The FASTCLUS Procedure
Replace=FULL Radius=0 Maxclusters=100 Maxiter=500 Converge=0

Convergence criterion is satisfied.

Criterion Based on Final Seeds =	0.1826

The FASTCLUS Procedure
Replace=FULL Radius=0 Maxclusters=100 Maxiter=500 Converge=0

Cluster Summary						
Cluster	Frequency	RMS Std Deviation	Maximum Distance from Seed to Observation	Radius Exceeded	Nearest Cluster	Distance Between Cluster Centroids
1	280	0.1755	1.6480		6	1.0327
2	194	0.1927	1.7969		29	0.8980
3	504	0.1810	1.5003		44	0.9963
4	44	0.2400	1.7422		43	1.1393
5	787	0.1729	1.6967		35	1.0013
6	1152	0.1669	1.7505		1	1.0327
7	318	0.1709	1.5512		46	1.0375
8	161	0.2237	1.8288		65	1.2064
9	336	0.2077	1.7365		32	1.1372
10	1677	0.1839	1.5829		6	1.1622
11	255	0.1939	1.6149		97	1.0414
12	650	0.1706	1.8747		45	1.0014
13	797	0.1635	1.6020		68	0.8783
14	436	0.1776	1.7588		32	1.0485
15	114	0.2097	1.6908		89	1.1438
16	178	0.1899	1.8905		81	1.0907
17	198	0.1626	1.5112		39	1.0057
18	446	0.1615	1.5506		77	0.7721
19	419	0.1996	1.7022		91	1.0726
20	177	0.2068	1.8098		26	1.0013
21	228	0.1955	1.5812		100	1.0815
22	79	0.2049	1.5576		86	0.9755
23	453	0.1763	1.6737		74	1.0174
24	433	0.1425	1.6728		95	0.6569
25	139	0.1998	1.5902		83	1.0258
26	361	0.1902	1.8818		20	1.0013
27	673	0.1970	1.6480		47	1.1271
28	310	0.2292	1.9123		70	1.1721
29	133	0.1999	1.8107		2	0.8980
30	246	0.2252	1.7418		90	1.1641
31	212	0.1972	1.7063		79	1.2621
32	1344	0.1473	1.5998		98	0.6929
33	394	0.1946	1.7800		80	1.0016
34	132	0.2090	1.6556		63	1.2547
35	433	0.1780	1.8541		5	1.0013
36	690	0.1792	1.5844		60	1.0077
37	131	0.1837	1.5226		82	0.9975

The FASTCLUS Procedure
Replace=FULL Radius=0 Maxclusters=100 Maxiter=500 Converge=0

Cluster Summary						
Cluster	Frequency	RMS Std Deviation	Maximum Distance from Seed to Observation	Radius Exceeded	Nearest Cluster	Distance Between Cluster Centroids
38	872	0.1590	1.7038		95	0.8187
39	328	0.1630	1.6925		17	1.0057
40	360	0.2035	2.0666		5	1.1223
41	453	0.1599	1.7316		57	0.9923
42	193	0.2203	1.8826		14	1.1653
43	160	0.1978	1.8204		82	1.0719
44	247	0.2281	1.8191		3	0.9963
45	362	0.1744	1.6804		12	1.0014
46	226	0.1728	1.4807		7	1.0375
47	448	0.2123	1.8151		27	1.1271
48	281	0.1255	1.6160		32	0.8549
49	506	0.2057	1.6941		96	1.1483
50	117	0.1724	1.6974		72	0.8375
51	198	0.1718	1.6677		59	0.9651
52	383	0.2117	1.7548		90	0.8727
53	5	0.2726	1.5289		4	1.7329
54	385	0.1873	1.6779		66	0.9033
55	122	0.2194	1.8431		85	1.0892
56	365	0.1917	1.7592		54	1.0638
57	492	0.1954	1.7345		41	0.9923
58	573	0.1597	1.3864		94	0.7136
59	256	0.1953	1.6339		75	0.9635
60	454	0.1860	1.5897		36	1.0077
61	420	0.2081	1.7229		93	0.9596
62	106	0.1819	1.5910		78	0.9666
63	117	0.2455	1.7038		34	1.2547
64	327	0.2101	1.7191		5	1.0721
65	266	0.1847	1.6120		21	1.1597
66	363	0.1559	1.5836		54	0.9033
67	704	0.1657	1.7347		84	0.7967
68	503	0.1693	1.5763		13	0.8783
69	231	0.2038	1.7977		3	1.0279
70	328	0.2056	1.5941		96	1.0103
71	173	0.1748	1.7872		68	1.0834
72	423	0.1869	1.8307		50	0.8375
73	365	0.1851	1.8721		39	1.0453
74	155	0.1918	1.5006		23	1.0174

The FASTCLUS Procedure
Replace=FULL Radius=0 Maxclusters=100 Maxiter=500 Converge=0

Cluster Summary						
Cluster	Frequency	RMS Std Deviation	Maximum Distance from Seed to Observation	Radius Exceeded	Nearest Cluster	Distance Between Cluster Centroids
75	221	0.1794	1.8331		59	0.9635
76	76	0.2302	1.8775		83	1.1596
77	478	0.1698	1.7525		18	0.7721
78	178	0.1477	1.5325		62	0.9666
79	173	0.2108	1.6934		92	1.1437
80	153	0.1861	1.5763		81	0.8596
81	338	0.1710	1.4715		80	0.8596
82	174	0.2155	1.6927		37	0.9975
83	104	0.2057	1.5950		25	1.0258
84	216	0.1259	1.4601		67	0.7967
85	88	0.2241	1.7951		55	1.0892
86	76	0.2095	1.5743		22	0.9755
87	488	0.1785	1.7065		94	0.9571
88	272	0.2337	1.7622		7	1.2619
89	133	0.2348	1.7707		15	1.1438
90	241	0.2066	1.7495		52	0.8727
91	356	0.1959	1.5999		19	1.0726
92	479	0.1736	1.7554		77	1.0665
93	119	0.2222	1.7217		61	0.9596
94	1043	0.1398	1.5543		58	0.7136
95	614	0.1783	1.5627		24	0.6569
96	330	0.2106	1.7005		70	1.0103
97	127	0.1957	1.5572		11	1.0414
98	577	0.1592	1.7322		32	0.6929
99	39	0.2436	1.7720		1	1.2630
100	146	0.1918	1.6970		21	1.0815

Pseudo F Statistic =	880.97

Observed Over-All R-Squared =	0.71409

Approximate Expected Over-All R-Squared =	0.36345

Cubic Clustering Criterion =	1377.274

WARNING: The two values above are invalid for correlated variables.

The CLUSTER Procedure
Ward's Minimum Variance Cluster Analysis

Eigenvalues of the Covariance Matrix				
	Eigenvalue	Difference	Proportion	Cumulative
1	0.72505029	0.29525963	0.2934	0.2934
2	0.42979065	0.10355532	0.1739	0.4673
3	0.32623533	0.05235097	0.1320	0.5993
4	0.27388436	0.10035143	0.1108	0.7101
5	0.17353293	0.06138564	0.0702	0.7803
6	0.11214729	0.01590344	0.0454	0.8257
7	0.09624385	0.01028034	0.0389	0.8647
8	0.08596351	0.02268298	0.0348	0.8995
9	0.06328053	0.01584012	0.0256	0.9251
10	0.04744041	0.01836568	0.0192	0.9443
11	0.02907473	0.00443143	0.0118	0.9560
12	0.02464330	0.00469531	0.0100	0.9660
13	0.01994799	0.00608089	0.0081	0.9741
14	0.01386709	0.00256916	0.0056	0.9797
15	0.01129793	0.00209775	0.0046	0.9842
16	0.00920018	0.00058100	0.0037	0.9880
17	0.00861919	0.00085570	0.0035	0.9915
18	0.00776349	0.00244077	0.0031	0.9946
19	0.00532271	0.00094543	0.0022	0.9968
20	0.00437728	0.00273209	0.0018	0.9985
21	0.00164519	0.00081665	0.0007	0.9992
22	0.00082854	0.00014512	0.0003	0.9995
23	0.00068342	0.00030473	0.0003	0.9998
24	0.00037870	0.00027328	0.0002	1.0000
25	0.00010541	0.00010541	0.0000	1.0000
26	0.00000000	0.00000000	0.0000	1.0000
27	0.00000000	0.00000000	0.0000	1.0000
28	-.00000000	0.00000000	-0.0000	1.0000
29	-.00000000	0.00000000	-0.0000	1.0000
30	-.00000000	0.00000000	-0.0000	1.0000
31	-.00000000		-0.0000	1.0000

Root-Mean-Square Total-Sample Standard Deviation	0.33623

Root-Mean-Square Distance Between Observations	2.647476

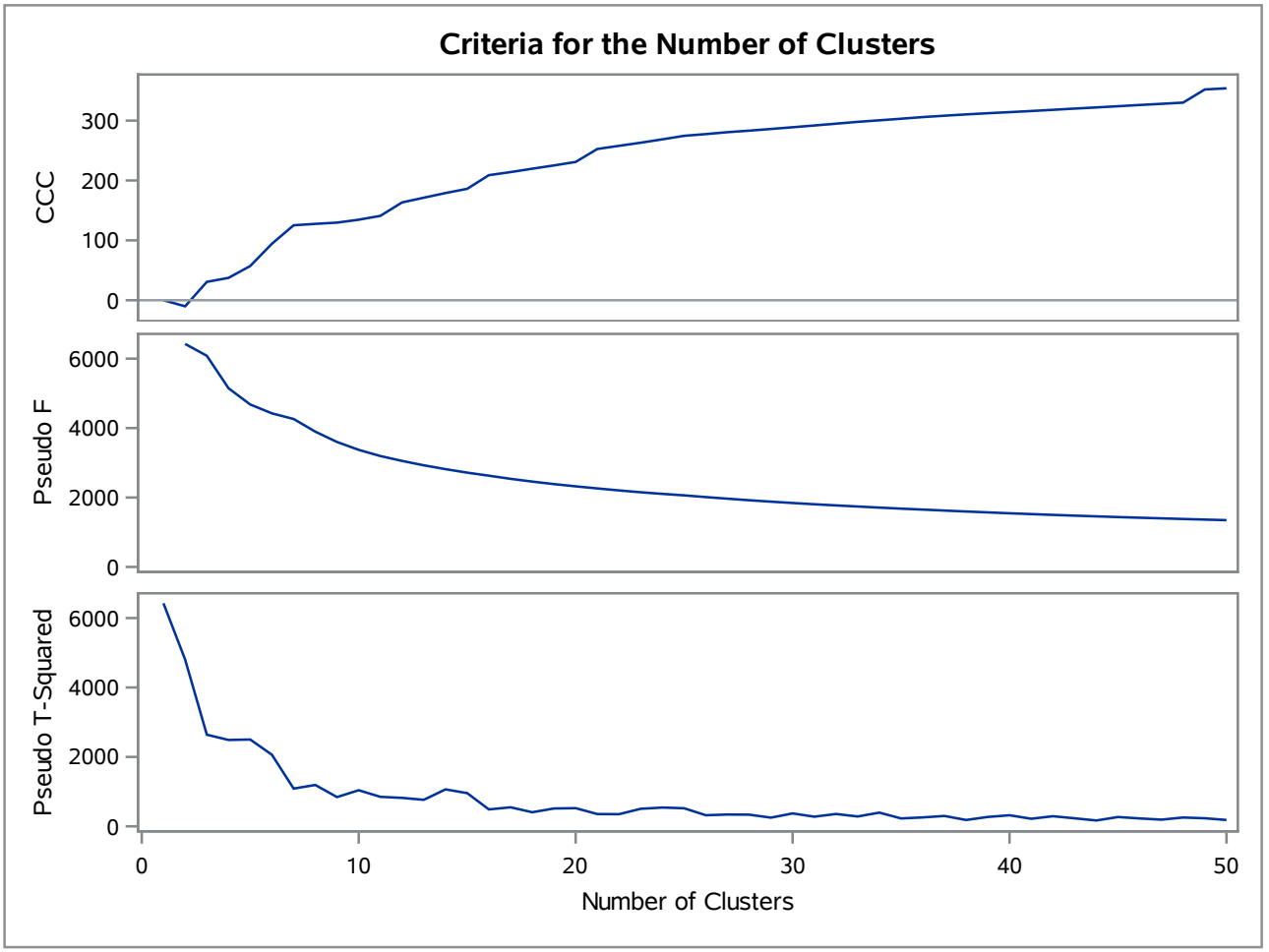
The CLUSTER Procedure
Ward's Minimum Variance Cluster Analysis

Cluster History											
Number of Clusters	Clusters Joined		Freq	New Cluster RMS Std Dev	Semipartial R-Square	R-Square	Approximate Expected R-Square	Cubic Clustering Criterion	Pseudo F Statistic	Pseudo t-Squared	Tie
50	OB19	OB91	775	0.2199	0.0018	.654	.493	354	1347	183	
49	OB41	OB57	945	0.2001	0.0019	.652	.491	352	1364	233	
48	OB12	OB45	1012	0.1923	0.0019	.650	.490	330	1382	254	
47	CL71	OB33	1063	0.2199	0.0020	.648	.489	328	1399	193	
46	OB35	CL91	973	0.2077	0.0020	.646	.488	326	1418	228	
45	OB13	CL68	1473	0.1918	0.0021	.644	.487	324	1437	269	
44	CL54	OB88	1143	0.2382	0.0021	.642	.485	322	1457	169	
43	CL66	OB56	1113	0.2100	0.0021	.640	.484	320	1478	232	
42	CL96	OB6	1471	0.1909	0.0022	.637	.483	318	1499	291	
41	CL67	OB92	864	0.2259	0.0022	.635	.481	316	1522	218	
40	CL79	OB38	1919	0.1809	0.0023	.633	.480	314	1546	319	
39	OB36	OB60	1144	0.2023	0.0023	.631	.478	312	1571	271	
38	OB28	CL60	968	0.2482	0.0024	.628	.477	310	1597	183	
37	OB5	OB40	1147	0.2055	0.0025	.626	.475	308	1624	299	
36	CL45	CL77	2097	0.2136	0.0026	.623	.473	306	1652	257	
35	CL63	CL59	1228	0.2454	0.0029	.620	.472	303	1679	228	
34	OB9	CL55	2538	0.1838	0.0029	.617	.470	300	1709	396	
33	OB27	OB47	1121	0.2276	0.0030	.614	.468	298	1740	285	
32	CL34	CL58	3167	0.2007	0.0033	.611	.466	295	1772	356	
31	CL74	CL75	1122	0.2437	0.0033	.608	.464	292	1806	278	
30	CL37	CL81	2067	0.2063	0.0034	.604	.462	289	1842	372	
29	CL38	OB49	1474	0.2536	0.0035	.601	.460	286	1880	250	
28	CL49	CL78	1620	0.2241	0.0035	.597	.458	283	1921	336	
27	CL72	CL41	1788	0.2218	0.0036	.594	.455	281	1966	340	
26	CL50	CL87	1314	0.2466	0.0040	.590	.453	277	2011	320	
25	CL56	CL57	2388	0.1916	0.0040	.586	.450	275	2061	521	
24	CL48	CL51	1903	0.2249	0.0054	.580	.448	269	2104	541	
23	CL30	CL46	3040	0.2232	0.0055	.575	.445	263	2151	506	
22	CL53	CL29	2275	0.2673	0.0055	.569	.442	258	2203	351	
21	CL26	CL62	1998	0.2736	0.0057	.564	.439	253	2261	354	
20	CL33	CL39	2265	0.2387	0.0061	.558	.435	231	2321	524	
19	CL35	CL36	3325	0.2427	0.0066	.551	.432	225	2386	514	
18	CL47	CL21	3061	0.2727	0.0067	.544	.428	220	2458	406	
17	CL23	CL44	4183	0.2419	0.0072	.537	.424	214	2538	548	
16	CL19	CL65	3956	0.2578	0.0073	.530	.419	209	2629	488	
15	CL32	CL40	5086	0.2109	0.0090	.521	.415	186	2716	957	

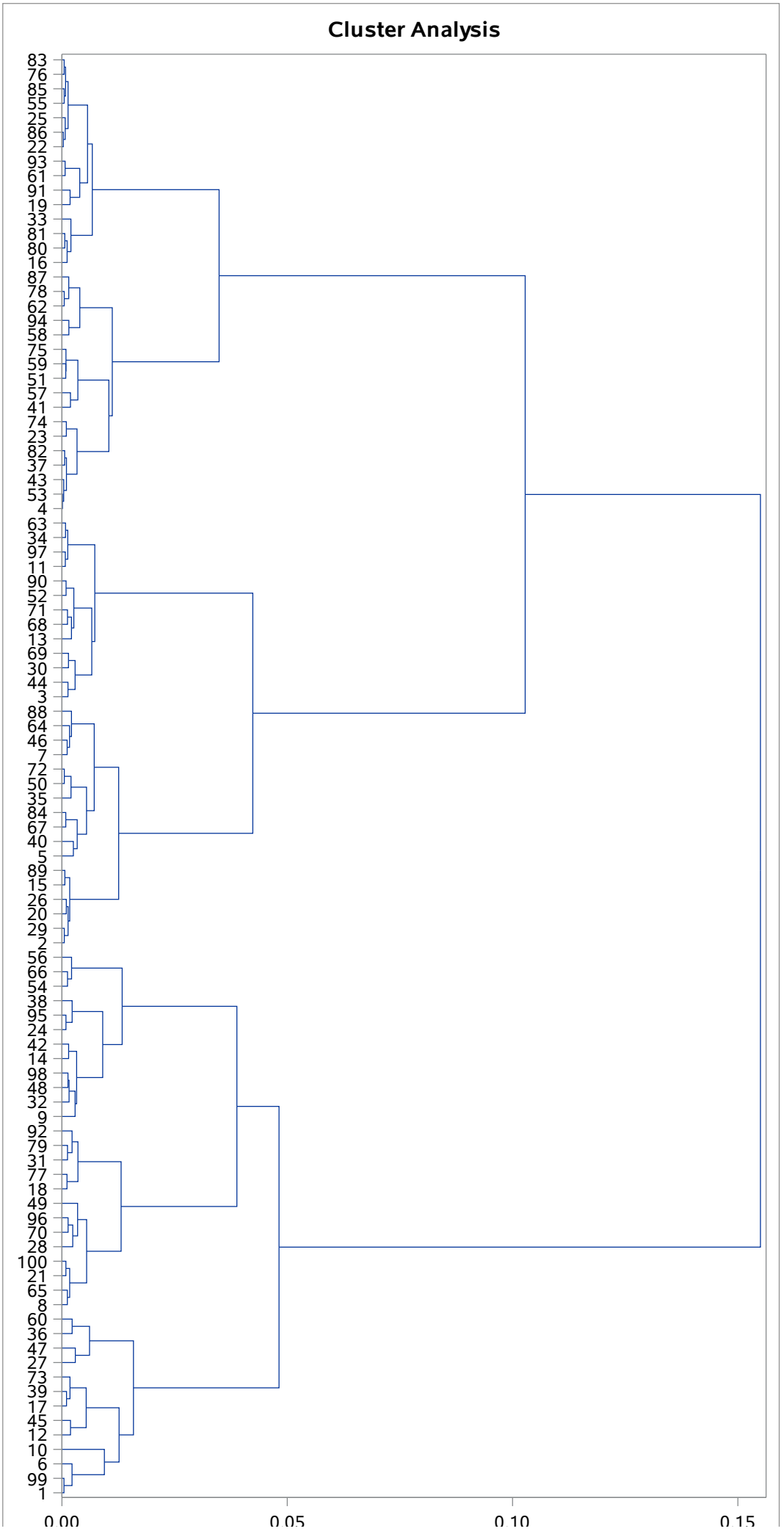
The CLUSTER Procedure
Ward's Minimum Variance Cluster Analysis

Cluster History

Number of Clusters	Clusters Joined		Freq	New Cluster RMS Std Dev	Semipartial R-Square	R-Square	Approximate Expected R-Square	Cubic Clustering Criterion	Pseudo F Statistic	Pseudo t-Squared	Tie
14	CL42	OB10	3148	0.2165	0.0094	.511	.409	179	2817	1064	
13	CL31	CL28	2742	0.2627	0.0104	.501	.403	171	2927	764	
12	CL13	CL25	5130	0.2501	0.0112	.490	.397	163	3054	820	
11	CL52	CL17	5295	0.2609	0.0126	.477	.390	141	3194	850	
10	CL14	CL24	5051	0.2412	0.0127	.464	.382	134	3373	1040	
9	CL22	CL27	4063	0.2729	0.0131	.451	.372	130	3599	843	
8	CL15	CL43	6199	0.2301	0.0134	.438	.361	127	3897	1191	
7	CL10	CL20	7316	0.2577	0.0159	.422	.348	125	4261	1087	
6	CL12	CL18	8191	0.2895	0.0349	.387	.333	94.3	4424	2062	
5	CL9	CL8	10262	0.2765	0.0388	.348	.312	57.2	4679	2501	
4	CL11	CL16	9251	0.2924	0.0424	.306	.281	37.3	5146	2488	
3	CL7	CL5	17578	0.2883	0.0482	.258	.236	30.7	6082	2639	
2	CL4	CL6	17442	0.3287	0.1028	.155	.162	-10	6424	4803	
1	CL3	CL2	35020	0.3362	0.1550	.000	.000	0.00	.	6424	



The CLUSTER Procedure
Ward's Minimum Variance Cluster Analysis


Cluster Analysis
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