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2.1 Households Electricity Consumption

2.1.1 Un-Restricted Samples

Table 1: Household Electricity Consumption: Summary Statistics

Statistic	Consumption		
	Daily Average	Monthly	
		Normalized	Actual
	(kWh/Day)	(%)	(kWh/Month)
Mean	26.29	9.24	776.38
Std. Dev.	15.08	59.46	451.49
Min.	0.00	-99.93	1.00
Median	23.14	-1.45	681.00
Max.	3,196.83	15,986.45	99,736.00

Note: While daily average consumption is for period 1, normalized monthly consumption is for period 0.

Table 2: Household Electricity Consumption: Quantiles

Quantile	Daily Average Consumption		Normalized Monthly Consumption	
	Value (kWh/Day)	N	Value (%)	N
0%	0.00	7,695	-99.93	12
25%	16.28	7,319,969	-30.57	7,328,091
50%	23.14	14,640,475	-1.45	14,644,598
75%	32.68	21,957,481	36.31	21,955,636
100%	3,196.83	29,274,169	15,986.45	29,274,169

Note: While daily average consumption is for period 1, normalized monthly consumption is for period 0.

2.1.2 Samples constructed based on Rate Codes

Table 3: Household Electricity Consumption: Summary Statistics, By Rate Code

Statistic	Daily Average Consumption				Normalized Monthly Consumption			
	RSCH & RSEH		RSGH		RSCH & RSEH		RSGH	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Mean	30.00	33.45	27.83	21.74	25.30	-2.62	18.62	8.51
Std. Dev.	16.20	18.98	15.16	11.00	68.13	54.46	63.67	56.08
Min.	0.00	0.00	0.00	0.00	-99.86	-99.91	-99.86	-99.84
Median	27.11	30.00	25.00	19.97	12.86	-11.88	7.29	-0.81
Max.	424.00	814.29	3,196.83	644.21	2,385.71	1,935.71	13,600.71	15,986.45

Note: While daily average consumption is for period 1, normalized monthly consumption is for period 0. RSCH and RSEH rate codes have the same base usage qty, as illustrated in Figure 3. When constructing samples, observations satisfying following conditions are exploited only: 1) observations between 2005 and 2011, and 2) observations without in-period seasonal change in Base Usage Qty.

Table 4: Household Electricity Consumption: Quantiles of RSCH & RSEH

Quantile	Daily Average Consumption				Normalized Monthly Consumption			
	Summer		Winter		Summer		Winter	
	Value (kWh/Day)	N	Value (kWh/Day)	N	Value (%)	N	Value (%)	N
0%	0.00	625	0.00	509	-99.86	223	-99.91	167
25%	18.67	483,617	19.82	465,091	-22.57	484,274	-41.70	465,860
50%	27.11	967,288	30.00	929,890	12.86	968,036	-11.88	930,850
75%	38.19	1,450,821	43.04	1,394,541	59.86	1,451,576	25.45	1,394,754
100%	424.00	1,934,428	814.29	1,859,170	2,385.71	1,934,428	1,935.71	1,859,170

Note: While daily average consumption is for period 1, normalized monthly consumption is for period 0. When constructing samples, observations satisfying following conditions are exploited only: 1) observations between 2005 and 2011, and 2) observations without in-period seasonal change in Base Usage Qty. RSCH and RSEH rate codes have the same base usage qty, as illustrated in Figure 3.

Table 5: Household Electricity Consumption: Quantiles of RSGH

Quantile	Daily Average Consumption				Normalized Monthly Consumption			
	Summer		Winter		Summer		Winter	
	Value (kWh/Day)	N	Value (kWh/Day)	N	Value (%)	N	Value (%)	N
0%	0.00	2,351	0.00	1,985	-99.86	846	-99.84	776
25%	17.39	1,984,203	14.57	1,912,604	-25.29	1,989,868	-27.90	1,919,787
50%	25.00	3,975,639	19.97	3,824,815	7.29	3,972,666	-0.81	3,834,736
75%	35.18	5,951,798	26.67	5,738,356	49.86	5,952,012	33.23	5,738,417
100%	3,196.83	7,935,663	644.21	7,648,824	13,600.71	7,935,663	15,986.45	7,648,824

Note: While daily average consumption is for period 1, normalized monthly consumption is for period 0. When constructing samples, observations satisfying following conditions are exploited only: 1) observations between 2005 and 2011, and 2) observations without in-period seasonal change in Base Usage Qty.

Table 6: Household Electricity Consumption: Summary Statistics of RSCH & RSEH, By Bandwidth and Month

Bandwidth	Month	Season	Statistic	Consumption		
				Daily Average	Monthly	
					Normalized	Actual
				(kWh/Day)	(%)	(kWh/Month)
10%	1	Winter	Mean	31.17	-0.07	1,119.19
			Std. Dev.	6.82	5.75	64.41
			Min.	0.00	-10.00	1,008.00
			Median	31.18	-0.09	1,119.00
			Max.	210.87	9.91	1,231.00
	2	Winter	Mean	31.57	-0.39	1,115.63
			Std. Dev.	6.79	5.75	64.39
			Min.	0.00	-10.00	1,008.00
			Median	31.61	-0.54	1,114.00
			Max.	132.18	9.91	1,231.00
	3	Winter	Mean	33.19	-0.70	1,112.17
			Std. Dev.	6.73	5.73	64.22
			Min.	0.00	-10.00	1,008.00
			Median	33.22	-0.98	1,109.00
			Max.	148.11	9.91	1,231.00
	4	Winter	Mean	34.53	-1.00	1,108.83
			Std. Dev.	7.68	5.71	63.91
			Min.	0.00	-10.00	1,008.00
			Median	34.45	-1.43	1,104.00
			Max.	106.86	9.91	1,231.00
	5	Summer	Mean	29.96	-0.28	698.01
			Std. Dev.	7.04	5.77	40.37
			Min.	0.00	-10.00	630.00
			Median	29.34	-0.43	697.00
			Max.	134.34	9.86	769.00
	6	Summer	Mean	29.18	-0.22	698.44
			Std. Dev.	7.44	5.76	40.30
			Min.	0.00	-10.00	630.00
			Median	28.21	-0.29	698.00
			Max.	142.07	9.86	769.00

Bandwidth	Month	Season	Statistic	Consumption		
				Daily Average	Monthly	
					Normalized	Actual
				(kWh/Day)	(%)	(kWh/Month)
10%	7	Summer	Mean	23.20	0.14	701.00
			Std. Dev.	5.52	5.73	40.12
			Min.	0.00	-10.00	630.00
			Median	23.04	0.29	702.00
			Max.	156.19	9.86	769.00
	8	Summer	Mean	21.09	-0.12	699.17
			Std. Dev.	5.23	5.74	40.19
			Min.	0.00	-10.00	630.00
			Median	21.03	-0.14	699.00
			Max.	104.90	10.00	770.00
	9	Summer	Mean	21.82	-0.26	698.15
			Std. Dev.	6.02	5.76	40.32
			Min.	0.00	-10.00	630.00
			Median	21.43	-0.29	698.00
			Max.	136.82	10.00	770.00
	10	Summer	Mean	28.34	-0.53	696.28
			Std. Dev.	7.98	5.75	40.27
			Min.	0.00	-10.00	630.00
			Median	27.21	-0.71	695.00
			Max.	128.77	9.86	769.00
	11	Winter	Mean	45.73	-0.28	1,116.89
			Std. Dev.	10.68	5.75	64.41
			Min.	0.00	-10.00	1,008.00
			Median	44.47	-0.45	1,115.00
			Max.	204.64	9.91	1,231.00
	12	Winter	Mean	35.91	-0.12	1,118.70
			Std. Dev.	7.92	5.75	64.44
			Min.	0.00	-10.00	1,008.00
			Median	35.24	-0.18	1,118.00
			Max.	157.22	9.91	1,231.00

Bandwidth	Month	Season	Statistic	Consumption		
				Daily Average	Monthly	
					Normalized	Actual
				(kWh/Day)	(%)	(kWh/Month)
20%	1	Winter	Mean	31.17	-0.16	1,118.26
			Std. Dev.	7.38	11.45	128.19
			Min.	0.00	-20.00	896.00
			Median	30.87	-0.18	1,118.00
			Max.	210.87	20.00	1,344.00
	2	Winter	Mean	31.28	-1.31	1,105.34
			Std. Dev.	7.45	11.41	127.81
			Min.	0.00	-20.00	896.00
			Median	31.07	-1.96	1,098.00
			Max.	150.50	20.00	1,344.00
	3	Winter	Mean	32.49	-2.59	1,090.99
			Std. Dev.	7.22	11.24	125.83
			Min.	0.00	-20.00	896.00
			Median	32.28	-3.75	1,078.00
			Max.	148.11	20.00	1,344.00
	4	Winter	Mean	33.62	-3.55	1,080.20
			Std. Dev.	8.14	11.06	123.85
			Min.	0.00	-20.00	896.00
			Median	33.29	-5.09	1,063.00
			Max.	108.71	20.00	1,344.00
	5	Summer	Mean	29.79	-0.99	693.10
			Std. Dev.	7.52	11.50	80.53
			Min.	0.00	-20.00	560.00
			Median	29.10	-1.43	690.00
			Max.	140.00	20.00	840.00
	6	Summer	Mean	29.15	-0.48	696.61
			Std. Dev.	7.86	11.47	80.30
			Min.	0.00	-20.00	560.00
			Median	28.16	-0.71	695.00
			Max.	142.07	20.00	840.00

Bandwidth	Month	Season	Statistic	Consumption		
				Daily Average	Monthly	
					Normalized	Actual
				(kWh/Day)	(%)	(kWh/Month)
20%	7	Summer	Mean	23.33	0.65	704.52
			Std. Dev.	5.94	11.40	79.78
			Min.	0.00	-20.00	560.00
			Median	23.03	1.00	707.00
			Max.	156.19	20.00	840.00
	8	Summer	Mean	21.13	-0.09	699.37
			Std. Dev.	5.55	11.43	79.99
			Min.	0.00	-20.00	560.00
			Median	20.89	-0.14	699.00
			Max.	127.71	20.00	840.00
	9	Summer	Mean	21.70	-0.88	693.87
			Std. Dev.	6.31	11.49	80.41
			Min.	0.00	-20.00	560.00
			Median	21.19	-1.29	691.00
			Max.	142.41	20.00	840.00
	10	Summer	Mean	28.04	-1.65	688.46
			Std. Dev.	8.29	11.46	80.22
			Min.	0.00	-20.00	560.00
			Median	27.03	-2.57	682.00
			Max.	150.45	20.00	840.00
	11	Winter	Mean	45.42	-1.00	1,108.75
			Std. Dev.	11.32	11.44	128.09
			Min.	0.00	-20.00	896.00
			Median	44.18	-1.43	1,104.00
			Max.	204.64	20.00	1,344.00
	12	Winter	Mean	35.86	-0.21	1,117.64
			Std. Dev.	8.60	11.53	129.09
			Min.	0.00	-20.00	896.00
			Median	35.14	-0.36	1,116.00
			Max.	161.52	20.00	1,344.00

Bandwidth	Month	Season	Statistic	Consumption		
				Daily Average	Monthly	
					Normalized	Actual
				(kWh/Day)	(%)	(kWh/Month)
30%	1	Winter	Mean	31.06	-0.53	1,114.08
			Std. Dev.	8.18	17.02	190.65
			Min.	0.00	-30.00	784.00
			Median	30.48	-0.62	1,113.00
			Max.	210.87	30.00	1,456.00
	2	Winter	Mean	30.81	-2.76	1,089.03
			Std. Dev.	8.30	16.82	188.34
			Min.	0.00	-30.00	784.00
			Median	30.25	-4.02	1,075.00
			Max.	150.50	30.00	1,456.00
	3	Winter	Mean	31.48	-5.57	1,057.63
			Std. Dev.	8.00	16.34	182.97
			Min.	0.00	-30.00	784.00
			Median	30.90	-7.77	1,033.00
			Max.	150.96	30.00	1,456.00
	4	Winter	Mean	32.32	-7.56	1,035.31
			Std. Dev.	8.70	15.77	176.64
			Min.	0.00	-30.00	784.00
			Median	31.59	-10.18	1,006.00
			Max.	125.43	30.00	1,456.00
	5	Summer	Mean	29.47	-2.18	684.75
			Std. Dev.	8.20	17.04	119.29
			Min.	0.00	-30.00	490.00
			Median	28.70	-3.14	678.00
			Max.	140.00	30.00	910.00
	6	Summer	Mean	29.07	-0.86	693.98
			Std. Dev.	8.48	17.00	119.01
			Min.	0.00	-30.00	490.00
			Median	28.07	-1.29	691.00
			Max.	160.83	30.00	910.00

Bandwidth	Month	Season	Statistic	Consumption		
				Daily Average	Monthly	
					Normalized	Actual
				(kWh/Day)	(%)	(kWh/Month)
30%	7	Summer	Mean	23.49	1.37	709.58
			Std. Dev.	6.51	16.78	117.48
			Min.	0.00	-30.00	490.00
			Median	23.07	2.00	714.00
			Max.	156.19	30.00	910.00
	8	Summer	Mean	21.17	0.07	700.52
			Std. Dev.	6.02	16.89	118.22
			Min.	0.00	-30.00	490.00
			Median	20.72	0.00	700.00
			Max.	127.71	30.00	910.00
	9	Summer	Mean	21.56	-1.69	688.15
			Std. Dev.	6.76	17.02	119.13
			Min.	0.00	-30.00	490.00
			Median	20.93	-2.57	682.00
			Max.	147.79	30.00	910.00
	10	Summer	Mean	27.53	-3.74	673.83
			Std. Dev.	8.75	16.97	118.80
			Min.	0.00	-30.00	490.00
			Median	26.55	-5.43	662.00
			Max.	150.45	30.00	910.00
	11	Winter	Mean	44.90	-2.19	1,095.46
			Std. Dev.	12.46	16.94	189.78
			Min.	0.00	-30.00	784.00
			Median	43.59	-3.12	1,085.00
			Max.	204.64	30.00	1,456.00
	12	Winter	Mean	35.76	-0.53	1,114.05
			Std. Dev.	9.56	17.08	191.34
			Min.	0.00	-30.00	784.00
			Median	34.94	-0.80	1,111.00
			Max.	161.52	30.00	1,456.00

Bandwidth	Month	Season	Statistic	Consumption		
				Daily Average	Monthly	
					Normalized	Actual
				(kWh/Day)	(%)	(kWh/Month)
40%	1	Winter	Mean	30.91	-1.00	1,108.79
			Std. Dev.	9.18	22.36	250.40
			Min.	0.00	-40.00	672.00
			Median	30.17	-1.25	1,106.00
			Max.	210.87	40.00	1,568.00
	2	Winter	Mean	30.22	-4.71	1,067.19
			Std. Dev.	9.26	21.92	245.46
			Min.	0.00	-40.00	672.00
			Median	29.32	-6.61	1,046.00
			Max.	151.00	40.00	1,568.00
	3	Winter	Mean	30.27	-9.32	1,015.64
			Std. Dev.	8.83	21.00	235.25
			Min.	0.00	-40.00	672.00
			Median	29.30	-12.59	979.00
			Max.	192.79	40.00	1,568.00
	4	Winter	Mean	30.66	-12.63	978.54
			Std. Dev.	9.43	19.87	222.58
			Min.	0.00	-40.00	672.00
			Median	29.57	-16.43	936.00
			Max.	394.29	40.00	1,568.00
	5	Summer	Mean	29.15	-3.33	676.69
			Std. Dev.	9.04	22.32	156.25
			Min.	0.00	-40.00	420.00
			Median	28.26	-4.86	666.00
			Max.	140.00	40.00	980.00
	6	Summer	Mean	29.06	-0.96	693.28
			Std. Dev.	9.23	22.28	155.98
			Min.	0.00	-40.00	420.00
			Median	28.03	-1.71	688.00
			Max.	160.83	40.00	980.00

Bandwidth	Month	Season	Statistic	Consumption		
				Daily Average	Monthly	
					Normalized	Actual
				(kWh/Day)	(%)	(kWh/Month)
40%	7	Summer	Mean	23.76	2.59	718.12
			Std. Dev.	7.22	21.86	153.03
			Min.	0.00	-40.00	420.00
			Median	23.26	3.43	724.00
			Max.	159.75	40.00	980.00
	8	Summer	Mean	21.28	0.58	704.08
			Std. Dev.	6.60	22.06	154.42
			Min.	0.00	-40.00	420.00
			Median	20.70	0.57	704.00
			Max.	130.29	40.00	980.00
	9	Summer	Mean	21.41	-2.53	682.31
			Std. Dev.	7.24	22.26	155.79
			Min.	0.00	-40.00	420.00
			Median	20.63	-3.86	673.00
			Max.	147.79	40.00	980.00
	10	Summer	Mean	26.86	-6.39	655.29
			Std. Dev.	9.29	22.09	154.66
			Min.	0.00	-40.00	420.00
			Median	25.82	-9.14	636.00
			Max.	150.45	40.00	980.00
	11	Winter	Mean	44.17	-3.77	1,077.77
			Std. Dev.	13.76	22.12	247.73
			Min.	0.00	-40.00	672.00
			Median	42.76	-5.27	1,061.00
			Max.	204.64	40.00	1,568.00
	12	Winter	Mean	35.61	-0.85	1,110.47
			Std. Dev.	10.72	22.45	251.49
			Min.	0.00	-40.00	672.00
			Median	34.74	-1.25	1,106.00
			Max.	161.52	40.00	1,568.00

Bandwidth	Month	Season	Statistic	Consumption		
				Daily Average	Monthly	
					Normalized	Actual
				(kWh/Day)	(%)	(kWh/Month)
50%	1	Winter	Mean	30.78	-1.37	1,104.63
			Std. Dev.	10.24	27.43	307.19
			Min.	0.00	-50.00	560.00
			Median	29.97	-1.79	1,100.00
			Max.	210.87	50.00	1,680.00
	2	Winter	Mean	29.57	-6.84	1,043.34
			Std. Dev.	10.24	26.69	298.89
			Min.	0.00	-50.00	560.00
			Median	28.39	-9.29	1,016.00
			Max.	151.00	50.00	1,680.00
	3	Winter	Mean	28.96	-13.45	969.39
			Std. Dev.	9.68	25.15	281.71
			Min.	0.00	-50.00	560.00
			Median	27.61	-17.50	924.00
			Max.	192.79	50.00	1,680.00
	4	Winter	Mean	28.85	-18.20	916.21
			Std. Dev.	10.02	23.36	261.69
			Min.	0.00	-50.00	560.00
			Median	27.39	-22.77	865.00
			Max.	394.29	50.00	1,680.00
	5	Summer	Mean	28.95	-4.15	670.98
			Std. Dev.	9.94	27.18	190.29
			Min.	0.00	-50.00	350.00
			Median	27.93	-6.29	656.00
			Max.	140.00	50.00	1,050.00
	6	Summer	Mean	29.13	-0.68	695.22
			Std. Dev.	10.02	27.22	190.56
			Min.	0.00	-50.00	350.00
			Median	28.10	-1.57	689.00
			Max.	160.83	50.00	1,050.00

Bandwidth	Month	Season	Statistic	Consumption		
				Daily Average	Monthly	
					Normalized	Actual
				(kWh/Day)	(%)	(kWh/Month)
50%	7	Summer	Mean	24.11	4.26	729.84
			Std. Dev.	7.95	26.53	185.69
			Min.	0.00	-50.00	350.00
			Median	23.57	5.29	737.00
			Max.	159.75	50.00	1,050.00
	8	Summer	Mean	21.49	1.66	711.61
			Std. Dev.	7.21	26.80	187.63
			Min.	0.00	-50.00	350.00
			Median	20.83	1.57	711.00
			Max.	179.79	50.00	1,050.00
	9	Summer	Mean	21.32	-3.05	678.67
			Std. Dev.	7.80	27.10	189.72
			Min.	0.00	-50.00	350.00
			Median	20.41	-4.71	667.00
			Max.	147.79	50.00	1,050.00
	10	Summer	Mean	26.20	-9.07	636.49
			Std. Dev.	9.91	26.81	187.69
			Min.	0.00	-50.00	350.00
			Median	25.00	-12.71	611.00
			Max.	150.45	50.00	1,050.00
	11	Winter	Mean	43.39	-5.41	1,059.44
			Std. Dev.	15.22	26.98	302.15
			Min.	0.00	-50.00	560.00
			Median	41.86	-7.50	1,036.00
			Max.	204.64	50.00	1,680.00
	12	Winter	Mean	35.43	-1.23	1,106.19
			Std. Dev.	11.94	27.49	307.85
			Min.	0.00	-50.00	560.00
			Median	34.55	-1.79	1,100.00
			Max.	179.61	50.00	1,680.00

Note: XYZ.

Table 8: Household Electricity Consumption: Summary Statistics of RSGH, By Bandwidth and Month

Bandwidth	Month	Season	Statistic	Consumption		
				Daily Average	Monthly	
					Normalized	Actual
				(kWh/Day)	(%)	(kWh/Month)
10%	1	Winter	Mean	18.87	-0.20	618.79
			Std. Dev.	3.40	5.76	35.71
			Min.	0.00	-10.00	558.00
			Median	18.76	-0.16	619.00
			Max.	155.32	10.00	682.00
	2	Winter	Mean	19.57	-0.36	617.80
			Std. Dev.	3.34	5.75	35.67
			Min.	0.00	-10.00	558.00
			Median	19.50	-0.48	617.00
			Max.	150.76	10.00	682.00
	3	Winter	Mean	20.95	-0.54	616.64
			Std. Dev.	3.60	5.75	35.62
			Min.	0.00	-10.00	558.00
			Median	20.82	-0.81	615.00
			Max.	115.04	10.00	682.00
	4	Winter	Mean	22.96	-0.58	616.41
			Std. Dev.	4.66	5.74	35.60
			Min.	0.00	-10.00	558.00
			Median	22.43	-0.81	615.00
			Max.	122.26	10.00	682.00
	5	Summer	Mean	32.31	-0.54	696.19
			Std. Dev.	7.60	5.75	40.25
			Min.	0.00	-10.00	630.00
			Median	31.46	-0.71	695.00
			Max.	134.61	9.86	769.00
	6	Summer	Mean	31.04	-0.21	698.50
			Std. Dev.	8.11	5.76	40.35
			Min.	0.00	-10.00	630.00
			Median	30.07	-0.29	698.00
			Max.	163.21	9.86	769.00

Bandwidth	Month	Season	Statistic	Consumption		
				Daily Average	Monthly	
					Normalized	Actual
				(kWh/Day)	(%)	(kWh/Month)
10%	7	Summer	Mean	23.39	0.15	701.05
			Std. Dev.	5.93	5.75	40.24
			Min.	0.00	-10.00	630.00
			Median	23.14	0.29	702.00
			Max.	186.03	9.86	769.00
	8	Summer	Mean	21.09	-0.02	699.87
			Std. Dev.	5.54	5.75	40.27
			Min.	0.00	-10.00	630.00
			Median	21.13	0.00	700.00
			Max.	165.68	10.00	770.00
	9	Summer	Mean	19.33	-0.28	698.04
			Std. Dev.	4.71	5.76	40.33
			Min.	0.00	-10.00	630.00
			Median	19.21	-0.43	697.00
			Max.	123.30	10.00	770.00
	10	Summer	Mean	23.49	-0.72	694.94
			Std. Dev.	4.89	5.72	40.07
			Min.	0.00	-10.00	630.00
			Median	23.36	-1.00	693.00
			Max.	120.96	9.86	769.00
	11	Winter	Mean	22.70	-0.28	618.26
			Std. Dev.	4.79	5.76	35.73
			Min.	0.00	-10.00	558.00
			Median	22.07	-0.32	618.00
			Max.	116.41	9.84	681.00
	12	Winter	Mean	19.64	-0.12	619.23
			Std. Dev.	3.86	5.76	35.71
			Min.	0.00	-10.00	558.00
			Median	19.38	-0.16	619.00
			Max.	125.20	10.00	682.00

Bandwidth	Month	Season	Statistic	Consumption		
				Daily Average	Monthly	
					Normalized	Actual
				(kWh/Day)	(%)	(kWh/Month)
20%	1	Winter	Mean	18.83	-0.39	617.61
			Std. Dev.	3.83	11.43	70.85
			Min.	0.00	-20.00	496.00
			Median	18.61	-0.48	617.00
			Max.	157.30	20.00	744.00
	2	Winter	Mean	19.41	-1.09	613.26
			Std. Dev.	3.83	11.42	70.80
			Min.	0.00	-20.00	496.00
			Median	19.21	-1.61	610.00
			Max.	207.21	20.00	744.00
	3	Winter	Mean	20.66	-1.85	608.51
			Std. Dev.	4.07	11.34	70.33
			Min.	0.00	-20.00	496.00
			Median	20.41	-2.74	603.00
			Max.	115.04	20.00	744.00
	4	Winter	Mean	22.62	-2.01	607.57
			Std. Dev.	5.09	11.31	70.14
			Min.	0.00	-20.00	496.00
			Median	22.07	-2.90	602.00
			Max.	185.55	20.00	744.00
	5	Summer	Mean	31.92	-1.77	687.64
			Std. Dev.	8.04	11.40	79.77
			Min.	0.00	-20.00	560.00
			Median	31.07	-2.57	682.00
			Max.	146.57	20.00	840.00
	6	Summer	Mean	30.90	-0.59	695.85
			Std. Dev.	8.50	11.48	80.35
			Min.	0.00	-20.00	560.00
			Median	29.90	-0.86	694.00
			Max.	186.38	20.00	840.00

Bandwidth	Month	Season	Statistic	Consumption		
				Daily Average	Monthly	
					Normalized	Actual
				(kWh/Day)	(%)	(kWh/Month)
20%	7	Summer	Mean	23.51	0.81	705.69
			Std. Dev.	6.26	11.41	79.89
			Min.	0.00	-20.00	560.00
			Median	23.14	1.29	709.00
			Max.	186.03	20.00	840.00
	8	Summer	Mean	21.12	0.18	701.29
			Std. Dev.	5.82	11.47	80.26
			Min.	0.00	-20.00	560.00
			Median	20.93	0.29	702.00
			Max.	165.68	20.00	840.00
	9	Summer	Mean	19.23	-0.81	694.31
			Std. Dev.	4.94	11.48	80.33
			Min.	0.00	-20.00	560.00
			Median	19.00	-1.14	692.00
			Max.	123.30	20.00	840.00
	10	Summer	Mean	23.11	-2.41	683.11
			Std. Dev.	5.24	11.26	78.81
			Min.	0.00	-20.00	560.00
			Median	22.77	-3.43	676.00
			Max.	120.96	20.00	840.00
	11	Winter	Mean	22.58	-0.76	615.28
			Std. Dev.	5.23	11.43	70.87
			Min.	0.00	-20.00	496.00
			Median	22.00	-1.13	613.00
			Max.	140.13	20.00	744.00
	12	Winter	Mean	19.63	-0.12	619.24
			Std. Dev.	4.25	11.44	70.91
			Min.	0.00	-20.00	496.00
			Median	19.29	-0.16	619.00
			Max.	146.74	20.00	744.00

Bandwidth	Month	Season	Statistic	Consumption		
				Daily Average	Monthly	
					Normalized	Actual
				(kWh/Day)	(%)	(kWh/Month)
30%	1	Winter	Mean	18.78	-0.62	616.13
			Std. Dev.	4.42	16.83	104.32
			Min.	0.00	-30.00	434.00
			Median	18.48	-0.97	614.00
			Max.	232.39	30.00	806.00
	2	Winter	Mean	19.19	-2.21	606.28
			Std. Dev.	4.46	16.75	103.85
			Min.	0.00	-30.00	434.00
			Median	18.86	-3.23	600.00
			Max.	207.21	30.00	806.00
	3	Winter	Mean	20.23	-3.90	595.82
			Std. Dev.	4.71	16.57	102.74
			Min.	0.00	-30.00	434.00
			Median	19.80	-5.48	586.00
			Max.	151.33	30.00	806.00
	4	Winter	Mean	22.08	-4.29	593.38
			Std. Dev.	5.70	16.50	102.29
			Min.	0.00	-30.00	434.00
			Median	21.45	-5.97	583.00
			Max.	185.55	30.00	806.00
	5	Summer	Mean	31.29	-3.81	673.31
			Std. Dev.	8.70	16.74	117.15
			Min.	0.00	-30.00	490.00
			Median	30.40	-5.43	662.00
			Max.	235.45	30.00	910.00
	6	Summer	Mean	30.71	-1.16	691.88
			Std. Dev.	9.06	16.94	118.59
			Min.	0.00	-30.00	490.00
			Median	29.68	-1.71	688.00
			Max.	186.38	30.00	910.00

Bandwidth	Month	Season	Statistic	Consumption		
				Daily Average	Monthly	
					Normalized	Actual
				(kWh/Day)	(%)	(kWh/Month)
30%	7	Summer	Mean	23.71	1.79	712.51
			Std. Dev.	6.80	16.80	117.59
			Min.	0.00	-30.00	490.00
			Median	23.23	2.57	718.00
			Max.	227.93	30.00	910.00
	8	Summer	Mean	21.18	0.55	703.88
			Std. Dev.	6.23	16.92	118.47
			Min.	0.00	-30.00	490.00
			Median	20.73	0.71	705.00
			Max.	165.68	30.00	910.00
	9	Summer	Mean	19.07	-1.71	688.04
			Std. Dev.	5.29	16.92	118.44
			Min.	0.00	-30.00	490.00
			Median	18.68	-2.57	682.00
			Max.	148.14	30.00	910.00
	10	Summer	Mean	22.51	-5.15	663.95
			Std. Dev.	5.71	16.40	114.80
			Min.	0.00	-30.00	490.00
			Median	21.96	-7.14	650.00
			Max.	120.96	30.00	910.00
	11	Winter	Mean	22.44	-1.43	611.15
			Std. Dev.	5.90	16.84	104.42
			Min.	0.00	-30.00	434.00
			Median	21.84	-2.10	607.00
			Max.	170.57	30.00	806.00
	12	Winter	Mean	19.63	-0.05	619.68
			Std. Dev.	4.82	16.86	104.53
			Min.	0.00	-30.00	434.00
			Median	19.24	-0.16	619.00
			Max.	151.76	30.00	806.00

Bandwidth	Month	Season	Statistic	Consumption		
				Daily Average	Monthly	
					Normalized	Actual
				(kWh/Day)	(%)	(kWh/Month)
40%	1	Winter	Mean	18.74	-0.71	615.58
			Std. Dev.	5.04	21.81	135.20
			Min.	0.00	-40.00	372.00
			Median	18.41	-1.13	613.00
			Max.	232.39	40.00	868.00
	2	Winter	Mean	18.96	-3.38	599.07
			Std. Dev.	5.14	21.63	134.10
			Min.	0.00	-40.00	372.00
			Median	18.54	-4.84	590.00
			Max.	207.21	40.00	868.00
	3	Winter	Mean	19.72	-6.33	580.77
			Std. Dev.	5.40	21.32	132.17
			Min.	0.00	-40.00	372.00
			Median	19.14	-8.71	566.00
			Max.	151.33	40.00	868.00
	4	Winter	Mean	21.46	-7.02	576.50
			Std. Dev.	6.35	21.17	131.24
			Min.	0.00	-40.00	372.00
			Median	20.68	-9.52	561.00
			Max.	185.55	40.00	868.00
	5	Summer	Mean	30.55	-6.24	656.31
			Std. Dev.	9.50	21.69	151.86
			Min.	0.00	-40.00	420.00
			Median	29.53	-8.71	639.00
			Max.	235.45	40.00	980.00
	6	Summer	Mean	30.55	-1.63	688.59
			Std. Dev.	9.77	22.13	154.90
			Min.	0.00	-40.00	420.00
			Median	29.48	-2.43	683.00
			Max.	186.38	40.00	980.00

Bandwidth	Month	Season	Statistic	Consumption		
				Daily Average	Monthly	
					Normalized	Actual
				(kWh/Day)	(%)	(kWh/Month)
40%	7	Summer	Mean	24.02	3.32	723.23
			Std. Dev.	7.44	21.85	152.93
			Min.	0.00	-40.00	420.00
			Median	23.50	4.43	731.00
			Max.	227.93	40.00	980.00
	8	Summer	Mean	21.31	1.29	709.01
			Std. Dev.	6.77	22.05	154.33
			Min.	0.00	-40.00	420.00
			Median	20.69	1.57	711.00
			Max.	226.19	40.00	980.00
	9	Summer	Mean	18.89	-2.66	681.39
			Std. Dev.	5.73	22.07	154.50
			Min.	0.00	-40.00	420.00
			Median	18.36	-3.86	673.00
			Max.	148.14	40.00	980.00
	10	Summer	Mean	21.79	-8.50	640.49
			Std. Dev.	6.25	21.03	147.24
			Min.	0.00	-40.00	420.00
			Median	21.03	-11.43	620.00
			Max.	150.03	40.00	980.00
	11	Winter	Mean	22.31	-2.04	607.35
			Std. Dev.	6.64	21.85	135.45
			Min.	0.00	-40.00	372.00
			Median	21.67	-3.06	601.00
			Max.	170.57	40.00	868.00
	12	Winter	Mean	19.68	0.31	621.93
			Std. Dev.	5.44	21.88	135.64
			Min.	0.00	-40.00	372.00
			Median	19.28	0.16	621.00
			Max.	167.00	40.00	868.00

Bandwidth	Month	Season	Statistic	Consumption		
				Daily Average	Monthly	
					Normalized	Actual
				(kWh/Day)	(%)	(kWh/Month)
50%	1	Winter	Mean	18.79	-0.32	618.01
			Std. Dev.	5.65	26.25	162.75
			Min.	0.00	-50.00	310.00
			Median	18.44	-0.97	614.00
			Max.	232.39	50.00	930.00
	2	Winter	Mean	18.80	-4.21	593.92
			Std. Dev.	5.80	25.95	160.88
			Min.	0.00	-50.00	310.00
			Median	18.31	-5.97	583.00
			Max.	207.21	50.00	930.00
	3	Winter	Mean	19.26	-8.53	567.12
			Std. Dev.	6.06	25.50	158.08
			Min.	0.00	-50.00	310.00
			Median	18.57	-11.29	550.00
			Max.	151.33	50.00	930.00
	4	Winter	Mean	20.90	-9.51	561.05
			Std. Dev.	7.00	25.29	156.82
			Min.	0.00	-50.00	310.00
			Median	20.00	-12.58	542.00
			Max.	185.55	50.00	930.00
	5	Summer	Mean	29.83	-8.63	639.62
			Std. Dev.	10.30	26.16	183.11
			Min.	0.00	-50.00	350.00
			Median	28.64	-11.71	618.00
			Max.	235.45	50.00	1,050.00
	6	Summer	Mean	30.47	-1.76	687.68
			Std. Dev.	10.54	26.88	188.19
			Min.	0.00	-50.00	350.00
			Median	29.38	-2.86	680.00
			Max.	206.38	50.00	1,050.00

Bandwidth	Month	Season	Statistic	Consumption		
				Daily Average	Monthly	
					Normalized	Actual
				(kWh/Day)	(%)	(kWh/Month)
50%	7	Summer	Mean	24.42	5.35	737.45
			Std. Dev.	8.10	26.48	185.39
			Min.	0.00	-50.00	350.00
			Median	23.90	6.71	747.00
			Max.	227.93	50.00	1,050.00
	8	Summer	Mean	21.52	2.53	717.69
			Std. Dev.	7.35	26.76	187.32
			Min.	0.00	-50.00	350.00
			Median	20.83	3.00	721.00
			Max.	226.19	50.00	1,050.00
	9	Summer	Mean	18.76	-3.32	676.73
			Std. Dev.	6.20	26.77	187.40
			Min.	0.00	-50.00	350.00
			Median	18.14	-4.86	666.00
			Max.	148.14	50.00	1,050.00
	10	Summer	Mean	21.06	-11.87	616.88
			Std. Dev.	6.82	25.14	175.98
			Min.	0.00	-50.00	350.00
			Median	20.15	-15.43	592.00
			Max.	150.03	50.00	1,050.00
	11	Winter	Mean	22.27	-2.26	606.00
			Std. Dev.	7.37	26.27	162.84
			Min.	0.00	-50.00	310.00
			Median	21.57	-3.55	598.00
			Max.	175.40	50.00	930.00
	12	Winter	Mean	19.81	1.14	627.05
			Std. Dev.	6.06	26.38	163.59
			Min.	0.00	-50.00	310.00
			Median	19.41	0.97	626.00
			Max.	167.00	50.00	930.00

Note: XYZ.

3 Distribution of Observations

3.1 Un-Restricted Samples

3.1.1 By Rate Code

Table 10: Distribution by Rate Code

Rate Code	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Total by Rate Code
RSCH	1,259	216,017	212,909	204,269	192,253	180,323	170,068	161,217	151,568	132,278	1,622,161
RSEH	2,825	389,222	478,972	502,535	480,019	455,751	444,507	443,056	409,062	320,228	3,926,177
RSGH	12,270	2,411,969	2,713,108	2,799,573	2,744,470	2,670,719	2,643,182	2,619,538	2,465,642	2,036,969	23,117,440
RWCH	1	24,129	23,892	23,288	22,494	21,440	20,646	20,067	18,880	17,312	192,149
RWEH	0	15,249	17,086	18,174	18,150	18,157	18,605	19,191	18,554	16,834	160,000
RWGH	12	26,114	28,668	29,492	29,590	29,635	29,712	29,524	28,049	25,446	256,242
Total by Year	16,367	3,082,700	3,474,635	3,577,331	3,486,976	3,376,025	3,326,720	3,292,593	3,091,755	2,549,067	29,274,169

3.1.2 By Bandwidth

Table 11: Distribution by Bandwidth: Control and Treatment Groups

Bandwidth	Households	Billing Year-Month	Observations		
			Control	Treatment	Total
1%	250,074	108	264,424	232,279	496,703
2%	329,141	108	501,178	463,330	964,508
3%	369,565	108	739,173	692,357	1,431,530
4%	393,713	108	978,819	919,605	1,898,424
5%	410,688	108	1,237,733	1,160,166	2,397,899
6%	421,604	108	1,481,203	1,382,597	2,863,800
7%	429,723	108	1,725,674	1,602,078	3,327,752
8%	435,981	108	1,970,903	1,819,539	3,790,442
9%	440,725	108	2,218,088	2,021,787	4,239,875
10%	444,697	108	2,484,295	2,235,066	4,719,361
11%	447,999	108	2,733,358	2,458,394	5,191,752
12%	450,661	108	2,982,861	2,665,992	5,648,853
13%	452,909	108	3,234,507	2,881,655	6,116,162
14%	454,857	108	3,483,616	3,083,349	6,566,965
15%	456,576	108	3,752,820	3,296,711	7,049,531
16%	457,988	108	4,004,455	3,493,567	7,498,022
17%	459,273	108	4,256,797	3,687,549	7,944,346
18%	460,323	108	4,509,864	3,879,319	8,389,183
19%	461,266	108	4,762,162	4,068,749	8,830,911
20%	462,220	108	5,033,860	4,267,441	9,301,301
30%	467,761	108	7,555,568	6,001,907	13,557,475
40%	470,507	108	9,886,353	7,468,218	17,354,571
50%	471,999	108	11,841,095	8,694,998	20,536,093
60%	472,838	108	13,283,115	9,711,052	22,994,167
70%	473,370	108	14,181,169	10,548,144	24,729,313
80%	473,736	108	14,643,361	11,232,297	25,875,658
90%	474,009	108	14,868,645	11,791,334	26,659,979
100%	474,176	108	15,002,795	12,246,829	27,249,624
200%	474,339	108	15,002,795	13,968,803	28,971,598
300%	474,367	108	15,002,795	14,202,727	29,205,522
400%	474,373	108	15,002,795	14,247,241	29,250,036
500%	474,375	108	15,002,795	14,260,355	29,263,150
N/A	474,376	108	15,002,795	14,271,374	29,274,169

Table 12: Distribution by Bandwidth: Billing Year-Month

Bandwidth	N	Mean	Std. Dev.	P0	P25	P50	P75	P100
1%	108	0.92593%	0.12546%	0.34246%	0.88725%	0.94060%	1.00130%	1.12824%
2%	108	0.92593%	0.12625%	0.33426%	0.88436%	0.94250%	1.00367%	1.13571%
3%	108	0.92593%	0.12658%	0.32972%	0.88440%	0.94371%	1.00199%	1.14255%
4%	108	0.92593%	0.12626%	0.32991%	0.88284%	0.94531%	1.00392%	1.13594%
5%	108	0.92593%	0.12859%	0.33992%	0.87621%	0.94262%	1.00263%	1.15063%
6%	108	0.92593%	0.12870%	0.33606%	0.87875%	0.94462%	1.00214%	1.14516%
7%	108	0.92593%	0.12840%	0.33686%	0.88049%	0.94439%	1.00056%	1.14393%
8%	108	0.92593%	0.12869%	0.33600%	0.88019%	0.94589%	1.00087%	1.14153%
9%	108	0.92593%	0.12983%	0.33650%	0.87866%	0.94493%	1.00217%	1.14409%
10%	108	0.92593%	0.13062%	0.33733%	0.87787%	0.94424%	1.00220%	1.14844%
11%	108	0.92593%	0.13103%	0.33788%	0.87818%	0.94444%	1.00251%	1.14788%
12%	108	0.92593%	0.13097%	0.33764%	0.88059%	0.94578%	1.00233%	1.14685%
13%	108	0.92593%	0.13017%	0.33704%	0.88287%	0.94267%	1.00403%	1.14573%
14%	108	0.92593%	0.13017%	0.33655%	0.88335%	0.94326%	1.00408%	1.14538%
15%	108	0.92593%	0.13118%	0.33816%	0.88148%	0.94439%	1.00198%	1.14986%
16%	108	0.92593%	0.13122%	0.33796%	0.88224%	0.94364%	1.00299%	1.14964%
17%	108	0.92593%	0.13129%	0.33828%	0.88275%	0.94396%	1.00392%	1.15033%
18%	108	0.92593%	0.13145%	0.33779%	0.88313%	0.94304%	1.00390%	1.14934%
19%	108	0.92593%	0.13146%	0.33813%	0.88307%	0.94265%	1.00542%	1.14721%
20%	108	0.92593%	0.13226%	0.33873%	0.88105%	0.94333%	1.00278%	1.15118%
30%	108	0.92593%	0.13453%	0.34188%	0.88083%	0.94215%	1.00832%	1.14768%
40%	108	0.92593%	0.13697%	0.34312%	0.87542%	0.93997%	1.01322%	1.13398%
50%	108	0.92593%	0.13884%	0.34341%	0.87257%	0.93663%	1.02177%	1.15761%
60%	108	0.92593%	0.13888%	0.33995%	0.86632%	0.93216%	1.02691%	1.17772%
70%	108	0.92593%	0.13599%	0.33524%	0.86417%	0.93054%	1.01840%	1.18867%
80%	108	0.92593%	0.13076%	0.33004%	0.87165%	0.92914%	1.00923%	1.18737%
90%	108	0.92593%	0.12500%	0.32560%	0.87620%	0.93333%	1.00632%	1.17613%
100%	108	0.92593%	0.12034%	0.32155%	0.87914%	0.93459%	1.00058%	1.16380%
200%	108	0.92593%	0.10851%	0.30736%	0.88433%	0.94215%	0.98965%	1.11096%
300%	108	0.92593%	0.10853%	0.30550%	0.88342%	0.94333%	0.99037%	1.10401%
400%	108	0.92593%	0.10855%	0.30530%	0.88296%	0.94294%	0.99137%	1.10275%
500%	108	0.92593%	0.10851%	0.30540%	0.88305%	0.94289%	0.99151%	1.10239%
N/A	108	0.92593%	0.10839%	0.30577%	0.88321%	0.94283%	0.99144%	1.10213%

3.2 Samples constructed based on Rate Codes

Table 13: Distribution by Bandwidth: Control and Treatment Groups of RSCH & RSEH, Summer

Bandwidth	Households	Billing	Observations		
		Year-Month	Control	Treatment	Total
1%	22,022	42	15,587	13,811	29,398
2%	34,603	42	29,307	27,680	56,987
3%	43,229	42	43,221	41,533	84,754
4%	49,240	42	56,820	55,079	111,899
5%	53,944	42	70,720	68,466	139,186
6%	57,651	42	84,596	81,912	166,508
7%	60,638	42	98,233	95,136	193,369
8%	63,155	42	112,370	108,266	220,636
9%	65,110	42	126,340	119,454	245,794
10%	66,962	42	140,197	132,537	272,734
11%	68,629	42	154,264	145,523	299,787
12%	70,043	42	168,151	158,415	326,566
13%	71,467	42	182,198	172,960	355,158
14%	72,675	42	196,166	185,441	381,607
15%	73,792	42	210,216	198,189	408,405
16%	74,770	42	224,120	210,655	434,775
17%	75,750	42	237,968	222,980	460,948
18%	76,648	42	251,718	235,330	487,048
19%	77,457	42	265,607	247,413	513,020
20%	78,246	42	279,238	259,403	538,641
30%	84,491	42	412,788	374,147	786,935
40%	88,688	42	532,370	478,722	1,011,092
50%	91,528	42	630,697	572,507	1,203,204
60%	93,504	42	703,354	655,881	1,359,235
70%	94,746	42	749,823	729,568	1,479,391
80%	95,523	42	775,598	792,932	1,568,530
90%	96,076	42	789,242	847,756	1,636,998
100%	96,455	42	796,872	894,902	1,691,774
N/A	97,051	42	796,872	1,137,556	1,934,428

Note: RSCH and RSEH rate codes have the same base usage qty, as illustrated in Figure 3. When constructing samples, observations satisfying following conditions are exploited only: 1) observations between 2005 and 2011, and 2) observations without in-period seasonal change in Base Usage Qty.

Table 14: Distribution by Bandwidth: Control and Treatment Groups of RSCH & RSEH, Winter

Bandwidth	Households	Billing	Observations		
		Year-Month	Control	Treatment	Total
1%	21,069	43	14,591	13,149	27,740
2%	33,510	43	28,089	26,178	54,267
3%	41,776	43	41,711	39,233	80,944
4%	47,800	43	55,279	52,081	107,360
5%	52,630	43	70,297	65,764	136,061
6%	56,041	43	84,086	78,205	162,291
7%	58,969	43	98,412	90,554	188,966
8%	61,318	43	112,488	102,829	215,317
9%	63,355	43	126,855	114,972	241,827
10%	65,127	43	142,322	126,679	269,001
11%	66,704	43	156,992	139,446	296,438
12%	68,071	43	171,383	151,125	322,508
13%	69,286	43	186,260	162,475	348,735
14%	70,365	43	200,878	173,795	374,673
15%	71,509	43	216,860	185,934	402,794
16%	72,483	43	231,702	196,863	428,565
17%	73,390	43	246,725	207,781	454,506
18%	74,244	43	261,949	218,506	480,455
19%	75,095	43	276,823	229,078	505,901
20%	75,940	43	293,128	240,349	533,477
30%	82,785	43	449,977	336,781	786,758
40%	88,282	43	608,545	417,865	1,026,410
50%	92,494	43	760,988	485,334	1,246,322
60%	95,253	43	897,305	540,575	1,437,880
70%	96,771	43	1,001,891	585,289	1,587,180
80%	97,418	43	1,062,056	621,103	1,683,159
90%	97,738	43	1,087,280	649,722	1,737,002
100%	98,012	43	1,099,682	672,819	1,772,501
N/A	98,225	43	1,099,682	759,488	1,859,170

Note: RSCH and RSEH rate codes have the same base usage qty, as illustrated in Figure 3. When constructing samples, observations satisfying following conditions are exploited only: 1) observations between 2005 and 2011, and 2) observations without in-period seasonal change in Base Usage Qty.

Table 15: Distribution by Bandwidth: Control and Treatment Groups of RSGH, Summer

Bandwidth	Households	Billing	Observations		
		Year-Month	Control	Treatment	Total
1%	96,631	42	69,054	59,951	129,005
2%	150,882	42	129,720	119,644	249,364
3%	187,036	42	190,748	179,452	370,200
4%	212,527	42	251,785	238,171	489,956
5%	231,297	42	313,171	297,162	610,333
6%	245,910	42	374,561	355,943	730,504
7%	257,553	42	436,161	413,945	850,106
8%	266,957	42	497,655	471,260	968,915
9%	274,420	42	559,600	520,201	1,079,801
10%	281,104	42	621,873	577,034	1,198,907
11%	286,810	42	683,817	632,929	1,316,746
12%	291,856	42	745,783	688,613	1,434,396
13%	296,620	42	807,803	751,947	1,559,750
14%	300,566	42	869,114	806,528	1,675,642
15%	304,164	42	931,419	860,886	1,792,305
16%	307,435	42	993,497	914,820	1,908,317
17%	310,375	42	1,054,823	967,935	2,022,758
18%	312,996	42	1,116,637	1,020,746	2,137,383
19%	315,411	42	1,178,474	1,073,422	2,251,896
20%	317,599	42	1,240,497	1,125,061	2,365,558
30%	333,592	42	1,837,026	1,609,419	3,446,445
40%	342,875	42	2,376,642	2,038,852	4,415,494
50%	348,761	42	2,822,672	2,415,156	5,237,828
60%	352,445	42	3,147,764	2,740,167	5,887,931
70%	354,743	42	3,347,748	3,018,747	6,366,495
80%	356,136	42	3,452,442	3,255,312	6,707,754
90%	357,028	42	3,507,029	3,454,160	6,961,189
100%	357,664	42	3,542,072	3,619,256	7,161,328
N/A	358,624	42	3,542,072	4,393,591	7,935,663

Note: When constructing samples, observations satisfying following conditions are exploited only: 1) observations between 2005 and 2011, and 2) observations without in-period seasonal change in Base Usage Qty.

Table 16: Distribution by Bandwidth: Control and Treatment Groups of RSGH, Winter

Bandwidth	Households	Billing Year-Month	Observations		
			Control	Treatment	Total
1%	98,707	43	76,810	64,966	141,776
2%	147,129	43	143,241	129,787	273,028
3%	177,223	43	209,448	193,434	402,882
4%	198,440	43	276,824	257,409	534,233
5%	216,150	43	355,706	331,172	686,878
6%	227,847	43	424,106	393,782	817,888
7%	237,323	43	492,541	455,094	947,635
8%	245,418	43	560,980	516,260	1,077,240
9%	252,454	43	629,894	577,092	1,206,986
10%	259,024	43	711,030	636,988	1,348,018
11%	264,916	43	779,605	705,415	1,485,020
12%	269,934	43	849,021	763,510	1,612,531
13%	274,484	43	919,040	820,770	1,739,810
14%	278,634	43	988,158	877,214	1,865,372
15%	283,283	43	1,069,284	942,440	2,011,724
16%	287,013	43	1,138,814	997,135	2,135,949
17%	290,621	43	1,208,816	1,051,661	2,260,477
18%	293,890	43	1,278,559	1,105,305	2,383,864
19%	297,085	43	1,347,875	1,157,753	2,505,628
20%	300,549	43	1,428,995	1,217,978	2,646,973
30%	324,240	43	2,121,342	1,709,893	3,831,235
40%	339,449	43	2,733,769	2,115,150	4,848,919
50%	348,884	43	3,211,775	2,445,509	5,657,284
60%	354,310	43	3,534,859	2,709,923	6,244,782
70%	357,298	43	3,717,051	2,920,239	6,637,290
80%	358,889	43	3,807,975	3,086,268	6,894,243
90%	359,935	43	3,857,074	3,217,677	7,074,751
100%	360,709	43	3,889,619	3,321,677	7,211,296
N/A%	362,076	43	3,889,619	3,759,205	7,648,824

Note: When constructing samples, observations satisfying following conditions are exploited only: 1) observations between 2005 and 2011, and 2) observations without in-period seasonal change in Base Usage Qty.

4 Plots

4.1 SMUD Residential Rate Schedules

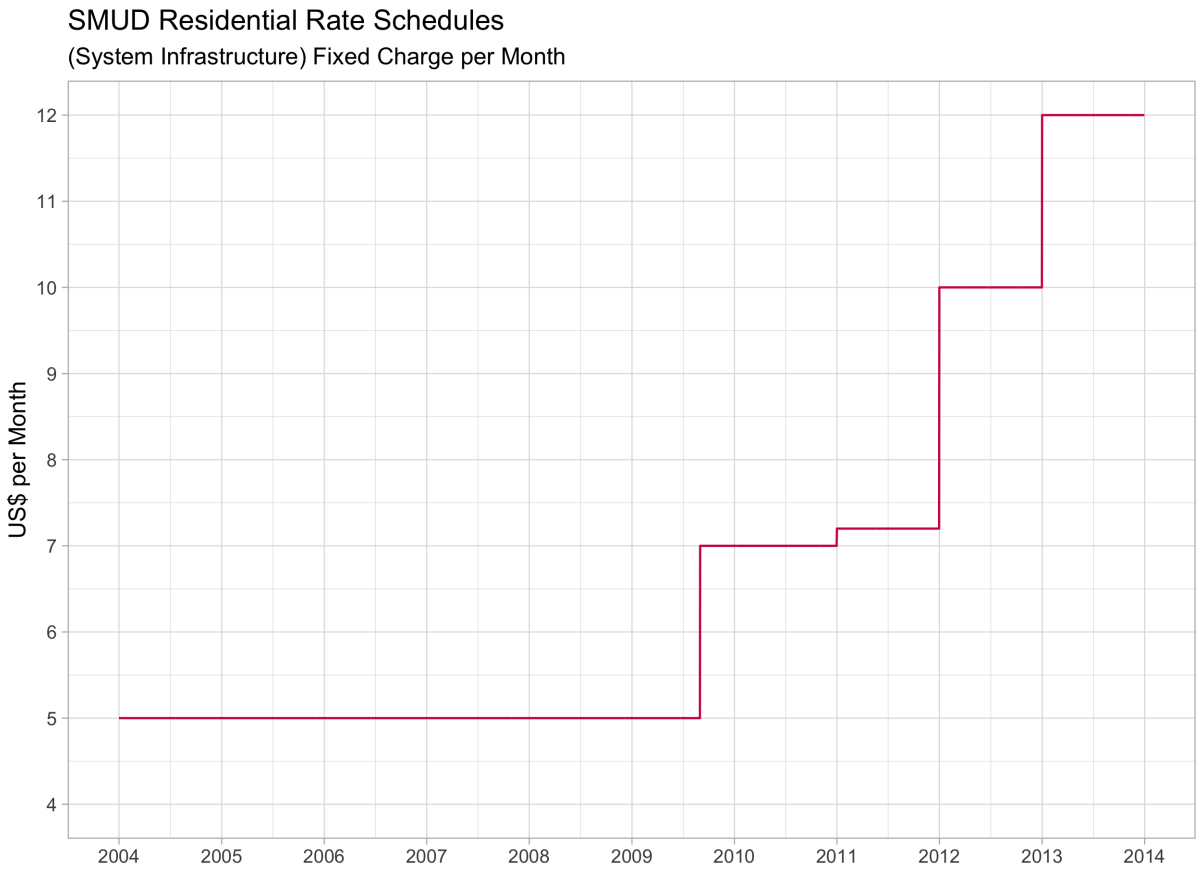


Figure 1: SMUD Residential Rate Schedules: (System Infrastructure) Fixed Charge per Month

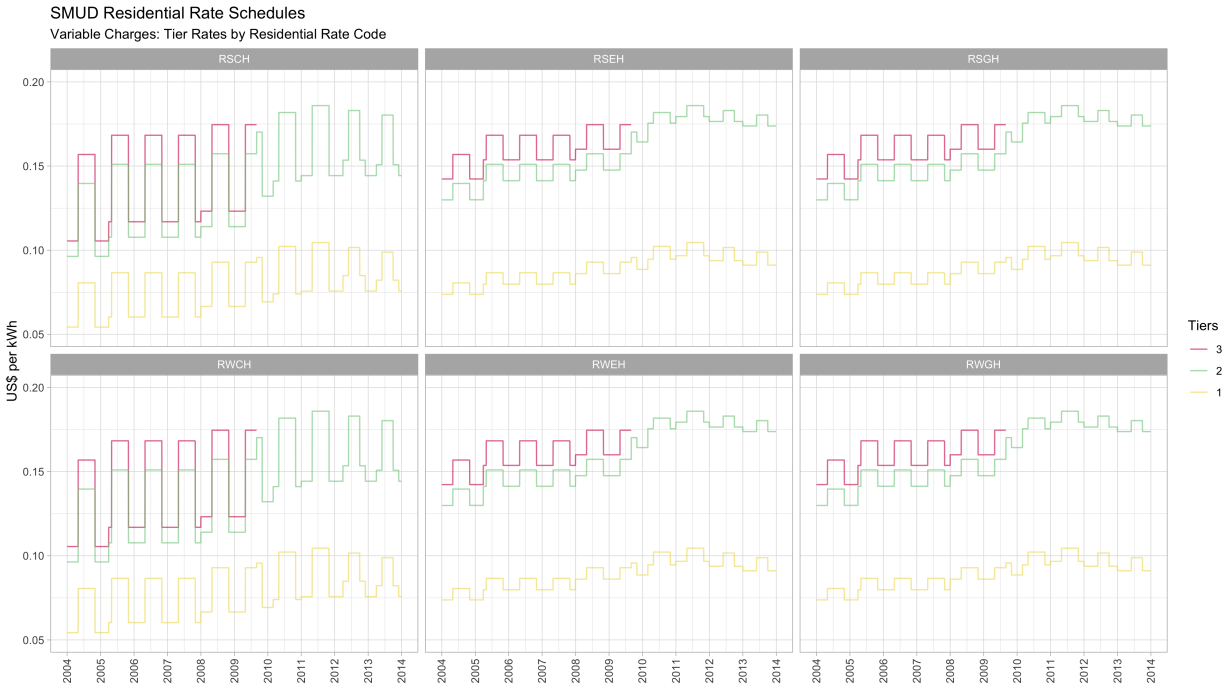


Figure 2: SMUD Residential Rate Schedules: Variable Charges, By Residential Rate Code

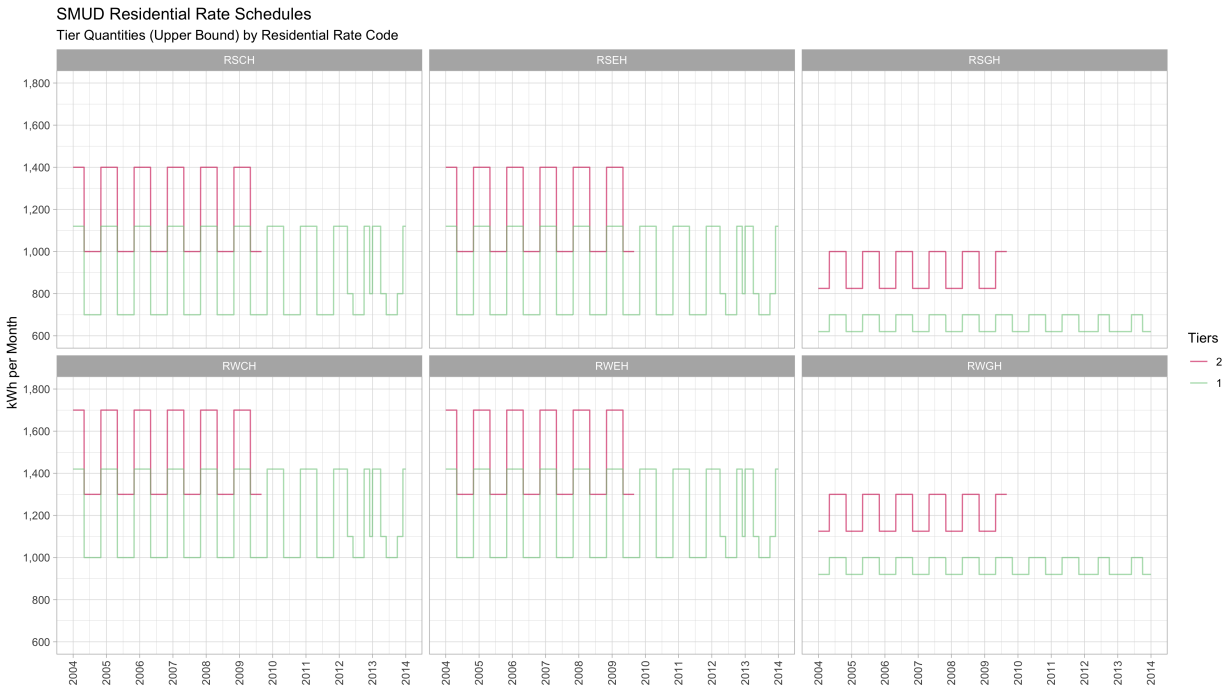


Figure 3: SMUD Residential Rate Schedules: Base Usage Qty, By Residential Rate Code

4.2 Scatter Plots

4.2.1 Un-Restricted Samples

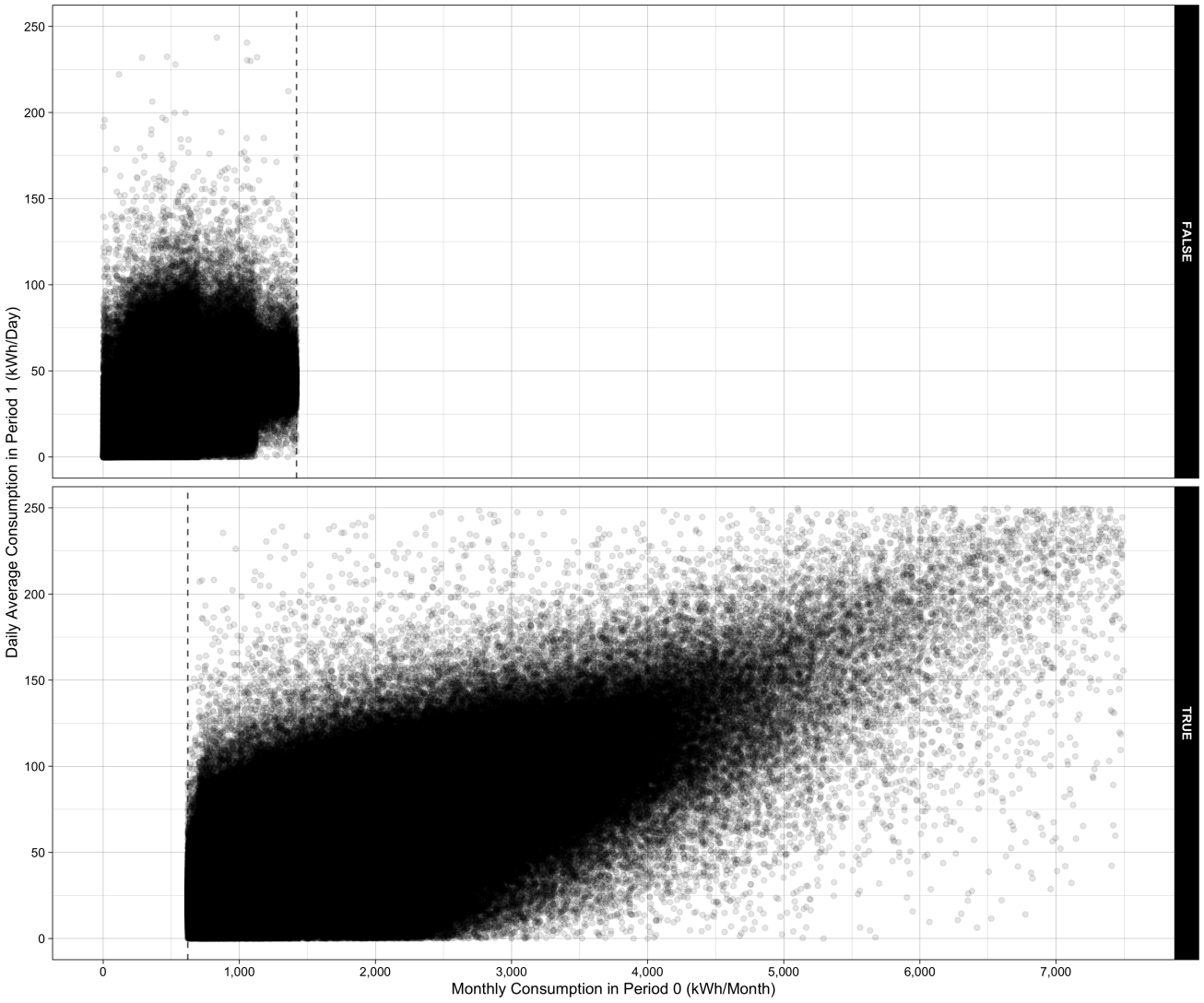


Figure 4: Scatter Plot by Treatment Status

Notes: Horizontal axis is monthly consumption in period 0 (kWh/Month). The overlap in monthly consumption between control and treatment groups is due to seasonal changes in Base Usage Qty, as illustrated in Figure 3.

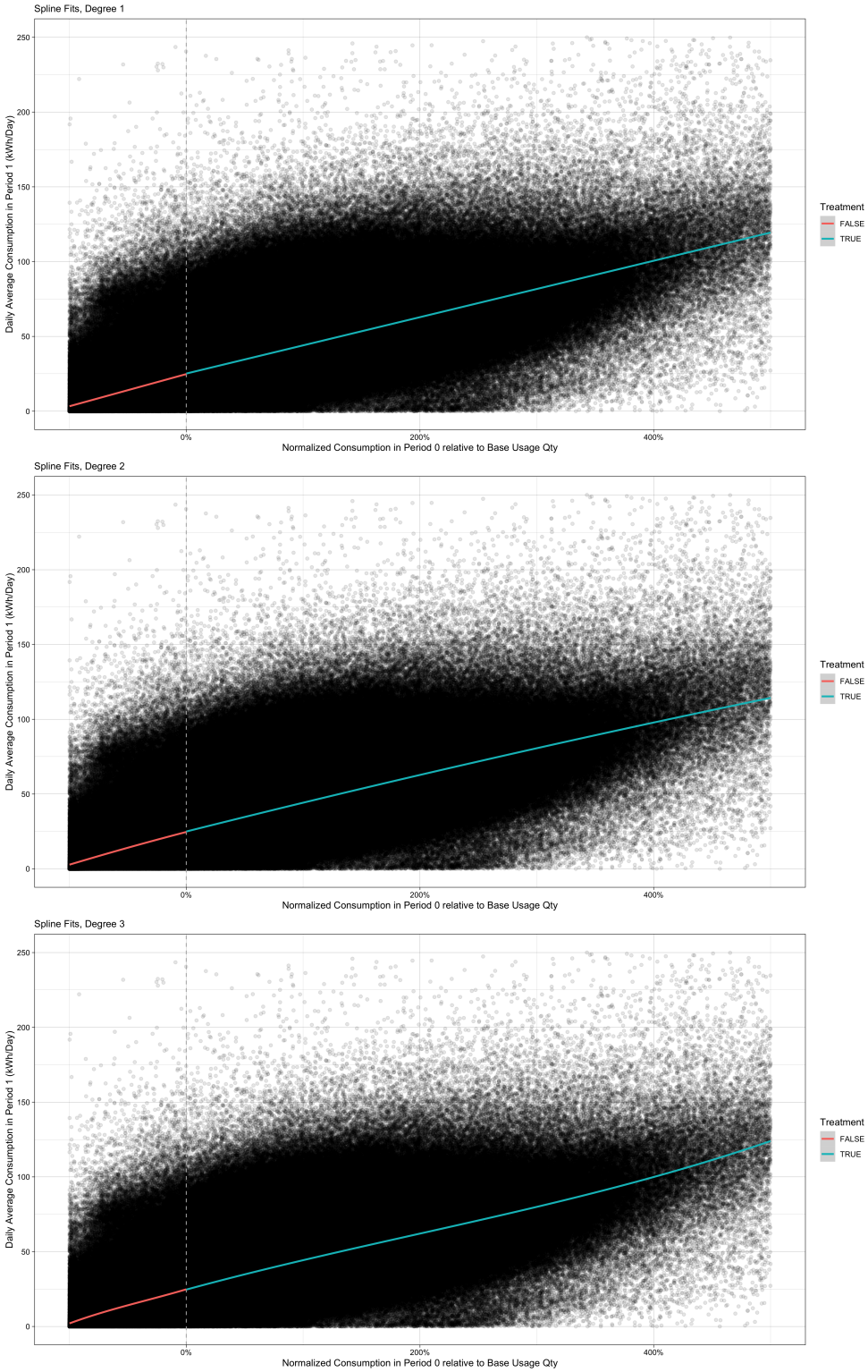
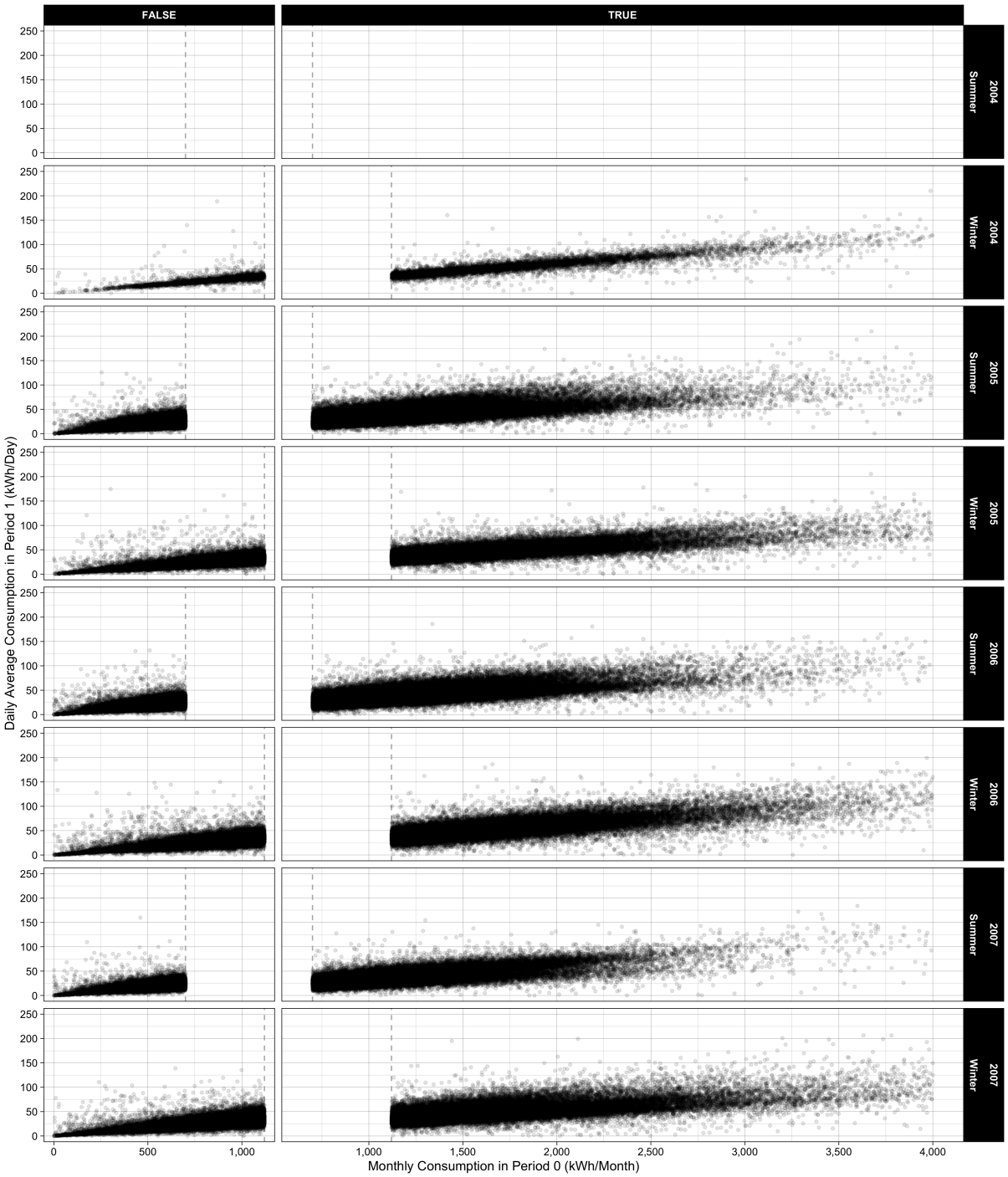


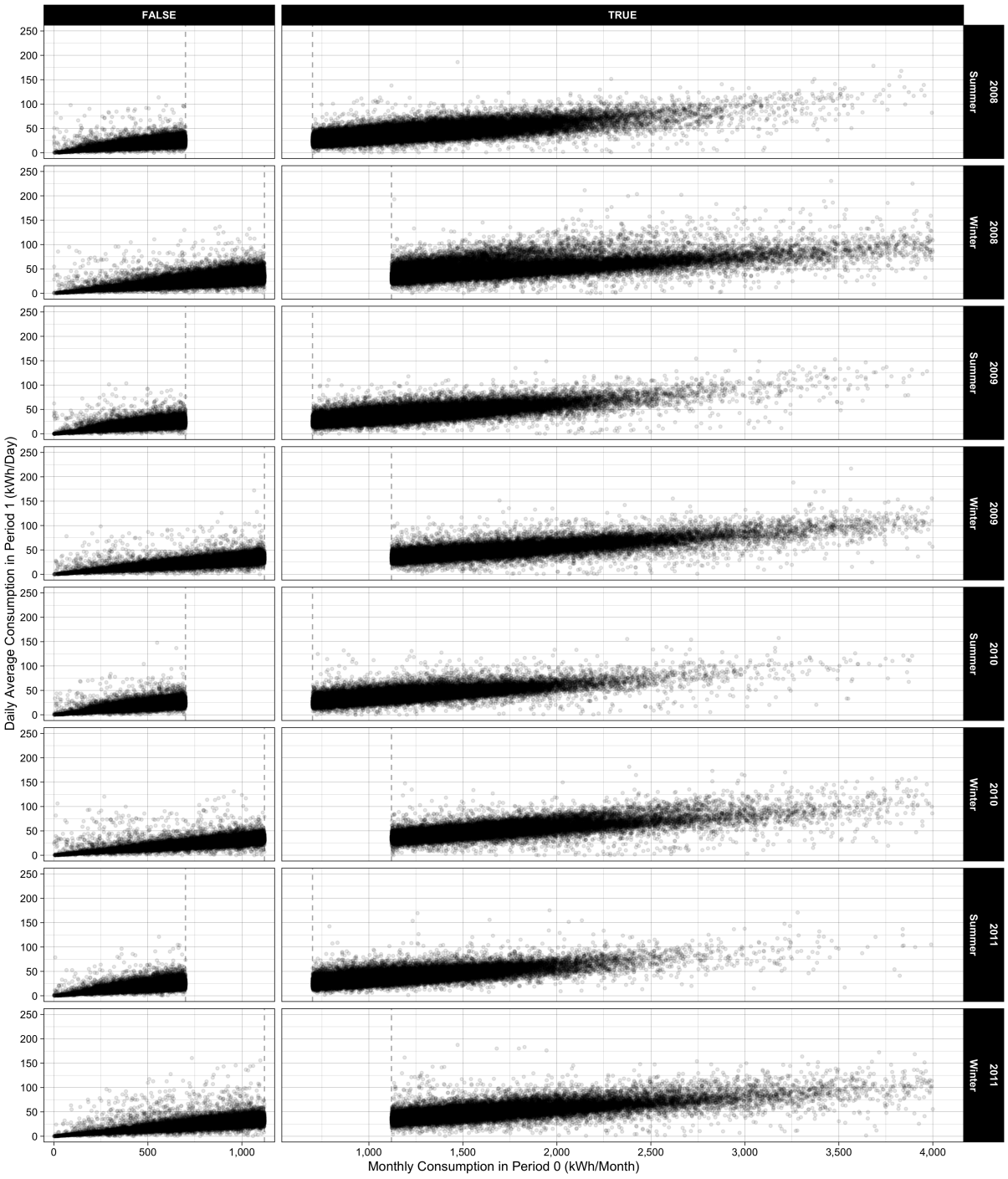
Figure 5: Scatter Plots with Spline Fits

Notes: Horizontal axis is normalized consumption in period 0 relative to Base Usage Qty (%).

4.2.2 Samples constructed based on Rate Codes



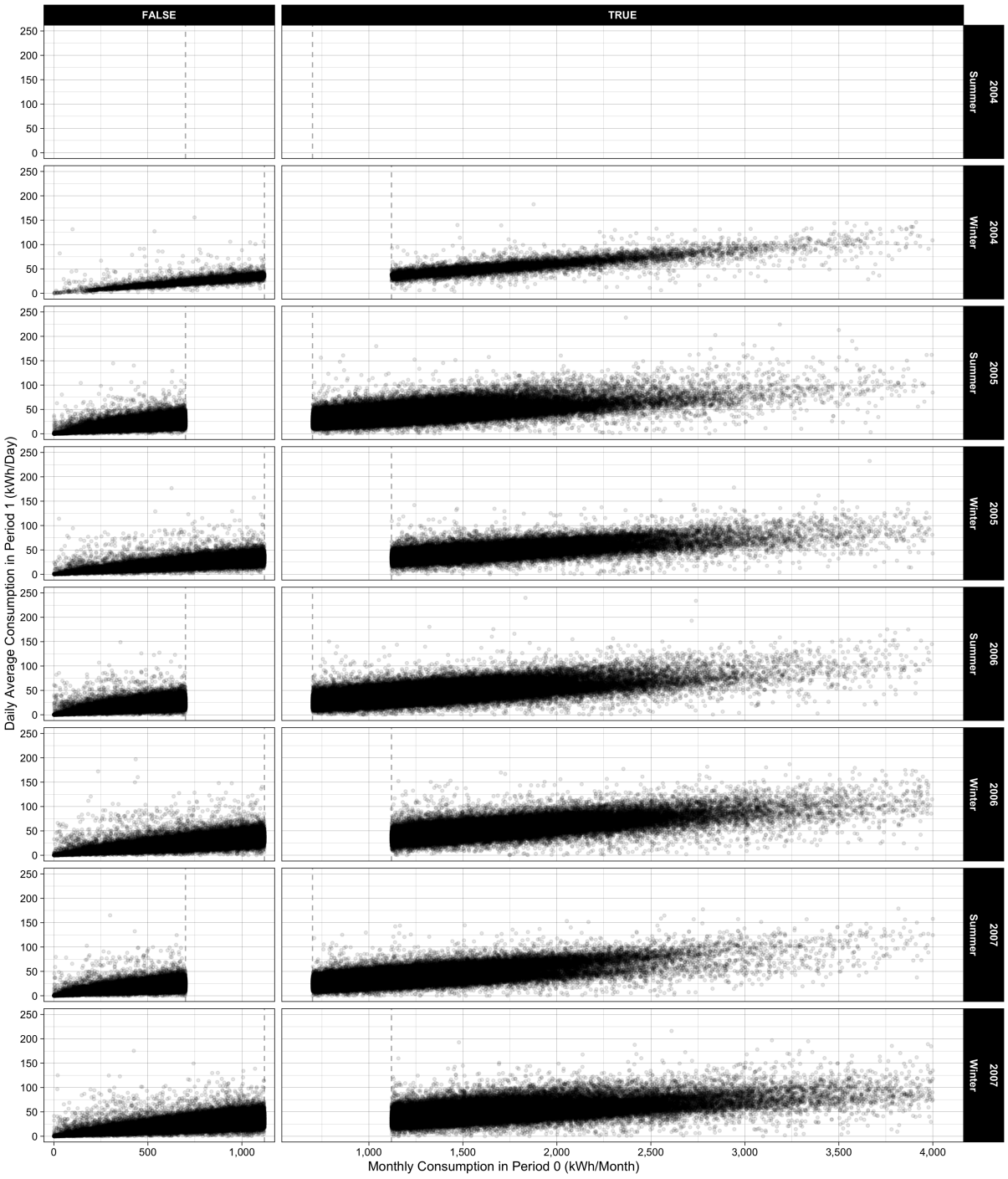
(a) Observations between 2004 and 2007



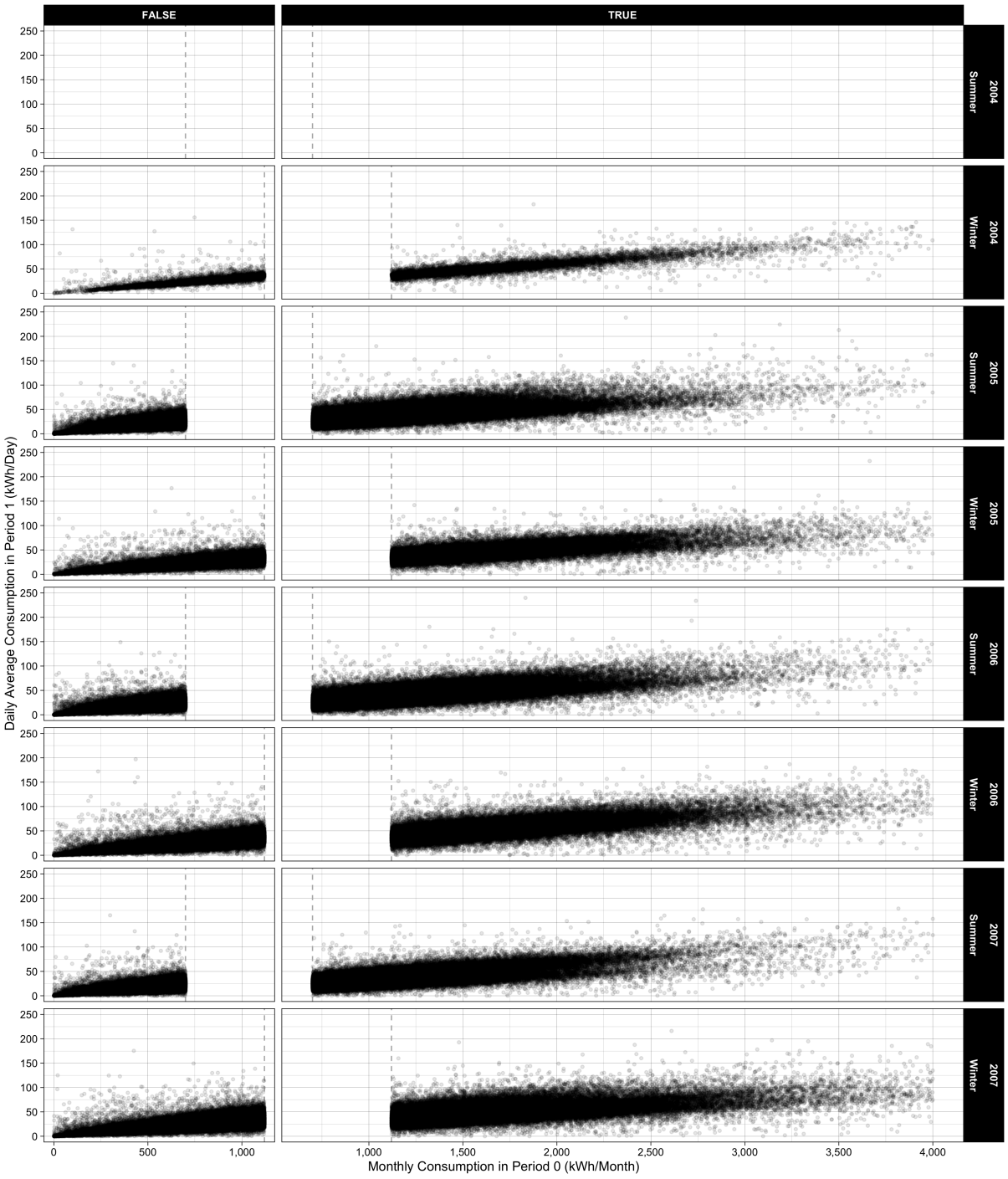
(b) Observations between 2008 and 2011

Figure 6: Scatter Plots by Treatment Status, Year, and Season: For RSCH

Notes: Horizontal axis is normalized consumption in period 0 relative to Base Usage Qty (%). The vertical dashed lines indicate the Base Usage Qty in corresponding year and season.



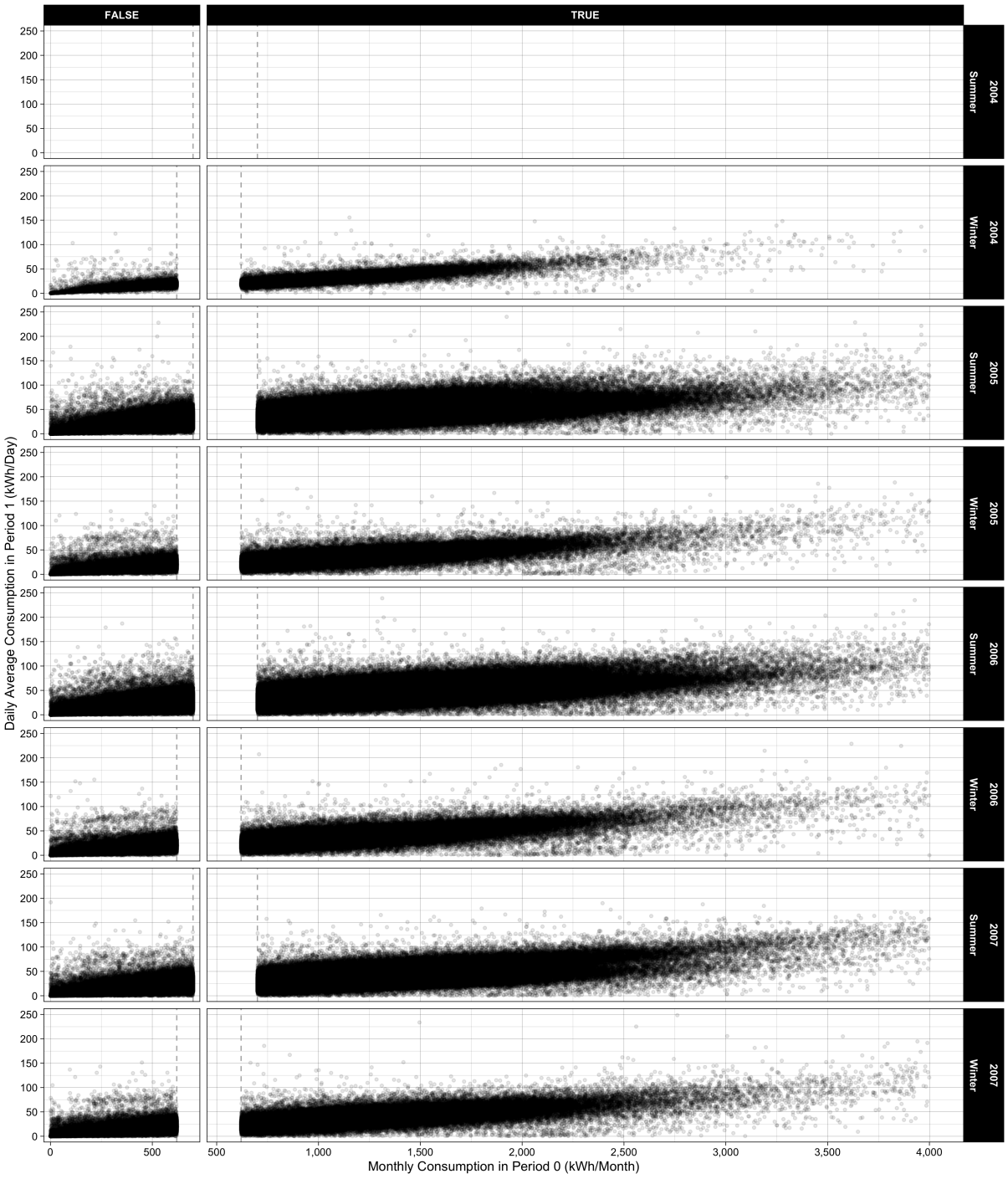
(a) Observations between 2004 and 2007



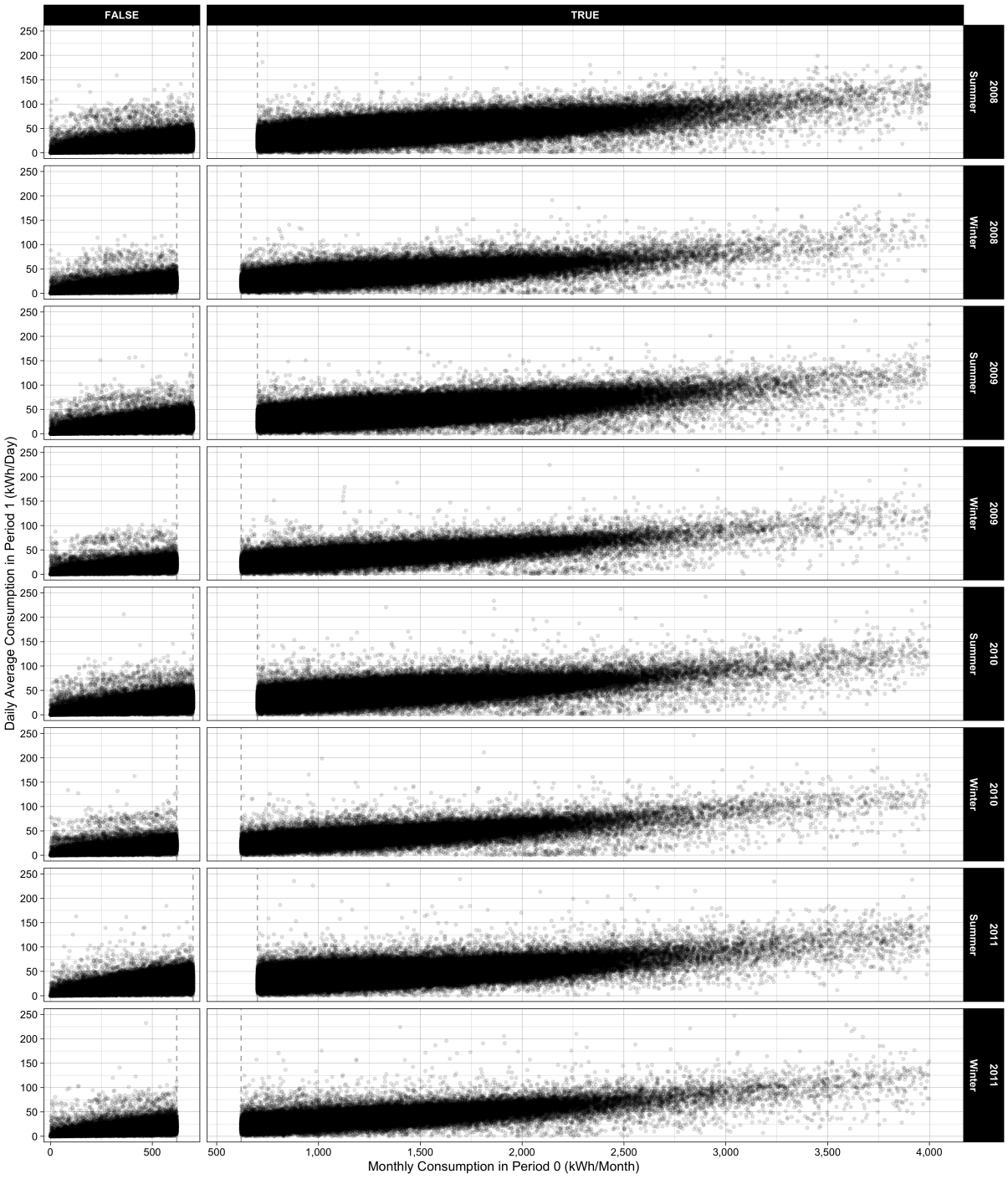
(b) Observations between 2008 and 2011

Figure 7: Scatter Plots by Treatment Status, Year, and Season: For RSEH

Notes: Horizontal axis is normalized consumption in period 0 relative to Base Usage Qty (%). The vertical dashed lines indicate the Base Usage Qty in corresponding year and season.



(a) Observations between 2004 and 2007



(b) Observations between 2008 and 2011

Figure 8: Scatter Plots by Treatment Status, Year, and Season: For RSGH

Notes: Horizontal axis is normalized consumption in period 0 relative to Base Usage Qty (%). The vertical dashed lines indicate the Base Usage Qty in corresponding year and season.

4.3 Estimated Treatment Effects by Bandwidth

4.3.1 Un-Restricted Samples

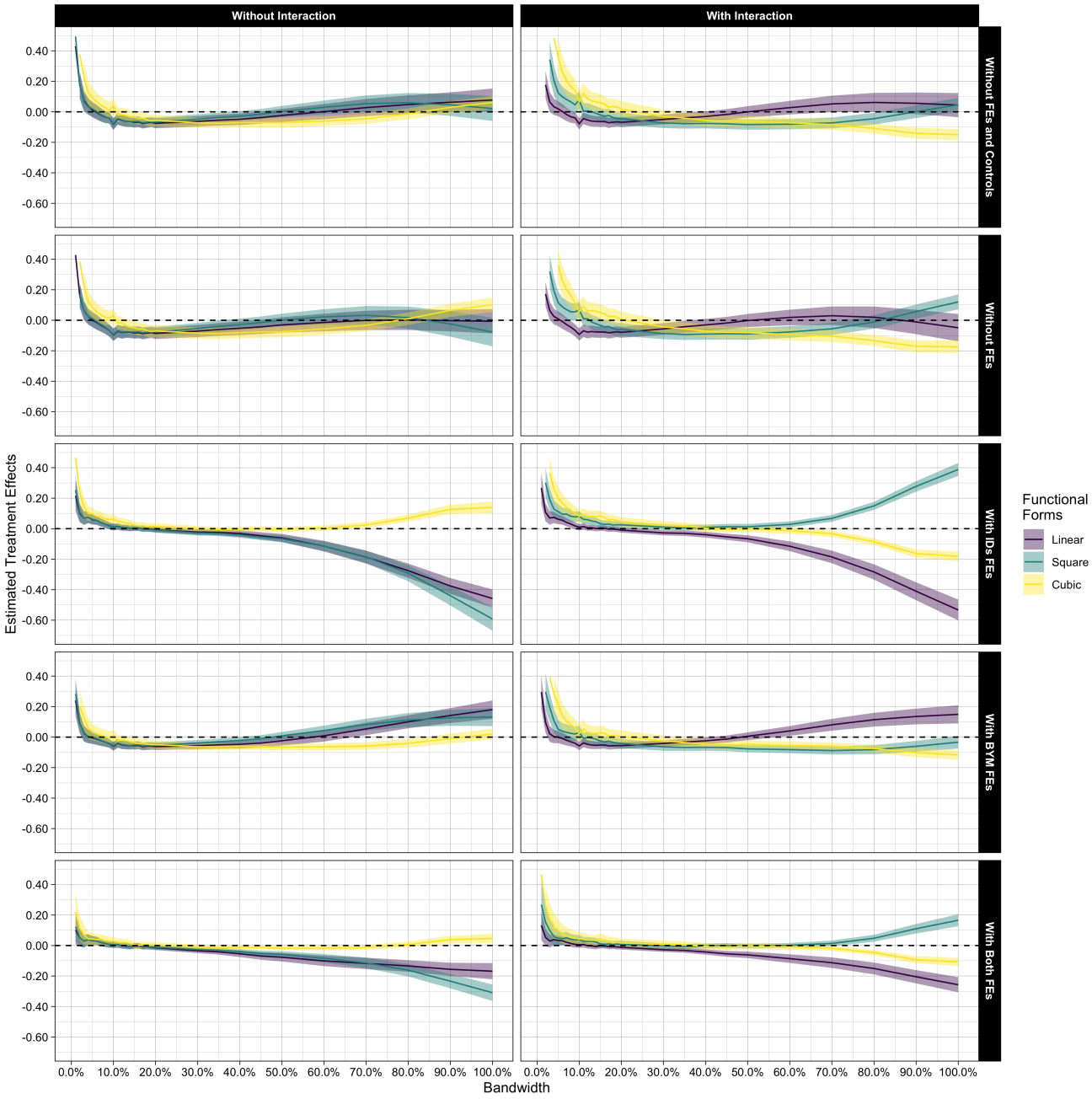
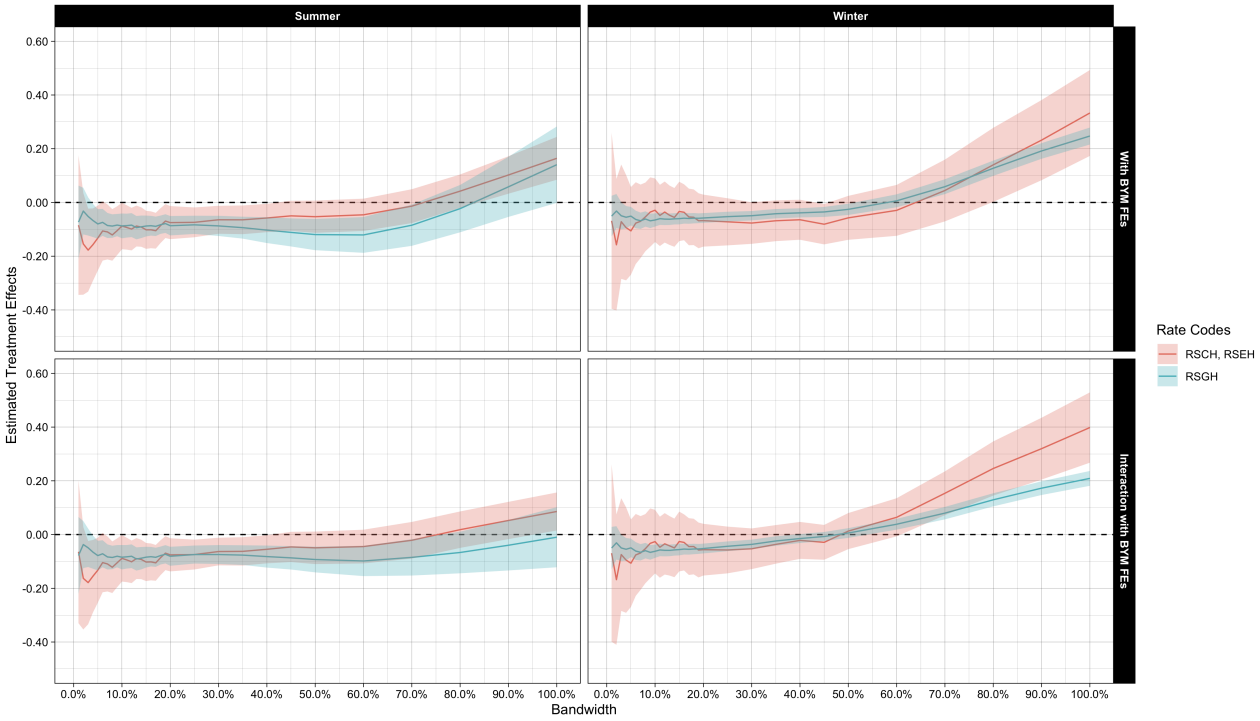


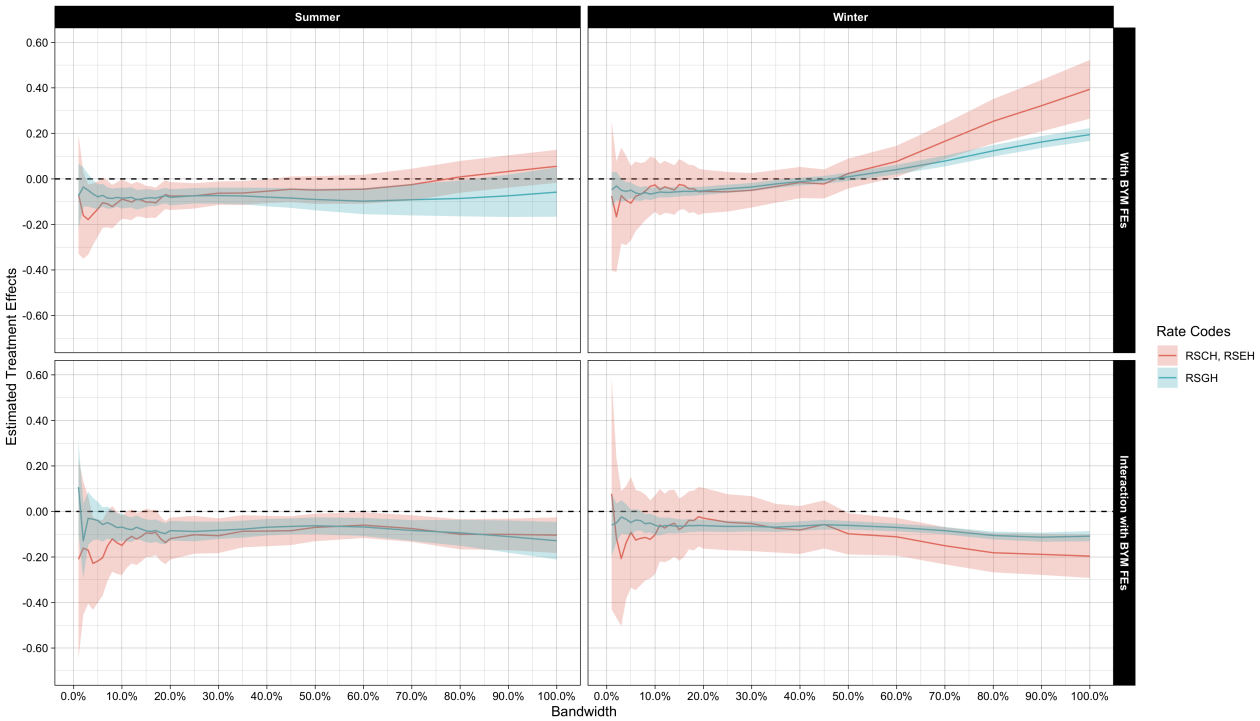
Figure 9: Estimated Treatment Effects by Bandwidth and Functional Form

Notes: Highest standard errors are selected between heteroskedasticity-robust and clustered (by Account-Premise IDs and Billing Year-Month) standard errors. Shaded areas in each panel indicate the 95% confidence intervals.

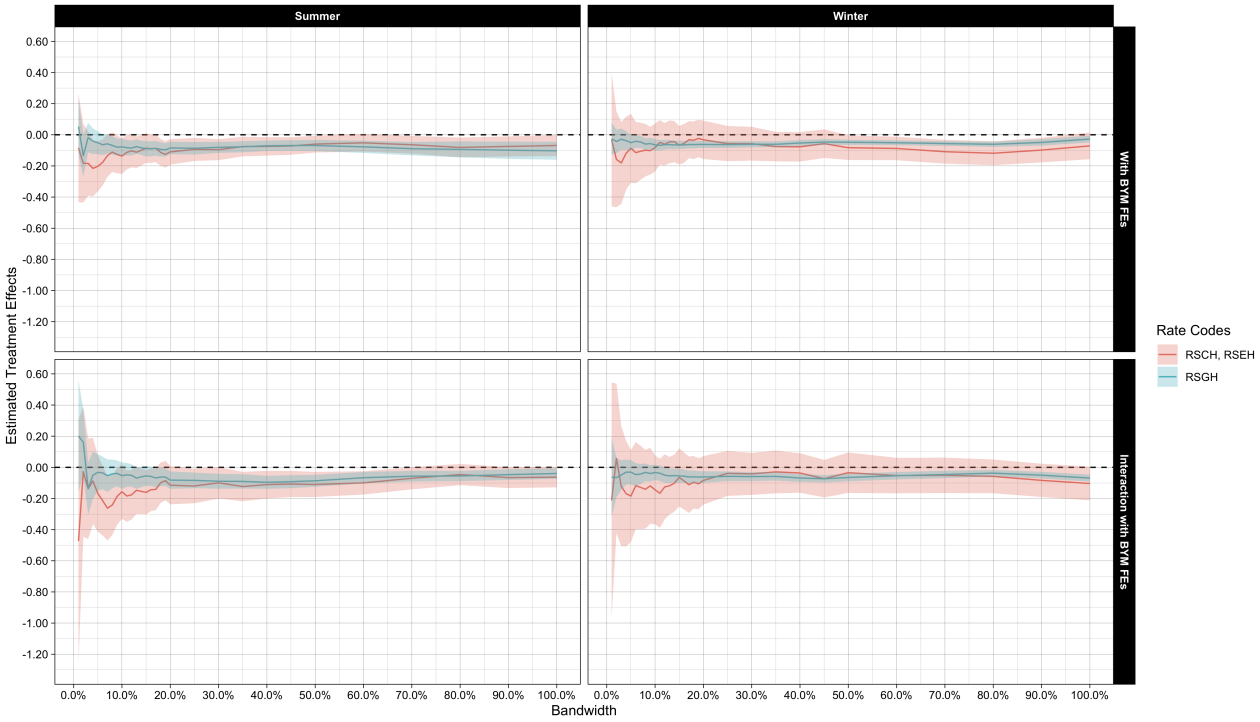
4.3.2 Samples constructed based on Rate Codes



(a) Models with Linear Term of Running Variable



(b) Models with Square Term of Running Variable



(c) Models with Cubic Term of Running Variable

Figure 10: Estimated Treatment Effects by Bandwidth, Rate Code, and Season

Notes: Standard errors are selected between heteroskedasticity-robust and clustered (by Account-Premise IDs and Billing Year-Month) standard errors. Shaded areas in each panel indicate the 95% confidence intervals. RSCH and RSEH rate codes have the same base usage qty, as illustrated in Figure 3. When estimating the treatment effect, observations satisfying following conditions are exploited only: 1) observations between 2005 and 2011, and 2) observations without in-period seasonal change in Base Usage Qty.

4.4 Miscellaneous Plots

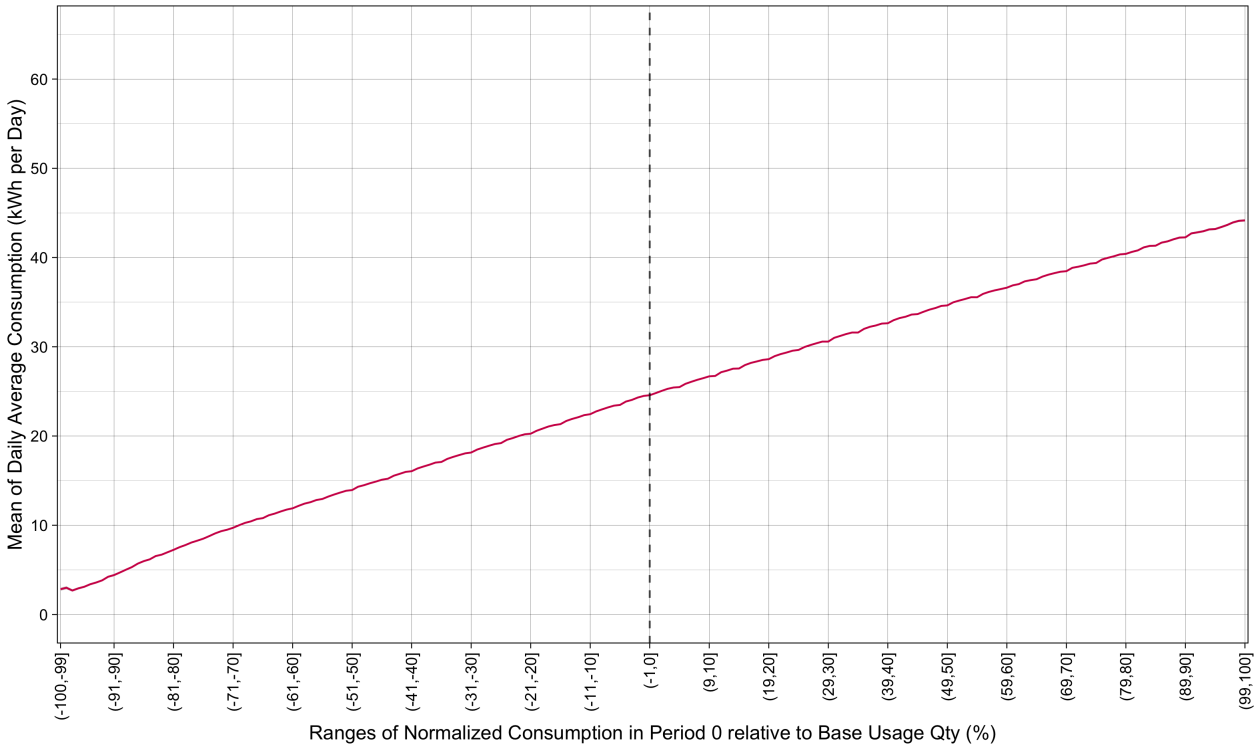


Figure 11: Mean of Daily Average Consumption by Range of Normalized Consumption in Period 0 (%)

Notes: Un-restricted sample is used to create this figure. Grey area indicates the 95% confidence interval.