Appendix A

SURVEY QUESTIONNAIRES

Auto Refinishing Emission Inventory Survey

Q10

Hello, my name is _____ from the University of California at Davis. We're conducting a study on the hours of operation of vehicle paint application at auto refinishing facilities. I'd like to speak with the person at your facility who knows the most about vehicle painting. Who would that person be?

May I speak to him/her please?

Q20

Hello, my name is _____ from the University of California at Davis. We're conducting a study on the hours of operation of vehicle paint application at auto refinishing facilities. Are you the person who knows the most about vehicle painting at your facility?

(IF YES, CONTINUE; IF NO, KEEP TRYING TO LOCATE THE CORRECT PERSON)

We are collecting information on the hours of operation of vehicle painting at auto refinishing facilities. Your telephone number was randomly selected to be included in this survey. All your answers will be kept confidential and no specific information such as the name and location of your facility will be included in the report we produce.

Q30

First, I have a few general questions about your facility. How many people are currently employed there?

ENTER NUMBER: __ __ __ people

Q31

Approximately how many of these employees are part-time?

ENTER NUMBER: __ __ __ people

ENTER NUMBER: __ __ __ people

Q50

On hot days (e.g., above 90 degrees Fahrenheit), do you alter your painting procedures?

___ Yes ___ No

If yes:

Q51

(a) ___ Don't paint on these days.
(b) ___ I'm more likely to paint in the evening.
(c) ___ I'm more likely to paint in the morning.
(d) ___ I change my paint formulation, (e.g., adding more reducer to make the paint dry faster).

Q60

On rainy days, do you alter your painting procedures?

___ Yes ___ No

If yes:

Q61

(a) ___ Don't paint on these days.
(b) ___ I'm more likely to paint in the evening.
(c) ___ I'm more likely to paint in the morning.
(d) ___ I change my paint formulation, (e.g., adding more reducer to make the paint dry faster).

Q100

Approximately how many vehicles do you paint per week during the following periods?

Period	Vehicles
Jan-Feb-Mar	___
Apr-May-Jun	___
Jul-Aug-Sep	___
Oct-Nov-Dec	___

Q110

On a typical week, do you paint vehicles on the following days of the week?

Day of Week

1. Monday-Friday ___ Yes ___ No
2. Saturday ___ Yes ___ No
   If yes, approximately how many Saturdays per month do you paint vehicles?
   ___ days
3. Sunday ___ Yes ___ No
   If yes, approximately how many Sundays per month do you paint vehicles?
   ___ days

Q120

We would like to know what time of day you generally paint vehicles. Specifically, we need to know the percentage of the total vehicles that you paint during each part of the day.

Of the vehicles painted on a typical day, how many vehicles do you paint during the morning (i.e., between 7 a.m. and noon):

(a) ___ none
(b) ___ one-third
(c) ___ half
(d) ___ two-thirds
(e) ___ all

Choose the nearest of these selections.

Of the vehicles painted on a typical day, how many vehicles do you paint during the afternoon (i.e., between noon and 6 p.m.):

(a) ___ none
(b) ___ one-third
(c) ___ half
(d) ___ two-thirds
(e) ___ all

Of the vehicles painted on a typical day, how many vehicles do you paint during the evening (i.e., between 6 p.m. and midnight):

(a) ___ none
(b) ___ one-third
(c) ___ half
(d) ___ two-thirds
(e) ___ all

Of the vehicles painted on a typical day, how many vehicles do you paint during the nighttime (i.e., between midnight and 7 a.m.):

(a) ___ none
(b) ___ one-third
(c) ___ half
(d) ___ two-thirds
(e) ___ all

That's all. Thank you!

Adhesive and Sealant Emission Inventory Survey

Q10

Hello, my name is _____ from the University of California at Davis. We're conducting a study on the hours of operation of adhesive and sealant application at industrial facilities. I'd like to speak with the person at your facility who knows the most about the use of adhesives and sealant. Who would that person be?

May I speak to him/her please?

Q20

Hello, my name is _____ from the University of California at Davis. We're conducting a study on the hours of operation of adhesive and sealant application at industrial facilities. Are you the person who knows the most about adhesive and sealant application at your facility?

(IF YES, CONTINUE; IF NO, KEEP TRYING TO LOCATE THE CORRECT PERSON)

We are collecting information on the hours of operation of adhesives and sealants at industrial facilities. Your telephone number was randomly selected to be included in this survey. All your answers will be kept confidential and no specific information such as the name and location of your facility will be included in the report we produce.

Q40

First, approximately how many gallons or pounds of adhesives/sealants do you use per year (e.g. in 1996)?

Q41

Of the total amount of adhesives and/or sealants used, how many are solvent-based? (the others are water-based or hot-melt)

(a) ___ none
(b) ___ one-third
(c) ___ half
(d) ___ two-thirds
(e) ___ all

Q50

On hot days (e.g., above 90 degrees Fahrenheit), do you alter your procedures in applying adhesives and/or sealants?

___ Yes ___ No

If yes:

Q51

(a) ___ Don't use adhesives and/or sealants on these days.
(b) ___ I'm more likely to use them in the evening.
(c) ___ I'm more likely to use them in the morning.
(d) ___ I change the formulation, (e.g., adding more reducer to make the adhesive dry faster).

Q60

On rainy days, do you alter your procedures of applying adhesives and sealants?

___ Yes ___ No

If yes:

Q61

(a) ___ Don't use adhesives and/or sealants on these days.
(b) ___ I'm more likely to use them in the evening.
(c) ___ I'm more likely to use them in the morning.
(d) ___ I change the formulation, (e.g., adding more reducer to make the adhesive dry faster).

Q100

Approximately how many pounds of adhesives and/or sealants do you use per week during the following periods? (or get the percentages)

Period	Adhesive/Sealant
Jan-Feb-Mar	___
Apr-May-Jun	___
Jul-Aug-Sep	___
Oct-Nov-Dec	___

Q110

On a typical week, do you use adhesives and/or sealants on the following days of the week?

Day of Week

1. Monday-Friday ___ Yes ___ No
2. Saturday ___ Yes ___ No

   If yes, approximately how many Saturdays per month do you use adhesives/sealants?

   ___ days
3. Sunday ___ Yes ___ No

   If yes, approximately how many Sundays per month do you use adhesives/sealants?

   ___ days

Q120

Does it matter what time of the day it is when you use adhesives or sealants?

____ Yes

____ No

If the respondent says "no", stop the survey at this point.

Q121

We would like to know what time of day you generally use adhesives/sealants. Specifically, we need to know the percentage of the total adhesives/sealants that you use during each part of the day.

Of the adhesives/sealants used on a typical day, how many do you use during the morning (i.e., between 7 a.m. and noon):

(a) ___ none
(b) ___ one-third
(c) ___ half
(d) ___ two-thirds
(e) ___ all

Choose the nearest of these selections.

Of the adhesives/sealants used on a typical day, how many do you use during the afternoon (i.e., between noon and 6 p.m.):

(a) ___ none
(b) ___ one-third
(c) ___ half
(d) ___ two-thirds
(e) ___ all

Of the adhesives/sealants used on a typical day, how many do you use during the evening (i.e., between 6 p.m. and midnight):

(a) ___ none
(b) ___ one-third
(c) ___ half
(d) ___ two-thirds
(e) ___ all

Of the adhesives/sealants used on a typical day, how many do you use during the nighttime (i.e., between midnight and 7 a.m.):

(a) ___ none
(b) ___ one-third
(c) ___ half
(d) ___ two-thirds
(e) ___ all

That's all. Thank you very much for your cooperation.

Metal Surface Coating Emission Inventory Survey

Hello, my name is _____ from the University of California at Davis. We're conducting a study on the hours of operation of metal surface coating application at industrial facilities. I'd like to speak with the person at your facility who knows the most about the use of metal surface coating. Who would that person be?

May I speak to him/her please?

Hello, my name is _____ from the University of California at Davis. We're conducting a study on the hours of operation of metal surface coating application at industrial facilities. Are you the person who knows the most about metal surface coating application at your facility?

(IF YES, CONTINUE; IF NO, KEEP TRYING TO LOCATE THE CORRECT PERSON)

We are collecting information on the hours of operation of metal surface coating at industrial facilities. Your telephone number was randomly selected to be included in this survey. All your answers will be kept confidential and no specific information such as the name and location of your facility will be included in the report we produce.

Q40

First, approximately how many pounds or gallons of metal surface coating materials do you use per year (e.g. in 1996)? Coating materials: paints, metal protective, finishers, linings, sealants, inks.

Q41

Of the total amount of metal surface coating used, how many are (in percent)

High Solvent-based (conventional) _____
Water-borne _____
Powder coating _____
Exempt solvent borne _____
High solid coating _____

Q42

Do you use a roller or sprayer in applying the metal surface coating?
_____ Roller
_____ Sprayer
_____ Other

Q43

If you use a sprayer, which kind do you use?
_____ Air atomized spray
_____ Airless spray
_____ Electrostatic spray gun
_____ High volume, low pressure gun
_____ Other

Q50

On hot days (e.g., above 90 degrees Fahrenheit), do you alter your procedures in applying metal surface coating?

___ Yes ___ No

If yes:

Q51

(a) ___ Don't use metal surface coating on these days.
(b) ___ I'm more likely to use them in the evening.
(c) ___ I'm more likely to use them in the morning.
(d) ___ I change the formulation.
(e) ___ Other

Q60

On rainy days, do you alter your procedures of applying metal surface coating?

___ Yes ___ No

If yes:

Q61

(a) ___ Don't use metal surface coating on these days.
(b) ___ I'm more likely to use them in the evening.
(c) ___ I'm more likely to use them in the morning.
(d) ___ I change the formulation
(e) ___ Other

Q100

Approximately how many pounds or gallons of metal surface coating materials do you use per week during the following periods? (or get the percentages)

Period	Metal surface coating
Jan-Feb-Mar	___
Apr-May-Jun	___
Jul-Aug-Sep	___
Oct-Nov-Dec	___

(Note: If respondent says that this question is based on demand, ask for an estimate of demand for the last year.)

Q110

On a typical week, do you use metal surface coating on the following days of the week?

Day of Week

1. Monday-Friday ___ Yes ___ No
2. Saturday ___ Yes ___ No
   If yes, approximately how many Saturdays per month do you use metal surface coating?
   ___ days
3. Sunday ___ Yes ___ No
   If yes, approximately how many Sundays per month do you use metal surface coating?
   ___ days

Q120

What time does your company start their work day? _____

What time does your company end their work day? _____

Q121

Within the times listed above, when do you apply metal surface coating the most?

_____ first few hours of work day
_____ middle few hours of work day
_____ last few hours of work day
_____ constant all day
_____ when ready

End of survey.

Construction Mobile Equipment Emission Inventory Survey

Hello, my name is _____ from the University of California at Davis. We're conducting a study on the hours of operation of off-road equipment at construction and/or industrial facilities. I'd like to speak with the person at your facility who knows the most about the use of off-road equipment. Who would that person be?

May I speak to him/her please?

Hello, my name is _____ from the University of California at Davis. We're conducting a study on the hours of operation of off-road equipment at construction and/or industrial facilities. Are you the person who knows the most about off-road equipment at your facility?

(IF YES, CONTINUE; IF NO, KEEP TRYING TO LOCATE THE CORRECT PERSON)

We are collecting information on the hours of operation of off-road equipment at construction and/or industrial facilities. Your telephone number was randomly selected to be included in this survey. All your answers will be kept confidential and no specific information such as the name and location of your facility will be included in the report we produce.

Q40

First, what type of work does your company focus on?
_____ Construction (buildings, homes)
_____ Industrial Construction (bridges, roads)
_____ Warehouse
_____ Other

Q41

What type of equipment do you use?

Backhoes _____
Forklifts _____
Loaders _____

Cranes _____
Crawlers _____
Others, please specify _____

Q100

Does your company use off-road equipment at a constant rate quarterly throughout the calendar year?

(a) ____ Yes
(b) ____ No

If no, how are the seasons allocated by percent.

Period	Use Off-Road Equipment
Winter	___
Spring	___
Summer	___
Fall	___

(Note: If respondent says that this question is based on demand, ask for an estimate of demand for the last year.)

Q110

On a typical week, do you use off-road equipment on the following days of the week?

Day of Week

1. Monday-Friday ___ Yes ___ No
2. Saturday ___ Yes ___ No
   If yes, approximately how many Saturdays per month do you use off-road equipment?
   ___ days
3. Sunday ___ Yes ___ No
   If yes, approximately how many Sundays per month do you use off-road equipment?
   ___ days

Q120

What time does your company start their work day? _____

What time does your company end their work day? _____

Q121

Within the times listed above, when do you use off-road equipment the most?

_____ first few hours of work day
_____ middle few hours of work day
_____ last few hours of work day
_____ constant all day
_____ when ready

Q50

On hot days (e.g., above 90 degrees Fahrenheit), do you alter work schedules

___ Yes ___ No

If yes:

Q51

(a) ___ More likely to work in the morning (start ____ , finish ____)
(b) ___ More likely to work in the evening (start ____ , finish ____)
(c) ___ Shift entire schedule (adjusting hours)
(d) ___ Don't work, too hot for workers
(e) ___ Other

Q60

Do you work on rainy days?

___ Yes ___ No

Q61

Do you use mobile equipment on rainy days?

___ Yes ___ Not

If yes:

Q62

How do you use the equipment on rainy days?
(a) ___ As much as on non-rainy days
(b) ___ A fraction of non-rainy days (What percent?: _____)

Thank you for your cooperation.

End of survey.

Appendix B

DATA FOR ESTIMATING THE REGRESSION MODELS

1. Auto Refinishing (The headings are defined in Table 3.1. N stands for the Nth observation.)

N	AUTOREF	URBAN	HWY	POP	RETEMP
1	0	0.0000	0.0000	0.0118	0.0012
2	0	0.0000	0.0099	0.0114	0.0008
3	0	0.0000	0.9967	0.0117	0.0008
4	0	0.0000	0.0000	0.0113	0.0008
5	0	0.0000	0.0000	0.0111	0.0007
6	0	0.0000	0.0000	0.0115	0.0006
7	0	0.0000	0.0000	0.0116	0.0006
8	0	0.0000	0.0000	0.0121	0.0005
9	0	0.0000	0.0000	0.0141	0.0010
10	0	0.0000	0.8805	0.0142	0.0011
11	0	0.0000	0.0000	0.0140	0.0010
12	0	0.0000	0.0000	0.0142	0.0010
13	0	0.0000	0.8009	0.0142	0.0011
14	0	0.0000	0.0000	0.0144	0.0000
15	0	0.0000	0.0000	0.0113	0.0006
16	0	0.0000	0.0000	0.0115	0.0006
17	0	0.0000	2.1238	0.0115	0.0006
18	0	0.0000	3.5331	0.0115	0.0006
19	0	0.2107	0.7320	0.0115	0.0006
20	0	0.0000	0.0000	0.0115	0.0006
21	0	0.0000	0.0000	0.0115	0.0006
22	0	0.0000	0.0000	0.0115	0.0006
23	0	0.3966	1.1470	0.0126	0.0008
24	0	1.6529	4.8237	0.0142	0.0010
25	0	0.0000	0.0000	0.0142	0.0010
26	0	0.0000	0.0000	0.0142	0.0010
27	0	0.0000	3.5474	0.0142	0.0010
28	0	0.3335	0.5108	0.0140	0.0008
29	0	0.0000	0.0000	0.0113	0.0005
30	0	0.0000	0.0000	0.0114	0.0007
31	0	0.0000	0.0000	0.0115	0.0006
32	0	0.0000	0.0000	0.0115	0.0006
33	0	0.0000	3.0515	0.0115	0.0006
34	0	0.0000	0.0000	0.0115	0.0006
35	0	0.0000	0.0000	0.0115	0.0006
36	0	0.0000	0.0000	0.0115	0.0006
37	0	0.0000	3.3131	0.0131	0.0008
38	0	0.0000	0.6065	0.0142	0.0010
39	0	0.6059	3.1435	0.0142	0.0010
40	0	0.0000	0.0000	0.0142	0.0010
41	0	0.0000	2.4861	0.0142	0.0010
42	0	0.0000	3.1379	0.0143	0.0010
43	0	0.0000	1.8915	0.0141	0.0010
44	0	0.0000	0.0000	0.0134	0.0000
45	0	0.0000	0.0000	0.0117	0.0000

46	0	0.0000	0.0000	0.0111	0.0000
47	0	0.0000	0.0000	0.0114	0.0007
48	0	0.0000	1.1694	0.0115	0.0006
49	0	0.0000	1.6597	0.0115	0.0006
50	0	0.0000	0.0000	0.0115	0.0006
51	0	0.0000	0.0000	0.0115	0.0006
52	0	0.0000	2.4861	0.0134	0.0010
53	0	0.0000	0.0000	0.0142	0.0010
54	0	0.0000	3.6642	0.0142	0.0010
55	0	0.0000	2.1711	0.0142	0.0010
56	0	0.0000	1.2458	0.0142	0.0010
57	0	0.0000	2.7676	0.0142	0.0010
58	0	0.0000	3.3156	0.0142	0.0010
59	0	0.0000	0.7003	0.0140	0.0009
60	0	0.0000	0.0000	0.0113	0.0008
61	0	0.0000	0.0000	0.0115	0.0006
62	0	0.0000	2.5986	0.0115	0.0006
63	0	0.0000	0.0000	0.0115	0.0006
64	0	0.0000	0.0000	0.0115	0.0006
65	0	0.0000	4.3608	0.0130	0.0008
66	0	0.0000	2.5327	0.0134	0.0010
67	0	0.0000	5.3108	0.0139	0.0010
68	0	3.0152	4.1930	0.0142	0.0010
69	0	0.0000	4.3036	0.0142	0.0010
70	0	0.0000	2.4861	0.0142	0.0010
71	0	0.0000	4.9716	0.0142	0.0010
72	1	3.9555	3.1603	0.0142	0.0009
73	0	0.0000	0.0000	0.1653	0.0064
74	0	0.0000	0.0000	0.2588	0.0138
75	0	0.0000	0.0000	0.2858	0.0000
76	0	0.0000	0.0000	0.0120	0.0000
77	0	0.0000	0.0000	0.0115	0.0007
78	0	0.0000	2.6085	0.0115	0.0006
79	0	0.1174	0.2833	0.0115	0.0006
80	0	0.0000	0.0000	0.0115	0.0006
81	0	0.0000	2.4861	0.0115	0.0006
82	0	0.0000	0.0000	0.0115	0.0006
83	0	0.0000	2.5215	0.0134	0.0008
84	0	0.0000	0.0000	0.0142	0.0010
85	0	0.0000	2.0679	0.0142	0.0010
86	0	1.4116	1.1377	0.0142	0.0010
87	0	0.0000	3.0205	0.0142	0.0010
88	0	0.0000	2.4861	0.0195	0.0013
89	0	0.0000	0.0000	0.0296	0.0018
90	0	0.0000	0.0000	0.2108	0.0113
91	0	0.0000	0.0000	0.0598	0.0031
92	0	0.0000	0.4735	0.0163	0.0009
93	0	1.4938	0.0000	0.4495	0.0280
94	0	1.7916	0.0000	0.7542	0.0468

95	0	0.3841	0.0000	1.1694	0.0886
96	0	0.0000	0.0000	0.0114	0.0008
97	0	0.0000	0.0000	0.0115	0.0006
98	0	0.0000	3.5511	0.0115	0.0006
99	0	0.0865	2.5563	0.0115	0.0006
100	0	1.5151	4.3421	0.0115	0.0006
101	0	6.8290	0.0000	0.0115	0.0006
102	0	0.5255	2.5184	0.0138	0.0010
103	0	0.0000	0.0000	0.0142	0.0010
104	0	9.9930	0.0000	0.0155	0.0010
105	0	1.8608	4.4068	0.0243	0.0015
106	0	6.9027	3.5667	0.0244	0.0015
107	0	1.0053	2.5134	0.0267	0.0016
108	0	0.0000	0.0000	0.0270	0.0016
109	0	0.0000	0.0000	0.1400	0.0074
110	0	0.0000	0.0000	0.0167	0.0006
111	0	0.0000	2.4861	0.0167	0.0006
112	0	19.1527	0.0000	0.5020	0.0329
113	0	35.5281	0.0000	0.8418	0.0538
114	10	57.6786	0.4778	2.2251	0.1747
115	3	57.2998	1.6224	4.1936	0.4056
116	1	82.6733	2.3432	5.3675	0.5219
117	1	76.0136	2.0965	3.7516	0.4770
118	0	45.3642	1.9113	1.6565	0.1432
119	0	32.9396	0.0000	2.7335	0.1069
120	0	3.7430	0.0000	0.2093	0.0132
121	0	0.0000	0.0000	0.0115	0.0011
122	0	0.0000	0.0000	0.0115	0.0007
123	0	0.0000	0.0000	0.0115	0.0006
124	0	0.0000	0.0000	0.0115	0.0006
125	0	4.8500	1.2347	0.0115	0.0006
126	0	3.1311	2.5228	0.0115	0.0006
127	0	2.8687	5.0188	0.0117	0.0006
128	0	0.7577	2.5184	0.0181	0.0011
129	0	8.4672	2.6775	0.0261	0.0016
130	2	41.5206	4.9716	2.4739	0.2104
131	11	72.4444	6.7307	3.3214	0.2723
132	0	21.3005	4.9741	0.0270	0.0016
133	0	0.0000	2.4855	0.0282	0.0016
134	0	0.2739	5.5619	0.1036	0.0053
135	0	0.7475	4.5571	0.0167	0.0006
136	0	0.1552	5.7589	0.0167	0.0006
137	0	13.7462	2.5010	0.5525	0.0403
138	1	48.3286	2.6446	1.0349	0.0696
139	11	62.8073	2.0977	2.6927	0.2099
140	9	98.1231	4.8299	6.1640	0.6516
141	2	88.9442	2.5644	5.5887	0.5798
142	0	94.5476	4.9790	4.2955	0.4468
143	1	70.0235	5.0927	2.8396	0.2461

144	0	56.2736	3.4455	1.9417	0.1408
145	0	6.3064	0.0000	0.2092	0.0132
146	0	0.0000	0.0000	0.2088	0.0174
147	0	0.0000	0.0000	0.0202	0.0013
148	0	0.0000	0.0000	0.0149	0.0008
149	0	0.0000	0.0000	0.0272	0.0015
150	0	0.0000	0.0000	0.0403	0.0021
151	0	0.0000	0.0000	0.0183	0.0010
152	0	0.0000	2.4873	0.0115	0.0006
153	0	0.0494	0.0000	0.0183	0.0011
154	0	0.0000	0.0000	0.0270	0.0016
155	0	5.9944	2.4855	0.3252	0.0219
156	0	5.5148	2.4855	0.4465	0.0448
157	0	4.9957	2.4873	0.0325	0.0023
158	0	0.0000	0.0000	0.0351	0.0024
159	0	0.0000	0.9526	0.1328	0.0071
160	0	0.0000	3.6195	0.2129	0.0159
161	0	2.2178	3.8798	0.5088	0.0539
162	2	46.0336	2.6868	2.9796	0.2248
163	4	87.6562	3.0255	3.9084	0.2133
164	8	93.6641	5.6190	3.3509	0.2838
165	11	99.8481	0.2479	4.5725	0.4092
166	0	79.4756	0.0000	3.7123	0.3293
167	1	72.3350	3.5778	1.6950	0.1458
168	1	24.2424	4.6162	0.7157	0.0646
169	0	17.2444	3.7431	0.1596	0.0108
170	0	0.0000	5.1126	0.1795	0.0113
171	0	0.0000	1.1750	0.1158	0.0073
172	0	0.0000	0.0000	0.0564	0.0024
173	0	0.0000	0.0000	0.0561	0.0030
174	0	0.0000	0.0000	0.0560	0.0029
175	0	0.0000	0.0000	0.0560	0.0029
176	0	0.0000	0.0000	0.0516	0.0028
177	0	0.0000	2.4954	0.0492	0.0026
178	0	0.0000	0.0000	0.0497	0.0026
179	0	0.0000	0.0000	0.0283	0.0016
180	0	0.0000	2.5911	0.0327	0.0023
181	0	0.4218	2.4855	0.1400	0.0105
182	0	0.3590	2.4438	0.0406	0.0031
183	0	6.6669	0.0000	0.0405	0.0031
184	0	0.0000	0.0000	0.0367	0.0023
185	0	10.9268	2.0008	0.2281	0.0133
186	1	34.1940	6.7499	1.2770	0.0889
187	6	61.5457	3.2342	3.6530	0.2919
188	17	80.8175	4.5584	3.2063	0.2545
189	10	98.3074	0.0000	5.2024	0.4795
190	0	89.1333	0.0000	4.1860	0.3213
191	2	71.7045	1.6957	3.9556	0.3671
192	20	43.6331	4.8597	1.0095	0.0898

193	0	18.5835	0.0000	0.1175	0.0087
194	0	3.8553	3.7717	0.0544	0.0037
195	0	0.0000	0.0000	0.0303	0.0018
196	0	0.0000	0.0000	0.0301	0.0017
197	0	0.0000	0.0000	0.0561	0.0028
198	0	0.0000	0.0000	0.0560	0.0029
199	0	0.0000	0.0000	0.0560	0.0029
200	0	0.0772	0.0000	0.0560	0.0029
201	0	0.2735	2.4855	0.0560	0.0029
202	0	0.3205	1.7709	0.0560	0.0029
203	0	0.2206	2.4861	0.0465	0.0031
204	0	4.8245	4.9710	0.4615	0.0369
205	0	31.2894	4.9741	2.9945	0.2370
206	0	21.8731	7.4515	1.0925	0.0771
207	1	3.3837	2.5712	0.0442	0.0031
208	0	0.0000	2.5569	0.0455	0.0026
209	2	22.0392	3.2305	0.5811	0.0385
210	9	47.1415	13.4346	2.1254	0.1415
211	12	96.1984	9.2478	7.0589	0.6029
212	4	86.4670	3.2964	4.5338	0.2846
213	3	88.6238	3.0497	4.2476	0.3834
214	0	81.4966	2.6719	4.5542	0.3730
215	1	41.7245	1.4503	1.5182	0.1143
216	10	18.4517	2.9478	0.5599	0.0356
217	0	2.7676	0.0000	0.1175	0.0087
218	0	0.3962	2.4861	0.0313	0.0018
219	0	0.4705	0.0000	0.0303	0.0018
220	0	0.0000	0.0000	0.0303	0.0017
221	0	0.0000	0.0000	0.0304	0.0030
222	0	0.0000	0.0000	0.0557	0.0027
223	0	0.0000	0.0000	0.0560	0.0029
224	0	0.0000	0.0000	0.0560	0.0029
225	0	10.0671	1.3459	0.0560	0.0029
226	0	1.5677	5.2375	0.0492	0.0029
227	0	0.0000	1.3440	0.0401	0.0023
228	0	0.1096	0.0000	0.0327	0.0023
229	0	12.0623	2.4383	0.6974	0.0435
230	0	34.6109	7.3216	1.4295	0.1070
231	2	20.2747	5.1661	1.2654	0.0955
232	0	2.6387	0.0000	0.0581	0.0031
233	0	0.0000	0.0000	0.0581	0.0031
234	0	0.8677	1.6510	0.2389	0.0160
235	0	32.8652	8.4133	1.6871	0.1266
236	14	86.0617	7.4956	5.2036	0.3045
237	8	94.7743	0.3362	7.1725	0.4139
238	15	75.7479	2.1269	1.8888	0.1291
239	5	44.9557	2.6185	1.5489	0.1509
240	0	6.9535	2.6197	0.6702	0.0458
241	0	2.8019	4.8169	0.4450	0.0261

242	0	2.1395	2.2444	0.0762	0.0053
243	0	5.3448	0.7929	0.0309	0.0018
244	0	0.2405	0.0000	0.0303	0.0018
245	0	0.0566	0.0000	0.0303	0.0018
246	0	0.0000	0.0000	0.0300	0.0017
247	0	0.0000	0.0000	0.0347	0.0000
248	0	0.0000	2.0940	0.0519	0.0043
249	0	0.8990	4.1122	0.0536	0.0037
250	0	0.5942	1.4602	0.0536	0.0037
251	0	0.0087	2.5165	0.0473	0.0040
252	0	0.0000	0.0000	0.0202	0.0015
253	0	0.0000	0.0000	0.0202	0.0015
254	0	3.3292	6.6990	0.0202	0.0015
255	0	0.5480	1.8927	0.0202	0.0015
256	0	0.1109	1.9778	0.0215	0.0015
257	0	0.6245	0.6065	0.0580	0.0031
258	0	0.0000	0.0000	0.0581	0.0031
259	0	1.9292	4.1253	0.3059	0.0212
260	0	83.0123	3.6095	5.2320	0.3778
261	23	84.4040	3.4219	5.2776	0.3085
262	8	96.6282	5.3065	6.2704	0.4311
263	11	80.3718	0.0000	3.3594	0.2527
264	0	9.3990	0.0000	0.1483	0.0105
265	0	2.5492	0.0000	0.1052	0.0073
266	0	0.4278	4.8840	0.0639	0.0042
267	0	0.0000	4.1936	0.0303	0.0018
268	0	1.4117	2.5569	0.0303	0.0018
269	0	3.3724	2.5259	0.0303	0.0018
270	0	5.9140	2.8086	0.0303	0.0018
271	0	0.0000	1.4459	0.0302	0.0018
272	0	0.0000	0.0000	0.0511	0.0046
273	0	0.0000	0.0000	0.0515	0.0045
274	0	0.0000	0.0000	0.0515	0.0045
275	0	0.0000	0.0000	0.0515	0.0045
276	0	0.0000	2.5097	0.0715	0.0065
277	0	0.1982	0.0000	0.0275	0.0021
278	0	14.7346	2.2972	0.2271	0.0227
279	4	22.8781	4.6099	0.4566	0.0463
280	0	0.0000	0.0000	0.0202	0.0015
281	0	0.0000	0.0000	0.0202	0.0015
282	0	0.0000	2.4774	0.0471	0.0026
283	0	0.0000	0.0000	0.0249	0.0013
284	0	0.0000	2.5078	0.0249	0.0015
285	0	3.1058	2.0369	0.2713	0.0181
286	0	20.4423	7.5521	1.5788	0.1033
287	0	65.3336	3.1460	2.8195	0.2286
288	0	46.6267	2.2400	2.5673	0.1850
289	0	16.3066	0.0000	0.2711	0.0219
290	0	8.8521	0.8693	0.1807	0.0133

291	0	0.2362	2.3600	0.1666	0.0123
292	0	0.0000	0.0000	0.0631	0.0040
293	0	0.0000	0.0000	0.0387	0.0023
294	0	0.0000	0.0000	0.0303	0.0018
295	0	0.6188	0.0000	0.0303	0.0018
296	0	0.0000	0.0000	0.0303	0.0017
297	0	0.0000	0.0000	0.0513	0.0047
298	0	0.0000	0.0000	0.0515	0.0045
299	0	0.0488	0.0000	0.0515	0.0045
300	0	0.0000	0.0000	0.0516	0.0045
301	0	1.4269	2.5016	0.1458	0.0136
302	0	3.8240	2.1487	0.0563	0.0050
303	0	3.0976	1.3857	0.5331	0.0541
304	0	6.3751	2.4861	0.5547	0.0563
305	0	0.0000	0.0000	0.0202	0.0015
306	0	0.3861	0.0000	0.0202	0.0015
307	0	0.0000	2.4855	0.0206	0.0011
308	0	0.0000	0.0000	0.0159	0.0008
309	0	0.0000	2.4861	0.0159	0.0008
310	0	5.4256	6.6872	0.0167	0.0008
311	0	5.4965	3.7307	0.3707	0.0248
312	0	46.5121	4.4173	0.8602	0.0580
313	1	40.2292	5.1567	1.4256	0.1042
314	1	29.6202	2.9590	0.9272	0.0727
315	0	4.1546	3.2491	0.1782	0.0131
316	0	2.6544	0.0000	0.1132	0.0079
317	0	0.5786	0.0000	0.0570	0.0034
318	0	3.5920	0.0000	0.0554	0.0032
319	0	0.0000	0.0000	0.0401	0.0023
320	0	0.0000	0.0000	0.0442	0.0026
321	0	0.3042	0.0000	0.0368	0.0020
322	0	0.0000	0.0000	0.0512	0.0000
323	0	0.0000	0.0000	0.0515	0.0045
324	0	0.3875	0.0000	0.1476	0.0149
325	0	10.3005	0.0000	0.9154	0.0897
326	1	14.6151	4.6976	0.4898	0.0463
327	1	2.6564	1.3608	0.0991	0.0091
328	0	0.0584	0.0000	0.0202	0.0015
329	0	5.7436	2.4880	0.0202	0.0015
330	0	0.3590	0.0000	0.0202	0.0015
331	0	0.0000	0.0000	0.0202	0.0015
332	0	0.0000	2.5029	0.0160	0.0008
333	0	0.0000	0.0000	0.0159	0.0008
334	0	0.0000	2.4867	0.0159	0.0008
335	0	0.4210	4.8976	0.0162	0.0008
336	0	0.0000	4.2129	0.0269	0.0008
337	0	1.7178	3.6238	0.0469	0.0008
338	0	3.7938	1.2297	0.2490	0.0186
339	1	17.9362	4.4683	1.1545	0.0986

340	0	0.0464	0.0000	0.1133	0.0079
341	0	0.0535	0.0000	0.0570	0.0034
342	0	0.0000	0.0000	0.0570	0.0034
343	0	0.3207	0.0000	0.0570	0.0034
344	0	0.0000	0.0000	0.0570	0.0034
345	0	0.0000	1.8448	0.0555	0.0032
346	0	0.0000	1.6056	0.0497	0.0032
347	0	0.0000	0.0000	0.0514	0.0045
348	0	1.6066	0.0000	0.4270	0.0382
349	10	64.6465	2.9061	3.4020	0.3586
350	1	47.3484	1.5043	2.9167	0.3134
351	0	3.5186	0.0000	0.7997	0.0808
352	0	0.4800	0.0000	0.0202	0.0015
353	0	0.4525	2.4855	0.0202	0.0015
354	0	0.2681	0.0000	0.0202	0.0015
355	0	0.0000	0.0000	0.0202	0.0015
356	0	0.0000	2.4774	0.0162	0.0008
357	0	0.0000	2.0381	0.0159	0.0008
358	0	0.1212	4.5230	0.0167	0.0008
359	0	1.1002	6.4859	0.0225	0.0011
360	0	0.4756	1.9306	0.0207	0.0008
361	0	0.4369	3.2429	0.0468	0.0008
362	0	1.9424	0.0000	0.0469	0.0008
363	0	0.0000	2.5899	0.1245	0.0075
364	0	0.0000	0.2274	0.0576	0.0034
365	0	5.5164	0.0000	0.0570	0.0034
366	0	0.6829	0.0000	0.0570	0.0034
367	0	1.4590	2.3991	0.0552	0.0032
368	0	4.2157	2.7340	0.0497	0.0031
369	0	0.0000	1.3894	0.0466	0.0031
370	0	0.0000	0.0000	0.0458	0.0031
371	0	0.0000	0.0000	0.0841	0.0065
372	0	0.1460	0.0000	0.0814	0.0037
373	0	0.0491	0.0000	0.2208	0.0171
374	0	0.1165	0.0000	0.3675	0.0313
375	0	0.9388	2.5588	0.2879	0.0272
376	0	12.8208	0.1746	1.5634	0.0452
377	0	3.4478	0.0000	1.0359	0.0948
378	0	1.2747	0.0000	0.4169	0.0392
379	0	4.3632	0.0000	0.0199	0.0016
380	0	1.1888	2.4855	0.0201	0.0016
381	0	0.0000	0.0000	0.0201	0.0015
382	0	0.0000	0.0000	0.0201	0.0015
383	0	0.7977	1.3496	0.0175	0.0013
384	0	0.3291	2.4575	0.0173	0.0013
385	0	2.0210	3.4548	0.0324	0.0015
386	0	0.6384	0.0000	0.0380	0.0016
387	0	0.0558	0.0000	0.0194	0.0010
388	0	1.7759	5.0132	0.0434	0.0008

389	0	1.2689	0.0000	0.0536	0.0013
390	0	0.0000	0.0000	0.2852	0.0202
391	0	1.7634	2.6396	0.1099	0.0073
392	0	5.2650	0.5723	0.0568	0.0034
393	0	0.4209	3.0590	0.0515	0.0032
394	0	0.0000	0.6537	0.0458	0.0031
395	0	0.0000	0.0000	0.0456	0.0031
396	0	0.0000	0.0000	0.0457	0.0030
397	0	0.0000	0.0000	0.0457	0.0030
398	0	0.0000	0.0000	0.0820	0.0034
399	0	0.1914	0.0000	0.0814	0.0035
400	0	1.3608	0.0000	0.1399	0.0092
401	1	2.6384	0.0000	0.4890	0.0421
402	2	39.9208	2.8316	2.4645	0.2459
403	4	27.5146	0.0000	1.2995	0.1305
404	0	27.9360	0.0000	0.8257	0.0520
405	0	2.1619	0.0000	0.3482	0.0204
406	0	0.0000	0.0000	0.0191	0.0019
407	0	0.1374	3.4759	0.0191	0.0019
408	0	0.0000	0.0000	0.0193	0.0019
409	0	0.1479	0.0000	0.0194	0.0019
410	0	0.1074	0.0000	0.0191	0.0019
411	0	0.3883	3.6269	0.0191	0.0019
412	0	0.2475	0.6674	0.0382	0.0018
413	0	0.2555	4.4552	0.0395	0.0018
414	0	0.1328	2.5054	0.0253	0.0011
415	0	0.4459	7.8311	0.0400	0.0008
416	0	0.2368	2.4867	0.1007	0.0052
417	0	0.0000	2.4898	0.3103	0.0222
418	1	34.1766	5.1897	0.2041	0.0144
419	0	0.8338	2.0468	0.0461	0.0031
420	0	0.0000	0.0000	0.0456	0.0031
421	0	0.0000	0.0000	0.0458	0.0030
422	0	0.0000	0.0000	0.0458	0.0029
423	0	0.0000	0.0000	0.0457	0.0037
424	0	0.0000	0.0000	0.0814	0.0041
425	0	7.2549	0.0000	0.0813	0.0036
426	0	4.7235	0.2293	0.1520	0.0105
427	1	18.3052	4.5428	0.9784	0.0882
428	10	59.2540	3.3063	4.3271	0.4320
429	1	9.7727	2.6607	3.2515	0.2716
430	0	10.6758	0.0000	0.8214	0.0418
431	0	0.6306	0.0000	0.0902	0.0050
432	0	0.3207	0.0000	0.0191	0.0019
433	0	0.0000	2.4855	0.0191	0.0019
434	0	0.0000	0.0000	0.0191	0.0019
435	0	0.4957	0.0000	0.0191	0.0019
436	0	0.1262	2.8409	0.0191	0.0019
437	0	0.0000	3.2815	0.0191	0.0019

438	0	0.0680	2.7141	0.0376	0.0018
439	0	1.8153	5.1561	0.0395	0.0018
440	0	6.2098	3.0584	0.0288	0.0012
441	0	0.0000	0.5002	0.1372	0.0089
442	0	0.0000	0.0000	0.2848	0.0202
443	0	0.0000	0.0000	0.3102	0.0223
444	2	28.6710	0.9215	0.2945	0.0211
445	0	0.0184	0.0000	0.0458	0.0031
446	0	0.0000	0.0000	0.0459	0.0028
447	0	0.0000	0.0000	0.0490	0.0000
448	0	0.0000	0.1466	0.0794	0.0047
449	0	0.3822	3.2585	0.0833	0.0037
450	0	7.1480	5.0983	0.1604	0.0131
451	0	6.0294	0.0000	0.0835	0.0073
452	0	0.1016	0.0000	0.1094	0.0083
453	0	4.7430	0.1827	0.0677	0.0050
454	0	1.1981	2.4873	0.0031	0.0002
455	0	0.0000	2.9714	0.0165	0.0016
456	0	1.9259	1.8598	0.0191	0.0019
457	0	0.0000	2.4855	0.0191	0.0019
458	0	0.2442	0.0000	0.0191	0.0019
459	0	0.0000	0.0000	0.0191	0.0019
460	0	0.0000	3.0515	0.0191	0.0019
461	0	0.0000	0.0000	0.0217	0.0019
462	0	0.1108	1.0849	0.0390	0.0018
463	0	0.2103	2.0406	0.0395	0.0018
464	0	0.0000	0.0994	0.0398	0.0013
465	0	0.0000	0.7164	0.0815	0.0033
466	0	0.1201	2.7906	0.1442	0.0117
467	0	0.7725	2.7993	0.1539	0.0139
468	0	0.0000	0.0000	0.0013	0.0002
469	0	0.0000	0.0000	0.0008	0.0000
470	0	0.0688	0.0000	0.0008	0.0000
471	0	0.0763	0.0000	0.0015	0.0002
472	0	0.0000	0.0000	0.0185	0.0018
473	0	2.1244	1.4192	0.0191	0.0019
474	0	0.1235	3.0397	0.0191	0.0019
475	0	0.0000	2.4855	0.0191	0.0019
476	0	2.0816	3.0466	0.0191	0.0019
477	1	19.8247	6.7319	0.0254	0.0023
478	0	3.1352	2.7042	0.0374	0.0023
479	0	3.1128	2.6775	0.0390	0.0019
480	0	0.0000	0.0000	0.0395	0.0017
481	0	0.0000	1.2788	0.2701	0.0175
482	0	0.0000	2.7825	0.2699	0.0175
483	0	0.0000	1.2701	0.2699	0.0175
484	4	30.6765	4.0333	0.9960	0.0701
485	1	50.2907	4.4683	3.1747	0.2246
486	0	0.0302	0.0000	0.3941	0.0331

487	0	0.0000	0.8041	0.1582	0.0147
488	0	0.2760	1.7908	0.0778	0.0073
489	0	0.0000	0.0000	0.0008	0.0000
490	0	0.1308	0.0000	0.0008	0.0000
491	0	0.0036	0.0000	0.0008	0.0000
492	0	0.0895	0.0000	0.0128	0.0013
493	0	0.3302	0.0000	0.0191	0.0019
494	0	0.0000	0.0000	0.0191	0.0019
495	0	0.0025	0.0000	0.0191	0.0019
496	0	0.2463	0.0000	0.0191	0.0019
497	1	3.9631	3.7394	0.0330	0.0028
498	0	0.0877	2.6477	0.0361	0.0029
499	0	1.2413	1.6087	0.0379	0.0023
500	0	0.0379	0.0000	0.0402	0.0014
501	0	0.0000	0.0000	0.2358	0.0000
502	0	0.0000	0.0000	0.2700	0.0175
503	0	0.0000	1.4621	0.2804	0.0172
504	19	56.4181	3.9824	2.9350	0.2129
505	6	94.4103	4.9094	5.7441	0.3977
506	0	33.3355	0.0000	1.7795	0.1564
507	0	1.1640	0.0000	0.4409	0.0413
508	0	0.9212	2.6272	0.1271	0.0133
509	0	0.0000	0.0000	0.0264	0.0028
510	0	0.0000	0.0000	0.0008	0.0000
511	0	0.1631	0.0000	0.0008	0.0000
512	0	0.0000	0.0000	0.0034	0.0003
513	0	1.0944	0.0000	0.0191	0.0019
514	0	0.0000	0.0000	0.0191	0.0019
515	0	0.0000	0.0000	0.0193	0.0019
516	0	0.0000	2.0132	0.0220	0.0021
517	0	0.0000	0.8910	0.0362	0.0028
518	0	0.4258	0.0000	0.0362	0.0028
519	0	3.1382	0.0000	0.0361	0.0027
520	0	0.0000	0.0000	0.2699	0.0172
521	0	0.0000	0.0000	0.2699	0.0175
522	0	10.0430	0.0000	0.4432	0.0158
523	2	39.3737	3.7145	3.1696	0.2287
524	0	47.9815	3.0354	2.0785	0.1819
525	1	48.5673	4.0004	0.7713	0.0707
526	0	0.4142	0.0217	0.1286	0.0133
527	0	0.0000	0.0000	0.0432	0.0045
528	0	0.0757	0.0000	0.0009	0.0000
529	0	0.0987	0.0000	0.0007	0.0000
530	0	0.0000	0.0000	0.0008	0.0000
531	0	0.1392	0.0000	0.0172	0.0015
532	0	0.0000	0.0000	0.0265	0.0024
533	0	0.7830	0.3101	0.0316	0.0026
534	0	0.2301	3.1715	0.0359	0.0029
535	0	0.0000	0.0000	0.0361	0.0030

536	0	1.8597	0.0000	1.1725	0.1020
537	3	13.1273	1.7243	0.2528	0.0240
538	0	0.0000	0.0000	0.1276	0.0138
539	0	0.0000	0.0000	0.0000	0.0000
540	0	0.0000	0.0000	0.0000	0.0000
541	0	0.0000	0.0000	0.0239	0.0000
542	0	0.0000	0.0000	0.0361	0.0028
543	0	0.0000	1.6025	0.0362	0.0029
544	0	0.0000	0.0000	0.0360	0.0030
545	0	0.0000	0.0000	0.0578	0.0000

2. Adhesives and Sealants (The headings are defined in Table 4.2. N stands for the Nth observation.)

N	ADHSLN	URBAN	HWY	POP	MFGEMP
1	0	0.0000	0.0000	0.0118	0.0012
2	0	0.0000	0.0099	0.0114	0.0000
3	0	0.0000	0.9967	0.0117	0.0000
4	0	0.0000	0.0000	0.0113	0.0000
5	0	0.0000	0.0000	0.0111	0.0013
6	0	0.0000	0.0000	0.0115	0.0012
7	0	0.0000	0.0000	0.0116	0.0012
8	0	0.0000	0.0000	0.0121	0.0011
9	0	0.0000	0.0000	0.0141	0.0010
10	0	0.0000	0.8805	0.0142	0.0011
11	0	0.0000	0.0000	0.0140	0.0010
12	0	0.0000	0.0000	0.0142	0.0010
13	0	0.0000	0.8009	0.0142	0.0011
14	0	0.0000	0.0000	0.0144	0.0000
15	0	0.0000	0.0000	0.0113	0.0010
16	0	0.0000	0.0000	0.0115	0.0000
17	0	0.0000	2.1238	0.0115	0.0000
18	0	0.0000	3.5331	0.0115	0.0000
19	0	0.2107	0.7320	0.0115	0.0000
20	0	0.0000	0.0000	0.0115	0.0000
21	0	0.0000	0.0000	0.0115	0.0000
22	0	0.0000	0.0000	0.0115	0.0000
23	0	0.3966	1.1470	0.0126	0.0000
24	0	1.6529	4.8237	0.0142	0.0000
25	0	0.0000	0.0000	0.0142	0.0000
26	0	0.0000	0.0000	0.0142	0.0000
27	0	0.0000	3.5474	0.0142	0.0000
28	0	0.3335	0.5108	0.0140	0.0000
29	0	0.0000	0.0000	0.0113	0.0011
30	0	0.0000	0.0000	0.0114	0.0000
31	0	0.0000	0.0000	0.0115	0.0000
32	0	0.0000	0.0000	0.0115	0.0000
33	0	0.0000	3.0515	0.0115	0.0000
34	0	0.0000	0.0000	0.0115	0.0000
35	0	0.0000	0.0000	0.0115	0.0000
36	0	0.0000	0.0000	0.0115	0.0000
37	0	0.0000	3.3131	0.0131	0.0000
38	0	0.0000	0.6065	0.0142	0.0000
39	0	0.6059	3.1435	0.0142	0.0000
40	0	0.0000	0.0000	0.0142	0.0000
41	0	0.0000	2.4861	0.0142	0.0000
42	0	0.0000	3.1379	0.0143	0.0010
43	0	0.0000	1.8915	0.0141	0.0000
44	0	0.0000	0.0000	0.0134	0.0000
45	0	0.0000	0.0000	0.0117	0.0015

46	0	0.0000	0.0000	0.0111	0.0016
47	0	0.0000	0.0000	0.0114	0.0000
48	0	0.0000	1.1694	0.0115	0.0000
49	0	0.0000	1.6597	0.0115	0.0000
50	0	0.0000	0.0000	0.0115	0.0000
51	0	0.0000	0.0000	0.0115	0.0000
52	0	0.0000	2.4861	0.0134	0.0000
53	0	0.0000	0.0000	0.0142	0.0000
54	0	0.0000	3.6642	0.0142	0.0000
55	0	0.0000	2.1711	0.0142	0.0000
56	0	0.0000	1.2458	0.0142	0.0000
57	0	0.0000	2.7676	0.0142	0.0000
58	0	0.0000	3.3156	0.0142	0.0000
59	0	0.0000	0.7003	0.0140	0.0000
60	0	0.0000	0.0000	0.0113	0.0011
61	0	0.0000	0.0000	0.0115	0.0000
62	0	0.0000	2.5986	0.0115	0.0000
63	0	0.0000	0.0000	0.0115	0.0000
64	0	0.0000	0.0000	0.0115	0.0000
65	0	0.0000	4.3608	0.0130	0.0000
66	0	0.0000	2.5327	0.0134	0.0000
67	0	0.0000	5.3108	0.0139	0.0000
68	0	3.0152	4.1930	0.0142	0.0000
69	0	0.0000	4.3036	0.0142	0.0000
70	0	0.0000	2.4861	0.0142	0.0000
71	0	0.0000	4.9716	0.0142	0.0000
72	0	3.9555	3.1603	0.0142	0.0011
73	0	0.0000	0.0000	0.1653	0.0064
74	0	0.0000	0.0000	0.2588	0.0112
75	0	0.0000	0.0000	0.2858	0.0000
76	0	0.0000	0.0000	0.0120	0.0015
77	0	0.0000	0.0000	0.0115	0.0010
78	0	0.0000	2.6085	0.0115	0.0000
79	0	0.1174	0.2833	0.0115	0.0000
80	0	0.0000	0.0000	0.0115	0.0000
81	0	0.0000	2.4861	0.0115	0.0000
82	0	0.0000	0.0000	0.0115	0.0000
83	0	0.0000	2.5215	0.0134	0.0000
84	0	0.0000	0.0000	0.0142	0.0000
85	0	0.0000	2.0679	0.0142	0.0000
86	0	1.4116	1.1377	0.0142	0.0000
87	0	0.0000	3.0205	0.0142	0.0000
88	0	0.0000	2.4861	0.0195	0.0000
89	0	0.0000	0.0000	0.0296	0.0000
90	0	0.0000	0.0000	0.2108	0.0088
91	0	0.0000	0.0000	0.0598	0.0023
92	0	0.0000	0.4735	0.0163	0.0000
93	0	1.4938	0.0000	0.4495	0.0161
94	0	1.7916	0.0000	0.7542	0.0273

95	0	0.3841	0.0000	1.1694	0.0443
96	0	0.0000	0.0000	0.0114	0.0010
97	0	0.0000	0.0000	0.0115	0.0000
98	0	0.0000	3.5511	0.0115	0.0000
99	0	0.0865	2.5563	0.0115	0.0000
100	0	1.5151	4.3421	0.0115	0.0000
101	0	6.8290	0.0000	0.0115	0.0000
102	0	0.5255	2.5184	0.0138	0.0000
103	0	0.0000	0.0000	0.0142	0.0000
104	0	9.9930	0.0000	0.0155	0.0000
105	0	1.8608	4.4068	0.0243	0.0000
106	1	6.9027	3.5667	0.0244	0.0000
107	0	1.0053	2.5134	0.0267	0.0000
108	0	0.0000	0.0000	0.0270	0.0000
109	0	0.0000	0.0000	0.1400	0.0055
110	0	0.0000	0.0000	0.0167	0.0000
111	0	0.0000	2.4861	0.0167	0.0000
112	0	19.1527	0.0000	0.5020	0.0197
113	0	35.5281	0.0000	0.8418	0.0322
114	6	57.6786	0.4778	2.2251	0.0810
115	2	57.2998	1.6224	4.1936	0.1671
116	1	82.6733	2.3432	5.3675	0.2379
117	2	76.0136	2.0965	3.7516	0.2018
118	2	45.3642	1.9113	1.6565	0.0635
119	0	32.9396	0.0000	2.7335	0.0668
120	0	3.7430	0.0000	0.2093	0.0140
121	0	0.0000	0.0000	0.0115	0.0011
122	0	0.0000	0.0000	0.0115	0.0000
123	0	0.0000	0.0000	0.0115	0.0000
124	0	0.0000	0.0000	0.0115	0.0000
125	0	4.8500	1.2347	0.0115	0.0000
126	1	3.1311	2.5228	0.0115	0.0000
127	0	2.8687	5.0188	0.0117	0.0000
128	0	0.7577	2.5184	0.0181	0.0000
129	0	8.4672	2.6775	0.0261	0.0000
130	1	41.5206	4.9716	2.4739	0.1308
131	7	72.4444	6.7307	3.3214	0.1909
132	2	21.3005	4.9741	0.0270	0.0000
133	0	0.0000	2.4855	0.0282	0.0000
134	0	0.2739	5.5619	0.1036	0.0039
135	0	0.7475	4.5571	0.0167	0.0000
136	0	0.1552	5.7589	0.0167	0.0000
137	0	13.7462	2.5010	0.5525	0.0240
138	0	48.3286	2.6446	1.0349	0.0385
139	10	62.8073	2.0977	2.6927	0.0772
140	1	98.1231	4.8299	6.1640	0.2060
141	2	88.9442	2.5644	5.5887	0.1993
142	2	94.5476	4.9790	4.2955	0.1988
143	2	70.0235	5.0927	2.8396	0.1437

193	0	18.5835	0.0000	0.1175	0.0060
194	0	3.8553	3.7717	0.0544	0.0024
195	0	0.0000	0.0000	0.0303	0.0000
196	0	0.0000	0.0000	0.0301	0.0000
197	0	0.0000	0.0000	0.0561	0.0020
198	0	0.0000	0.0000	0.0560	0.0019
199	0	0.0000	0.0000	0.0560	0.0019
200	0	0.0772	0.0000	0.0560	0.0019
201	0	0.2735	2.4855	0.0560	0.0019
202	0	0.3205	1.7709	0.0560	0.0019
203	1	0.2206	2.4861	0.0465	0.0015
204	0	4.8245	4.9710	0.4615	0.0107
205	0	31.2894	5.2506	2.9945	0.0584
206	0	21.8731	7.4515	1.0925	0.0236
207	0	3.3837	2.5712	0.0442	0.0015
208	0	0.0000	2.5569	0.0455	0.0018
209	6	22.0392	3.2305	0.5811	0.0175
210	7	47.1415	13.4346	2.1254	0.0717
211	20	96.1984	9.2479	7.0589	0.2544
212	7	86.4670	3.2964	4.5338	0.1358
213	1	88.6238	3.0497	4.2476	0.1306
214	2	81.4966	2.6719	4.5542	0.1762
215	6	41.7245	1.4503	1.5182	0.0623
216	9	18.4517	2.9478	0.5599	0.0212
217	0	2.7676	0.0000	0.1175	0.0060
218	0	0.3962	2.4861	0.0313	0.0011
219	0	0.4705	0.0000	0.0303	0.0000
220	0	0.0000	0.0000	0.0303	0.0010
221	0	0.0000	0.0000	0.0304	0.0000
222	0	0.0000	0.0000	0.0557	0.0018
223	0	0.0000	0.0000	0.0560	0.0019
224	0	0.0000	0.0000	0.0560	0.0019
225	0	10.0671	1.3459	0.0560	0.0019
226	0	1.5677	5.2375	0.0492	0.0019
227	0	0.0000	1.3440	0.0401	0.0016
228	0	0.1096	0.0000	0.0327	0.0011
229	0	12.0623	2.4383	0.6974	0.0115
230	3	34.6110	8.1729	1.4295	0.0225
231	4	20.2747	5.1661	1.2654	0.0382
232	0	2.6387	0.0000	0.0581	0.0031
233	0	0.0000	0.0000	0.0581	0.0031
234	0	0.8677	1.6510	0.2389	0.0094
235	0	32.8652	8.4134	1.6871	0.0479
236	8	86.0617	7.4956	5.2036	0.1804
237	6	94.7743	0.3362	7.1725	0.2247
238	34	75.7479	2.1270	1.8888	0.0787
239	1	44.9557	2.6185	1.5489	0.0559
240	0	6.9535	2.6197	0.6702	0.0165
241	0	2.8019	4.8169	0.4450	0.0084

242	0	2.1395	2.2444	0.0762	0.0036
243	0	5.3448	0.7929	0.0309	0.0000
244	0	0.2405	0.0000	0.0303	0.0000
245	0	0.0566	0.0000	0.0303	0.0000
246	0	0.0000	0.0000	0.0300	0.0000
247	0	0.0000	0.0000	0.0347	0.0000
248	0	0.0000	2.0940	0.0519	0.0028
249	0	0.8990	4.1122	0.0536	0.0026
250	0	0.5942	1.4602	0.0536	0.0026
251	0	0.0087	2.5165	0.0473	0.0028
252	0	0.0000	0.0000	0.0202	0.0000
253	0	0.0000	0.0000	0.0202	0.0000
254	1	3.3292	6.6990	0.0202	0.0000
255	0	0.5480	1.8927	0.0202	0.0000
256	0	0.1109	1.9778	0.0215	0.0011
257	0	0.6245	0.6065	0.0580	0.0029
258	0	0.0000	0.0000	0.0581	0.0031
259	0	1.9292	4.1253	0.3059	0.0113
260	0	83.0123	3.6095	5.2320	0.1530
261	4	84.4040	3.4219	5.2776	0.1814
262	1	96.6282	5.3065	6.2704	0.2349
263	9	80.3718	0.0000	3.3594	0.1599
264	2	9.3990	0.0000	0.1483	0.0044
265	0	2.5492	0.0000	0.1052	0.0023
266	0	0.4278	4.8840	0.0639	0.0016
267	0	0.0000	4.1936	0.0303	0.0000
268	0	1.4117	2.5569	0.0303	0.0000
269	0	3.3724	2.5259	0.0303	0.0000
270	0	5.9140	2.8086	0.0303	0.0000
271	0	0.0000	1.4459	0.0302	0.0000
272	0	0.0000	0.0000	0.0511	0.0031
273	0	0.0000	0.0000	0.0515	0.0031
274	0	0.0000	0.0000	0.0515	0.0031
275	0	0.0000	0.0000	0.0515	0.0031
276	0	0.0000	2.5097	0.0715	0.0034
277	0	0.1982	0.0000	0.0275	0.0013
278	0	14.7346	2.2972	0.2271	0.0133
279	4	22.8781	4.6099	0.4567	0.0270
280	0	0.0000	0.0000	0.0202	0.0000
281	0	0.0000	0.0000	0.0202	0.0000
282	0	0.0000	2.4774	0.0471	0.0024
283	0	0.0000	0.0000	0.0249	0.0015
284	0	0.0000	2.5078	0.0249	0.0013
285	0	3.1058	2.0369	0.2713	0.0092
286	0	20.4423	7.5521	1.5788	0.0615
287	0	65.3336	3.1460	2.8195	0.1122
288	0	46.6267	2.2400	2.5673	0.1026
289	0	16.3066	0.0000	0.2711	0.0107
290	0	8.8521	0.8693	0.1807	0.0070

291	0	0.2362	2.3600	0.1666	0.0065
292	0	0.0000	0.0000	0.0631	0.0028
293	0	0.0000	0.0000	0.0387	0.0016
294	0	0.0000	0.0000	0.0303	0.0000
295	0	0.6188	0.0000	0.0303	0.0000
296	0	0.0000	0.0000	0.0303	0.0000
297	0	0.0000	0.0000	0.0513	0.0028
298	0	0.0000	0.0000	0.0515	0.0031
299	0	0.0488	0.0000	0.0515	0.0031
300	0	0.0000	0.0000	0.0516	0.0031
301	0	1.4269	2.5016	0.1459	0.0050
302	0	3.8240	2.1487	0.0563	0.0021
303	0	3.0976	1.3857	0.5331	0.0316
304	0	6.3751	2.4861	0.5547	0.0329
305	0	0.0000	0.0000	0.0202	0.0000
306	0	0.3861	0.0000	0.0202	0.0000
307	0	0.0000	2.4855	0.0206	0.0011
308	0	0.0000	0.0000	0.0159	0.0000
309	0	0.0000	2.4985	0.0159	0.0000
310	0	5.4256	6.6872	0.0167	0.0000
311	0	5.4965	3.7307	0.3707	0.0123
312	1	46.5121	4.4173	0.8602	0.0278
313	0	40.2292	5.1568	1.4256	0.0568
314	0	29.6202	2.9590	0.9272	0.0385
315	0	4.1546	3.2491	0.1782	0.0070
316	1	2.6544	0.0000	0.1132	0.0049
317	0	0.5786	0.0000	0.0570	0.0031
318	0	3.5920	0.0000	0.0554	0.0029
319	0	0.0000	0.0000	0.0401	0.0018
320	0	0.0000	0.0000	0.0442	0.0021
321	0	0.3042	0.0000	0.0368	0.0014
322	0	0.0000	0.0000	0.0512	0.0000
323	0	0.0000	0.0000	0.0515	0.0030
324	0	0.3875	0.0000	0.1476	0.0100
325	0	10.3005	0.0000	0.9154	0.0453
326	8	14.6151	4.7199	0.4898	0.0196
327	0	2.6564	1.3608	0.0991	0.0034
328	0	0.0584	0.0000	0.0202	0.0000
329	0	5.7436	2.4880	0.0202	0.0000
330	0	0.3590	0.0000	0.0202	0.0000
331	0	0.0000	0.0000	0.0202	0.0000
332	0	0.0000	2.5029	0.0160	0.0000
333	0	0.0000	0.0000	0.0159	0.0000
334	0	0.0000	2.4867	0.0159	0.0000
335	0	0.4210	4.8976	0.0162	0.0000
336	0	0.0000	4.2129	0.0269	0.0000
337	0	1.7178	3.6238	0.0469	0.0000
338	1	3.7938	1.2297	0.2490	0.0102
339	7	17.9362	4.4683	1.1545	0.0542

340	0	0.0464	0.0000	0.1133	0.0049
341	0	0.0535	0.0000	0.0570	0.0031
342	0	0.0000	0.0000	0.0570	0.0031
343	0	0.3207	0.0000	0.0570	0.0031
344	0	0.0000	0.0000	0.0570	0.0031
345	0	0.0000	1.8448	0.0555	0.0031
346	0	0.0000	1.6056	0.0497	0.0030
347	0	0.0000	0.0000	0.0514	0.0032
348	0	1.6066	0.0000	0.4270	0.0253
349	3	64.6465	2.9061	3.4020	0.1844
350	2	47.3484	1.5043	2.9167	0.1796
351	0	3.5186	0.0000	0.7997	0.0453
352	0	0.4800	0.0000	0.0202	0.0000
353	0	0.4525	2.4855	0.0202	0.0000
354	0	0.2681	0.0000	0.0202	0.0000
355	0	0.0000	0.0000	0.0202	0.0000
356	0	0.0000	2.4774	0.0162	0.0000
357	0	0.0000	2.0381	0.0159	0.0000
358	0	0.1212	4.5230	0.0167	0.0000
359	0	1.1002	6.4859	0.0225	0.0000
360	0	0.4756	1.9306	0.0207	0.0000
361	0	0.4369	3.2429	0.0468	0.0000
362	0	1.9424	0.0000	0.0469	0.0000
363	0	0.0000	2.5899	0.1245	0.0055
364	0	0.0000	0.2274	0.0576	0.0031
365	0	5.5164	0.0000	0.0570	0.0031
366	0	0.6829	0.0000	0.0570	0.0031
367	0	1.4590	2.3991	0.0552	0.0031
368	0	4.2157	2.7340	0.0497	0.0031
369	0	0.0000	1.3894	0.0466	0.0031
370	0	0.0000	0.0000	0.0458	0.0031
371	0	0.0000	0.0000	0.0841	0.0065
372	0	0.1460	0.0000	0.0814	0.0041
373	0	0.0491	0.0000	0.2208	0.0126
374	0	0.1165	0.0000	0.3675	0.0215
375	0	0.9388	2.5588	0.2879	0.0185
376	0	12.8208	0.1746	1.5634	0.0236
377	0	3.4478	0.0000	1.0359	0.0572
378	0	1.2747	0.0000	0.4169	0.0235
379	0	4.3632	0.0000	0.0199	0.0000
380	0	1.1888	2.4855	0.0201	0.0000
381	0	0.0000	0.0000	0.0201	0.0000
382	0	0.0000	0.0000	0.0201	0.0000
383	0	0.7977	1.3496	0.0175	0.0000
384	0	0.3291	2.4575	0.0173	0.0000
385	0	2.0210	3.4548	0.0324	0.0000
386	0	0.6384	0.0000	0.0380	0.0000
387	0	0.0558	0.0000	0.0194	0.0000
388	0	1.7759	5.0132	0.0434	0.0000

389	0	1.2689	0.0000	0.0536	0.0015
390	0	0.0000	0.0000	0.2852	0.0146
391	0	1.7634	2.6396	0.1099	0.0057
392	0	5.2650	0.5723	0.0568	0.0031
393	0	0.4209	3.0590	0.0515	0.0031
394	0	0.0000	0.6537	0.0458	0.0031
395	0	0.0000	0.0000	0.0456	0.0031
396	0	0.0000	0.0000	0.0457	0.0030
397	0	0.0000	0.0000	0.0457	0.0030
398	0	0.0000	0.0000	0.0820	0.0034
399	0	0.1914	0.0000	0.0814	0.0040
400	0	1.3608	0.0000	0.1399	0.0073
401	0	2.6384	0.0000	0.4890	0.0291
402	0	39.9208	2.8316	2.4646	0.1617
403	2	27.5146	0.0000	1.2995	0.0839
404	0	27.9360	0.0000	0.8257	0.0217
405	0	2.1619	0.0000	0.3482	0.0066
406	0	0.0000	0.0000	0.0191	0.0000
407	0	0.1374	3.4759	0.0191	0.0000
408	0	0.0000	0.0000	0.0193	0.0000
409	0	0.1479	0.0000	0.0194	0.0000
410	0	0.1074	0.0000	0.0191	0.0000
411	0	0.3883	3.6263	0.0191	0.0000
412	0	0.2475	0.6674	0.0382	0.0000
413	0	0.2555	4.4552	0.0395	0.0000
414	0	0.1328	2.5054	0.0253	0.0000
415	0	0.4459	7.8311	0.0400	0.0000
416	0	0.2368	2.4867	0.1007	0.0040
417	1	0.0000	2.4898	0.3103	0.0160
418	1	34.1766	5.1897	0.2041	0.0107
419	0	0.8338	2.0468	0.0461	0.0031
420	0	0.0000	0.0000	0.0456	0.0031
421	0	0.0000	0.0000	0.0458	0.0030
422	0	0.0000	0.0000	0.0458	0.0029
423	0	0.0000	0.0000	0.0457	0.0037
424	0	0.0000	0.0000	0.0814	0.0041
425	0	7.2549	0.0000	0.0813	0.0041
426	0	4.7235	0.2293	0.1520	0.0062
427	0	18.3052	4.5428	0.9784	0.0547
428	4	59.2540	3.3063	4.3271	0.2652
429	1	9.7727	2.6607	3.2515	0.1944
430	0	10.6758	0.0000	0.8214	0.0084
431	0	0.6306	0.0000	0.0902	0.0000
432	0	0.3207	0.0000	0.0191	0.0000
433	0	0.0000	2.4855	0.0191	0.0000
434	0	0.0000	0.0000	0.0191	0.0000
435	0	0.4957	0.0000	0.0191	0.0000
436	0	0.1262	2.8409	0.0191	0.0000
437	0	0.0000	3.2815	0.0191	0.0000

438	0	0.0680	2.7141	0.0376	0.0000
439	0	1.8153	5.1561	0.0395	0.0000
440	0	6.2098	3.0584	0.0288	0.0000
441	0	0.0000	0.5002	0.1372	0.0059
442	0	0.0000	0.0000	0.2848	0.0146
443	0	0.0000	0.0000	0.3102	0.0159
444	1	28.6710	0.9215	0.2945	0.0152
445	0	0.0184	0.0000	0.0458	0.0031
446	0	0.0000	0.0000	0.0459	0.0028
447	0	0.0000	0.0000	0.0490	0.0000
448	0	0.0000	0.1466	0.0794	0.0047
449	0	0.3822	3.2585	0.0833	0.0042
450	2	7.1480	5.0983	0.1604	0.0078
451	0	6.0294	0.0000	0.0835	0.0036
452	0	0.1016	0.0000	0.1094	0.0060
453	0	4.7430	0.1827	0.0677	0.0037
454	0	1.1981	2.4873	0.0031	0.0000
455	0	0.0000	2.9714	0.0165	0.0000
456	0	1.9259	1.8598	0.0191	0.0000
457	0	0.0000	2.4855	0.0191	0.0000
458	0	0.2442	0.0000	0.0191	0.0000
459	0	0.0000	0.0000	0.0191	0.0000
460	0	0.0000	3.0515	0.0191	0.0000
461	0	0.0000	0.0000	0.0217	0.0000
462	0	0.1108	1.0849	0.0390	0.0000
463	0	0.2103	2.0406	0.0395	0.0000
464	0	0.0000	0.0994	0.0398	0.0000
465	0	0.0000	0.0000	0.0815	0.0044
466	0	0.1201	2.7663	0.1442	0.0089
467	0	0.7725	2.7993	0.1539	0.0100
468	0	0.0000	0.0000	0.0013	0.0000
469	0	0.0000	0.0000	0.0008	0.0000
470	0	0.0688	0.0000	0.0008	0.0000
471	0	0.0763	0.0000	0.0015	0.0000
472	0	0.0000	0.0000	0.0185	0.0000
473	0	2.1244	1.4192	0.0191	0.0000
474	0	0.1235	3.0397	0.0191	0.0000
475	0	0.0000	2.4855	0.0191	0.0000
476	0	2.0816	3.0466	0.0191	0.0000
477	0	19.8247	6.7319	0.0254	0.0013
478	0	3.1352	2.7042	0.0374	0.0000
479	0	3.1128	2.6775	0.0390	0.0000
480	0	0.0000	0.0000	0.0395	0.0000
481	0	0.0000	1.2788	0.2701	0.0182
482	0	0.0000	2.7825	0.2699	0.0180
483	0	0.0000	1.2701	0.2700	0.0180
484	1	30.6765	4.0333	0.9960	0.0565
485	0	50.2907	4.0557	3.1747	0.1807
486	0	0.0302	0.0000	0.3941	0.0225

487	0	0.0000	0.8041	0.1582	0.0112
488	0	0.2760	1.7908	0.0778	0.0055
489	0	0.0000	0.0000	0.0008	0.0000
490	0	0.1308	0.0000	0.0008	0.0000
491	0	0.0036	0.0000	0.0008	0.0000
492	0	0.0895	0.0000	0.0128	0.0000
493	0	0.3302	0.0000	0.0191	0.0000
494	0	0.0000	0.0000	0.0191	0.0000
495	0	0.0025	0.0000	0.0191	0.0000
496	0	0.2463	0.0000	0.0191	0.0000
497	0	3.9631	3.7394	0.0330	0.0018
498	0	0.0877	2.6477	0.0361	0.0019
499	0	1.2413	1.6087	0.0379	0.0000
500	0	0.0379	0.0000	0.0402	0.0000
501	0	0.0000	0.0000	0.2358	0.0000
502	0	0.0000	0.0000	0.2700	0.0181
503	0	0.0000	1.4621	0.2804	0.0173
504	2	56.4181	3.9824	2.9350	0.1371
505	3	94.4103	4.9094	5.7441	0.3925
506	1	33.3355	0.0000	1.7795	0.1166
507	0	1.1640	0.0000	0.4409	0.0317
508	0	0.9212	2.6272	0.1271	0.0118
509	0	0.0000	0.0000	0.0264	0.0024
510	0	0.0000	0.0000	0.0008	0.0000
511	0	0.1631	0.0000	0.0008	0.0000
512	0	0.0000	0.0000	0.0034	0.0000
513	0	1.0944	0.0000	0.0191	0.0000
514	0	0.0000	0.0000	0.0191	0.0000
515	0	0.0000	0.0000	0.0193	0.0000
516	0	0.0000	2.0132	0.0220	0.0011
517	0	0.0000	0.8910	0.0362	0.0020
518	0	0.4258	0.0000	0.0362	0.0021
519	0	3.1382	0.0000	0.0361	0.0018
520	0	0.0000	0.0000	0.2699	0.0179
521	0	0.0000	0.0000	0.2699	0.0180
522	0	10.0430	0.0000	0.4432	0.0111
523	2	39.3737	3.7146	3.1696	0.1714
524	0	47.9815	3.0354	2.0785	0.1331
525	12	48.5673	4.0004	0.7713	0.0528
526	0	0.4142	0.0217	0.1286	0.0119
527	0	0.0000	0.0000	0.0432	0.0040
528	0	0.0757	0.0000	0.0009	0.0000
529	0	0.0987	0.0000	0.0007	0.0000
530	0	0.0000	0.0000	0.0008	0.0000
531	0	0.1392	0.0000	0.0172	0.0000
532	0	0.0000	0.0000	0.0265	0.0015
533	0	0.7830	0.3101	0.0316	0.0018
534	0	0.2301	3.1715	0.0359	0.0019
535	0	0.0000	0.0000	0.0361	0.0021

536	0	1.8597	0.0000	1.1725	0.0723
537	6	13.1273	1.7243	0.2528	0.0194
538	0	0.0000	0.0000	0.1276	0.0103
539	0	0.0000	0.0000	0.0000	0.0000
540	0	0.0000	0.0000	0.0000	0.0000
541	0	0.0000	0.0000	0.0239	0.0000
542	0	0.0000	0.0000	0.0361	0.0020
543	0	0.0000	1.6025	0.0362	0.0020
544	0	0.0000	0.0000	0.0360	0.0022
545	0	0.0000	0.0000	0.0578	0.0000

3. Metal Surface Coatings (The headings are defined in Table 5.2. N stands for the Nth observation.)

N	MSCF	URBAN	HWY	POP	MFGEMP
1	0	0.0000	0.0000	0.0118	0.0012
2	0	0.0000	0.0099	0.0114	0.0008
3	0	0.0000	0.9967	0.0117	0.0008
4	0	0.0000	0.0000	0.0113	0.0008
5	0	0.0000	0.0000	0.0111	0.0013
6	0	0.0000	0.0000	0.0115	0.0012
7	0	0.0000	0.0000	0.0116	0.0012
8	0	0.0000	0.0000	0.0121	0.0011
9	0	0.0000	0.0000	0.0141	0.0010
10	0	0.0000	0.8805	0.0142	0.0011
11	0	0.0000	0.0000	0.0140	0.0010
12	0	0.0000	0.0000	0.0142	0.0010
13	0	0.0000	0.8009	0.0142	0.0011
14	0	0.0000	0.0000	0.0144	0.0000
15	0	0.0000	0.0000	0.0113	0.0010
16	0	0.0000	0.0000	0.0115	0.0010
17	0	0.0000	2.1238	0.0115	0.0010
18	0	0.0000	3.5331	0.0115	0.0010
19	0	0.2107	0.7320	0.0115	0.0010
20	0	0.0000	0.0000	0.0115	0.0010
21	0	0.0000	0.0000	0.0115	0.0010
22	0	0.0000	0.0000	0.0115	0.0010
23	0	0.3966	1.1470	0.0126	0.0010
24	0	1.6529	4.8237	0.0142	0.0010
25	0	0.0000	0.0000	0.0142	0.0010
26	0	0.0000	0.0000	0.0142	0.0010
27	0	0.0000	3.5474	0.0142	0.0010
28	0	0.3335	0.5108	0.0140	0.0008
29	0	0.0000	0.0000	0.0113	0.0011
30	0	0.0000	0.0000	0.0114	0.0010
31	0	0.0000	0.0000	0.0115	0.0010
32	0	0.0000	0.0000	0.0115	0.0010
33	0	0.0000	3.0515	0.0115	0.0010
34	0	0.0000	0.0000	0.0115	0.0010
35	0	0.0000	0.0000	0.0115	0.0010
36	0	0.0000	0.0000	0.0115	0.0010
37	0	0.0000	3.3131	0.0131	0.0010
38	0	0.0000	0.6065	0.0142	0.0010
39	0	0.6059	3.1435	0.0142	0.0010
40	0	0.0000	0.0000	0.0142	0.0010
41	0	0.0000	2.4861	0.0142	0.0010
42	0	0.0000	3.1379	0.0143	0.0010
43	0	0.0000	1.8915	0.0141	0.0010
44	0	0.0000	0.0000	0.0134	0.0000
45	0	0.0000	0.0000	0.0117	0.0015

46	0	0.0000	0.0000	0.0111	0.0016
47	0	0.0000	0.0000	0.0114	0.0009
48	0	0.0000	1.1694	0.0115	0.0010
49	0	0.0000	1.6597	0.0115	0.0010
50	0	0.0000	0.0000	0.0115	0.0010
51	0	0.0000	0.0000	0.0115	0.0010
52	0	0.0000	2.4861	0.0134	0.0010
53	0	0.0000	0.0000	0.0142	0.0010
54	0	0.0000	3.6642	0.0142	0.0010
55	0	0.0000	2.1711	0.0142	0.0010
56	0	0.0000	1.2458	0.0142	0.0010
57	0	0.0000	2.7676	0.0142	0.0010
58	0	0.0000	3.3156	0.0142	0.0010
59	0	0.0000	0.7003	0.0140	0.0009
60	0	0.0000	0.0000	0.0113	0.0011
61	0	0.0000	0.0000	0.0115	0.0010
62	0	0.0000	2.5986	0.0115	0.0010
63	0	0.0000	0.0000	0.0115	0.0010
64	0	0.0000	0.0000	0.0115	0.0010
65	0	0.0000	4.3608	0.0130	0.0010
66	0	0.0000	2.5327	0.0134	0.0010
67	0	0.0000	5.3108	0.0139	0.0010
68	0	3.0152	4.1930	0.0142	0.0010
69	0	0.0000	4.3036	0.0142	0.0010
70	0	0.0000	2.4861	0.0142	0.0010
71	0	0.0000	4.9716	0.0142	0.0010
72	0	3.9555	3.1603	0.0142	0.0011
73	0	0.0000	0.0000	0.1653	0.0064
74	0	0.0000	0.0000	0.2588	0.0112
75	0	0.0000	0.0000	0.2858	0.0000
76	0	0.0000	0.0000	0.0120	0.0015
77	0	0.0000	0.0000	0.0115	0.0010
78	0	0.0000	2.6085	0.0115	0.0010
79	0	0.1174	0.2833	0.0115	0.0010
80	0	0.0000	0.0000	0.0115	0.0010
81	0	0.0000	2.4861	0.0115	0.0010
82	0	0.0000	0.0000	0.0115	0.0010
83	0	0.0000	2.5215	0.0134	0.0010
84	0	0.0000	0.0000	0.0142	0.0010
85	0	0.0000	2.0679	0.0142	0.0010
86	0	1.4116	1.1377	0.0142	0.0010
87	0	0.0000	3.0205	0.0142	0.0010
88	0	0.0000	2.4861	0.0195	0.0006
89	0	0.0000	0.0000	0.0296	0.0008
90	0	0.0000	0.0000	0.2108	0.0088
91	0	0.0000	0.0000	0.0598	0.0023
92	0	0.0000	0.4735	0.0163	0.0000
93	0	1.4938	0.0000	0.4495	0.0161
94	0	1.7916	0.0000	0.7542	0.0273

95	0	0.3841	0.0000	1.1694	0.0443
96	0	0.0000	0.0000	0.0114	0.0010
97	0	0.0000	0.0000	0.0115	0.0010
98	0	0.0000	3.5511	0.0115	0.0010
99	0	0.0865	2.5563	0.0115	0.0010
100	1	1.5151	4.3421	0.0115	0.0010
101	0	6.8290	0.0000	0.0115	0.0010
102	0	0.5255	2.5184	0.0138	0.0010
103	0	0.0000	0.0000	0.0142	0.0010
104	0	9.9930	0.0000	0.0155	0.0010
105	0	1.8608	4.4068	0.0243	0.0002
106	0	6.9027	3.5667	0.0244	0.0002
107	0	1.0053	2.5134	0.0267	0.0000
108	0	0.0000	0.0000	0.0270	0.0000
109	0	0.0000	0.0000	0.1400	0.0055
110	0	0.0000	0.0000	0.0167	0.0000
111	0	0.0000	2.4861	0.0167	0.0000
112	0	19.1527	0.0000	0.5020	0.0197
113	0	35.5281	0.0000	0.8418	0.0322
114	0	57.6786	0.4778	2.2251	0.0810
115	0	57.2998	1.6224	4.1936	0.1671
116	0	82.6733	2.3432	5.3675	0.2379
117	0	76.0136	2.0965	3.7516	0.2018
118	0	45.3642	1.9113	1.6565	0.0635
119	2	32.9396	0.0000	2.7335	0.0668
120	0	3.7430	0.0000	0.2093	0.0140
121	0	0.0000	0.0000	0.0115	0.0011
122	0	0.0000	0.0000	0.0115	0.0010
123	0	0.0000	0.0000	0.0115	0.0010
124	0	0.0000	0.0000	0.0115	0.0010
125	0	4.8500	1.2347	0.0115	0.0010
126	0	3.1311	2.5228	0.0115	0.0010
127	0	2.8687	5.0188	0.0117	0.0010
128	0	0.7577	2.5184	0.0181	0.0006
129	0	8.4672	2.6775	0.0261	0.0000
130	0	41.5206	4.9716	2.4739	0.1308
131	3	72.4444	6.7307	3.3214	0.1909
132	0	21.3005	4.9741	0.0270	0.0000
133	0	0.0000	2.4855	0.0282	0.0000
134	0	0.2739	5.5619	0.1036	0.0039
135	0	0.7475	4.5571	0.0167	0.0000
136	0	0.1552	5.7589	0.0167	0.0000
137	0	13.7462	2.5010	0.5525	0.0240
138	0	48.3286	2.6446	1.0349	0.0385
139	1	62.8073	2.0977	2.6927	0.0772
140	0	98.1231	4.8299	6.1640	0.2060
141	0	88.9442	2.5644	5.5887	0.1993
142	0	94.5476	4.9790	4.2955	0.1988
143	0	70.0235	5.0927	2.8396	0.1437

144	2	56.2736	3.4455	1.9417	0.1156
145	0	6.3064	0.0000	0.2092	0.0140
146	0	0.0000	0.0000	0.2088	0.0174
147	0	0.0000	0.0000	0.0202	0.0013
148	0	0.0000	0.0000	0.0149	0.0011
149	0	0.0000	0.0000	0.0272	0.0013
150	0	0.0000	0.0000	0.0403	0.0016
151	0	0.0000	0.0000	0.0183	0.0011
152	0	0.0000	2.4873	0.0115	0.0010
153	0	0.0494	0.0000	0.0183	0.0005
154	0	0.0000	0.0000	0.0270	0.0000
155	0	5.9944	2.4855	0.3252	0.0160
156	0	5.5148	2.4855	0.4465	0.0217
157	0	4.9957	2.4873	0.0325	0.0005
158	0	0.0000	0.0000	0.0351	0.0006
159	0	0.0000	0.9526	0.1328	0.0050
160	0	0.0000	3.6195	0.2129	0.0097
161	0	2.2178	3.8798	0.5088	0.0249
162	2	46.0336	2.6868	2.9796	0.1136
163	0	87.6562	3.0255	3.9084	0.0972
164	0	93.6641	5.6190	3.3509	0.0987
165	1	99.8481	0.2479	4.5725	0.1314
166	0	79.4756	0.0000	3.7123	0.1216
167	0	72.3350	3.5778	1.6950	0.0730
168	1	24.2424	4.6162	0.7157	0.0398
169	0	17.2444	3.7431	0.1596	0.0097
170	0	0.0000	5.1126	0.1795	0.0118
171	0	0.0000	1.1750	0.1158	0.0073
172	0	0.0000	0.0000	0.0564	0.0024
173	0	0.0000	0.0000	0.0561	0.0019
174	0	0.0000	0.0000	0.0560	0.0019
175	0	0.0000	0.0000	0.0560	0.0019
176	0	0.0000	0.0000	0.0516	0.0019
177	0	0.0000	2.4954	0.0492	0.0018
178	0	0.0000	0.0000	0.0497	0.0018
179	0	0.0000	0.0000	0.0283	0.0002
180	0	0.0000	2.5911	0.0327	0.0005
181	0	0.4218	2.4855	0.1400	0.0032
182	0	0.3590	2.4438	0.0406	0.0010
183	0	6.6669	0.0000	0.0405	0.0010
184	0	0.0000	0.0000	0.0367	0.0005
185	0	10.9268	2.0008	0.2281	0.0097
186	0	34.1940	6.7499	1.2770	0.0583
187	1	61.5457	3.2342	3.6530	0.1305
188	0	80.8175	4.5584	3.2063	0.1120
189	0	98.3074	0.0000	5.2024	0.1580
190	0	89.1333	0.0000	4.1860	0.1049
191	0	71.7045	1.6957	3.9556	0.1729
192	1	43.6331	4.8597	1.0095	0.0482

193	0	18.5835	0.0000	0.1175	0.0060
194	0	3.8553	3.7717	0.0544	0.0024
195	0	0.0000	0.0000	0.0303	0.0010
196	0	0.0000	0.0000	0.0301	0.0010
197	0	0.0000	0.0000	0.0561	0.0020
198	0	0.0000	0.0000	0.0560	0.0019
199	0	0.0000	0.0000	0.0560	0.0019
200	0	0.0772	0.0000	0.0560	0.0019
201	0	0.2735	2.4855	0.0560	0.0019
202	0	0.3205	1.7709	0.0560	0.0019
203	0	0.2206	2.4861	0.0465	0.0015
204	0	4.8245	4.9710	0.4615	0.0107
205	0	31.2894	5.2506	2.9945	0.0584
206	0	21.8731	7.4515	1.0925	0.0236
207	0	3.3837	2.5712	0.0442	0.0015
208	0	0.0000	2.5569	0.0455	0.0018
209	1	22.0392	3.2305	0.5811	0.0175
210	0	47.1415	13.4346	2.1254	0.0717
211	0	96.1984	9.2478	7.0589	0.2544
212	0	86.4670	3.2964	4.5338	0.1358
213	0	88.6238	3.0497	4.2476	0.1306
214	0	81.4966	2.6719	4.5542	0.1762
215	1	41.7245	1.4503	1.5182	0.0623
216	0	18.4517	2.9478	0.5599	0.0212
217	0	2.7676	0.0000	0.1175	0.0060
218	0	0.3962	2.4861	0.0313	0.0011
219	0	0.4705	0.0000	0.0303	0.0010
220	0	0.0000	0.0000	0.0303	0.0010
221	0	0.0000	0.0000	0.0304	0.0000
222	0	0.0000	0.0000	0.0557	0.0018
223	0	0.0000	0.0000	0.0560	0.0019
224	0	0.0000	0.0000	0.0560	0.0019
225	0	10.0671	1.3459	0.0560	0.0019
226	0	1.5677	5.2375	0.0492	0.0019
227	0	0.0000	1.3440	0.0401	0.0016
228	0	0.1096	0.0000	0.0327	0.0011
229	0	12.0623	2.4383	0.6974	0.0115
230	0	34.6109	8.1729	1.4295	0.0225
231	0	20.2747	5.1661	1.2654	0.0382
232	0	2.6387	0.0000	0.0581	0.0031
233	0	0.0000	0.0000	0.0581	0.0031
234	0	0.8677	1.6510	0.2389	0.0094
235	0	32.8652	8.4133	1.6871	0.0479
236	3	86.0617	7.4956	5.2036	0.1804
237	0	94.7743	0.3362	7.1725	0.2247
238	4	75.7479	2.1269	1.8888	0.0787
239	0	44.9557	2.6185	1.5489	0.0559
240	0	6.9535	2.6197	0.6702	0.0165
241	0	2.8019	4.8169	0.4450	0.0084

242	0	2.1395	2.2444	0.0762	0.0036
243	0	5.3448	0.7929	0.0309	0.0010
244	0	0.2405	0.0000	0.0303	0.0010
245	0	0.0566	0.0000	0.0303	0.0010
246	0	0.0000	0.0000	0.0300	0.0009
247	0	0.0000	0.0000	0.0347	0.0000
248	0	0.0000	2.0940	0.0519	0.0028
249	0	0.8990	4.1122	0.0536	0.0026
250	0	0.5942	1.4602	0.0536	0.0026
251	0	0.0087	2.5165	0.0473	0.0028
252	0	0.0000	0.0000	0.0202	0.0010
253	0	0.0000	0.0000	0.0202	0.0010
254	0	3.3292	6.6990	0.0202	0.0010
255	0	0.5480	1.8927	0.0202	0.0010
256	0	0.1109	1.9778	0.0215	0.0011
257	0	0.6245	0.6065	0.0580	0.0029
258	0	0.0000	0.0000	0.0581	0.0031
259	0	1.9292	4.1253	0.3059	0.0113
260	0	83.0123	3.6095	5.2320	0.1530
261	1	84.4040	3.4219	5.2776	0.1814
262	0	96.6282	5.3065	6.2704	0.2349
263	2	80.3718	0.0000	3.3594	0.1599
264	0	9.3990	0.0000	0.1483	0.0044
265	0	2.5492	0.0000	0.1052	0.0023
266	0	0.4278	4.8840	0.0639	0.0016
267	0	0.0000	4.1936	0.0303	0.0010
268	0	1.4117	2.5569	0.0303	0.0010
269	0	3.3724	2.5259	0.0303	0.0010
270	0	5.9140	2.8086	0.0303	0.0010
271	0	0.0000	1.4459	0.0302	0.0009
272	0	0.0000	0.0000	0.0511	0.0030
273	0	0.0000	0.0000	0.0515	0.0031
274	0	0.0000	0.0000	0.0515	0.0031
275	0	0.0000	0.0000	0.0515	0.0031
276	0	0.0000	2.5097	0.0715	0.0034
277	0	0.1982	0.0000	0.0275	0.0013
278	0	14.7346	2.2972	0.2271	0.0133
279	0	22.8781	4.6099	0.4566	0.0270
280	0	0.0000	0.0000	0.0202	0.0010
281	0	0.0000	0.0000	0.0202	0.0010
282	0	0.0000	2.4774	0.0471	0.0024
283	0	0.0000	0.0000	0.0249	0.0015
284	0	0.0000	2.5078	0.0249	0.0013
285	0	3.1058	2.0369	0.2713	0.0092
286	0	20.4423	7.5521	1.5788	0.0615
287	0	65.3336	3.1460	2.8195	0.1122
288	1	46.6267	2.2400	2.5673	0.1026
289	0	16.3066	0.0000	0.2711	0.0107
290	0	8.8521	0.8693	0.1807	0.0070

291	0	0.2362	2.3600	0.1666	0.0065
292	0	0.0000	0.0000	0.0631	0.0028
293	0	0.0000	0.0000	0.0387	0.0016
294	0	0.0000	0.0000	0.0303	0.0010
295	0	0.6188	0.0000	0.0303	0.0010
296	0	0.0000	0.0000	0.0303	0.0009
297	0	0.0000	0.0000	0.0513	0.0028
298	0	0.0000	0.0000	0.0515	0.0031
299	0	0.0488	0.0000	0.0515	0.0031
300	0	0.0000	0.0000	0.0516	0.0031
301	0	1.4269	2.5016	0.1458	0.0050
302	1	3.8240	2.1487	0.0563	0.0021
303	0	3.0976	1.3857	0.5331	0.0316
304	1	6.3751	2.4861	0.5547	0.0329
305	0	0.0000	0.0000	0.0202	0.0010
306	0	0.3861	0.0000	0.0202	0.0010
307	0	0.0000	2.4855	0.0206	0.0011
308	0	0.0000	0.0000	0.0159	0.0010
309	0	0.0000	2.4985	0.0159	0.0010
310	0	5.4256	6.6872	0.0167	0.0010
311	0	5.4965	3.7307	0.3707	0.0123
312	0	46.5121	4.4173	0.8602	0.0278
313	0	40.2292	5.1567	1.4256	0.0568
314	0	29.6202	2.9590	0.9272	0.0385
315	0	4.1546	3.2491	0.1782	0.0070
316	0	2.6544	0.0000	0.1132	0.0049
317	0	0.5786	0.0000	0.0570	0.0031
318	0	3.5920	0.0000	0.0554	0.0029
319	0	0.0000	0.0000	0.0401	0.0018
320	0	0.0000	0.0000	0.0442	0.0021
321	0	0.3042	0.0000	0.0368	0.0014
322	0	0.0000	0.0000	0.0512	0.0000
323	0	0.0000	0.0000	0.0515	0.0030
324	0	0.3875	0.0000	0.1476	0.0100
325	1	10.3005	0.0000	0.9154	0.0453
326	2	14.6151	4.7199	0.4898	0.0196
327	0	2.6564	1.3608	0.0991	0.0034
328	0	0.0584	0.0000	0.0202	0.0010
329	0	5.7436	2.4880	0.0202	0.0010
330	0	0.3590	0.0000	0.0202	0.0010
331	0	0.0000	0.0000	0.0202	0.0010
332	0	0.0000	2.5029	0.0160	0.0010
333	0	0.0000	0.0000	0.0159	0.0010
334	0	0.0000	2.4867	0.0159	0.0010
335	0	0.4210	4.8976	0.0162	0.0010
336	0	0.0000	4.2129	0.0269	0.0010
337	0	1.7178	3.6238	0.0469	0.0010
338	0	3.7938	1.2297	0.2490	0.0102
339	0	17.9362	4.4683	1.1545	0.0542

340	0	0.0464	0.0000	0.1133	0.0049
341	0	0.0535	0.0000	0.0570	0.0031
342	0	0.0000	0.0000	0.0570	0.0031
343	0	0.3207	0.0000	0.0570	0.0031
344	0	0.0000	0.0000	0.0570	0.0031
345	0	0.0000	1.8448	0.0555	0.0031
346	0	0.0000	1.6056	0.0497	0.0030
347	0	0.0000	0.0000	0.0514	0.0032
348	0	1.6066	0.0000	0.4270	0.0253
349	0	64.6465	2.9061	3.4020	0.1844
350	2	47.3484	1.5043	2.9167	0.1796
351	0	3.5186	0.0000	0.7997	0.0453
352	0	0.4800	0.0000	0.0202	0.0010
353	0	0.4525	2.4855	0.0202	0.0010
354	0	0.2681	0.0000	0.0202	0.0010
355	0	0.0000	0.0000	0.0202	0.0010
356	0	0.0000	2.4774	0.0162	0.0010
357	0	0.0000	2.0381	0.0159	0.0010
358	0	0.1212	4.5230	0.0167	0.0010
359	0	1.1002	6.4859	0.0225	0.0008
360	0	0.4756	1.9306	0.0207	0.0010
361	0	0.4369	3.2429	0.0468	0.0010
362	0	1.9424	0.0000	0.0469	0.0010
363	0	0.0000	2.5899	0.1245	0.0055
364	0	0.0000	0.2274	0.0576	0.0031
365	0	5.5164	0.0000	0.0570	0.0031
366	0	0.6829	0.0000	0.0570	0.0031
367	0	1.4590	2.3991	0.0552	0.0031
368	0	4.2157	2.7340	0.0497	0.0031
369	0	0.0000	1.3894	0.0466	0.0031
370	0	0.0000	0.0000	0.0458	0.0031
371	0	0.0000	0.0000	0.0841	0.0065
372	0	0.1460	0.0000	0.0814	0.0041
373	0	0.0491	0.0000	0.2208	0.0126
374	0	0.1165	0.0000	0.3675	0.0215
375	0	0.9388	2.5588	0.2879	0.0185
376	0	12.8208	0.1746	1.5634	0.0236
377	0	3.4478	0.0000	1.0359	0.0572
378	0	1.2747	0.0000	0.4169	0.0235
379	0	4.3632	0.0000	0.0199	0.0010
380	0	1.1888	2.4855	0.0201	0.0010
381	0	0.0000	0.0000	0.0201	0.0010
382	0	0.0000	0.0000	0.0201	0.0010
383	0	0.7977	1.3496	0.0175	0.0010
384	0	0.3291	2.4575	0.0173	0.0010
385	0	2.0210	3.4548	0.0324	0.0003
386	0	0.6384	0.0000	0.0380	0.0000
387	0	0.0558	0.0000	0.0194	0.0010
388	0	1.7759	5.0132	0.0434	0.0010

389	0	1.2689	0.0000	0.0536	0.0015
390	0	0.0000	0.0000	0.2852	0.0146
391	0	1.7634	2.6396	0.1099	0.0057
392	0	5.2650	0.5723	0.0568	0.0031
393	0	0.4209	3.0590	0.0515	0.0031
394	0	0.0000	0.6537	0.0458	0.0031
395	0	0.0000	0.0000	0.0456	0.0031
396	0	0.0000	0.0000	0.0457	0.0030
397	0	0.0000	0.0000	0.0457	0.0030
398	0	0.0000	0.0000	0.0820	0.0034
399	0	0.1914	0.0000	0.0814	0.0040
400	0	1.3608	0.0000	0.1399	0.0073
401	0	2.6384	0.0000	0.4890	0.0291
402	0	39.9208	2.8316	2.4645	0.1617
403	1	27.5146	0.0000	1.2995	0.0839
404	0	27.9360	0.0000	0.8257	0.0217
405	0	2.1619	0.0000	0.3482	0.0066
406	0	0.0000	0.0000	0.0191	0.0010
407	0	0.1374	3.4759	0.0191	0.0010
408	0	0.0000	0.0000	0.0193	0.0010
409	0	0.1479	0.0000	0.0194	0.0010
410	0	0.1074	0.0000	0.0191	0.0010
411	0	0.3883	3.6263	0.0191	0.0010
412	0	0.2475	0.6674	0.0382	0.0000
413	0	0.2555	4.4552	0.0395	0.0000
414	0	0.1328	2.5054	0.0253	0.0006
415	0	0.4459	7.8311	0.0400	0.0010
416	0	0.2368	2.4867	0.1007	0.0040
417	0	0.0000	2.4898	0.3103	0.0160
418	1	34.1766	5.1897	0.2041	0.0107
419	0	0.8338	2.0468	0.0461	0.0031
420	0	0.0000	0.0000	0.0456	0.0031
421	0	0.0000	0.0000	0.0458	0.0030
422	0	0.0000	0.0000	0.0458	0.0029
423	0	0.0000	0.0000	0.0457	0.0037
424	0	0.0000	0.0000	0.0814	0.0041
425	0	7.2549	0.0000	0.0813	0.0041
426	0	4.7235	0.2293	0.1520	0.0062
427	0	18.3052	4.5428	0.9784	0.0547
428	1	59.2540	3.3063	4.3271	0.2652
429	0	9.7727	2.6607	3.2515	0.1944
430	1	10.6758	0.0000	0.8214	0.0084
431	0	0.6306	0.0000	0.0902	0.0010
432	0	0.3207	0.0000	0.0191	0.0010
433	0	0.0000	2.4855	0.0191	0.0010
434	0	0.0000	0.0000	0.0191	0.0010
435	0	0.4957	0.0000	0.0191	0.0010
436	0	0.1262	2.8409	0.0191	0.0010
437	0	0.0000	3.2815	0.0191	0.0010

438	0	0.0680	2.7141	0.0376	0.0002
439	0	1.8153	5.1561	0.0395	0.0000
440	0	6.2098	3.0584	0.0288	0.0005
441	0	0.0000	0.5002	0.1372	0.0059
442	0	0.0000	0.0000	0.2848	0.0146
443	0	0.0000	0.0000	0.3102	0.0159
444	0	28.6710	0.9215	0.2945	0.0152
445	0	0.0184	0.0000	0.0458	0.0031
446	0	0.0000	0.0000	0.0459	0.0028
447	0	0.0000	0.0000	0.0490	0.0000
448	0	0.0000	0.1466	0.0794	0.0047
449	0	0.3822	3.2585	0.0833	0.0042
450	1	7.1480	5.0983	0.1604	0.0078
451	0	6.0294	0.0000	0.0835	0.0036
452	0	0.1016	0.0000	0.1094	0.0060
453	0	4.7430	0.1827	0.0677	0.0037
454	0	1.1981	2.4873	0.0031	0.0002
455	0	0.0000	2.9714	0.0165	0.0008
456	0	1.9259	1.8598	0.0191	0.0010
457	0	0.0000	2.4855	0.0191	0.0010
458	0	0.2442	0.0000	0.0191	0.0010
459	0	0.0000	0.0000	0.0191	0.0010
460	0	0.0000	3.0515	0.0191	0.0010
461	0	0.0000	0.0000	0.0217	0.0008
462	0	0.1108	1.0849	0.0390	0.0000
463	0	0.2103	2.0406	0.0395	0.0000
464	0	0.0000	0.0994	0.0398	0.0000
465	0	0.0000	0.0000	0.0815	0.0044
466	0	0.1201	2.7663	0.1442	0.0089
467	0	0.7725	2.7993	0.1539	0.0100
468	0	0.0000	0.0000	0.0013	0.0000
469	0	0.0000	0.0000	0.0008	0.0000
470	0	0.0688	0.0000	0.0008	0.0000
471	0	0.0763	0.0000	0.0015	0.0000
472	0	0.0000	0.0000	0.0185	0.0010
473	0	2.1244	1.4192	0.0191	0.0010
474	0	0.1235	3.0397	0.0191	0.0010
475	0	0.0000	2.4855	0.0191	0.0010
476	0	2.0816	3.0466	0.0191	0.0010
477	0	19.8247	6.7319	0.0254	0.0013
478	0	3.1352	2.7042	0.0374	0.0008
479	0	3.1128	2.6775	0.0390	0.0003
480	0	0.0000	0.0000	0.0395	0.0000
481	0	0.0000	1.2788	0.2701	0.0182
482	0	0.0000	2.7825	0.2699	0.0180
483	0	0.0000	1.2701	0.2699	0.0180
484	0	30.6765	4.0333	0.9960	0.0565
485	0	50.2907	4.0557	3.1747	0.1807
486	0	0.0302	0.0000	0.3941	0.0225

487	0	0.0000	0.8041	0.1582	0.0112
488	0	0.2760	1.7908	0.0778	0.0055
489	0	0.0000	0.0000	0.0008	0.0000
490	0	0.1308	0.0000	0.0008	0.0000
491	0	0.0036	0.0000	0.0008	0.0000
492	0	0.0895	0.0000	0.0128	0.0006
493	0	0.3302	0.0000	0.0191	0.0010
494	0	0.0000	0.0000	0.0191	0.0010
495	0	0.0025	0.0000	0.0191	0.0010
496	0	0.2463	0.0000	0.0191	0.0010
497	1	3.9631	3.7394	0.0330	0.0018
498	0	0.0877	2.6477	0.0361	0.0019
499	0	1.2413	1.6087	0.0379	0.0010
500	0	0.0379	0.0000	0.0402	0.0000
501	0	0.0000	0.0000	0.2358	0.0000
502	0	0.0000	0.0000	0.2700	0.0181
503	0	0.0000	1.4621	0.2804	0.0173
504	1	56.4181	3.9824	2.9350	0.1371
505	0	94.4103	4.9094	5.7441	0.3925
506	0	33.3355	0.0000	1.7795	0.1166
507	0	1.1640	0.0000	0.4409	0.0317
508	0	0.9212	2.6272	0.1271	0.0118
509	0	0.0000	0.0000	0.0264	0.0024
510	0	0.0000	0.0000	0.0008	0.0000
511	0	0.1631	0.0000	0.0008	0.0000
512	0	0.0000	0.0000	0.0034	0.0002
513	0	1.0944	0.0000	0.0191	0.0010
514	0	0.0000	0.0000	0.0191	0.0010
515	0	0.0000	0.0000	0.0193	0.0010
516	0	0.0000	2.0132	0.0220	0.0011
517	0	0.0000	0.8910	0.0362	0.0020
518	0	0.4258	0.0000	0.0362	0.0021
519	0	3.1382	0.0000	0.0361	0.0018
520	0	0.0000	0.0000	0.2699	0.0179
521	0	0.0000	0.0000	0.2699	0.0180
522	0	10.0430	0.0000	0.4432	0.0111
523	0	39.3737	3.7145	3.1696	0.1714
524	0	47.9815	3.0354	2.0785	0.1331
525	2	48.5673	4.0004	0.7713	0.0528
526	0	0.4142	0.0217	0.1286	0.0119
527	0	0.0000	0.0000	0.0432	0.0040
528	0	0.0757	0.0000	0.0009	0.0000
529	0	0.0987	0.0000	0.0007	0.0000
530	0	0.0000	0.0000	0.0008	0.0000
531	0	0.1392	0.0000	0.0172	0.0009
532	0	0.0000	0.0000	0.0265	0.0015
533	0	0.7830	0.3101	0.0316	0.0018
534	0	0.2301	3.1715	0.0359	0.0019
535	0	0.0000	0.0000	0.0361	0.0021

536	0	1.8597	0.0000	1.1725	0.0723
537	0	13.1273	1.7243	0.2528	0.0194
538	0	0.0000	0.0000	0.1276	0.0103
539	0	0.0000	0.0000	0.0000	0.0000
540	0	0.0000	0.0000	0.0000	0.0000
541	0	0.0000	0.0000	0.0239	0.0000
542	0	0.0000	0.0000	0.0361	0.0020
543	0	0.0000	1.6025	0.0362	0.0020
544	0	0.0000	0.0000	0.0360	0.0022
545	0	0.0000	0.0000	0.0578	0.0000

4. Construction Mobile Equipment (The headings are defined in Table 7.2. N stands for the Nth observation.)

N	VALUE	URBAN	HWY	POP	CSTEMP
1	0	0.0000	0.0000	0.0118	0.0000
2	0	0.0000	0.0099	0.0114	0.0000
3	0	0.0000	0.9967	0.0117	0.0000
4	1	0.0000	0.0000	0.0113	0.0008
5	13	0.0000	0.0000	0.0111	0.0007
6	14	0.0000	0.0000	0.0115	0.0006
7	5	0.0000	0.0000	0.0116	0.0006
8	0	0.0000	0.0000	0.0121	0.0005
9	20	0.0000	0.0000	0.0141	0.0005
10	58	0.0000	0.8805	0.0142	0.0005
11	59	0.0000	0.0000	0.0140	0.0005
12	35	0.0000	0.0000	0.0142	0.0005
13	32	0.0000	0.8009	0.0142	0.0005
14	5	0.0000	0.0000	0.0144	0.0000
15	0	0.0000	0.0000	0.0113	0.0004
16	0	0.0000	0.0000	0.0115	0.0003
17	0	0.0000	2.1238	0.0115	0.0003
18	13	0.0000	3.5331	0.0115	0.0003
19	70	0.2108	0.7320	0.0115	0.0003
20	54	0.0000	0.0000	0.0115	0.0003
21	17	0.0000	0.0000	0.0115	0.0003
22	0	0.0000	0.0000	0.0115	0.0003
23	64	0.3966	1.1470	0.0126	0.0003
24	196	1.6527	4.8237	0.0142	0.0003
25	197	0.0000	0.0000	0.0142	0.0003
26	112	0.0000	0.0000	0.0142	0.0003
27	107	0.0000	3.5474	0.0142	0.0003
28	43	0.3335	0.5108	0.0140	0.0004
29	0	0.0000	0.0000	0.0113	0.0005
30	0	0.0000	0.0000	0.0114	0.0003
31	0	0.0000	0.0000	0.0115	0.0003
32	0	0.0000	0.0000	0.0115	0.0003
33	80	0.0000	3.0515	0.0115	0.0003
34	56	0.0000	0.0000	0.0115	0.0003
35	17	0.0000	0.0000	0.0115	0.0003
36	0	0.0000	0.0000	0.0115	0.0003
37	80	0.0000	3.3131	0.0131	0.0003
38	252	0.0000	0.6065	0.0142	0.0003
39	252	0.6056	3.1435	0.0142	0.0003
40	116	0.0000	0.0000	0.0142	0.0003
41	107	0.0000	2.4861	0.0142	0.0003
42	66	0.0000	3.1379	0.0143	0.0004
43	34	0.0000	1.8915	0.0141	0.0005
44	4	0.0000	0.0000	0.0134	0.0000
45	0	0.0000	0.0000	0.0117	0.0000

46	0	0.0000	0.0000	0.0111	0.0000
47	0	0.0000	0.0000	0.0114	0.0004
48	42	0.0000	1.1694	0.0115	0.0003
49	86	0.0000	1.6597	0.0115	0.0003
50	25	0.0000	0.0000	0.0115	0.0003
51	12	0.0000	0.0000	0.0115	0.0003
52	65	0.0000	2.4861	0.0134	0.0003
53	183	0.0000	0.0000	0.0142	0.0003
54	182	0.0000	3.6642	0.0142	0.0003
55	126	0.0000	2.1711	0.0142	0.0003
56	122	0.0000	1.2458	0.0142	0.0003
57	87	0.0000	2.7676	0.0142	0.0003
58	50	0.0000	3.3156	0.0142	0.0003
59	9	0.0000	0.7003	0.0140	0.0000
60	0	0.0000	0.0000	0.0113	0.0004
61	3	0.0000	0.0000	0.0115	0.0003
62	109	0.0000	2.5986	0.0115	0.0003
63	27	0.0000	0.0000	0.0115	0.0003
64	13	0.0000	0.0000	0.0115	0.0003
65	61	0.0000	4.3608	0.0130	0.0003
66	174	0.0000	2.5327	0.0134	0.0003
67	174	0.0000	5.3108	0.0139	0.0003
68	127	3.0155	4.1930	0.0142	0.0003
69	123	0.0000	4.3036	0.0142	0.0003
70	88	0.0000	2.4861	0.0142	0.0003
71	50	0.0000	4.9716	0.0142	0.0003
72	45	3.9555	3.1603	0.0142	0.0004
73	0	0.0000	0.0000	0.1653	0.0064
74	0	0.0000	0.0000	0.2588	0.0112
75	0	0.0000	0.0000	0.2858	0.0000
76	0	0.0000	0.0000	0.0120	0.0000
77	0	0.0000	0.0000	0.0115	0.0003
78	121	0.0000	2.6085	0.0115	0.0003
79	140	0.1174	0.2833	0.0115	0.0003
80	116	0.0000	0.0000	0.0115	0.0003
81	142	0.0000	2.4861	0.0115	0.0003
82	203	0.0000	0.0000	0.0115	0.0003
83	184	0.0000	2.5215	0.0134	0.0003
84	363	0.0000	0.0000	0.0142	0.0003
85	394	0.0000	2.0679	0.0142	0.0003
86	2083	1.4073	1.1377	0.0142	0.0003
87	3921	0.0000	3.0205	0.0142	0.0003
88	2327	0.0000	2.4861	0.0195	0.0008
89	1	0.0000	0.0000	0.0296	0.0014
90	150	0.0000	0.0000	0.2108	0.0091
91	1153	0.0000	0.0000	0.0598	0.0023
92	1256	0.0000	0.4735	0.0163	0.0000
93	566	1.4937	0.0000	0.4495	0.0280
94	422	1.7916	0.0000	0.7542	0.0468

95	324	0.3829	0.0000	1.1694	0.0532
96	0	0.0000	0.0000	0.0114	0.0005
97	35	0.0000	0.0000	0.0115	0.0003
98	218	0.0000	3.5511	0.0115	0.0003
99	235	0.0864	2.5563	0.0115	0.0003
100	212	1.5145	4.3421	0.0115	0.0003
101	211	6.8290	0.0000	0.0115	0.0003
102	183	0.5253	2.5184	0.0138	0.0003
103	588	0.0000	0.0000	0.0142	0.0003
104	690	9.9937	0.0000	0.0155	0.0005
105	4215	1.8656	4.4068	0.0243	0.0013
106	7962	6.9056	3.5667	0.0244	0.0013
107	7527	1.0053	2.5134	0.0267	0.0015
108	1	0.0000	0.0000	0.0270	0.0015
109	2383	0.0000	0.0000	0.1400	0.0058
110	6654	0.0000	0.0000	0.0167	0.0002
111	6654	0.0000	2.4861	0.0167	0.0002
112	3710	19.1532	0.0000	0.5020	0.0290
113	5221	35.5267	0.0000	0.8418	0.0496
114	14006	57.6726	0.4778	2.2251	0.0698
115	16980	57.3483	1.6224	4.1936	0.1608
116	11596	82.6733	2.3432	5.3675	0.3207
117	16438	76.0136	2.0965	3.7516	0.2381
118	10436	45.3762	1.9113	1.6565	0.1041
119	11459	32.9599	0.0000	2.7335	0.0435
120	7385	3.7430	0.0000	0.2093	0.0093
121	0	0.0000	0.0000	0.0115	0.0000
122	0	0.0000	0.0000	0.0115	0.0003
123	36	0.0000	0.0000	0.0115	0.0003
124	130	0.0000	0.0000	0.0115	0.0003
125	178	4.8538	1.2347	0.0115	0.0003
126	166	3.1311	2.5228	0.0115	0.0003
127	173	2.8687	5.0188	0.0117	0.0003
128	583	0.7577	2.5184	0.0181	0.0008
129	654	8.4631	2.6775	0.0261	0.0015
130	3889	41.5098	4.9716	2.4739	0.0916
131	8163	72.4444	6.7307	3.3214	0.1360
132	7376	21.3005	4.9741	0.0270	0.0015
133	249	0.0000	2.4855	0.0282	0.0016
134	3952	0.2738	5.5619	0.1036	0.0042
135	6709	0.7475	4.5571	0.0167	0.0002
136	6706	0.1552	5.7589	0.0167	0.0002
137	5930	13.7462	2.5010	0.5525	0.0261
138	3389	48.3305	2.6446	1.0349	0.0479
139	3631	62.8073	2.0977	2.6927	0.1018
140	10293	98.1306	4.8299	6.1640	0.2829
141	30704	88.9442	2.5644	5.5887	0.2686
142	27451	94.5476	4.9790	4.2955	0.2401
143	17415	70.0077	5.0927	2.8396	0.1441

144	20511	56.2683	3.4455	1.9417	0.0835
145	19684	6.3064	0.0000	0.2092	0.0092
146	447	0.0000	0.0000	0.2088	0.0087
147	0	0.0000	0.0000	0.0202	0.0009
148	0	0.0000	0.0000	0.0149	0.0005
149	1	0.0000	0.0000	0.0272	0.0010
150	12	0.0000	0.0000	0.0403	0.0015
151	31	0.0000	0.0000	0.0183	0.0006
152	27	0.0000	2.4873	0.0115	0.0003
153	121	0.0494	0.0000	0.0183	0.0008
154	137	0.0000	0.0000	0.0270	0.0015
155	671	5.9944	2.4855	0.3252	0.0094
156	860	5.5157	2.4855	0.4465	0.0139
157	333	4.9957	2.4873	0.0325	0.0013
158	202	0.0000	0.0000	0.0351	0.0013
159	283	0.0000	0.9526	0.1328	0.0058
160	3322	0.0000	3.6195	0.2129	0.0089
161	6805	2.2177	3.8798	0.5088	0.0175
162	14713	46.0336	2.6868	2.9796	0.0949
163	23595	87.6562	3.0255	3.9077	0.1194
164	12146	93.6641	5.6190	3.3513	0.1297
165	14020	99.8481	0.2479	4.5725	0.1761
166	9506	79.4790	0.0000	3.7123	0.1225
167	36471	72.3350	3.5778	1.6950	0.0850
168	37404	24.2450	4.6162	0.7157	0.0248
169	24009	17.2410	3.7431	0.1596	0.0052
170	24045	0.0000	5.1126	0.1795	0.0078
171	7459	0.0000	1.1750	0.1158	0.0047
172	0	0.0000	0.0000	0.0564	0.0024
173	0	0.0000	0.0000	0.0561	0.0019
174	0	0.0000	0.0000	0.0560	0.0019
175	7	0.0000	0.0000	0.0560	0.0019
176	27	0.0000	0.0000	0.0516	0.0018
177	27	0.0000	2.4954	0.0492	0.0016
178	120	0.0000	0.0000	0.0497	0.0018
179	137	0.0000	0.0000	0.0283	0.0015
180	382	0.0000	2.5911	0.0327	0.0013
181	605	0.4220	2.4855	0.1400	0.0029
182	159	0.3588	2.4438	0.0406	0.0011
183	159	6.6685	0.0000	0.0405	0.0011
184	159	0.0000	0.0000	0.0367	0.0016
185	3941	10.9268	2.0008	0.2281	0.0097
186	42587	34.1940	6.7499	1.2770	0.0338
187	12704	61.5457	3.2342	3.6530	0.1025
188	44884	80.8218	4.5584	3.2063	0.1044
189	30463	98.3074	0.0000	5.2017	0.1486
190	11821	89.1333	0.0000	4.1863	0.1291
191	10849	71.7015	1.6957	3.9556	0.1565
192	28615	43.6331	4.8597	1.0095	0.0393

193	24007	18.5835	0.0000	0.1175	0.0018
194	20936	3.8553	3.7717	0.0544	0.0010
195	20617	0.0000	0.0000	0.0303	0.0006
196	12979	0.0000	0.0000	0.0301	0.0005
197	1	0.0000	0.0000	0.0561	0.0020
198	2	0.0000	0.0000	0.0560	0.0019
199	4	0.0000	0.0000	0.0560	0.0019
200	13	0.0773	0.0000	0.0560	0.0019
201	24	0.2735	2.4855	0.0560	0.0019
202	56	0.3205	1.7709	0.0560	0.0019
203	176	0.2206	2.4861	0.0465	0.0015
204	4478	4.8248	4.9710	0.4615	0.0100
205	7154	31.2762	4.9741	2.9945	0.0508
206	18048	21.8735	7.4515	1.0925	0.0220
207	353	3.3829	2.5712	0.0442	0.0013
208	81	0.0000	2.5569	0.0455	0.0015
209	14676	22.0327	3.2305	0.5811	0.0165
210	21886	47.1415	13.4346	2.1254	0.0596
211	34261	96.2016	9.2478	7.0589	0.1623
212	12258	86.4712	3.2964	4.5338	0.1098
213	23892	88.6238	3.0497	4.2476	0.1110
214	15295	81.4966	2.6719	4.5542	0.1203
215	8207	41.7245	1.4503	1.5182	0.0453
216	13234	18.4517	2.9478	0.5599	0.0146
217	15690	2.7676	0.0000	0.1175	0.0018
218	899	0.3962	2.4861	0.0313	0.0006
219	899	0.4705	0.0000	0.0303	0.0006
220	865	0.0000	0.0000	0.0303	0.0007
221	48	0.0000	0.0000	0.0304	0.0000
222	0	0.0000	0.0000	0.0557	0.0018
223	3	0.0000	0.0000	0.0560	0.0019
224	3	0.0000	0.0000	0.0560	0.0019
225	782	10.0620	1.3459	0.0560	0.0019
226	253	1.5676	5.2375	0.0492	0.0018
227	12	0.0000	1.3440	0.0401	0.0015
228	87	0.1094	0.0000	0.0327	0.0011
229	4709	12.0736	2.4383	0.6983	0.0100
230	7951	34.6831	7.3216	1.4295	0.0220
231	22137	20.3089	5.1661	1.2653	0.0316
232	833	2.6383	0.0000	0.0581	0.0015
233	46	0.0000	0.0000	0.0581	0.0015
234	714	0.8679	1.6510	0.2389	0.0089
235	1872	32.8652	8.4133	1.6853	0.0411
236	7833	86.0617	7.4956	5.2036	0.1046
237	11144	94.7743	0.3362	7.1725	0.2202
238	8944	75.7479	2.1269	1.8888	0.0575
239	6567	44.9558	2.6185	1.5489	0.0602
240	4816	6.9535	2.6197	0.6702	0.0172
241	3608	2.8019	4.8169	0.4450	0.0078

242	3028	2.1355	2.2444	0.0762	0.0013
243	868	5.3448	0.7929	0.0309	0.0006
244	899	0.2405	0.0000	0.0303	0.0006
245	899	0.0566	0.0000	0.0303	0.0006
246	334	0.0000	0.0000	0.0300	0.0004
247	0	0.0000	0.0000	0.0674	0.0000
248	0	0.0000	2.0940	0.0519	0.0025
249	1	0.8942	4.1122	0.0536	0.0023
250	133	0.5939	1.4602	0.0536	0.0023
251	2	0.1109	1.9791	0.0215	0.0008
252	46	0.6246	0.6065	0.0580	0.0015
253	46	0.0000	0.0000	0.0581	0.0015
254	322	1.9291	4.1253	0.3059	0.0113
255	11431	83.0087	3.6095	5.2323	0.1610
256	8199	84.4025	3.4219	5.2776	0.1021
257	17938	96.6282	5.3065	6.2704	0.1761
258	14787	80.3718	0.0000	3.3594	0.0997
259	8659	9.3866	0.0000	0.1483	0.0084
260	2456	2.5492	0.0000	0.1052	0.0068
261	2874	0.4278	4.8840	0.0639	0.0034
262	971	0.0000	4.1936	0.0303	0.0006
263	726	1.4117	2.5569	0.0303	0.0006
264	778	3.3710	2.5259	0.0303	0.0006
265	789	5.9124	2.8086	0.0303	0.0006
266	407	0.0000	1.4459	0.0302	0.0006
267	45	0.0000	2.4774	0.0471	0.0013
268	46	0.0000	0.0000	0.0249	0.0006
269	133	0.0000	2.5078	0.0249	0.0008
270	1078	3.1060	2.0369	0.2713	0.0076
271	36174	20.4509	7.5521	1.5788	0.0440
272	44424	65.3307	3.1460	2.8195	0.0913
273	36312	46.6249	2.2400	2.5673	0.0769
274	35133	16.3066	0.0000	0.2711	0.0123
275	5931	8.8523	0.8693	0.1807	0.0083
276	672	0.2362	2.3600	0.1666	0.0076
277	665	0.0000	0.0000	0.0631	0.0032
278	714	0.0000	0.0000	0.0387	0.0018
279	722	0.0000	0.0000	0.0303	0.0006
280	722	0.6188	0.0000	0.0303	0.0006
281	402	0.0000	0.0000	0.0303	0.0006
282	45	0.0000	2.4855	0.0206	0.0006
283	50	0.0000	0.0000	0.0159	0.0005
284	97	0.0000	2.4861	0.0159	0.0005
285	13996	5.4292	6.6872	0.0167	0.0005
286	52692	5.4973	3.7307	0.3707	0.0120
287	61332	46.5121	4.4173	0.8602	0.0283
288	98349	40.2310	5.1567	1.4256	0.0520
289	10203	29.6202	2.9590	0.9272	0.0492
290	3704	4.1526	3.2491	0.1782	0.0083

291	970	2.6545	0.0000	0.1132	0.0062
292	674	0.6017	0.0000	0.0570	0.0042
293	707	3.5748	0.0000	0.0554	0.0040
294	591	0.0000	0.0000	0.0401	0.0019
295	577	0.0000	0.0000	0.0442	0.0024
296	249	0.3039	0.0000	0.0367	0.0014
297	44	0.0000	2.5047	0.0160	0.0005
298	57	0.0000	0.0000	0.0159	0.0005
299	68	0.0000	2.4867	0.0159	0.0005
300	131	0.4208	4.8976	0.0162	0.0005
301	617	0.0000	4.2129	0.0269	0.0005
302	617	1.7175	3.6238	0.0469	0.0008
303	816	3.7938	1.2297	0.2490	0.0071
304	3135	17.9379	4.4683	1.1545	0.0460
305	3245	0.0464	0.0000	0.1133	0.0062
306	1527	0.0534	0.0000	0.0570	0.0042
307	662	0.0000	0.0000	0.0570	0.0042
308	646	0.3207	0.0000	0.0570	0.0042
309	49	0.0000	0.0000	0.0570	0.0042
310	49	0.0000	1.8448	0.0555	0.0039
311	30	0.0000	1.6056	0.0497	0.0027
312	44	0.0000	2.4786	0.0162	0.0005
313	64	0.0000	2.0381	0.0159	0.0005
314	86	0.1212	4.5230	0.0167	0.0005
315	377	1.0998	6.4859	0.0225	0.0005
316	617	0.4791	1.9306	0.0207	0.0003
317	617	0.4369	3.2429	0.0468	0.0008
318	617	1.9424	0.0000	0.0469	0.0008
319	2971	0.0000	2.5899	0.1245	0.0044
320	3245	0.0000	0.2274	0.0576	0.0042
321	1348	5.5178	0.0000	0.0570	0.0042
322	434	0.6829	0.0000	0.0570	0.0042
323	423	1.4590	2.3991	0.0552	0.0039
324	49	4.2157	2.7340	0.0497	0.0028
325	49	0.0000	1.3894	0.0466	0.0021
326	31	0.0000	0.0000	0.0458	0.0018
327	24	0.7994	1.3496	0.0175	0.0008
328	37	0.3292	2.4575	0.0173	0.0006
329	364	2.0204	3.4548	0.0324	0.0010
330	836	0.6385	0.0000	0.0380	0.0010
331	844	0.0559	0.0000	0.0194	0.0003
332	854	1.7771	5.0132	0.0434	0.0008
333	869	1.2693	0.0000	0.0536	0.0011
334	1109	0.0000	0.0000	0.2852	0.0100
335	775	1.7630	2.6396	0.1099	0.0057
336	487	5.2656	0.5723	0.0568	0.0042
337	415	0.4208	3.0590	0.0515	0.0031
338	394	0.0000	0.6537	0.0458	0.0019
339	81	0.0000	0.0000	0.0456	0.0019

340	75	0.0000	0.0000	0.0457	0.0019
341	44	0.0000	0.0000	0.0457	0.0018
342	193	0.2475	0.6674	0.0382	0.0011
343	699	0.2555	4.4552	0.0395	0.0011
344	954	0.1329	2.5054	0.0253	0.0005
345	954	0.4456	7.8311	0.0400	0.0006
346	943	0.2369	2.4867	0.1007	0.0029
347	532	0.0000	2.4898	0.3103	0.0110
348	523	34.1766	5.1897	0.2041	0.0074
349	653	0.8338	2.0468	0.0461	0.0019
350	703	0.0000	0.0000	0.0456	0.0019
351	602	0.0000	0.0000	0.0458	0.0019
352	39	0.0000	0.0000	0.0458	0.0018
353	8	0.0000	0.0000	0.0454	0.0018
354	175	0.0681	2.7141	0.0376	0.0011
355	138	1.8148	5.1561	0.0395	0.0011
356	618	6.2144	3.0584	0.0288	0.0007
357	105	0.0000	0.5002	0.1372	0.0044
358	658	0.0000	0.0000	0.2848	0.0100
359	340	0.0000	0.0000	0.3103	0.0109
360	318	28.6630	0.9215	0.2946	0.0104
361	146	0.0184	0.0000	0.0458	0.0015
362	161	0.0000	0.0000	0.0459	0.0021
363	2	0.0000	0.0000	0.0490	0.0000
364	24	0.0000	0.0000	0.0217	0.0010
365	185	0.1108	1.0849	0.0390	0.0011
366	37	0.2104	2.0406	0.0395	0.0011
367	3	0.0000	0.0994	0.0398	0.0013
368	69	19.8270	6.7319	0.0254	0.0015
369	188	3.1360	2.7042	0.0374	0.0015
370	113	3.1128	2.6775	0.0390	0.0013
371	19	0.0000	0.0000	0.0395	0.0011
372	77	3.9594	3.7394	0.0330	0.0019
373	95	0.0877	2.6477	0.0361	0.0021
374	30	1.2413	1.6087	0.0379	0.0015
375	3	0.0379	0.0000	0.0402	0.0014
376	0	0.0000	0.0000	0.0193	0.0010
377	2	0.0000	2.0132	0.0220	0.0013
378	46	0.0000	0.8910	0.0362	0.0022
379	51	0.4258	0.0000	0.0362	0.0021
380	9	3.1383	0.0000	0.0361	0.0022
381	1	0.1393	0.0000	0.0172	0.0009
382	1	0.0000	0.0000	0.0265	0.0015
383	2	0.7831	0.3101	0.0316	0.0018
384	3	0.2301	3.1715	0.0359	0.0021
385	1	0.0000	0.0000	0.0361	0.0021
386	0	0.0000	0.0000	0.0238	0.0000
387	2	0.0000	0.0000	0.0361	0.0020
388	2	0.0000	1.6025	0.0362	0.0020

389	1	0.0000	0.0000	0.0360	0.0022
390	0	0.0000	0.0000	0.0578	0.0000

GIS FILE DOCUMENTATION

for

California Air Resources Board

by

University of California at Davis

October 1997

File name: arb.doc

Date: October 1997

By: JD, UCDavis

DOCUMENTATION FOR THE ARC/INFO GIS COVERAGES

Coverages of the three county area:

MGRID	Grid coverage. Cell size = 4 km by 4 km 33 * 28 = 924 cells (x0, y0) = (546000, 203590) PAT: mgrid-id = 1 to 924	
MGRID2	Grid coverage. Cell size = 4 km by 4 km 35 * 30 = 1050 cells (x0, y0) = (542000, 199580) PAT: mgrid2-id = 1 to 1050	
REGBND	Boundary coverage of the three county area.	
	PAT: ind = 1	in study area
	AAT: btype = 11	region boundary
CNTYBND	County boundaries of the three county area	
	PAT: name	county name
	AAT: btype = 10	county boundary
	11	region boundary
LANDUSE	Land use coverage of the three county area See attached documentation for land use data	

STREET	Street coverage	
	AAT: level = 1	interstate hwy (I-80, I-5)
	= 2	US hwy (US 50)
	= 3	state hwy (S16, S70, S99, S160)
	= 4	county hwy (e.g. E2, E3, E12, E14)
	= 10	railroad
AUTOPT	Location of auto refinishing shops. N = 344.	
	PAT: id	shop id
ADHPT	Location of major adhesive/sealnat users. N = 312.	
	PAT: id	user id
MSCPT	Location of metal coating facilities. N = 44.	
	PAT: id	facility id
HIGHWAY	Highways.	
	AAT: level = 1	interstate hwy (I-80, I-5)
	= 2	US hwy (US 50)
	= 3	state hwy (e.g. S16, S70, S160)
	= 4	county hwy (e.g. E2, E3, E12, E14)
	= 13	Frwy 99 and part of 113
RAILROAD	Railroads.	
	AAT: level = 10	
CENSUST	Census tract boundary.	
	AAT: btype = 10	county boundary
	11	region boundary
	PAT: population and employment attributes see attached documentation for census data.	

Coverages for part of the study region:

SYAMB	Assessor's map of Sacramento county and Yolo county combined. 1996 building valuations aggregated to the map index level of the assessors' maps. PAT: book = map book index assigned by the county assessors amb = 1-175 for Sac, 501-550 for Yolo value = summed valuation of construction projects frac = value divided by the total value of the counties sqmiles = area in square miles dvalue = value in $1000 per sq miles
SACLU	Sacramento county land use coverage. (See attached documentation for land use data)
SOLU	Solano county land use coverage. (See attached documentation for land use data)
YOLU	Yolo county land use coverage. (See attached documentation for land use data)
SACGRID	Grid coverage of Sacramento county PAT: gid = 1 to 440 (20 by 22 cells)
SOLAGRID	Grid coverage of Solano county PAT: gid = 1 to 340 (20 by 17 cells)
YOLOGRID	Grid coverage of Yolo county. PAT: gid = 1 to 440 (22 by 20 cells)

DOCUMENTATION FOR THE LAND USE DATA

State of California

The Resources Agency

DEPARTMENT OF WATER RESOURCES

STANDARD LAND USE LEGEND

July 1993

(This legend is for land use surveys conducted in 1993 and after.)

The minimum breakdown of land use is according to the class symbol. More detail is obtained by adding the subclass number to the class symbol, or by use of special condition symbols. Any or all of the following information can be delineated.

1. Types of agricultural, urban, or native land use.
2. Specific crops.
3. Multiple land use.
4. Sources of water supply.
5. Type of irrigation system.

AGRICULTURAL CLASSES

The vast majority of crops grown in California are irrigated. Unless preceded with an "n" if it is non-irrigated, all agricultural classes are considered irrigated. (This statement is for the agricultural classes and does not apply to the other non-agricultural classes of semiagricultural, urban, or native.)

G - GRAIN AND HAY CROPS

1. Barley
3. Oats

2. Wheat
6. Miscellaneous and mixed grain and hay

R - RICE

F - FIELD CROPS

1. Cotton
2. Safflower
3. Flax
4. Hops
5. Sugar beets
6. Corn (field & sweet)
7. Grain sorghum
8. Sudan
9. Castor beans
10. Beans,dry (all types)
11. Miscellaneous field
12. Sunflowers

P - PASTURE

1. Alfalfa & alfalfa mixtures
2. Clover
3. Mixed pasture
4. Native pasture
5. Induced high water table native pasture
6. Misc. grasses (normally grown for seed)
7. Turf farms

T - TRUCK, NURSERY AND BERRY CROPS

1. Artichokes
2. Asparagus
3. Beans (green)
4. Cole crops (when further breakdown is not needed)
6. Carrots
7. Celery
8. Lettuce (all types)
9. Melons, squash, and cucumbers (all types)
10. Onions and garlic
11. Peas
12. Potatoes
13. Sweet Potatoes
14. Spinach
15. Tomatoes
16. Flowers,nursery & Christmas tree farms
17. Mixed (four or more)
18. Miscellaneous truck
19. Bushberries
20. Strawberries
21. Peppers (chili, bell,etc.)
22. Broccoli
23. Cabbage
24. Cauliflower
25. Brussels sprouts

D - DECIDUOUS FRUITS AND NUTS

1. Apples
2. Apricots
3. Cherries
5. Peaches and nectarines
6. Pears
7. Plums
8. Prunes
9. Figs
10. Miscellaneous deciduous
12. Almonds
13. Walnuts
14. Pistachios

C - CITRUS AND SUBTROPICAL

1. Grapefruit
2. Lemons
3. Oranges
4. Dates
5. Avocados
6. Olives
7. Miscellaneous subtropical fruits
8. Kiwis
9. Jojoba
10. Eucalyptus

V - VINEYARDS

1. Table grapes
2. Wine grapes
3. Raisin grapes

I - IDLE (precede with "n" in non-irrigated area)
(Must include subclass)

1. Land cropped within the past three years but not cultivated at the time of survey.

2. New lands being prepared for crop production.

SEMIAGRICULTURAL CLASS
(Do not precede with "n")

S - SEMIAGRICULTURAL & INCIDENTAL TO AGRICULTURE
(Must include subclass)

1. Farmsteads
2. Livestock feed lots
3. Dairies

4. Poultry farms

URBAN CLASSES
(Do not precede with "n")

U - URBAN - Residential, commercial, and industrial
(May be used alone when further breakdown is not required)

UR - RESIDENTIAL - Single and multiple family units, including trailer courts (May be used alone when further breakdown is not required)

1. Single family dwellings with lot sizes greater than 1 acre up to 5 acres. (ranchettes etc.)

2. Single family dwellings with a density of 1 unit/acre up to 8+ unit/acre.

3. Multiple family (apartments, condos, townhouses, barracks, bungalows, duplexes, etc.)

4. Trailer courts

WATER USE FACTOR (% of total area irrigated - will be the second digit of UR Subclass when water factor is used)

1 0% to 25% area irrigated
2 26% to 50% area irrigated
3 51% to 75% area irrigated
4 76% or greater

Example: UR32 Multiple family with water use factor of 26% to 50% of area irrigated.

UC - COMMERCIAL (May be used alone when further breakdown is not required)

1. Offices, retailers, etc.
2. Hotels

3. Motels
4. Recreation vehicle parking & camp sites
5. Institutions (hospitals, prisons, reformatories, asylums, etc., having a reasonably constant 24-hour resident population)
6. Schools (yards to be mapped separately if large enough)
7. Municipal auditoriums, theaters, churches, buildings and stands associated with race tracks, football stadiums, baseball parks, rodeo arenas, amusement parks, etc.
8. Miscellaneous high water use (To be used to indicate a high water use condition not covered by the above categories.)

UI - INDUSTRIAL (May be used alone when further breakdown is not required)

1. Manufacturing, assembling, and general processing
2. Extractive industries (oil fields, rock quarries, gravel pits,rock and gravel processing plants, etc.)
3. Storage and distribution (warehouses, substations, railroad marshalling yards, tank farms, etc.)
6. Saw mills
7. Oil refineries
8. Paper mills
9. Meat packing plants
10. Steel and aluminum mills
11. Fruit and vegetable canneries and general food processing
12. Miscellaneous high water use (To be used to indicate a high water use condition not covered by the above categories.)
13. Sewage treatment plant including ponds.
14. Waste accumulation sites (public dumps, sewage sludge sites, landfill and hazardous waste sites, etc..)
15. Wind farms, solar collectors farms, etc.

UL - URBAN LANDSCAPE (May be used alone when further breakdown is not required)

1. Lawn area - irrigated
2. Golf course - irrigated
3. Ornamental landscape (excluding lawns) - irrigated
4. Cemeteries - irrigated

5. Cemeteries - not irrigated

UV - VACANT (May be used alone when further breakdown is not required)

1. Unpaved areas (vacant lots, graveled surfaces, play yards, developable open lands within urban areas, etc.)
3. Railroad right of way.
4. Paved areas (parking lots, oiled surfaces, flood control channels, tennis court areas, auto sales lots, etc.)
6. Airport runways

Example: UV4-K Paved urban vacant with a freeway special condition. (The paved portion of the freeway right of way.)

NATIVE CLASSES
(Do not precede with "n")

NC - NATIVE CLASSES UNSEGREGATED (May be used alone when further breakdown is not required)

NV - NATIVE VEGETATION (May be used alone when further breakdown is not required)

1. Grass land
2. Oak grass land
3. Light brush
4. Medium brush
5. Heavy brush
6. Brush and timber
7. Forest

NR - RIPARIAN VEGETATION (May be used alone when further breakdown is not required)

1. Marsh lands, tules and sedges
2. Natural high water table meadow
3. Trees, shrubs or other larger stream side or watercourse vegetation
4. Seasonal duck marsh, dry or only partially wet during summer

5. Permanent duck marsh, flooded during summer

NW - WATER SURFACE - Lakes, reservoirs, rivers, canals, etc.

NB - BARREN AND WASTELAND (May be used alone when further breakdown is not required)

1. Dry stream channels
2. Mine Tailing
3. Barren land
4. Salt flats
5. Sand dunes

UNCLASSIFIED

NS - NOT SURVEYED
Area within the investigation area that was not mapped.

E - ENTRY DENIED

Z - This area is outside of the study area.

When any of the following special conditions, source of water, or type of irrigation is used a (-) should precede them. When more than one is used they should be used in the order stated above.

SPECIAL CONDITIONS
(only one can be used per parcel)

(A) - ABANDONED ORCHARDS AND VINEYARDS

Trees or vines must be in such a condition that renewal of cultural practices would restore economic production. Indicated by "A" following crop symbol.

Example: D1-A Indicates an apple orchard previously irrigated but now abandoned.

(B) - BURNED OVER AREAS

Indicated by "B". The type and density of natural cover destroyed by fire is obtained by examination of aerial photo.

Example: NV2-B

(F) - FALLOW LANDS

Must be disked or plowed at time of survey.

(1) If no crop residue is apparent or identifiable then the "F" symbol will follow the agricultural class symbol for the crop most representative of those grown in the area.

Example: T-F Fallow land within a truck crop area. (with facilities for irrigation)

(2) If the crop residue is apparent and identifiable but is not from the current crop season covered by the survey then the field is considered fallow and mapped as the class of the crop residue.

Example: Surveyor found an old sugar beet residue not from current season. Land would be mapped F-F.

(3) However, if the crop residue is identifiable as that of a crop which was grown during the survey period, then map the field as though crop existed.

Example: T6 - Carrot residue from current growing season.

(K) - FREEWAYS

Examples: UV-K Urban vacant, unsegregated, within the freeway right of way.
UL3-K Urban landscape within the freeway

right of way.

(M) - MILITARY AREAS (Use only with the URBAN classes)

Indicates land owned or controlled by the military and is used following the land use symbol.

Example: UR3-M Multiple family dwellings within a military area.

(R) - RECREATIONAL

To be used with residential, commercial, vacant, R.V. parks and camp sites within primarily a seasonal recreational area.

(S) - SEED CROP

Indicates any crop grown for seed and is used following crop symbol.

Example: P1-S Irrigated alfalfa seed crop.

(T) - TILLED LANDS

A field prepared for immediate planting, or just newly planted, including the appearance of seed lines or unidentifiable tiny seedlings.

Example: T-T Tilled land in predominately a truck crop area.

(X) - PARTIALLY IRRIGATED CROPS

Crops irrigated for only part of their normal irrigation season.

Example: P3-X Partially irrigated mixed pasture.

(Y) - YOUNG NON-BEARING ORCHARDS AND VINEYARDS

Follows crop symbol.

Example: C3-Y Young non-bearing irrigated oranges.

(Z) - RECLAMATION

Land being leached for the removal of harmful salts. This symbol will be used following either the ~Idle~ symbol or symbols of crops grown as a step in the reclamation process.

Examples: I2-Z, or R-Z

MULTIPLE LAND USE

INTERCROPPING

Indicated by a fractional symbol. To be used with orchards or vineyards when intercropped with some other crop class, the orchard or vineyard symbol will appear in the numerator.

Example: D12-Y/F10 young almonds intercropped with dry beans.

DOUBLE CROPS

First crop indicated by enclosed parenthesis.

Examples: (G)F6 Irrigated grain followed by field corn.
(T24)T8 Cauliflower followed by lettuce.

TRIPLE CROPS

First and second crop indicated by enclosed parenthesis.

Example: (T8)(T23)T8 Irrigated lettuce followed by cabbage followed by lettuce.

MIXED LAND USE

Indicated by percentages following land use symbols. No more than 3 symbols are to be used in describing the area. (Use in increments of 10%)

Example: D5 -40% Irrigated peaches 40%
NV -20% Native vegetation 20%
UR -40% Urban residential 40%

TYPE OF IRRIGATION SYSTEM

G - Gravity - Using a surface irrigation system, such as furrows, borders, gated pipe, etc.

M - Micro - Including drip and micro-spray.

S - Sprinkler - Including permanent and movable sprinkler systems.

U - Unknown

As part of the map symbols these irrigation type letters should include a circle around them so that they are not confused with the special condition letters.

Example: P3- 1 G Irrigated pasture with stream as the water and gravity as the type of irrigation.

SOURCE OF IRRIGATION WATER

As part of the map symbols a circle should inclose each of the water source numbers. This symbol should be the last symbol in the land use code.

Water Source	code
Surface water ----------	1
Mixed surface & ground water ---	2
Ground water ----------	3
Unknown source ----------	4

Example: P1- 3 Irrigated alfalfa with a well as water source.

LEGEND REVISED 7/30/93 jb

ADDENDUM : FILE STRUCTURE FOR .ATT FILES

Structure for TYPE III file named <luse.dbf>
Number of bytes per record : 67
Number of fields in record : 20
Date file was last updated : 3/28/95

Field	Label	Type	Size/Dec.	Offset
1	BL_X	N	12 0	1
2	BL_Y	N	12 0	13
3	ACRES	N	13 3	25
4	WATERSOURC	C	1 0	38
5	MULTIUSE	C	1 0	39
6	CLASS1	C	2 0	40
7	SUBCLASS1	N	2 0	42
8	SPECOND1	C	1 0	44
9	IRR_TYP1	C	2 0	45
10	PCNT1	N	2 0	47
11	CLASS2	C	2 0	49
12	SUBCLASS2	N	2 0	51
13	SPECOND2	C	1 0	53
14	IRR_TYP2	C	2 0	54
15	PCNT2	N	2 0	56
16	CLASS3	C	2 0	58
17	SUBCLASS3	N	2 0	60
18	SPECOND3	C	1 0	62
19	IRR_TYP3	C	2 0	63
20	PCNT3	N	2 0	65

Record size in bytes = 67

The .DXF files have one and only one layer of lines each.
Lines are of ACAD type LINE and POLYLINE only. There are no other drawing element types in the .DXF file.

ADDENDUM : LIST OF COUNTIES AND STUDY NUMBERS, ABBREVIATIONS, AND NAMES FOR GRASS GIS

COUNTY/ STUDY NUMBER	ABBR.	NAME	COUNTY/ STUDY NUMBER	ABBR.	NAME
1	AL	ALAMEDA	51	SU	SUTTER
2	AP	ALPINE	52	TE	TEHEMA
3	AM	AMADOR	53	TR	TRINITY
4	BU	BUTTE	54	TU	TULARE
5	CA	CALAVERAS	55	TO	TOULUMNE
6	CO	COLUSA	56	VE	VENTURA
7	CC	CONTRA COSTA	57	YO	YOLO
8	DN	DEL NORTE	58	YU	YUBA
9	ED	EL DORADO	59		
10	FR	FRESNO	60	DL	DELTA
11	GL	GLENN	61	US	UPPER SANTA ANA
12	HU	HUMBOLDT	62		
13	IM	IMPERIAL	63		
14	IN	INYO	64		
15	KN	KERN	65		
16	KG	KINGS	66		
17	LK	LAKE	67		
18	LS	LASSEN	68		
19	LA	LOS ANGELES	69		
20	MA	MADERA	70		
21	MR	MARIN	71		
22	MP	MARIPOSA	72		
23	MD	MENDOCINO	73		
24	ME	MERCED	74		
25	MO	MODOC	75		
26	MN	MONO	76		
27	MT	MONTEREY	77		
28	NA	NAPA	78		
29	NE	NEVADA	79		
30	OR	ORANGE	80		
31	PL	PLACER	81		
32	PM	PLUMAS	82		
33	RI	RIVERSIDE	83		
34	SA	SACRAMENTO	84		
35	ST	SAN BENITO	85		

36	SR	SAN BERNARDINO	86
37	SD	SAN DIEGO	87
38	SF	SAN FRANCISCO	88
39	SJ	SAN JOAQUIN	89
40	SL	SAN LUIS OBISPO	90
41	SM	SAN MATEO	91
42	SB	SANTA BARBARA	92
43	SC	SANTA CLARA	93
44	SZ	SANTA CRUZ	94
45	SH	SHASTA	95
46	SI	SIERRA	96
47	SK	SISKIYOU	97
48	SO	SOLANO	98
49	SN	SONOMA	99
50	SS	STANISLAUS	

For Problems or information contact:

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DOCUMENTATION FOR THE CENSUS DATA

LIBRARY : COUNTY
LAYER NAME : CENSUSTRACTS
COVERAGE NAME : CENTRCTA

COVERAGE DESCRIPTION:

The 'CENSUSTRACTS' layer contains 1990 Census tract boundaries that have been clipped by the county outline. In most cases this clipping renders a recognizable county outline, but in areas where the legal county line is offshore (San Francisco, San Mateo, Alameda, Contra Costa) the tracts will extend beyond the shoreline to the legal county line and will appear unusual. The source for this layer is the 1990 TIGER/Line files. The attribute file contains the PL94-171 data (all fields) for the census tracts, and two density items.

The TIGER/Line data was re-issued several times. Early versions had corrections to the line work, some of which had to do with county boundaries. The post-census county lines do not match the Teale library's county lines.

There are instances where the original TIGER census tract coverages contain polygons which were clipped out by the tile insertion process. In order to include these valid census polygons in the library, they are represented by very small square polygons (55 meters on a side) near the county line where they were clipped out.
They are correctly coded with census tract numbers, but the area values are necessarily bogus. Most of these polygons were originally very small and had no data attached. All of them have numeric values in the 80s and 90s in the last 2 digits of the CTBNA90 item (e.g. 4100.98). Where these contain non-zero PL94-171 data, users are cautioned not to use the 'pdensity' and 'hdensity' attributes which are incorrect due to the erroneous area values.

All tables from Summary Tape Files 1A and 3A are available as relatable files. The tables are priced as a separate data product, but are available to library subscribers in directory /tlib/stf. Documentation for the summary tape files can be found in /tlib/documentation/STF{1,3}.

VITAL STATISTICS:

Datum:	NAD 27
Projection:	Albers
Units:	Meters
1st Std. Parallel:	34 00 00 (34.0 degrees N)
2nd Std. Parallel:	40 30 00 (40.5 degrees N)
Longitude of Origin:	-120 00 00 (120.0 degrees W)
Latitude of Origin:	00 00 00 (0.0 degrees)
False Easting (X shift):	0
False Northing (Y shift):	-4,000,000
Source:	US Dep't of Commerce Census Bureau TIGER/Line
Source Media:	Magnetic Tape
Source Projection:	Geographic
Source Units:	Decimal degrees
Source Scale:	Unknown
Capture Method:	Unknown
Conversion Software:	ARC/INFO rev. 5.0.1
Data Structure:	Vector
ARC/INFO Coverage Type:	Polygon
ARC/INFO Precision:	Double
ARC/INFO Tolerances:	1 centimeter (.01 m)
Number of Features:	11,033
Layer Size:	19.307 MB
Data Updated:	November 4, 1992

DATA DICTIONARY:

DATAFILE:	CENTRCTA.PAT
RECORD LENGTH:	157

Non-standard POLYGON attribute fields:

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC
25	FIPSCO	3	3	C	-
28	CTBNA90	6	6	B	-
34	PERSONS	4	9	B	-
38	RACE-WHT	4	9	B	-
42	RACE-BLK	4	9	B	-
46	RACE-IND	4	9	B	-
50	RACE-ASI	4	9	B	-
54	RACE-OTH	4	9	B	-

58	RA18-WHT	4	9	B	-
62	RA18-BLK	4	9	B	-
66	RA18-IND	4	9	B	-
70	RA18-ASI	4	9	B	-
74	RA18-OTH	4	9	B	-
78	HISO-HIS	4	9	B	-
82	HISO-WHT	4	9	B	-
86	HISO-BLK	4	9	B	-
90	HISO-IND	4	9	B	-
94	HISO-ASI	4	9	B	-
98	HISO-OTH	4	9	B	-
102	HI18-HIS	4	9	B	-
106	HI18-WHT	4	9	B	-
110	HI18-BLK	4	9	B	-
114	HI18-IND	4	9	B	-
118	HI18-ASI	4	9	B	-
122	HI18-OTH	4	9	B	-
126	HOUSING	4	9	B	-
130	PDENSITY	4	10	F	-
134	HDENSITY	4	10	F	-
138	X-COORD	8	18	F	5
146	Y-COORD	8	18	F	5
154	S1ALINK	4	5	B	-
** REDEFINED ITEMS **					
25	COTRACT	9	9	I	-

NOTE: Items common to all POLYGON coverages: AREA, PERIMETER, CENTRCTA# and CENTRCTA-ID are not described here.

FIPSCO: The FIPS county id number.

CTBNA90: Census tract number. Two places after the decimal are implied.

PERSONS: Total number of persons in the census tract.

RACE-WHT: Total number of whites in the census tract.

RACE-BLK: Total number of blacks in the census tract.

RACE-IND: Total number of American Indians in the census tract.

RACE-ASI: Total number of Asians and Pacific Islanders and Pacific Islanders in the census tract.

RACE-OTH: Total number of persons of other races in census tract.

RA18-WHT: Total number of whites over age 18 in census tract.

RA18-BLK: Total number of blacks over age 18 in census tract.

RA18-IND: Total number of American Indians over age 18 in census tract.

RA18-ASI: Total number of Asians and Pacific Islanders over age 18 in census tract.

RA18-OTH: Total number of persons over age 18 of other races in census tract.

HISO-HIS: Total number of persons of Hispanic origin in census tract.

HISO-WHT: Total number of non-Hispanic whites in the census tract.

HISO-BLK: Total number of non-Hispanic blacks in the census tract.

HISO-IND: Total number of non-Hispanic American Indians in census tract.

HISO-ASI: Total number of non-Hispanic Asians and Pacific Islanders in the census tract.

HISO-OTH: Total number of persons of non-Hispanic origins of other races in the census tract.

HI18-HIS: Total number of persons of Hispanic origin over age 18 in the census tract.

HI18-WHT: Total number of non-Hispanic whites over age 18 in the census tract.

HI18-BLK: Total number of non-Hispanic blacks over age 18 in the census tract.

HI18-IND: Total number of non-Hispanic American Indians over age 18 in the census tract.

HI18-ASI: Total number of non-Hispanic Asians and Pacific Islanders over age 18 in the census tract.

HI18-OTH: Total number of persons of non-Hispanic origins of other races over age 18 in the census tract.

HOUSING: Total number of housing units in the census tract.

PDENSITY: Persons per square mile.

HDENSITY: Housing units per square mile.

X-COORD: X coordinate of tract centroid.

Y-COORD: Y coordinate of tract centroid.

S1ALINK: Number used to effect a link relate to census data tables.

COTRACT: Concatenation of the FIPSCO and CTBNA90 fields.

DATA QUALITY ASSESSMENT:

The following are subjective comments regarding this data.

The centract layer, based on TIGER data, is complete with regard to features. Where TIGER is based on DLG, the accuracy is good; however, where it calls for GBF/DIME, the accuracy is poor. The layer is rich in attributes. In addition to census tract identification, there is 1990 PL94-171 data (all fields). The attribute accuracy is very good overall. The coverages were checked against Census Bureau maps for tract number accuracy.

DATA CONTACT:

Teale Data Center
Contact Name: Steve Flatt
Contact's Phone: 916-263-1499

DOCUMENTATION FOR EMPLOYMENT DATA

File Extract Documentation - Record Format

Name	Typ	Siz	Dec	Description
SUMLEV	C	3	0	Summary Level
STATEFP	C	2	0	State (FIPS)
CNTY	C	3	0	County
COUSUBFP	C	5	0	County Subdivision (FIPS)
PLACEFP	C	5	0	Place (FIPS)
TRACTBNA	C	6	0	Census Tract/Block Numbering Area
BLCKGR	C	1	0	Block Group
LOGRECNU	C	6	0	Logical Record Number
ANPSADPI	C	66	0	Area Name/PSAD Term/Part Indicator
INDUSTRY				
Universe: Employed persons 16 years and over				
P0770001	N	9	0	Agriculture, forestry, and fisheries (000-039)
P0770002	N	9	0	Mining (040-059)
P0770003	N	9	0	Construction (060-099)
P0770004	N	9	0	Manufacturing, nondurable goods (100-229)
P0770005	N	9	0	Manufacturing, durable goods (230-399)
P0770006	N	9	0	Transportation (400-439)
P0770007	N	9	0	Communications and other public utilities (440-499)
P0770008	N	9	0	Wholesale trade (500-579)
P0770009	N	9	0	Retail trade (580-699)
P0770010	N	9	0	Finance, insurance, and real estate (700-720)
P0770011	N	9	0	Business and repair services (721-760)
P0770012	N	9	0	Personal services (761-799)
P0770013	N	9	0	Entertainment and recreation services (800-811)
				Professional and related services (812-899):
P0770014	N	9	0	Health services (812-840)
P0770015	N	9	0	Educational services (842-860)
P0770016	N	9	0	Other professional and related services (841, 861-899)
P0770017	N	9	0	Public administration (900-939)

End of the documentation.