File 1: Summary File
(cb86f01.csv)

Questionnaire item	Variable Description	Variable Name	Variable Position	Variable Format
	Building identifier	BLDGID3	1- 5	
	Adjusted weight	ADJWT3	7- 14	
	Variance stratum	STRATUM3	16- 17	
	Pair member	PAIR3	19- 19	
	Census region	REGION3	21- 21	$REGION.
	Census division	CENDIV3	23- 23	$CENDIV.
	Metropolitan statistical area	MSA3	25- 25	$MSA.
	Climate zone	CLIMATE3	27- 27	$CLIMAT.
B-1	Square footage	SQFT3	29- 35	COMMA14.
B-2	Square footage	SQFTC3	37- 38	$SQFTC.
	Principal building activity	PBA3	40- 41	$ACTIVTY.
C-1	Owned by federal government	FEDOWN3	43- 43	$YESNO.
C-1	Owned by state government	STOWN3	45- 45	$YESNO.
C-1	Owned by local government	LOCOWN3	47- 47	$YESNO.
C-2	Occupied by owner	OWNOCC3	49- 49	$YESNO.
C-3	Number of workers	NWKER3	51- 55	
C-4	Number of workers	NWKERC3	57- 58	$NWKERC.
	Total weekly hours open	WKHRS3	60- 62	
D-1	Year construction was completed	YRCON3	64- 67	
D-2	Year construction was completed	YRCONC3	69- 70	$YRCONC.
D-3	Number of floors	NFLOOR3	72- 73	NFLOOR.
E-1	Percent heated	HEATP3	75- 77	HTCLP.
E-2	Percent cooled	COOLP3	79- 81	HTCLP.
F-1a	Percent of interior lit electrically	LTOHRP3	83- 85	
F-1b	Percent lit off hours	LTNHRP3	87- 89	
F-2a	Percent energy efficient incandescent	EEBLBP3	91- 93	
F-2b	Percent standard incandescent bulb	STBLBP3	95- 97	
F-2c	Percent energy efficient fluorescent	EEFLRP3	99- 101	
F-2d	Percent standard fluorescent light	STFLRP3	103- 105	
F-2e	Percent high intensity discharge	HIDP3	107- 109	
F-2f	Percent other lighting equipment	OTLTP3	111- 113	
F-2f	Type of other lighting equipment	OTLT13	115- 116	$OTLIT.
F-2f	Second type of other lighting equipment	OTLT23	118- 119	$OTLIT.
	Electricity supplied	ELSUPL3	121- 121	$XXSUPL.
	Natural gas supplied	NGSUPL3	123- 123	$XXSUPL.
	Fuel oil supplied	FKSUPL3	125- 125	$XXSUPL.
	Propane supplied	PRSUPL3	127- 127	$XXSUPL.
	Steam supplied	STSUPL3	129- 129	$XXSUPL.
	Hot water supplied	HWSUPL3	131- 131	$XXSUPL.
I-4a	Energy used for heat	HEAT13	133- 133	$XXSUPL.
I-4b	Energy used for heat (second)	HEAT23	135- 135	$XXSUPL.
I-4c	Energy used for cooling	COOL3	137- 137	$XXSUPL.
I-4d	Energy used for wtr heat	WATR13	139- 139	$XXSUPL.
I-4e	Energy used for wtr heat (second)	WATR23	141- 141	$XXSUPL.

I-4f	Energy used for commercial cooking	COOK3	143- 143	$XXSUPL.
I-4g	Energy used for manufacturing	MANU3	145- 145	$XXSUPL.
I-4h	Energy used to generate electricity	GENR3	147- 147	$XXSUPL.
I-8	Number of establishments in building	OCCNUM3	149- 149	$OCCNUM.
	Annual electricity consumption (mBtu)	ELBTU3	151- 164	COMMA18.
	Annual natural gas consumption (mBtu)	NGBTU3	166- 179	COMMA18.
	Annual fuel oil deliveries (mBtu)	FKBTU3	181- 194	COMMA18.

File 2: Building Activity
(cb86f02.csv)

Questionnaire item	Variable Description	Variable Name	Variable Position	Variable Format
	Building identifier	BLDGID3	1- 5	
	Adjusted weight	ADJWT3	7- 14	
	Variance stratum	STRATUM3	16- 17	
	Pair member	PAIR3	19- 19	
	Census region	REGION3	21- 21	$REGION.
	Census division	CENDIV3	23- 23	$CENDIV.
B-2	Square footage	SQFTC3	25- 26	$SQFTC.
B-3	Any residential use	RESUSE3	28- 28	$YESNO.
B-4	Percent residential	RESPC3	30- 30	$RESPC.
	Principal building activity	PBA3	32- 33	$ACTIVTY.
B-9Ba	Percent vacant	VACP3	35- 37	
B-10a	Previous/intended use of vacant	VACUSE13	39- 40	$ACTIVTY.
B-10a	Additional previous/intended use	VACUSE23	42- 43	$ACTIVTY.
B-9Bb	Percent office	OFCP3	45- 46	
B-9Bc	Percent retail/service	RETLP3	48- 49	
B-9Bd	Percent assembly	ASSMP3	51- 52	
B-9Be	Percent food sales	FDSLSP3	54- 55	
B-9Bf	Percent public order and safety	PORDP3	57- 58	
B-9Bg	Percent out-patient health care	HCOUTP3	60- 61	
B-9Bh	Percent industrial	INDUSP3	63- 64	
B-9Bi	Percent agricultural	AGRICP3	66- 67	
B-9Bj	Percent laboratory	LABP3	69- 70	
B-9Bk	Percent refrigerated warehouse	WRHSRP3	72- 73	
B-9Bl	Percent nonrefrigerated warehouse	WRHSNP3	75- 76	
B-9Bm	Percent educational	EDUCP3	78- 79	
B-10m	Classroom seating capacity	EDSEAT3	81- 85	COMMA9.
B-9Bn	Percent food service	FDSVCP3	87- 88	
B-10n	Food service seating capacity	FDSEAT3	90- 93	COMMA9.
B-9Bo	Percent in-patient health care	HCINP3	95- 96	
B-10o	Licensed bed capacity (hospitals)	HCBED3	98- 101	COMMA9.
B-9Bp	Percent skilled residential care	NURSEP3	103- 104	
B-10p	Licensed bed capacity (skilled care)	NRSBED3	106- 108	COMMA9.
B-9Bq	Percent lodging	LODGEP3	110- 111	
B-10q	Number of guest rooms	LODGRM3	113- 115	COMMA9.
B-9Br	Percent residential	RESP3	117- 118	

B-9Bs	Percent other activity	OTHERP3	120- 121		
D-2	Year construction was completed	YRCONC3	123- 124	$YRCONC.	
	Electricity supplied	ELSUPL3	126- 126	$XXSUPL.	
	Natural gas supplied	NGSUPL3	128- 128	$XXSUPL.	
	Fuel oil supplied	FKSUPL3	130- 130	$XXSUPL.	
	Propane supplied	PRSUPL3	132- 132	$XXSUPL.	
	Steam supplied	STSUPL3	134- 134	$XXSUPL.	
	Hot water supplied	HWSUPL3	136- 136	$XXSUPL.	

File 3: Operating Hours
(cb86f03.csv)

Questionnaire item	Variable Description	Variable Name	Variable Position	Variable Format
	Building identifier	BLDGID3	1- 5	
	Adjusted weight	ADJWT3	7- 14	
	Variance stratum	STRATUM3	16- 17	
	Pair member	PAIR3	19- 19	
	Census region	REGION3	21- 21	$REGION.
	Census division	CENDIV3	23- 23	$CENDIV.
B-2	Square footage	SQFTC3	25- 26	$SQFTC.
	Principal building activity	PBA3	28- 29	$ACTIVTY.
	Regular operating hours	REGHRS3	31- 31	$YESNO.
C-5	Monday thru Friday opening hour	MFBGN3	33- 37	TIME5.
C-5	Monday thru Friday closing hour	MFEND3	39- 43	TIME5.
C-5	Saturday opening hour	SATBGN3	45- 49	TIME5.
C-5	Saturday closing hour	SATEND3	51- 55	TIME5.
C-5	Sunday opening hour	SUNBGN3	57- 61	TIME5.
C-5	Sunday closing hour	SUNEND3	63- 67	TIME5.
C-5	Holiday opening hour	HOLBGN3	69- 73	TIME5.
C-5	Holiday closing hour	HOLEND3	75- 79	TIME5.
C-5	Daily hours open (Mon. thru Fri.)	MFHRS3	81- 85	
C-5	Saturday hours open	SATHRS3	87- 91	
C-5	Sunday hours open	SUNHRS3	93- 97	
C-5	Holiday hours open	HOLHRS3	99- 103	
	Total weekly hours open	WKHRS3	105- 107	
Coded	Weekly operating hours (if irregular)	IRRGHR3	109- 111	
D-2	Year construction was completed	YRCONC3	113- 114	$YRCONC.
	Electricity supplied	ELSUPL3	116- 116	$XXSUPL.
	Natural gas supplied	NGSUPL3	118- 118	$XXSUPL.
	Fuel oil supplied	FKSUPL3	120- 120	$XXSUPL.
	Propane supplied	PRSUPL3	122- 122	$XXSUPL.
	Steam supplied	STSUPL3	124- 124	$XXSUPL.
	Hot water supplied	HWSUPL3	126- 126	$XXSUPL.
	Heating Degree Days (Base 65 F)	HDD653	128- 132	
	Cooling Degree Days (Base 65 F)	CDD653	134- 138	
	Mean annual temperature (F)	TEMPAVG3	140- 144	
	Std. dev. of annual temperature (F)	TEMPSTD3	146- 150	

File 4: Building Shell, Equipment, Energy Audits,
and "Ohter" Conservation Features
(cb86f04.csv)

Questionnaire item	Variable Description	Variable Name	Variable Position	Variable Format
	Building identifier	BLDGID3	1- 5	
	Adjusted weight	ADJWT3	7- 14	
	Variance stratum	STRATUM3	16- 17	
	Pair member	PAIR3	19- 19	
	Census region	REGION3	21- 21	$REGION.
	Census division	CENDIV3	23- 23	$CENDIV.
B-2	Square footage	SQFTC3	25- 26	$SQFTC.
	Principal building activity	PBA3	28- 29	$ACTIVTY.
D-2	Year construction was completed	YRCONC3	31- 32	$YRCONC.
D-4	Percent glass on exterior	GLASSP3	34- 36	
D-5	Percent glass on exterior	GLASSPC3	38- 38	$PCTCAT.
D-6	Wall construction material	WLCNS3	40- 41	$WLCNS.
D-7	Roof square footage category	RFSQFTC3	43- 44	$RFSQFTC.
D-8	Roof construction material	RFCNS3	46- 47	$RFCNS.
E-3a	Boilers used	BOILER3	49- 49	$YESNO.
E-3b	Furnaces that heat air used	FURNAC3	51- 51	$YESNO.
E-3c	Heat pump (wtr source) used	HTPMPW3	53- 53	$YESNO.
E-3d	Heat pump (air source) used	HTPMPA3	55- 55	$YESNO.
E-3e	Central cooling used	CNTLCL3	57- 57	$YESNO.
E-3f	Self-contained units used	SLFCON3	59- 59	$YESNO.
E-3g	Air conditioners (walls/window) used	ACWNWL3	61- 61	$YESNO.
E-3h	Packaged rooftop units for heat	PKGHT3	63- 63	$YESNO.
E-3i	Packaged rooftop units for cooling	PKGCL3	65- 65	$YESNO.
E-3j	Evaporative coolers used	EVAPCL3	67- 67	$YESNO.
E-3k	Other heat/cooling equipment used	OTHC3	69- 69	$YESNO.
E-4aA	Forced air through ducts used	DUCT3	71- 71	$YESNO.
E-4aB	Forced air for heat or cooling	DUCTHC3	73- 73	$HTCL.
E-4bA	Fan-coil units used	FNCL3	75- 75	$YESNO.
E-4bB	Fan-coil units for heat or cooling	FNCLHC3	77- 77	$HTCL.
E-4cA	Steam radiators/baseboards used	STRADB3	79- 79	$YESNO.
E-4dB	Hot wtr baseboards/radiators used	HWRADB3	81- 81	$YESNO.
E-4eA	Heating panels used	PANEL3	83- 83	$YESNO.
E-4fB	Other distribution system	OTDLV3	85- 85	$YESNO.
E-4fB	Other system for heat or cooling	OTDHC13	87- 87	$HTCL.
E-5	Tenants control heat temperature	HTCNTL3	89- 89	$HTCNTL.
E-5	Tenants control cooling temperature	CLCNTL3	91- 91	$CLCNTL.
E-6	Reduction in heat off hours	RDHTOFF3	93- 93	$HTCNTL.
E-6	Reduction in cooling off hours	RDCLOFF3	95- 95	$CLCNTL.
E-7	Space vacant for at least 3 months	PORVAC3	97- 97	$YESNO.
E-8	Percent vacant for at least 3 months	VAC3MP3	99- 101	
E-9	Reduced heat/cooling when vacant	RDHCVAC3	103- 103	$YESNO.
G-1	Energy audit ever performed	AUDIT3	105- 105	$YESNO.

G-2	Year of audit (most recent)	AUDYR3	107- 108	
G-2A	Month of audit (if 1986)	AUDMON3	110- 111	
G-3A15	Regular preventive maintenance program	MAINT3	113- 113	$YESNO.
G-3B15	Maintenance program installed or added	MNTINS3	115- 115	$INSADD.
G-3C15	When maintenance program added	MNTDT3	117- 117	$YRADD.
G-3D15	Maintenance program due to audit	MNTAUD3	119- 119	$YESNO.
G-3E15	Maintenance program due to savings	MNTSAV3	121- 121	$YESNO.
G-3A16	Computerized energy management system	HCCOMP3	123- 123	$YESNO.
G-3B16	Computerized system installed or added	CMPINS3	125- 125	$INSADD.
G-3C16	When computerized system added	CMPDT3	127- 127	$YRADD.
G-3D16	Computerized system due to audit	CMPAUD3	129- 129	$YESNO.
G-3E16	Computerized system for $ savings	CMPSAV3	131- 131	$YESNO.

File 4: Building Shell, Equipment, Energy Audits,
and "Other" Conservation Features
(cb86f04.csv) (continued)

Questionnaire item	Variable Description	Variable Name	Variable Position	Variable Format
G-3A17	Delamping program	DELAMP3	133- 133	$YESNO.
G-3B17	Delamping program installed or added	DLMINS3	135- 135	$INSADD.
G-3C17	When delamping program added	DLMDT3	137- 137	$YRADD.
G-3D17	Delamping program added due to audit	DLMAUD3	139- 139	$YESNO.
G-3E17	Delamping program added for $ savings	DLMSAV3	141- 141	$YESNO.
G-3A18	Any other energy conservation feature	OTCNS3	143- 143	$YESNO.
G-3A18	Type of other conservation feature	OTCNSX3	145- 146	$OTCNSX.
G-3B18	Other feature installed or added	OTCINS3	148- 148	$INSADD.
G-3C18	When other conservation feature added	OTCDT3	150- 150	$YRADD.
G-3D18	Other feature added due to audit	OTCAUD3	152- 152	$YESNO.
G-3E18	Other feature added for $ savings	OTCSAV3	154- 154	$YESNO.
H-1	Capability of generating electric power	GENER3	156- 156	$YESNO.
H-2	Primary use of generators	GENUSE3	158- 159	$GENUSE.
H-3	Cogeneration system	COGEN3	161- 161	$YESNO.
	Electricity supplied	ELSUPL3	163- 163	$XXSUPL.
	Natural gas supplied	NGSUPL3	165- 165	$XXSUPL.
	Fuel oil supplied	FKSUPL3	167- 167	$XXSUPL.
	Propane supplied	PRSUPL3	169- 169	$XXSUPL.
	Steam supplied	STSUPL3	171- 171	$XXSUPL.
	Hot water supplied	HWSUPL3	173- 173	$XXSUPL.

File 5: End Uses of Major Energy Sources
(cb86f05.csv)

Questionnaire	Variable	Variable	Variable	Variable

item	Description	Name	Position	Format
	Building identifier	BLDGID3	1- 5	
	Adjusted weight	ADJWT3	7- 14	
	Variance stratum	STRATUM3	16- 17	
	Pair member	PAIR3	19- 19	
	Census region	REGION3	21- 21	$REGION.
	Census division	CENDIV3	23- 23	$CENDIV.
B-2	Square footage	SQFTC3	25- 26	$SQFTC.
	Principal building activity	PBA3	28- 29	$ACTIVTY.
D-2	Year construction was completed	YRCONC3	31- 32	$YRCONC.
	Electricity supplied	ELSUPL3	34- 34	$XXSUPL.
	Natural gas supplied	NGSUPL3	36- 36	$XXSUPL.
	Fuel oil supplied	FKSUPL3	38- 38	$XXSUPL.
	Propane supplied	PRSUPL3	40- 40	$XXSUPL.
	Steam supplied	STSUPL3	42- 42	$XXSUPL.
	Hot water supplied	HWSUPL3	44- 44	$XXSUPL.
I-4a	Electricity primary for heat	ELHEAT13	46- 46	$XXSUPL.
I-4b	Electricity secondary for heat	ELHEAT23	48- 48	$XXSUPL.
I-4c	Electricity used for cooling	ELCOOL3	50- 50	$XXSUPL.
I-4d	Electricity primary for wtr heat	ELWATR13	52- 52	$XXSUPL.
I-4e	Electricity secondary for wtr heat	ELWATR23	54- 54	$XXSUPL.
I-4f	Electricity used for commercial cooking	ELCOOK3	56- 56	$XXSUPL.
I-4g	Electricity used for manufacturing	ELMANU3	58- 58	$XXSUPL.
I-4a	Natural gas primary for heat	NGHEAT13	60- 60	$XXSUPL.
I-4b	Natural gas secondary for heat	NGHEAT23	62- 62	$XXSUPL.
I-4c	Natural gas used for cooling	NGCOOL3	64- 64	$XXSUPL.
I-4d	Natural gas primary for wtr heat	NGWATR13	66- 66	$XXSUPL.
I-4e	Natural gas secondary for wtr heat	NGWATR23	68- 68	$XXSUPL.
I-4f	Natural gas used for commercial cooking	NGCOOK3	70- 70	$XXSUPL.
I-4g	Natural gas used for manufacturing	NGMANU3	72- 72	$XXSUPL.
I-4h	Natural gas used to generate electric	NGGENR3	74- 74	$XXSUPL.
I-4a	Fuel oil primary for heat	FKHEAT13	76- 76	$XXSUPL.
I-4b	Fuel oil secondary for heat	FKHEAT23	78- 78	$XXSUPL.
I-4c	Fuel oil used for cooling	FKCOOL3	80- 80	$XXSUPL.
I-4d	Fuel oil primary for wtr heat	FKWATR13	82- 82	$XXSUPL.
I-4e	Fuel oil secondary for wtr heat	FKWATR23	84- 84	$XXSUPL.
I-4f	Fuel oil used for commercial cooking	FKCOOK3	86- 86	$XXSUPL.
I-4g	Fuel oil used for manufacturing	FKMANU3	88- 88	$XXSUPL.
I-4h	Fuel oil used to generate electric	FKGENR3	90- 90	$XXSUPL.
I-4a	Propane primary for heat	PRHEAT13	92- 92	$XXSUPL.
I-4b	Propane secondary for heat	PRHEAT23	94- 94	$XXSUPL.
I-4c	Propane used for cooling	PRCOOL3	96- 96	$XXSUPL.
I-4d	Propane primary for wtr heat	PRWATR13	98- 98	$XXSUPL.
I-4e	Propane secondary for wtr heat	PRWATR23	100- 100	$XXSUPL.
I-4f	Propane used for commercial cooking	PRCOOK3	102- 102	$XXSUPL.
I-4g	Propane used for manufacturing	PRMANU3	104- 104	$XXSUPL.
I-4h	Propane used to generate electric	PRGENR3	106- 106	$XXSUPL.
	District steam primary for heat	STHEAT13	108- 108	$XXSUPL.
	District steam secondary for heat	STHEAT23	110- 110	$XXSUPL.
	District steam for cooling	STCOOL3	112- 112	$XXSUPL.
	District steam primary wtr heat	STWATR13	114- 114	$XXSUPL.
	District steam secondary wtr heat	STWATR23	116- 116	$XXSUPL.
	District steam commercial cooking	STCOOK3	118- 118	$XXSUPL.

	District steam for manufacturing	STMANU3	120- 120	$XXSUPL.
	District steam to generate electric	STGENR3	122- 122	$XXSUPL.
	District hot water primary for heat	HWHEAT13	124- 124	$XXSUPL.
	District hot water secondary for heat	HWHEAT23	126- 126	$XXSUPL.

File 5: End Uses of Major Energy Sources
(cb86f05.csv) (continued)

Questionnaire item	Variable Description	Variable Name	Variable Position	Variable Format
	District hot water for cooling	HWCOOL3	128- 128	$XXSUPL.
	District hot water primary wtr heat	HWWATR13	130- 130	$XXSUPL.
	District hot water secondary wtr heat	HWWATR23	132- 132	$XXSUPL.
	District hot water commercial cooking	HWCOOK3	134- 134	$XXSUPL.
	District hot water for manufacturing	HWMANU3	136- 136	$XXSUPL.
	District hot water to generate electric	HWGENR3	138- 138	$XXSUPL.
	District chilled water primary for heat	CWHEAT13	140- 140	$XXSUPL.
	District chilled water secondary for hea	CWHEAT23	142- 142	$XXSUPL.
	District chilled water for cooling	CWCOOL3	144- 144	$XXSUPL.
	District chilled water primary wtr heat	CWWATR13	146- 146	$XXSUPL.
	District chilled water secondary wtr hea	CWWATR23	148- 148	$XXSUPL.
	District chilled water commercial cookin	CWCOOK3	150- 150	$XXSUPL.
	District chilled water for manufacturing	CWMANU3	152- 152	$XXSUPL.
	District chilled water to generate elect	CWGENR3	154- 154	$XXSUPL.

File 6: End Uses of Minor Energy Sources
(cb86f06.csv)

Questionnaire item	Variable Description	Variable Name	Variable Position	Variable Format
	Building identifier	BLDGID3	1- 5	
	Adjusted weight	ADJWT3	7- 14	
	Variance stratum	STRATUM3	16- 17	
	Pair member	PAIR3	19- 19	
	Census region	REGION3	21- 21	$REGION.
	Census division	CENDIV3	23- 23	$CENDIV.
B-2	Square footage	SQFTC3	25- 26	$SQFTC.
	Principal building activity	PBA3	28- 29	$ACTIVTY.
D-2	Year construction was completed	YRCONC3	31- 32	$YRCONC.
	Electricity supplied	ELSUPL3	34- 34	$XXSUPL.
	Natural gas supplied	NGSUPL3	36- 36	$XXSUPL.
	Fuel oil supplied	FKSUPL3	38- 38	$XXSUPL.

	Propane supplied	PRSUPL3	40- 40	$XXSUPL.
	Steam supplied	STSUPL3	42- 42	$XXSUPL.
	Hot water supplied	HWSUPL3	44- 44	$XXSUPL.
I-1	Wood used	WOUSED3	46- 46	$YESNO.
I-4a	Wood primary for heat	WOHEAT13	48- 48	$XXSUPL.
I-4b	Wood secondary for heat	WOHEAT23	50- 50	$XXSUPL.
I-4c	Wood used for cooling	WOCOOL3	52- 52	$XXSUPL.
I-4d	Wood primary for wtr heat	WOWATR13	54- 54	$XXSUPL.
I-4e	Wood secondary for wtr heat	WOWATR23	56- 56	$XXSUPL.
I-4f	Wood used for commercial cooking	WOCOOK3	58- 58	$XXSUPL.
I-4g	Wood used for manufacturing	WOMANU3	60- 60	$XXSUPL.
I-4h	Wood used to generate electricity	WOGENR3	62- 62	$XXSUPL.
I-1	Coal used	COUSED3	64- 64	$YESNO.
I-4a	Coal primary for heat	COHEAT13	66- 66	$XXSUPL.
I-4b	Coal secondary for heat	COHEAT23	68- 68	$XXSUPL.
I-4c	Coal used for cooling	COCOOL3	70- 70	$XXSUPL.
I-4d	Coal primary for wtr heat	COWATR13	72- 72	$XXSUPL.
I-4e	Coal secondary for wtr heat	COWATR23	74- 74	$XXSUPL.
I-4f	Coal used for commercial cooking	COCOOK3	76- 76	$XXSUPL.
I-4g	Coal used for manufacturing	COMANU3	78- 78	$XXSUPL.
I-4h	Coal used to generate electricity	COGENR3	80- 80	$XXSUPL.
I-1	Active solar used	SOUSED3	82- 82	$YESNO.
I-4a	Active solar primary for heat	SOHEAT13	84- 84	$XXSUPL.
I-4b	Active solar secondary for heat	SOHEAT23	86- 86	$XXSUPL.
I-4c	Active solar used for cooling	SOCOOL3	88- 88	$XXSUPL.
I-4d	Active solar primary for wtr heat	SOWATR13	90- 90	$XXSUPL.
I-4e	Active solar secondary for wtr heat	SOWATR23	92- 92	$XXSUPL.
I-4f	Active solar for commercial cooking	SOCOOK3	94- 94	$XXSUPL.
I-4g	Active solar used for manufacturing	SOMANU3	96- 96	$XXSUPL.
I-4h	Active solar to generate electricity	SOGENR3	98- 98	$XXSUPL.
I-1	Other energy source used	OTUSED3	100- 100	$YESNO.
I-4a	Other energy source prime heat	OTHEAT13	102- 102	$XXSUPL.
I-4b	Other energy source second heat	OTHEAT23	104- 104	$XXSUPL.
I-4c	Other energy source used for cooling	OTCOOL3	106- 106	$XXSUPL.
I-4d	Other energy source prime wtr heat	OTWATR13	108- 108	$XXSUPL.
I-4e	Other energy source second wtr heat	OTWATR23	110- 110	$XXSUPL.
I-4f	Other energy source for commercl cooking	OTCOOK3	112- 112	$XXSUPL.
I-4g	Other energy source for manufacturing	OTMANU3	114- 114	$XXSUPL.
I-4h	Other energy source to generate elec	OTGENR3	116- 116	$XXSUPL.

File 7: HVAC, Lighting, and Building Shell Conservation Features
(cb86f07.csv)

Questionnaire item	Variable Description	Variable Name	Variable Position	Variable Format
	Building identifier	BLDGID3	1- 5	
	Adjusted weight	ADJWT3	7- 14	
	Variance stratum	STRATUM3	16- 17	

	Pair member	PAIR3	19- 19	
	Census region	REGION3	21- 21	$REGION.
	Census division	CENDIV3	23- 23	$CENDIV.
B-2	Square footage	SQFTC3	25- 26	$SQFTC.
	Principal building activity	PBA3	28- 29	$ACTIVTY.
D-2	Year construction was completed	YRCONC3	31- 32	$YRCONC.
G-3A1	Variable air volume (VAV) system	VAV3	34- 34	$YESNO.
G-3B1	VAV system installed or added	VAVINS3	36- 36	$INSADD.
G-3C1	When VAV system added	VAVDT3	38- 38	$YRADD.
G-3D1	VAV system added due to audit	VAVAUD3	40- 40	$YESNO.
G-3E1	VAV system added for $ savings	VAVSAV3	42- 42	$YESNO.
G-3A2	Waste heat recovery equipment	RECOVHT3	44- 44	$YESNO.
G-3B2	Waste heat equipment installed or added	RCVINS3	46- 46	$INSADD.
G-3C2	When waste heat equipment added	RCVDT3	48- 48	$YRADD.
G-3D2	Waste heat equipment added due to audit	RCVAUD3	50- 50	$YESNO.
G-3E2	Waste heat equipment added for $ savings	RCVSAV3	52- 52	$YESNO.
G-3A3	Other HVAC conservation measures	OTHVAC3	54- 54	$YESNO.
G-3A3	Type of other HVAC conservation measure	OTHVCX3	56- 57	$OTHVCX.
G-3B3	Other HVAC measure installed or added	OTHINS3	59- 59	$INSADD.
G-3C3	When other HVAC measure added	OTHDT3	61- 61	$YRADD.
G-3D3	Other HVAC measure added due to audit	OTHAUD3	63- 63	$YESNO.
G-3E3	Other HVAC measure added for $ savings	OTHSAV3	65- 65	$YESNO.
G-3A4	High efficiency ballasts	HEBLLST3	67- 67	$YESNO.
G-3B4	High eff ballasts installed or added	HEBINS3	69- 69	$INSADD.
G-3C4	When high efficiency ballasts added	HEBDT3	71- 71	$YRADD.
G-3D4	High eff ballasts added due to audit	HEBAUD3	73- 73	$YESNO.
G-3E4	High eff ballasts added for $ savings	HEBSAV3	75- 75	$YESNO.
G-3A5	Daylighting controls	DAYCTL3	77- 77	$YESNO.
G-3B5	Daylighting controls installed or added	DAYINS3	79- 79	$INSADD.
G-3C5	When daylighting controls added	DAYDT3	81- 81	$YRADD.
G-3D5	Daylighting controls added due to audit	DAYAUD3	83- 83	$YESNO.
G-3E5	Daylighting controls added for $ savings	DAYSAV3	85- 85	$YESNO.
G-3A6	Other light controls	LTCNTL3	87- 87	$YESNO.
G-3B6	Other light controls installed or added	LTCINS3	89- 89	$INSADD.
G-3C6	When other light controls added	LTCDT3	91- 91	$YRADD.
G-3D6	Other light controls added due to audit	LTCAUD3	93- 93	$YESNO.
G-3E6	Other light controls added for $ savings	LTCSAV3	95- 95	$YESNO.
G-3A7	Any other lighting conservation feature	OTLT3	97- 97	$YESNO.
G-3A7	Type of other lighting conservation	OTLTX3	99- 100	$OTLTX.
G-3B7	Other light feature installed or added	OTLINS3	102- 102	$INSADD.
G-3C7	When other lighting feature added	OTLDT3	104- 104	$YRADD.
G-3D7	Other light feature added due to audit	OTLAUD3	106- 106	$YESNO.
G-3E7	Other light feature added for $ savings	OTLSAV3	108- 108	$YESNO.
G-3A8	Roof or ceiling insulation	RCINSUL3	110- 110	$YESNO.
G-3B8	Roof/ceiling insulation installed/added	RININS3	112- 112	$INSADD.
G-3C8	When roof/ceiling insulation added	RINDT3	114- 114	$YRADD.
G-3D8	Roof/ceiling insul added due to audit	RINAUD3	116- 116	$YESNO.
G-3E8	Roof/ceiling insul added for $ savings	RINSAV3	118- 118	$YESNO.
G-3A9	Wall insulation	WINSUL3	120- 120	$YESNO.
G-3B9	Wall insulation installed or added	WININS3	122- 122	$INSADD.
G-3C9	When wall insulation added	WINDT3	124- 124	$YRADD.
G-3D9	Wall insulation added due to audit	WINAUD3	126- 126	$YESNO.

File 7: HVAC, Lighting, and Building Shell Conservation Features (cb86f07.csv) (continued)

Questionnaire item	Variable Description	Variable Name	Variable Position	Variable Format
G-3E9	Wall insulation added for $ savings	WINSAV3	128- 128	$YESNO.
G-3A10	Storm windows/double-/triple-paned glass	STWIND3	130- 130	$YESNO.
G-3B10	Storm windows installed or added	STWINS3	132- 132	$INSADD.
G-3C10	When storm windows added	STWDT3	134- 134	$YRADD.
G-3D10	Storm windows added due to audit	STWAUD3	136- 136	$YESNO.
G-3E10	Storm windows added for $ savings	STWSAV3	138- 138	$YESNO.
G-3A11	Tinted/reflective glass	TRGLASS3	140- 140	$YESNO.
G-3B11	Tinted/reflective glass installed/added	TRGINS3	142- 142	$INSADD.
G-3C11	When tinted/reflective glass added	TRGDT3	144- 144	$YRADD.
G-3D11	Tinted/reflect glass added due to audit	TRGAUD3	146- 146	$YESNO.
G-3E11	Tinted/reflect glass added for $ savings	TRGSAV3	148- 148	$YESNO.
G-3A12	Exterior/interior shadings or awnings	AWNSHD3	150- 150	$YESNO.
G-3B12	Shadings/awnings installed or added	AWNINS3	152- 152	$INSADD.
G-3C12	When shadings/awnings added	AWNDT3	154- 154	$YRADD.
G-3D12	Shadings/awnings added due to audit	AWNAUD3	156- 156	$YESNO.
G-3E12	Shadings/awnings added for $ savings	AWNSAV3	158- 158	$YESNO.
G-3A13	Weatherstripping or caulking	STRIP3	160- 160	$YESNO.
G-3B13	Weatherstrip/caulk installed or added	STRINS3	162- 162	$INSADD.
G-3C13	When weatherstripping or caulking added	STRDT3	164- 164	$YRADD.
G-3D13	Weatherstrip/caulk added due to audit	STRAUD3	166- 166	$YESNO.
G-3E13	Weatherstrip/caulk added for $ savings	STRSAV3	168- 168	$YESNO.
G-3A14	Other building shell conservation	OTSHL3	170- 170	$YESNO.
G-3B14	Other shell feature installed or added	OTSINS3	172- 172	$INSADD.
G-3C14	When other building shell feature added	OTSDT3	174- 174	$YRADD.
G-3D14	Other shell feature added due to audit	OTSAUD3	176- 176	$YESNO.
G-3E14	Other shell feature added for $ savings	OTSSAV3	178- 178	$YESNO.
	Electricity supplied	ELSUPL3	180- 180	$XXSUPL.
	Natural gas supplied	NGSUPL3	182- 182	$XXSUPL.
	Fuel oil supplied	FKSUPL3	184- 184	$XXSUPL.
	Propane supplied	PRSUPL3	186- 186	$XXSUPL.
	Steam supplied	STSUPL3	188- 188	$XXSUPL.
	Hot water supplied	HWSUPL3	190- 190	$XXSUPL.

File 8: Electricity (cb86f08.csv)

Questionnaire item	Variable Description	Variable Name	Variable Position	Variable Format

	Building identifier	BLDGID3	1- 5	
	Adjusted weight	ADJWT3	7- 14	
	Variance stratum	STRATUM3	16- 17	
	Pair member	PAIR3	19- 19	
	Census region	REGION3	21- 21	$REGION.
	Census division	CENDIV3	23- 23	$CENDIV.
B-2	Square footage	SQFTC3	25- 26	$SQFTC.
	Principal building activity	PBA3	28- 29	$ACTIVTY.
D-2	Year construction was completed	YRCONC3	31- 32	$YRCONC.
	Electricity supplied	ELSUPL3	34- 34	$XXSUPL.
	Natural gas supplied	NGSUPL3	36- 36	$XXSUPL.
	Fuel oil supplied	FKSUPL3	38- 38	$XXSUPL.
	Propane supplied	PRSUPL3	40- 40	$XXSUPL.
	Steam supplied	STSUPL3	42- 42	$XXSUPL.
	Hot water supplied	HWSUPL3	44- 44	$XXSUPL.
	Annual electricity consumption (kWh)	ELCNS3	46- 57	COMMA15.
	Annual electricity consumption (mBtu)	ELBTU3	59- 72	COMMA18.
	Annual electricity expenditures	ELEXP3	74- 82	COMMA11.
	Electricity demand-metering	DEMBLDG3	84- 84	$YESNO.
	Season of peak electric load	SEASON3	86- 86	$SEASON.
	Peak annual electric load	PEAK3	88- 93	
	Annual electric load factor	LOADFAC3	95- 99	
	Peak summer electric load	PEAKS3	101- 106	PEAK.
	Average summer peak electric load	AVGPKS3	108- 113	PEAK.
	Average summer electric load factor	AVGLFS3	115- 119	LOADFAC.
	Peak winter electric load	PEAKW3	121- 126	PEAK.
	Average winter peak electric load	AVGPKW3	128- 133	PEAK.
	Average winter electric load factor	AVGLFW3	135- 139	LOADFAC.
I-9	How electricity is billed	ELBLTYP3	141- 141	$BILTYP.
I-13	Electricty bill coverage	ELCOVER3	143- 143	$COVER.
	Electricity aggregated/disaggregated	ELDSAG3	145- 145	$DISAGG.
	Electricity supplier form	ELFORM3	147- 148	$FORM.
	Electricity seasonal pricing	ELSEAS3	150- 150	$RATE.
	Time-of-day electricity pricing	ELTODP3	152- 152	$RATE.
	Time-of-day electricity lock-out/limit	ELTODL3	154- 154	$RATE.
	Electricity interruptible or curtailable	ELINTR3	156- 156	$RATE.
	Days of electricity shifted from CY86	ELSHFT3	158- 161	
	Electricity consumption imputation	ZELCNS3	163- 163	$ZCNSEXP.
	Electricity expenditures imputation	ZELEXP3	165- 165	$ZCNSEXP.
	Imputed demand-metering	ZDEM3	167- 167	$ZVAR.
	Imputed season of peak load	ZSEASON3	169- 169	$ZVAR.
	Imputed peak load (and load factor)	ZPEAK3	171- 171	$ZVAR.

File 9: Natural Gas and Fuel Oil
(cb86f09.csv)

Questionnaire item	Variable Description	Variable Name	Variable Position	Variable Format

	Building identifier	BLDGID3	1- 5	
	Adjusted weight	ADJWT3	7- 14	
	Variance stratum	STRATUM3	16- 17	
	Pair member	PAIR3	19- 19	
	Census region	REGION3	21- 21	$REGION.
	Census division	CENDIV3	23- 23	$CENDIV.
B-2	Square footage	SQFTC3	25- 26	$SQFTC.
	Principal building activity	PBA3	28- 29	$ACTIVTY.
D-2	Year construction was completed	YRCONC3	31- 32	$YRCONC.
	Electricity supplied	ELSUPL3	34- 34	$XXSUPL.
	Natural gas supplied	NGSUPL3	36- 36	$XXSUPL.
	Fuel oil supplied	FKSUPL3	38- 38	$XXSUPL.
	Propane supplied	PRSUPL3	40- 40	$XXSUPL.
	Steam supplied	STSUPL3	42- 42	$XXSUPL.
	Hot water supplied	HWSUPL3	44- 44	$XXSUPL.
I-3	Total fuel oil tank capacity (gallons)	TOTCAP3	46- 53	COMMA10.
	Imputed totaltank capacity (gals)	ZTOTCAP3	55- 55	$ZVAR.
	Annual natural gas consumption (ccf)	NGCNS3	57- 68	COMMA15.
	Annual natural gas consumption (mBtu)	NGBTU3	70- 83	COMMA18.
	Annual natural gas expenditures	NGEXP3	85- 93	COMMA11.
I-9	How natural gas is billed	NGBLTYP3	95- 95	$BILTYP.
I-13	Natural gas bill coverage	NGCOVER3	97- 97	$COVER.
	Natural gas aggregated/disaggregated	NGDSAG3	99- 99	$DISAGG.
	Natural gas supplier form	NGFORM3	101- 102	$FORM.
	Interruptible natural gas service	NGINTR3	104- 104	$YESNO.
	Fuel oil used if gas interrupted	NGFKSW3	106- 106	$YESNO.
	Electricity used if gas interrupted	NGELSW3	108- 108	$YESNO.
	Other energy used if gas interrupted	NGOTSW3	110- 110	$YESNO.
	Days of natural gas shifted from CY86	NGSHFT3	112- 115	
	Annual fuel oil deliveries (gals.)	FKCNS3	117- 128	COMMA15.
	Annual fuel oil deliveries (mBtu)	FKBTU3	130- 143	COMMA18.
	Annual fuel oil expenditures	FKEXP3	145- 153	COMMA11.
I-9	How fuel oil is billed	FKBLTYP3	155- 155	$BILTYP.
I-13	Fuel oil bill coverage	FKCOVER3	157- 157	$COVER.
	Fuel oil aggregated/disaggregated	FKDSAG3	159- 159	$DISAGG.
	Fuel oil supplier form	FKFORM3	161- 162	$FORM.
	Distillate fuel oil supplied	DISTIL3	164- 164	$YESNO.
	Residual fuel oil supplied	RESID3	166- 166	$YESNO.
	Kerosene supplied	KERO3	168- 168	$YESNO.
	Other fuel oil supplied	OTFK3	170- 170	$YESNO.
	Includes some fuel oil data from 1987	FKTRNS3	172- 172	$YESNO.
	Natural gas consumption imputation	ZNGCNS3	174- 174	$ZCNSEXP.
	Natural gas expenditures imputation	ZNGEXP3	176- 176	$ZCNSEXP.
	Fuel oil deliveries imputation	ZFKCNS3	178- 178	$ZCNSEXP.
	Fuel oil expenditures imputation	ZFKEXP3	180- 180	$ZCNSEXP.

File10: District Steam and Hot Water
(cb86f10.csv)

Ques-

tion-naire item	Variable Description	Variable Name	Variable Position	Variable Format
	Building identifier	BLDGID3	1- 5	
	Adjusted weight	ADJWT3	7- 14	
	Variance stratum	STRATUM3	16- 17	
	Pair member	PAIR3	19- 19	
	Census region	REGION3	21- 21	$REGION.
	Census division	CENDIV3	23- 23	$CENDIV.
B-2	Square footage	SQFTC3	25- 26	$SQFTC.
	Principal building activity	PBA3	28- 29	$ACTIVTY.
D-2	Year construction was completed	YRCONC3	31- 32	$YRCONC.
	Electricity supplied	ELSUPL3	34- 34	$XXSUPL.
	Natural gas supplied	NGSUPL3	36- 36	$XXSUPL.
	Fuel oil supplied	FKSUPL3	38- 38	$XXSUPL.
	Propane supplied	PRSUPL3	40- 40	$XXSUPL.
	Steam supplied	STSUPL3	42- 42	$XXSUPL.
	Hot water supplied	HWSUPL3	44- 44	$XXSUPL.
	Chilled water supplied	CWSUPL3	46- 46	$XXSUPL.
	Annual steam consumption (mlbs.)	STCNS3	48- 59	COMMA15.
	Annual steam consumption (mBtu)	STBTU3	61- 74	COMMA18.
	Annual steam expenditures	STEXP3	76- 84	COMMA11.
I-9	How district steam is billed	STBLTYP3	86- 86	$BILTYP.
I-13	District steam bill coverage	STCOVER3	88- 88	$COVER.
	Steam aggregated/disaggregated	STDSAG3	90- 90	$DISAGG.
	District steam supplier form	STFORM3	92- 93	$FORM.
	Steam consumed at heating/cooling plant	STPLNT3	95- 95	$YESNO.
	Billed for district steam	STBILD3	97- 97	$XXSUPL.
	Input fuel reported for steam	STINPT3	99- 99	$YESNO.
	Days of steam shifted from CY86	STSHFT3	101- 104	
	Annual hot water consumption (mlbs.)	HWCNS3	106- 117	COMMA15.
	Annual hot water consumption (mBtu)	HWBTU3	119- 132	COMMA18.
	Annual hot water expenditures	HWEXP3	134- 142	COMMA11.
I-9	How district hot water is billed	HWBLTYP3	144- 144	$BILTYP.
I-13	District hot water bill coverage	HWCOVER3	146- 146	$COVER.
	Hot water aggregated/disaggregated	HWDSAG3	148- 148	$DISAGG.
	District hot water supplier form	HWFORM3	150- 151	$FORM.
	Hot water consumed at heat/cool plant	HWPLNT3	153- 153	$YESNO.
	Billed for district hot water	HWBILD3	155- 155	$XXSUPL.
	Input fuel reported for hot water	HWINPT3	157- 157	$YESNO.
	Days of hot water shifted from CY86	HWSHFT3	159- 162	
	Steam consumption imputation	ZSTCNS3	164- 164	$ZCNSEXP.
	Steam expenditures imputation	ZSTEXP3	166- 166	$ZCNSEXP.
	Hot water consumption imputation	ZHWCNS3	168- 168	$ZCNSEXP.
	Hot water expenditures imputation	ZHWEXP3	170- 170	$ZCNSEXP.

File11: Propane and District Chilled Water
(cb86f11.csv)

Questionnaire item	Variable Description	Variable Name	Variable Position	Variable Format
	Building identifier	BLDGID3	1- 5	
	Adjusted weight	ADJWT3	7- 14	
	Variance stratum	STRATUM3	16- 17	
	Pair member	PAIR3	19- 19	
	Census region	REGION3	21- 21	$REGION.
	Census division	CENDIV3	23- 23	$CENDIV.
B-2	Square footage	SQFTC3	25- 26	$SQFTC.
	Principal building activity	PBA3	28- 29	$ACTIVTY.
D-2	Year construction was completed	YRCONC3	31- 32	$YRCONC.
	Electricity supplied	ELSUPL3	34- 34	$XXSUPL.
	Natural gas supplied	NGSUPL3	36- 36	$XXSUPL.
	Fuel oil supplied	FKSUPL3	38- 38	$XXSUPL.
	Propane supplied	PRSUPL3	40- 40	$XXSUPL.
	Steam supplied	STSUPL3	42- 42	$XXSUPL.
	Hot water supplied	HWSUPL3	44- 44	$XXSUPL.
	Annual propane deliveries (gals.)	PRCNS3	46- 57	COMMA15.
	Annual propane deliveries (mBtu)	PRBTU3	59- 72	COMMA18.
	Annual propane expenditures	PREXP3	74- 82	COMMA11.
I-9	How propane is billed	PRBLTYP3	84- 84	$BILTYP.
I-13	Propane bill coverage	PRCOVER3	86- 86	$COVER.
	Propane aggregated/disaggregated	PRDSAG3	88- 88	$DISAGG.
	Propane supplier form	PRFORM3	90- 91	$FORM.
	Includes some propane data from 1987	PRTRNS3	93- 93	$YESNO.
	Annual chilled water consump (Ton-Hours)	CWCNS3	95- 106	COMMA15.
	Annual chilled water consump (input Btu)	CWBTU3	108- 121	COMMA18.
	Annual chilled water expenditures	CWEXP3	123- 131	COMMA11.
I-9	How district chilled water is billed	CWBLTYP3	133- 133	$BILTYP.
I-13	District chilled water bill coverage	CWCOVER3	135- 135	$COVER.
	Chilled water aggregated/disaggregated	CWDSAG3	137- 137	$DISAGG.
	District chilled water supplied form	CWFORM3	139- 140	$FORM.
	Chilled wtr consumed at heat/cool plant	CWPLNT3	142- 142	$YESNO.
	Billed for district chilled water	CWBILD3	144- 144	$XXSUPL.
	Input fuel reported for chilled water	CWINPT3	146- 146	$YESNO.
	Days of chilled water shifted from CY86	CWSHFT3	148- 151	
	Annual major fuel consumption (mBtu)	MFBTU3	153- 166	COMMA18.
	Annual major fuel expenditures	MFEXP3	168- 176	COMMA11.
	Propane deliveries imputation	ZPRCNS3	178- 178	$ZCNSEXP.
	Propane expenditures imputation	ZPREXP3	180- 180	$ZCNSEXP.
	Chilled water consumption imputation	ZCWCNS3	182- 182	$ZCNSEXP.
	Chilled water expenditures imputation	ZCWEXP3	184- 184	$ZCNSEXP.
	<50% major fuel consumption imputed	ZMFBTU3	186- 186	$YESNO.
	<50% major fuel expenditures imputed	ZMFEXP3	188- 188	$YESNO.

File12: Imputation Flags for Summary Data, Building Activity, Operating Hours, Shell and Equipment
(cb86f12.csv)

Questionnaire item	Variable Description	Variable Name	Variable Position	Variable Format
	Building identifier	BLDGID3	1- 5	
	Adjusted weight	ADJWT3	7- 14	
	Variance stratum	STRATUM3	16- 17	
	Pair member	PAIR3	19- 19	
	Census region	REGION3	21- 21	$REGION.
	Census division	CENDIV3	23- 23	$CENDIV.
B-2	Square footage	SQFTC3	25- 26	$SQFTC.
	Principal building activity	PBA3	28- 29	$ACTIVTY.
D-2	Year construction was completed	YRCONC3	31- 32	$YRCONC.
	Electricity supplied	ELSUPL3	34- 34	$XXSUPL.
	Natural gas supplied	NGSUPL3	36- 36	$XXSUPL.
	Fuel oil supplied	FKSUPL3	38- 38	$XXSUPL.
	Propane supplied	PRSUPL3	40- 40	$XXSUPL.
	Steam supplied	STSUPL3	42- 42	$XXSUPL.
	Hot water supplied	HWSUPL3	44- 44	$XXSUPL.
	Imputed square footage	ZSQFT3	46- 46	$ZVAR.
	Imputed square footage category	ZSQFTC3	48- 48	$ZVAR.
	Imputed previous/intended use	ZVACUS13	50- 50	$ZVAR.
	Imputed classroom seating	ZEDSEAT3	52- 52	$ZVAR.
	Imputed food service seating	ZFDSEAT3	54- 54	$ZVAR.
	Imputed licensed beds (hospitals)	ZHCBED3	56- 56	$ZVAR.
	Imputed number of guest rooms	ZLODGRM3	58- 58	$ZVAR.
	Imputed owned by federal govt	ZFEDOWN3	60- 60	$ZVAR.
	Imputed owned by state govt	ZSTOWN3	62- 62	$ZVAR.
	Imputed owned by local govt	ZLOCOWN3	64- 64	$ZVAR.
	Imputed occupied by owner	ZOWNOCC3	66- 66	$ZVAR.
	Imputed number of workers	ZNWKER3	68- 68	$ZVAR.
	Imputed number of workers cat	ZNWKERC3	70- 70	$ZVAR.
	Imputed regular operating hours	ZREGHRS3	72- 72	$ZVAR.
	Imputed Monday-Friday open hour	ZMFBGN3	74- 74	$ZVAR.
	Imputed Monday-Friday close hour	ZMFEND3	76- 76	$ZVAR.
	Imputed Saturday opening hour	ZSATBGN3	78- 78	$ZVAR.
	Imputed Saturday closing hour	ZSATEND3	80- 80	$ZVAR.
	Imputed Sunday opening hour	ZSUNBGN3	82- 82	$ZVAR.
	Imputed Sunday closing hour	ZSUNEND3	84- 84	$ZVAR.
	Imputed holiday opening hour	ZHOLBGN3	86- 86	$ZVAR.
	Imputed holiday closing hour	ZHOLEND3	88- 88	$ZVAR.
	Imputed daily hours open Mon-Fri	ZMFHRS3	90- 90	$ZVAR.
	Imputed Saturday hours open	ZSATHRS3	92- 92	$ZVAR.
	Imputed Sunday hours open	ZSUNHRS3	94- 94	$ZVAR.
	Imputed holiday hours open	ZHOLHRS3	96- 96	$ZVAR.
	Imputed weekly hours (if irreg)	ZIRRGHR3	98- 98	$ZVAR.
	Imputed total weekly hours open	ZWKHRS3	100- 100	$ZVAR.
	Imputed year constructed	ZYRCON3	102- 102	$ZVAR.
	Imputed year constructed category	ZYRCONC3	104- 104	$ZVAR.

	Imputed number of floors	ZNFLOOR3	106- 106	$ZVAR.
	Imputed pct glass on exterior	ZGLASSP3	108- 108	$ZVAR.
	Imputed pct glass on exterior cat	ZGLASPC3	110- 110	$ZVAR.
	Imputed wall constructn material	ZWLCNS3	112- 112	$ZVAR.
	Imputed roof square footage cat	ZRFSQFC3	114- 114	$ZVAR.
	Imputed roof constructn material	ZRFCNS3	116- 116	$ZVAR.
	Imputed percent heated	ZHEATP3	118- 118	$ZVAR.
	Imputed percent cooled	ZCOOLP3	120- 120	$ZVAR.
	Imputed boilers	ZBOILER3	122- 122	$ZVAR.

File12: Imputation Flags for Summary Data, Building Activity, Operating Hours, Shell and Equipment (cb86f12.csv) (continued)

Questionnaire item	Variable Description	Variable Name	Variable Position	Variable Format
	Imputed furnaces that heat air	ZFURNAC3	124- 124	$ZVAR.
	Imputed heat pump (wtr source)	ZHTPMPW3	126- 126	$ZVAR.
	Imputed heat pump (air source)	ZHTPMPA3	128- 128	$ZVAR.
	Imputed central cooling	ZCNTLCL3	130- 130	$ZVAR.
	Imputed self-contained units	ZSLFCON3	132- 132	$ZVAR.
	Imputed air conditioners	ZACWNWL3	134- 134	$ZVAR.
	Imputed packaged units for heat	ZPKGHT3	136- 136	$ZVAR.
	Imputed packaged units for cool	ZPKGCL3	138- 138	$ZVAR.
	Imputed evaporative coolers	ZEVAPCL3	140- 140	$ZVAR.
	Imputed other heat/cooling equip	ZOTHC3	142- 142	$ZVAR.
	Imputed forced air through ducts	ZDUCT3	144- 144	$ZVAR.
	Imputed forced air for heat/cool	ZDUCTHC3	146- 146	$ZVAR.
	Imputed fan-coil units	ZFNCL3	148- 148	$ZVAR.
	Imputed fan-coil for heat/cool	ZFNCLHC3	150- 150	$ZVAR.
	Imputed steam baseboards	ZSTRADB3	152- 152	$ZVAR.
	Imputed hot wtr baseboards	ZHWRADB3	154- 154	$ZVAR.
	Imputed heating panels	ZPANEL3	156- 156	$ZVAR.
	Imputed other distribution system	ZOTDLV3	158- 158	$ZVAR.
	Imputed other system heat/cool	ZOTDHC13	160- 160	$ZVAR.
	Imputed tenants control heat temp	ZHTCNTL3	162- 162	$ZVAR.
	Imputed tenants control cool temp	ZCLCNTL3	164- 164	$ZVAR.
	Imputed reduce heat off hours	ZRDHTOF3	166- 166	$ZVAR.
	Imputed reduce cool off hours	ZRDCLOF3	168- 168	$ZVAR.
	Imputed space vacant >= 3 months	ZPORVAC3	170- 170	$ZVAR.
	Imputed percent vacant>=3 months	ZVAC3MP3	172- 172	$ZVAR.
	Imputed reduce ht/cl when vacant	ZRDHCVC3	174- 174	$ZVAR.
	Imputed percent lit	ZLTOHRP3	176- 176	$ZVAR.
	Imputed percent lit off hours	ZLTNHRP3	178- 178	$ZVAR.
	Imputed pct efficient incandescnt	ZEEBLBP3	180- 180	$ZVAR.
	Imputed pct std incandescent	ZSTBLBP3	182- 182	$ZVAR.
	Imputed pct efficient fluorescent	ZEEFLRP3	184- 184	$ZVAR.
	Imputed pct std fluorescent	ZSTFLRP3	186- 186	$ZVAR.

	Imputed pct HID	ZHIDP3	188- 188	$ZVAR.
	Imputed pct other lighting equip	ZOTLTP3	190- 190	$ZVAR.
	Imputed type other lighting equip	ZOTLT13	192- 192	$ZVAR.
	Imputed 2nd type oth liting equip	ZOTLT23	194- 194	$ZVAR.

File13: Imputation Flags for Energy Audits,
"Other" Conservation Features, and End Uses
(cb86f13.csv)

Questionnaire item	Variable Description	Variable Name	Variable Position	Variable Format
	Building identifier	BLDGID3	1- 5	
	Adjusted weight	ADJWT3	7- 14	
	Variance stratum	STRATUM3	16- 17	
	Pair member	PAIR3	19- 19	
	Census region	REGION3	21- 21	$REGION.
	Census division	CENDIV3	23- 23	$CENDIV.
B-2	Square footage	SQFTC3	25- 26	$SQFTC.
	Principal building activity	PBA3	28- 29	$ACTIVTY.
D-2	Year construction was completed	YRCONC3	31- 32	$YRCONC.
	Electricity supplied	ELSUPL3	34- 34	$XXSUPL.
	Natural gas supplied	NGSUPL3	36- 36	$XXSUPL.
	Fuel oil supplied	FKSUPL3	38- 38	$XXSUPL.
	Propane supplied	PRSUPL3	40- 40	$XXSUPL.
	Steam supplied	STSUPL3	42- 42	$XXSUPL.
	Hot water supplied	HWSUPL3	44- 44	$XXSUPL.
	Imputed energy audit performed	ZAUDIT3	46- 46	$ZVAR.
	Imputed year audit (most recent)	ZAUDYR3	48- 48	$ZVAR.
	Imputed month audit (if 1986)	ZAUDMON3	50- 50	$ZVAR.
	Imputed maintenance program	ZMAINT3	52- 52	$ZVAR.
	Imputed maint program install/add	ZMNTINS3	54- 54	$ZVAR.
	Imputed when maint program added	ZMNTDT3	56- 56	$ZVAR.
	Imputed maintenance program/audit	ZMNTAUD3	58- 58	$ZVAR.
	Imputed maintenance program/savngs	ZMNTSAV3	60- 60	$ZVAR.
	Imputed computerized EMS	ZHCCOMP3	62- 62	$ZVAR.
	Imputed EMS installed/added	ZCMPINS3	64- 64	$ZVAR.
	Imputed when EMS added	ZCMPDT3	66- 66	$ZVAR.
	Imputed EMS added/audit	ZCMPAUD3	68- 68	$ZVAR.
	Imputed EMS added/savings	ZCMPSAV3	70- 70	$ZVAR.
	Imputed delamping program	ZDELAMP3	72- 72	$ZVAR.
	Imputed delamping install/add	ZDLMINS3	74- 74	$ZVAR.
	Imputed when delamping added	ZDLMDT3	76- 76	$ZVAR.
	Imputed delamping added/audit	ZDLMAUD3	78- 78	$ZVAR.
	Imputed delamping added/savings	ZDLMSAV3	80- 80	$ZVAR.
	Imputed any other conservation	ZOTCNS3	82- 82	$ZVAR.
	Imputed type other conservation	ZOTCNSX3	84- 84	$ZVAR.
	Imputed other feature install/add	ZOTCINS3	86- 86	$ZVAR.

Imputed when other conserv added	ZOTCDT3	88- 88	$ZVAR.
Imputed other feature added/audit	ZOTCAUD3	90- 90	$ZVAR.
Imputed other feature added/savngs	ZOTCSAV3	92- 92	$ZVAR.
Imputed energy used for heat	ZHEAT13	94- 94	$ZVAR.
Imputed energy for heat (second)	ZHEAT23	96- 96	$ZVAR.
Imputed energy for cooling	ZCOOL3	98- 98	$ZVAR.
Imputed energy for wtr heat	ZWATR13	100- 100	$ZVAR.
Imputed energy for wtr heat (2nd)	ZWATR23	102- 102	$ZVAR.
Imputed energy for commercial cook	ZCOOK3	104- 104	$ZVAR.
Imputed energy for manufacturing	ZMANU3	106- 106	$ZVAR.
Imputed energy to generate elec	ZGENR3	108- 108	$ZVAR.
Imputed elec primary heat	ZELHT13	110- 110	$ZVAR.
Imputed elec secondary heat	ZELHT23	112- 112	$ZVAR.
Imputed elec cooling	ZELCOOL3	114- 114	$ZVAR.
Imputed elec primary wtr heat	ZELWTR13	116- 116	$ZVAR.
Imputed elec secondary wtr heat	ZELWTR23	118- 118	$ZVAR.
Imputed elec commercial cooking	ZELCOOK3	120- 120	$ZVAR.
Imputed elec manufacturing	ZELMANU3	122- 122	$ZVAR.

File13: Imputation Flags for Energy Audits,
"Other" Conservation Features, and End Uses
(cb86f13.csv) (continued)

Questionnaire item	Variable Description	Variable Name	Variable Position	Variable Format
	Imputed natgas primary heat	ZNGHT13	124- 124	$ZVAR.
	Imputed natgas secondary heat	ZNGHT23	126- 126	$ZVAR.
	Imputed natgas cooling	ZNGCOOL3	128- 128	$ZVAR.
	Imputed natgas primary wtr heat	ZNGWTR13	130- 130	$ZVAR.
	Imputed natgas secondary wtr heat	ZNGWTR23	132- 132	$ZVAR.
	Imputed natgas commercial cooking	ZNGCOOK3	134- 134	$ZVAR.
	Imputed natgas manufacturing	ZNGMANU3	136- 136	$ZVAR.
	Imputed natgas generate electric	ZNGGENR3	138- 138	$ZVAR.
	Imputed fuel oil primary wtr heat	ZFKWTR13	140- 140	$ZVAR.
	Imputed fuel oil second wtr heat	ZFKWTR23	142- 142	$ZVAR.
	Imputed fuel oil generate elec	ZFKGENR3	144- 144	$ZVAR.
	Imputed propane secondary wtr heat	ZPRWTR23	146- 146	$ZVAR.
	Imputed propane commercial cook	ZPRCOOK3	148- 148	$ZVAR.
	Imputed propane manufacturing	ZPRMANU3	150- 150	$ZVAR.
	Imputed propane generate elec	ZPRGENR3	152- 152	$ZVAR.
	Imputed steam primary wtr heat	ZSTWTR13	154- 154	$ZVAR.
	Imputed steam secondary wtr heat	ZSTWTR23	156- 156	$ZVAR.
	Imputed hot water secondary wtr heat	ZHWWTR23	158- 158	$ZVAR.
	Imputed chilled water secondary wtr heat	ZCWWTR23	160- 160	$ZVAR.

File14: Imputation Flags for HVAC, Lighting and Shell Conservation Features (cb86f14.csv)

Questionnaire item	Variable Description	Variable Name	Variable Position	Variable Format
	Building identifier	BLDGID3	1- 5	
	Adjusted weight	ADJWT3	7- 14	
	Variance stratum	STRATUM3	16- 17	
	Pair member	PAIR3	19- 19	
	Census region	REGION3	21- 21	$REGION.
	Census division	CENDIV3	23- 23	$CENDIV.
B-2	Square footage	SQFTC3	25- 26	$SQFTC.
	Principal building activity	PBA3	28- 29	$ACTIVTY.
D-2	Year construction was completed	YRCONC3	31- 32	$YRCONC.
	Electricity supplied	ELSUPL3	34- 34	$XXSUPL.
	Natural gas supplied	NGSUPL3	36- 36	$XXSUPL.
	Fuel oil supplied	FKSUPL3	38- 38	$XXSUPL.
	Propane supplied	PRSUPL3	40- 40	$XXSUPL.
	Steam supplied	STSUPL3	42- 42	$XXSUPL.
	Hot water supplied	HWSUPL3	44- 44	$XXSUPL.
	Imputed VAV system	ZVAV3	46- 46	$ZVAR.
	Imputed VAV system install/add	ZVAVINS3	48- 48	$ZVAR.
	Imputed when VAV system added	ZVAVDT3	50- 50	$ZVAR.
	Imputed VAV system added/audit	ZVAVAUD3	52- 52	$ZVAR.
	Imputed VAV system added/savings	ZVAVSAV3	54- 54	$ZVAR.
	Imputed waste heat recovery	ZRVCHT3	56- 56	$ZVAR.
	Imputed waste heat install/add	ZRCVINS3	58- 58	$ZVAR.
	Imputed when waste heat added	ZRCVDT3	60- 60	$ZVAR.
	Imputed waste heat added/audit	ZRCVAUD3	62- 62	$ZVAR.
	Imputed waste heat added/savings	ZRCVSAV3	64- 64	$ZVAR.
	Imputed other HVAC cons measures	ZOTHVAC3	66- 66	$ZVAR.
	Imputed type other HVAC measure	ZOTHVCX3	68- 68	$ZVAR.
	Imputed other HVAC install/add	ZOTHINS3	70- 70	$ZVAR.
	Imputed when other HVAC added	ZOTHDT3	72- 72	$ZVAR.
	Imputed other HVAC added/audit	ZOTHAUD3	74- 74	$ZVAR.
	Imputed other HVAC added/savings	ZOTHSAV3	76- 76	$ZVAR.
	Imputed high efficiency ballasts	ZHEB3	78- 78	$ZVAR.
	Imputed high eff ball install/add	ZHEBINS3	80- 80	$ZVAR.
	Imputed when high eff ball added	ZHEBDT3	82- 82	$ZVAR.
	Imputed high eff ball added/audit	ZHEBAUD3	84- 84	$ZVAR.
	Imputed hi eff ball added/savings	ZHEBSAV3	86- 86	$ZVAR.
	Imputed daylighting controls	ZDAYCTL3	88- 88	$ZVAR.
	Imputed daylighting install/add	ZDAYINS3	90- 90	$ZVAR.
	Imputed when daylighting added	ZDAYDT3	92- 92	$ZVAR.
	Imputed daylighting added/audit	ZDAYAUD3	94- 94	$ZVAR.
	Imputed daylighting added/savings	ZDAYSAV3	96- 96	$ZVAR.
	Imputed other light controls	ZLTCNTL3	98- 98	$ZVAR.
	Imputed other controls install/add	ZLTCINS3	100- 100	$ZVAR.
	Imputed when other controls added	ZLTCDT3	102- 102	$ZVAR.
	Imputed other controls added/audit	ZLTCAUD3	104- 104	$ZVAR.

Questionnaire item	Variable Description	Variable Name	Variable Position	Variable Format
	Imputed oth controls added/savings	ZLTCSAV3	106- 106	$ZVAR.
	Imputed any other lighting cons	ZOTLT3	108- 108	$ZVAR.
	Imputed type other lighting cons	ZOTLTX3	110- 110	$ZVAR.
	Imputed other light install/add	ZOTLINS3	112- 112	$ZVAR.
	Imputed when other lighting added	ZOTLDT3	114- 114	$ZVAR.
	Imputed other light added/audit	ZOTLAUD3	116- 116	$ZVAR.
	Imputed other light added/savings	ZOTLSAV3	118- 118	$ZVAR.
	Imputed roof or ceiling insulation	ZRIN3	120- 120	$ZVAR.
	Imputed roof/ceil insul inst/add	ZRININS3	122- 122	$ZVAR.

File14: Imputation Flags for HVAC, Lighting, and Shell Conservation Features (cb86f14.csv) (continued)

Questionnaire item	Variable Description	Variable Name	Variable Position	Variable Format
	Imputed when roof/ceil insul added	ZRINDT3	124- 124	$ZVAR.
	Imputed roof/ceil insul add/audit	ZRINAUD3	126- 126	$ZVAR.
	Imputed roof/ceil insul add/savngs	ZRINSAV3	128- 128	$ZVAR.
	Imputed wall insulation	ZWINSUL3	130- 130	$ZVAR.
	Imputed wall insul install/add	ZWININS3	132- 132	$ZVAR.
	Imputed when wall insul added	ZWINDT3	134- 134	$ZVAR.
	Imputed wall insul added/audit	ZWINAUD3	136- 136	$ZVAR.
	Imputed wall insul added/savings	ZWINSAV3	138- 138	$ZVAR.
	Imputed storm windows	ZSTWIND3	140- 140	$ZVAR.
	Imputed storm windows install/add	ZSTWINS3	142- 142	$ZVAR.
	Imputed when storm windows added	ZSTWDT3	144- 144	$ZVAR.
	Imputed storm windows added/audit	ZSTWAUD3	146- 146	$ZVAR.
	Imputed storm windows added/savngs	ZSTWSAV3	148- 148	$ZVAR.
	Imputed tinted/reflective glass	ZTRG3	150- 150	$ZVAR.
	Imputed tinted/reflec inst/add	ZTRGINS3	152- 152	$ZVAR.
	Imputed when tint/reflec glass add	ZTRGDT3	154- 154	$ZVAR.
	Imputed tint/reflt glass add/audit	ZTRGAUD3	156- 156	$ZVAR.
	Imputed tint/reflt glass add/svngs	ZTRGSAV3	158- 158	$ZVAR.
	Imputed shadings or awnings	ZAWNSHD3	160- 160	$ZVAR.
	Imputed shadings/awnings inst/add	ZAWNINS3	162- 162	$ZVAR.
	Imputed when shadings/awnings add	ZAWNDT3	164- 164	$ZVAR.
	Imputed shadings/awnings add/audit	ZAWNAUD3	166- 166	$ZVAR.
	Imputed shading/awning add/savngs	ZAWNSAV3	168- 168	$ZVAR.
	Imputed weatherstripping/caulking	ZSTRIP3	170- 170	$ZVAR.
	Imputed stripping/caulk instl/add	ZSTRINS3	172- 172	$ZVAR.
	Imputed when stripping/caulk added	ZSTRDT3	174- 174	$ZVAR.
	Imputed strip/caulk added/audit	ZSTRAUD3	176- 176	$ZVAR.
	Imputed strip/caulk added/savings	ZSTRSAV3	178- 178	$ZVAR.
	Imputed other shell conservation	ZOTSHL3	180- 180	$ZVAR.
	Imputed other shell install/add	ZOTSINS3	182- 182	$ZVAR.
	Imputed when other shell added	ZOTSDT3	184- 184	$ZVAR.
	Imputed other shell added/audit	ZOTSAUD3	186- 186	$ZVAR.

Imputed other shell added/savings	ZOTSSAV3	188- 188 $ZVAR.
Imputed capability of generating	ZGENER3	190- 190 $ZVAR.
Imputed primary use of generators	ZGENUSE3	192- 192 $ZVAR.

```
*** PROGRAM TO CREATE FORMAT LIBRARY FOR THE 1986 NBECS DATA ***;

PROC FORMAT LIBRARY=SASLIB;

  VALUE $ACTIVTY
   '  ' = 'Inapplicable'
   '01' = 'Vacant'
   '02' = 'Office'
   '03' = 'Mercantile/services'
   '04' = 'Assembly'
   '05' = 'Food sales'
   '06' = 'Public order/safety'
   '07' = 'Health care (outpatient)'
   '08' = 'Industrial'
   '09' = 'Agricultural'
   '10' = 'Laboratory'
   '11' = 'Warehouse (refrig)'
   '12' = 'Warehouse (nonrefrig)'
   '13' = 'Education'
   '14' = 'Food service'
   '15' = 'Health care (inpatient)'
   '16' = 'Skilled nursing'
   '17' = 'Lodging'
   '18' = 'Residential'
   '19' = 'Other';

  VALUE $BILTYP
   ' ' = 'Inapplicable'
   '1' = 'One bill'
   '2' = 'More than one bill'
   '7' = 'Not billed'
   '8' = 'Don"t know'
   '9' = 'Missing';

  VALUE $CENDIV
   '1' = 'New England'
   '2' = 'Middle Atlantic'
   '3' = 'East North Central'
   '4' = 'West North Central'
   '5' = 'South Atlantic'
   '6' = 'East South Central'
   '7' = 'West South Central'
   '8' = 'Mountain'
   '9' = 'Pacific';
```

```
VALUE $CLCNTL
  ' ' = 'Inapplicable'
  '1' = 'Yes'
  '2' = 'No'
  '7' = 'No cooling';

VALUE $CLIMAT
  '1' = '<2000 CDD,>7000 HDD'
  '2' = '<2000 CDD,5500-7000 HDD'
  '3' = '<2000 CDD,4000-5499 HDD'
  '4' = '<2000 CDD,<4000 HDD'
  '5' = '>=2000 CDD,<4000 HDD';

VALUE $COVER
  ' '  = 'Inapplicable'
  '1'  = 'Just sampled building'
  '2'  = 'Covers other building(s)'
  '7'  = 'No bill'
  '8'  = 'Don"t know'
  '9'  = 'Missing';

VALUE $DISAGG
  ' ' = 'Inapplicable'
  '1' = 'No aggreg./disagg. required'
  '2' = 'Aggregation performed'
  '3' = 'Disaggregation performed'
  '4' = 'Ratio < .1'
  '5' = 'Unable to calculate';

VALUE $FORM
  '  ' = 'Inapplicable'
  'B1' = 'Propane'
  'B2' = 'Propane (aggreg)'
  'C1' = 'Natural gas'
  'C2' = 'Natural gas (aggreg)'
  'D1' = 'District system'
  'E1' = 'Electricity'
  'E2' = 'Electricity (aggreg)'
  'F1' = 'Fuel oil'
  'F2' = 'Fuel oil (aggreg)'
  'C3' = 'Natural gas (worksheet)'
  'E3' = 'Electricity (worksheet)';
```

Appendix B. SAS Format Library Creation Program

```
VALUE $GENUSE
  '  ' = 'Inapplicable'
  '01' = 'Emergency back-up'
```

```
  '02' = 'Periods of peak demand'
  '03' = 'Operate continuously'
  '04' = 'Other'
  '95' = 'Other'
  '98' = 'Don"t know'
  '99' = 'Not ascertained';

VALUE $HTCL
  ' ' = 'Inapplicable'
  '1' = 'Heating only'
  '2' = 'Cooling only'
  '3' = 'Both heating and cooling';

VALUE $HTCNTL
  ' ' = 'Inapplicable'
  '1' = 'Yes'
  '2' = 'No'
  '7' = 'No heating';

VALUE $INSADD
  ' ' = 'Inapplicable'
  '1' = 'Installed'
  '2' = 'Added';

VALUE $MSA
  '1' = 'Non-Metropolitan'
  '2' = 'Metropolitan';

VALUE $NWKERC
  '00' = 'None'
  '01' = '1 to 4'
  '02' = '5 to 9'
  '03' = '10 to 19'
  '04' = '20 to 49'
  '05' = '50 to 99'
  '06' = '100 to 249'
  '07' = '250 to 499'
  '08' = '500 to 999'
  '09' = '1,000 to 2,499'
  '10' = '2,500 to 4,999'
  '11' = '5,000 or more';
```

Appendix B. SAS Format Library Creation Program

```
VALUE $OCCNUM
  '1' = 'None, completely vacant'
  '2' = 'One'
  '3' = 'More than one';

VALUE $OTCNSX
  '  ' = 'Inapplicable'
```

```
  '00' = 'Code pending'
  '01' = 'Water heating'
  '02' = 'Behavioral'
  '95' = 'Other';

VALUE $OTHVCX
  '  ' = 'Inapplicable'
  '00' = 'Code pending'
  '01' = 'Timer/time clock'
  '02' = 'Economizer'
  '03' = 'Load management'
  '95' = 'Other';

VALUE $OTLIT
  '  ' = 'Inapplicable'
  '00' = 'Code pending'
  '01' = 'Daylighting'
  '02' = 'Speciality lighting'
  '03' = 'Light bulbs (not spec)'
  '04' = 'Infra-red lamps'
  '05' = 'Fluorescent (not spec)'
  '95' = 'Other';

VALUE $OTLTX
  '  ' = 'Inapplicable'
  '00' = 'Code pending'
  '01' = 'Daylighting'
  '02' = 'Relamping'
  '03' = 'Delamping'
  '04' = 'Dimmer switches'
  '05' = 'Recircuit/other switches'
  '95' = 'Other';

VALUE $PCTCAT
  '1' = '0 percent'
  '2' = '1 to 25 percent'
  '3' = '26 to 50 percent'
  '4' = '51 to 75 percent'
  '5' = '76 percent or more';
```

Appendix B. SAS Format Library Creation Program

```
VALUE $RATE
   ' ' = 'Inapplicable'
  '1' = 'Mandatory'
  '2' = 'Yes, but optional'
  '3' = 'No, but optional'
  '4' = 'Not available'
  '8' = 'Don"t know'
  '9' = 'Not ascertained';

VALUE $REGION
  '1' = 'Northeast'
```

```
  '2' = 'Midwest'
  '3' = 'South'
  '4' = 'West';

VALUE $RESPC
  ' ' = 'Inapplicable'
  '2' = '75 to 99'
  '3' = '25 to 74'
  '4' = '1 to 25'
  '8' = 'Don"t know'
  '9' = 'Not ascertained';

VALUE $RFCNS
  '01' = 'Wooden materials'
  '02' = 'Slate or tile'
  '03' = 'Shingles (not wood)'
  '04' = 'Built-up'
  '05' = 'Metal surfacing'
  '06' = 'Single ply synthetic'
  '07' = 'Other (specify)'
  '08' = 'Concrete roof'
  '09' = 'Concrete-not parking lot'
  '10' = 'Sprayed foam'
  '95' = 'Other';

VALUE $RFSQFTC
  '01' = '5,000 or less'
  '02' = '5,001 to 10,000'
  '03' = '10,001 to 25,000'
  '04' = '25,001 to 50,000'
  '05' = '50,001 to 100,000'
  '06' = '100,001 to 200,000'
  '07' = '200,001 to 500,000'
  '08' = '500,001 to 1 million'
  '09' = 'Over 1 million';
```

Appendix B. SAS Format Library Creation Program

```
VALUE $SEASON
 ' '= 'Inapplicable'
  1 = 'Summer'
  2 = 'Winter'
  3 = 'Summer & winter';

 VALUE $SQFTC
  '01' = '1,001 to 5,000'
  '02' = '5,001 to 10,000'
  '03' = '10,001 to 25,000'
  '04' = '25,001 to 50,000'
  '05' = '50,001 to 100,000'
  '06' = '100,001 to 200,000'
```

```
  '07' = '200,001 to 500,000'
  '08' = '500,001 to 1 million'
  '09' = 'Over 1 million';

VALUE $WLCNS
  '01' = 'Glass (not window)'
  '02' = 'Concrete panels'
  '03' = 'Masonry/wood frame'
  '04' = 'Siding/wood frame'
  '05' = 'Siding/masonry wall'
  '06' = 'Masonry/masonry wall'
  '07' = 'Masonry/steel frame'
  '08' = 'Pre-engen. metal'
  '09' = 'Other (specify)'
  '10' = 'Masonry/frame not given'
  '11' = 'Siding/frame not given'
  '12' = 'Mason. fr. mult ext'
  '13' = 'Steel fr. mult ext'
  '95' = 'Other';

VALUE $XXSUPL
  ' ' = 'Inapplicable'
  '1' = 'Yes'
  '2' = 'No'
  '3' = 'No (revised)'
  '4' = 'Not 1986'
  '5' = 'Yes (revised)'
  '8' = 'Don"t know'
  '9' = 'Not ascertained';

VALUE $YESNO
  ' ' = 'Inapplicable'
  '1' = 'Yes'
  '2' = 'No'
  '8' = 'Don"t know'
  '9' = 'Not ascertained';
```

Appendix B. SAS Format Library Creation Program

```
VALUE $YRADD
  ' ' = 'Inapplicable'
  '1' = '1986'
   '2' = '1980 to 1985'
  '3' = 'Before 1980';

VALUE $YRCONC
  '01' = '1900 or before'
  '02' = '1901 to 1920'
  '03' = '1921 to 1945'
  '04' = '1946 to 1960'
  '05' = '1961 to 1970'
  '06' = '1971 to 1973'
```

```
  '07' = '1974 to 1979'
  '08' = '1980 to 1983'
  '09' = '1984 to 1986';


VALUE $ZCNSEXP
  ' ' = 'Not supplied'
  '0' = 'Not imputed'
  '1' = 'Prorated from adjacent periods'
  '2' = 'Hot-decked'
  '3' = 'Regression estimate'
  '8' = 'Worksheet procedure';

VALUE $ZVAR
  ' ' = 'Inapplicable'
  '1' = 'Imputed'
  '2' = 'Reported';

PICTURE HTCLP
  0-995 = '009'
   996  = 'Less than one half';

PICTURE LOADFAC
  0-1 = '0.009'
9.999 = 'Not ascertained';

PICTURE NFLOOR
  1-14 = '009'
15,996 = '15 to 25' (NOEDIT)
26,997 = 'More than 25' (NOEDIT);

PICTURE PEAK
1-999998 = '000,009'
 999999  = 'Not ascertained';
```