459	.0305	30.7	2015	4417
1978	503	.045	18.6	14.6	17.6	15.8	3836	140.0	258	123	14.4	109	.484	.0320	30.5	2240	4266
1979	482	.045	19.1	15.2	17.9	16.3	3758	139.7	249	118	14.7	108	.480	.0313	30.7	2295	4293
1980	257	.027	21.1	16.5	20.1	18.0	3534	139.7	228	107	15.0	106	.482	.0304	31.9	2542	4455
1981	272	.031	23.1	18.1	21.8	19.6	3285	136.2	193	103	14.5	107	.562	.0316	32.4	2714	4417
1982	284	.036	23.7	18.5	22.6	20.2	3384	136.1	205	108	14.3	108	.551	.0320	34.3	2781	4669
1983	276	.034	24.4	19.1	23.3	20.8	3348	136.2	200	109	14.1	108	.568	.0325	35.0	2869	4759
1984	365	.034	25.0	19.4	24.2	21.3	3298	135.9	172	107	14.1	108	.633	.0324	35.3	2922	4793
1985	341	.032	25.2	19.4	24.6	21.5	3356	134.8	170	112	13.9	109	.679	.0334	36.2	2909	4876
1986	409	.037	26.0	19.8	25.7	22.1	3355	137.8	162	115	13.6	110	.718	.0342	37.1	3055	5116
1987	359	.033	25.6	19.3	25.6	21.8	3434	140.2	173	125	13.0	113	.735	.0363	37.4	3059	5245
1988	285	.027	26.2	19.4	26.5	22.2	3378	139.4	171	126	12.7	114	.743	.0372	37.7	3113	5249
1989	239	.024	25.6	18.8	25.9	21.7	3436	139.9	176	132	12.4	116	.765	.0383	37.3	3038	5217
1990	184	.021	25.3	18.3	25.9	21.3	3498	141.6	181	139	12.0	118	.782	.0397	37.4	3030	5298
1991	122	.014	25.9	18.6	26.4	21.8	3506	142.3	181	140	12.0	118	.794	.0401	38.3	3111	5451
1992	137	.017	26.2	18.6	26.9	21.9	3503	142.6	188	143	11.8	119	.777	.0408	38.5	3143	5502
1993	166	.020	26.2	18.7	26.6	21.9	3498	137.7	188	144	11.7	120	.790	.0411	38.4	3028	5296
1994	138	.016	26.0	18.4	26.4	21.7	3532	137.4	180	151	11.4	122	.863	.0428	38.4	2987	5273
1995	176	.019	26.6	18.8	26.6	22.1	3482	135.9	167	148	11.4	121	.915	.0426	38.5	3008	5235
1996	169	.021	26.3	18.5	25.8	21.7	3661	136.9	161	153	11.6	122	.965	.0422	39.8	2982	5458
1997	149	.018	26.3	18.5	25.5	21.6	3666	136.5	160	158	11.3	123	1.001	.0434	39.5	2948	5403
1998	153	.019	26.2	18.5	25.0	21.4	3668	135.3	155	169	10.7	127	1.097	.0461	39.3	2909	5327
1999	181	.022	26.3	18.3	25.4	21.5	3691	136.4	157	169	10.8	126	1.087	.0457	39.7	2940	5419
2000	234	.026	27.3	18.9	25.7	22.1	3572	134.0	153	162	11.0	125	1.060	.0452	39.5	2982	5294
2001	236	.028	26.6	18.5	24.8	21.5	3775	133.6	155	175	10.7	128	1.139	.0463	40.7	2905	5433
2002	208	.025	27.4	18.9	25.4	22.0	3731	133.6	152	172	10.7	127	1.136	.0460	41.0	2953	5477
2003	171	.022	27.2	18.6	25.4	21.9	3745	133.5	151	174	10.7	127	1.157	.0463	40.9	2936	5461
2004	158	.021	26.4	17.9	24.7	21.2	3860	135.0	158	189	10.3	131	1.208	.0489	41.0	2877	5531
2005	238	.030	26.0	17.4	24.4	20.8	3839	133.3	183	213	9.3	139	1.195	.0547	40.0	2810	5338
2006	220	.027	26.4	17.7	24.7	21.1	3827	135.6	182	221	9.1	142	1.221	.0570	40.4	2884	5481
2007	173	.022	26.6	17.8	24.8	21.2	3834	135.3	181	214	9.4	139	1.208	.0550	40.8	2908	5519
2008	173	.020	26.8	18.0	25.1	21.4	3845	133.2	176	204	9.7	136	1.172	.0524	41.3	2881	5497

Percent of Mid-Size Wagon:

MODEL YEAR	DRIVETRAIN		TRANSMISSION			FUEL METERING				NUMBER OF VALVES					
	FRONT	4WD	MANUAL	LOCK	CVT	GDI	PORT	TBI	DSL	TWO	THREE	FOUR	FIVE	VVT	HYBRID
1975			4.0				7.6		.2						
1976			7.1				3.4		.1						
1977			4.6				3.5		.3						
1978			5.3	17.2			3.0		.3						
1979			5.3	9.1			2.5		2.5						
1980			9.9	43.8			4.3		5.9						
1981	35.6		12.8	28.5			6.9		5.9						
1982	28.2		7.4	62.6			5.7		6.3						
1983	32.8		6.2	50.2			7.9		2.3						
1984	69.9		5.4	62.5			10.4	20.3	2.5						
1985	69.5	4.5	5.9	64.7			25.7	30.5	1.8						
1986	82.2	2.1	9.1	71.0			51.3	28.0	.2	100.0					
1987	83.9	.1	4.4	83.6			71.7	22.8	.8	100.0					
1988	87.7	.7	3.8	87.2			70.2	29.8		100.0					
1989	77.5	8.2	7.1	80.7			87.7	12.3		99.0		1.0			
1990	81.1	.4	1.7	87.9			98.5	1.5		96.6		3.4			
1991	79.6	1.3	2.4	85.6			99.3	.7		96.4		3.6			
1992	80.8	.6	1.7	88.9			99.7	.3		89.7		10.3			
1993	87.0	.6	1.8	91.2			100.0			88.4		11.6			
1994	89.0	.4	1.6	94.0			100.0			79.9		20.1		6.2	
1995	64.8	27.8	10.1	86.7			100.0			49.2		50.8		6.1	
1996	61.0	39.0	12.9	87.1			99.2		.8	36.5		63.5		6.8	
1997	48.5	51.5	13.4	86.6			99.9		.1	32.4		67.6		4.8	
1998	32.7	64.2	13.7	86.3			100.0			12.9	3.1	82.4	1.6	8.9	
1999	44.8	52.0	12.1	87.9			100.0			16.9	3.2	69.8	10.1	10.6	
2000	54.4	43.3	9.9	90.1			100.0			25.7	2.3	61.3	10.6	19.8	
2001	42.4	56.5	8.5	91.5			100.0			11.4	2.4	74.0	12.2	39.1	
2002	49.0	50.3	8.9	91.1			100.0			7.2	1.9	80.0	10.9	36.7	
2003	46.9	52.7	8.9	90.8			100.0			7.0	.7	74.1	18.2	30.9	
2004	40.3	58.2	7.3	92.7			99.4		.6	5.0	3.7	76.5	14.9	48.6	
2005	19.9	49.3	6.8	93.2			98.6		1.4	14.8	1.0	79.8	4.4	31.3	
2006	19.7	44.1	4.8	95.2			100.0			5.9	.8	93.2		34.1	
2007	39.3	42.9	4.8	95.2			100.0			10.6		89.4		27.4	
2008	33.3	51.7	5.9	94.1			3.6	96.4				100.0		23.1	

Table F-9

Characteristics of 1975 to 2008 Large Wagon

MODEL YEAR	SALES (000)	FRAC	<---- FUEL ECONOMY ---->				WGHT LB	VOL CU-FT	ENGINE		0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
			LAB 55/45	ADJ CITY	ADJ HWY	ADJ COMP			CID	HP							
1975	197	.024	11.9	9.3	11.6	10.2	5453		410	181	14.0	116	.441	.0333	27.9		
1976	207	.021	13.5	10.6	12.9	11.5	5444		416	185	13.7	117	.445	.0340	31.4		
1977	340	.030	15.5	12.2	14.6	13.2	4713	163.1	365	161	13.6	115	.442	.0342	31.4	2185	5113
1978	293	.026	15.9	12.4	15.4	13.6	4664	162.4	354	162	13.4	116	.460	.0348	31.8	2216	5161
1979	275	.026	16.1	12.8	15.1	13.7	4466	162.5	333	155	13.4	115	.465	.0346	30.7	2240	4996
1980	102	.011	19.1	14.7	18.9	16.3	4423	161.5	323	134	15.2	109	.418	.0304	36.9	2690	5953
1981	108	.012	19.9	15.0	20.3	17.0	4394	161.4	312	131	15.3	108	.424	.0299	38.2	2797	6154
1982	146	.019	19.2	14.4	19.8	16.4	4396	161.3	306	139	14.6	110	.456	.0316	36.5	2677	5877
1983	130	.016	19.6	14.7	20.2	16.7	4379	161.6	307	142	14.1	112	.465	.0325	36.8	2714	5940
1984	176	.017	19.9	14.9	20.5	17.0	4371	161.7	305	144	13.9	112	.472	.0330	37.3	2760	6028
1985	145	.013	20.9	15.6	21.8	17.9	4354	161.7	305	153	13.2	115	.504	.0354	39.0	2894	6299
1986	120	.011	22.0	16.2	23.3	18.8	4381	161.4	304	146	13.9	113	.479	.0334	41.3	3040	6656
1987	88	.008	22.1	16.3	23.1	18.9	4348	161.8	304	143	14.0	112	.470	.0330	41.0	3051	6634
1988	75	.007	22.8	16.8	23.4	19.4	4349	161.7	304	143	14.0	112	.470	.0330	42.1	3131	6807
1989	63	.006	22.5	16.5	23.0	19.0	4334	161.8	304	143	13.9	112	.471	.0332	41.2	3081	6671
1990	31	.004	22.7	16.5	23.1	19.1	4337	161.6	304	143	13.9	112	.471	.0332	41.5	3092	6701
1991	34	.004	22.9	16.3	24.2	19.4	4402	169.1	304	177	11.9	122	.581	.0404	42.6	3273	7207
1992	27	.003	22.7	15.9	24.3	19.1	4500	170.3	338	177	12.1	121	.526	.0394	43.1	3261	7337
1993	19	.002	22.5	15.6	24.3	19.0	4500	169.3	340	174	12.2	120	.513	.0386	42.7	3214	7231
1994	16	.002	22.9	15.9	24.1	19.2	4500	169.2	350	250	9.1	144	.714	.0556	43.3	3254	7321
1995	10	.001	22.8	15.8	23.9	19.1	4500	169.3	350	250	9.1	144	.714	.0556	43.0	3233	7274
1996	9	.001	23.2	15.9	24.5	19.4	4500	170.2	350	260	8.9	147	.743	.0578	43.6	3298	7421
2004	98	.013	22.0	14.9	20.9	17.8	4769	165.0	215	249	9.6	140	1.158	.0524	42.4	2936	6996
2005	118	.015	22.2	14.9	21.1	17.9	4791	165.0	217	244	9.8	139	1.125	.0510	42.9	2958	7078
2006	102	.013	21.9	14.8	20.7	17.7	4806	164.4	219	254	9.5	142	1.165	.0531	42.4	2911	6969
2007	74	.009	21.6	14.2	21.5	17.6	4800	159.3	247	254	9.6	142	1.031	.0530	42.4	2826	6751
2008	74	.009	22.0	14.6	21.5	17.9	4851	159.4	233	249	9.7	140	1.074	.0515	43.4	2856	6915

Percent of Large Wagon:

MODEL YEAR	DRIVETRAIN		TRANSMISSION			FUEL METERING				NUMBER OF VALVES					
	FRONT	4WD	MANUAL	LOCK	CVT	GDI	PORT	TBI	DSL	TWO	THREE	FOUR	FIVE	VVT	HYBRID
1975															
1976															
1977															
1978									1.4						
1979															
1980				74.0					26.7						
1981				100.0					.2	25.2					
1982				100.0						11.0					
1983				100.0				24.1	4.6						
1984				100.0				25.8	1.5						
1985				100.0				29.2	.4						
1986				100.0			23.7			100.0					
1987				100.0			30.3			100.0					
1988				100.0			30.2			100.0					
1989				100.0			33.1			100.0					
1990				100.0			32.7			100.0					
1991				100.0			19.5	80.5		100.0					
1992				100.0				100.0		100.0					
1993				100.0				100.0		100.0					
1994				100.0			100.0			100.0					
1995				100.0			100.0			100.0					
1996				100.0			100.0			100.0					
2004	46.1	53.9		100.0			100.0					100.0			
2005	60.1	39.9		100.0			100.0			14.5		85.5			
2006	57.8	42.2		100.0			100.0			.0	19.0	81.0		14.5	
2007	58.9	41.1		100.0			99.4		.6	11.9	11.7	76.4		5.3	
2008	53.7	42.1		100.0			99.4		.6	14.5		85.5		23.3	