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APPENDIX A: DEMAND ESTIMATES FOR WHITE HOUSEHOLDS BY LIFE CYCLE

The following tables present estimates of the demand equations developed in Chapter 4 for each of sixteen life-cycle classes. Definitions of independent and dependent variables are given in the text on pages 97 and 98.

$Q_1 = \beta_0 + \beta_1 \ln Y + \beta_2 \ln (POWN/PRENT)$				
Life-Cycle Class	Income β ₁	Incremental Price of Owning β ₂		
Single, alone	.762*	372 ^b		
Single, with others	.582	889ª		
Separated, no children	.175ª	721ª		
Separated, children	.545ª	—.564 ^ь		
Married, head < 30 , no children	1.1 89 ª	-1.257ª		
Married, head < 30 , 1 child	.848 ª	606ª		
Married, head <30 , 2+ children	.701 ª	501ª		
Married, head 30-39, no children	.487ª	517ª		
Married, head 30-39, 1 child	.396ª	462ª		
Married, head 30-39, 2+ children	.232ª	209ª		
Married, head 40-49, no children	.158ª	103ª		
Married, head 40-49, 1 child	.117ª	109ª		
Married, head 40-49, 2+ children	.114ª	082		
Married, head 50+, no children	.147ª	240ª		
Married, head 50+, 1 child	.060ª	105ª		
Married, head 50+, 2+ children	.132ª	055		

TABLE A.1PROBABILITY OF OWNERSHIP

^aSignificant at .05 level.

^b t-ratio greater than one.

$Q_2 = \beta_0 Y^{\beta}$	PR^{β_2}	
Life-Cycle Class	Income β_1	Price β_2
Single, alone	.0425	1204
Single, with others	.0761ª	2404
Separated, no children	.0864ª	—.0878 ^ь
Separated, children	.0423ª	1104
Married, head < 30 , no children	.1026ª	1292ª
Married, head < 30 , 1 child	.0761 ^a	1305 ^b
Married, head < 30 , 2+ children	. 1001 ª	1104 ^a
Married, head 30-39, no children	.0628ª	1192 ^ь
Married, head 30-39, 1 child	.1193 ª	—.1084 ^ь
Married, head 40-39, 2+ children	.1653ª	1205ª
Married, head 40-49, no children	.1436ª	1405 ^b
Married, head 40-49, 1 child	.1365ª	1332 ^b
Married, head 40-49, 2+ children	.1838ª	1102ª
Married, head 50+, no children	.1682ª	1502 ^b
Married, head 50+, 1 child	.1567 ª	1002ª
Married, head 50+, 2+ children	.2571 ª	0905 ^b

TABLE A.2 DWELLING-UNIT SIZE, OWNERS (ROOMS)

$Q_{3} = \beta_{0} Y^{\beta_{1}} P^{\beta_{2}} (PA_{1})^{\beta_{3}} (PI_{1})^{\beta_{4}}$				
Life-Cycle Class	Income β ₁	Price of Standard Bundle β_2	Incremental Price of Newer Unit β ₃	Incremental Price of Larger Lot β ₄
Single, alone	3519ª	.4816ª	1.1301	7532
Single, with others	3460ª	.3912 ^b	.8224	2.1288°
Separated, no	.5400	.3712	.0224	2.1200
children	1306ª	.2475°	.7588 ^b	.0207
Separated, children	0507	.6981	.6689	2.3505*
Married, head < 30 ,				
no children	0594	.0521	.6423	.2663
Married, head < 30 ,				
1 child	0704	.2182 ^ь	2.4750ª	.6887
Married, head < 30 ,				
2+ children	2828ª	.2387 ^b	.1499	1.9788 ^a
Married, head 30-39,	•			
no children	3062ª	.4914ª	2137	.0340
Married, head 30-39,				
1 child	1720ª	.2701ª	1.4390 ^a	.8792*
Married, head 30-39,			_	
2+ children	2200ª	.4168ª	.7198*	.3250 ^b
Married, head 40-49,	,		•	
no children	1668ª	.2319ª	1.4154 ^a	.5655 ^b
Married, head 40-49,		aaaab		o r cob
1 child	1734ª	.0998 ^b	1.4501 °	.8758 ⁶
Married, head 40-49,	1842ª	200.48	1.5451ª	1.2378ª
2+ children	1842*	.2804ª	1.5451-	1.23/8-
Married, head 50+, no children	2039ª	.2516ª	1.0868ª	.2814 ^b
Married, head 50+,	2039	.2310	1.0000	.2014
1 child	1899ª	.2369 ^b	.5508	.8358 ^b
Married, head 50+,	-,10/2	.2307	.5500	.0550
2 + children	0549	.4746°	.2616	6985

TABLE A.3 STRUCTURE AGE, OWNERS (YEARS)

176

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$Q_4 = \beta_0 + \beta_1 \ln Y + \beta_2 \ln P + \beta_3 \ln (PA_2) + \beta_4 \ln (PL_1)$					
Incremental Incremental					
		Price of	Price of	Price of	
		Standard	Newer	Larger	
	Income	Bundle	Unit	Lot	
Life-Cycle Class	β1	β2	β3	β	
Single, alone	.2487ª	2828ª	-1.4831ª	2223	
Single, with others	.1 187 ^b	2394 ^b .	6624 ^b	9815 ^b	
Separated, no					
children	.0516 ^b	1 927 ª	3846 ^b	.1732	
Separated, children	0048	4038ª	7916 ^b	-1.6446ª	
Married, head < 30 ,					
no children	0249	2315ª	.2022	1476	
Married, head < 30 ,					
1 child	.0227	0562 ^b	1107	3442 ^b	
Married, head < 30 ,					
2+ children	.0146	0369 ^b	3820 ^b	6481 ª	
Married, head 30-39,					
no children	0007	1302 ^b	3505 ^b	0854	
Married, head 30-39,					
1 child	0300 ^ь	1422ª	4745 ^b	3091 ^b	
Married, head 30-39,					
2+ children	0002	1559ª	1868 ^ь	2696*	
Married, head 40-49,					
no children	.0306 ^b	1533ª	3285ª	—.2092 ^ь	
Married, head 40-49,					
1 child	.0332 ^b	0712 ^b	6114ª	2809 ^ь	
Married, head 40-49,					
2+ children	.0122	1268ª	3412ª	1069	
Married, head 50+,					
no children	.0746ª	1667ª	5097ª	—.2717 ^ь	
Married, head 50+,					
1 child	.0510 ^b	1108 ^b	−.5553 ^ь	7322ª	
Married, head 50+,					
<u>2+ children</u>	0063	1979 <u>a</u>	.0405	4463 ^b	

TABLE A.4 PROBABILITY STRUCTURE AGE POST-1940, OWNERS

*Significant at .05 level.

^bt-ratio greater than one.

$Q_{5} = \beta_{0} + \beta_{1} \ln Y + \beta_{2} \ln P + \beta_{3} \ln (PA_{1}) + \beta_{4} \ln (PL_{1})$					
Incremental Incremental					
		Price of	Price of	Price of	
	_	Standard	Newer	Larger	
	Income	Bundle	Unit	Lot	
Life-Cycle Class	β,	β ₂	β3	β4	
Single, alone	.0900ª	1265 ^b	3589 ^b	.4254 ^b	
Single, with others	.0887 ^ь	0774	—.7425 ^ь	5953 ^b	
Separated, no					
children	.0447ª	.0018	1632	.1213	
Separated, children	.0078	1779ª	2394	2689	
Married, head < 30 ,					
no children	0348	.1180	2846	.0560	
Married, head < 30 ,					
1 child	0208	1058 ^b	-1.3403ª	2913	
Married, head < 30 ,					
2+ children	.1648ª	??98⁵	0051	7810ª	
Married, head 30-39,					
no children	.1566ª	1638 ^b	.0699	.3139	
Married, head 30-39,					
1 child	.0544ª	0808 ^ь	4144 ^b	3992 ^b	
Married, head 30-39,					
2+ children	.1376ª	1520ª	2650 ^ь	0606	
Married, head 40-49,					
no children	.0486ª	0322	5069ª	2228	
Married, head 40-49,					
1 child	.0630ª	0005	7175ª	3706 ^b	
Married, head 40-49,					
2+ children	.0997ª	1046ª	5461ª	6757*	
Married, head 50+,					
no children	.0591ª	0601ª	3090ª	.0345	
Married, head 50+,					
1 child	.0580 ^b	0693	2096	.0994	
Married, head 50+,					
2+ children	.0299	1674ª	.0207	.8253 ^b	

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TABLE A.5 PROBABILITY STRUCTURE AGE POST-1960, OWNERS

^aSignificant at .05 level.

^b t-ratio greater than one.

$Q_{6} = \beta_{0} Y^{\beta_{1}} P^{\beta_{2}} (PA_{1})^{\beta_{3}} (PL_{1})^{\beta_{4}}$				
		Price of Standard	Incremental Price of Newer	Incremental Price of Larger
	Income	Bundle	Unit	Lot
Life-Cycle Class	β	β ₂	β,	β₄
Single, alone	.2015ª	2642 ^b	-1.1544 ^b	-1.0201 ^b
Single, with others	.3092ª	8147ª	—1.1602 ^ь	-1.3822 ^b
Separated, no				
children	.1330 ^a	3759ª	-1.4323 ª	-1.8074ª
Separated, children	.0522	2619ª	5140	-2.1977ª
Married, head < 30 ,				
no children	.2640ª	3782	1.1189 ^b	-2.9636ª
Married, head < 30 ,				
1 child	0149	−.1905 ^ь	.1432	5538 ^b
Married, head < 30 ,				
2+ children	.1387ª	—.1178 ^ь	2650	-1.2323ª
Married, head 30-39,				
no children	.1353 ^b	—.2117 ^ь	.6107	5282
Married, head 30-39,				
1 child	.3448ª	1820ª	4574 ^b	-1.072ª
Married, head 30-39,				
2+ children	.2939*	1002ª	2134 ^b	5316ª
Married, head 40-49,				
no children	.3070ª	2255ª	3810 ^b	4046 ^b
Married, head 40-49,				
1 child	.3541 *	1789ª	0004	-1.0684ª
Married, head 40-49,				
2+ children	.4022ª	0702 ^ь	5196 ^b	-1.4017ª
Married, head 50+,			•	
no children	.3162ª	2149ª	7225ª	-1.2361ª
Married, head 50+,				
1 child	.4511ª	3507ª	.1464	-1.3716ª
Married, head 50+,	46 43 8	47179	5 (02 h	7025
2+ children	.4643*	<u>4717</u> ª	5492 ^b	.7035

TABLE A.6LOT SIZE, OWNERS (ACRES)

^aSignificant at .05 level.

^b*t*-ratio greater than one.

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$\underline{Q_{7} = \beta_{0} + \beta_{1} \ln Y + \beta_{2} \ln P + \beta_{3} \ln (PL_{1}) + \beta_{4} \ln (PA_{1})}$				
			Incremental	Incremental
		Price of	Price of	Price of
		Standard	Larger	Newer
	Income	Bundle	Lot	Unit
Life-Cycle Class	β1	β2	β ₃	β₄
Single, alone	0321	.2090 ^b	1.5755 ^b	.4902
Single, with others	0826 ^b	.3248ª	2.1414ª	6605
Separated, no				
children	—.0324 ^ь (.3242ª	.5793 ª	.3832ª
Separated, children	0639 ^b	.2162ª	.1850	.1568
Married, head < 30 ,				
no children	0967 ^b	.1443 ^b	.1590	1884
Married, head < 30 ,				
1 child	.0401	.2189ª	.2379	1257
Married, head < 30 ,				
2+ children	0352 ^b	.0811ª	.4030ª	.0443
Married, head 30-39,				
no children	.0083	.0143	.7402ª	1019
Married, head 30-39,				
1 child	0611ª	.1525ª	.2310 ^b	.2383 ^ь
Married, head 30-39,				
2+ children	0482ª	.1208ª	.0764	.2409ª
Married, head 40-49,				
no children	0576ª	.1846ª	1110	.1643
Married, head 40-49,				•
1 child	0490ª	.0617 ^b	.1877	.1009
Married, head 40-49,				
2+ children	0575ª	.0988	.2912ª	
Married, head 50+,	,			
no children	0585ª	.1804ª	.4124ª	.2881 ª
Married, head 50+,				
1 child	1001^{a}_{i}	.2937ª	.4175 ^b	2422
Married, head 50+,				
2+ children	0840ª	.2647ª	.5009 ^b	.2217

TABLE A.7				
PROBABILITY LOT SIZE LESS THAN .2 ACRE, OW	VERS			

^aSignificant at .05 level. ^b*t*-ratio greater than one.

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$Q_8 = \beta_0 + \beta_1 \ln Y + \beta_2 \ln P + \beta_3 \ln (PL_2) + \beta_4 \ln (PA_1)$				
		Price of Standard	Incremental Price of Larger	Incremental Price of Newer
,	Income	Bundle	Larger	Unit
Life-Cycle Class	β_1		β3	β₄
	Ρι	β2	Ρ3	P4
Single, alone	.1012	0861	2221	4841
Single, with others	.0739 ⁶	0820	4434	1617
Separated, no				
children	0010	0384	3644 ^b	2642
Separated, children	.2137ª	0080	7892ª	-1.1214^{a}
Married, head < 30 ,				
no children	.2066 ^a	3863ª	.1188	1.1345
Married, head < 30 ,			•	
1 child	.0853 ^b	1337 ^ь	.0481	.1672
Married, head < 30 ,		-		
2+ children	.0126	—.0969 ^ь	61 92 ª	0223
Married, head				
30-39, no children	.1292ª	1380 ^b	1809	.4478
Married, head			,	
30-39, 1 child	.0648ª	—.1371 ^ь	4964 ^b	2942 ^b
Married, head				
30-39, 2+ children	.1118ª	—.0548 ^ь	2055 ^b	.0270
Married, head				
40-49, no children	.0458ª	.0086	.0391	3695 ^b
Married, head				
40-49, 1 child	.0760ª	0504	−.4918 ^b	1532
Married, head				
40-49, 2+ children	.1155ª	—.0492 ^ь	6134ª	.0418
Married, head 50+,				
no children	.0943ª	0745ª	3049ª	3433ª
Married, head 50+,				
1 child	.1456ª	1165 ^b	-1.1062ª	.0403
Married, head 50+,				
2+ children	.1239ª	<u>1082 ^b</u>	.0468	.3949

TABLE A.8
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PROBABILITY LOT SIZE GREATER THAN .3 ACRE, OWNERS
TRODADIETT LOT SIZE OREATER THAT ACRE, OWNERS

$Q_{9} = \beta_{0} + \beta_{1} \ln Y + \beta_{2} \ln P + \beta_{3} \ln (PL_{3}) + \beta_{4} \ln (PA_{1})$				
			Incremental	Incremental
		Price of	Price of	Price of
		Standard	Larger	Newer
	Income	Bundle	Lot	Unit
Life-Cycle Class	β1	β ₂	β,	β₄
Single, alone	.0860ª	0187	.1229	.0791
Single, with others	.1170ª	2379ª	.0580	4851 ^b
Separated, no				
children	.0594 ª	0207	1407 ^ь	4541
Separated, children	.0223	0503	0558	0974
Married, head < 30 ,				
no children	.0830 ^ь	0030	0164	1153
Married, head < 30 ,				
1 child	.0289	0169	0377	0017
Married, head < 30 ,				
2+ children	.0582ª	0071	.0115	.0211
Married, head				
30-39, no children	.0448 ⁶	—.0624 ^ь	0097	.4415 ⁶
Married, head				
30-39, 1 child	.1720ª	0452 ^b	0507	.1967
Married, head				
30-39, 2+ children	.1228ª	.0021	0725 ^ь	1086
Married, head				
40-49, no children	.1331 ª	—.0467 ^ь	0207	1063
Married, head				
40-49, 1 child	.1613ª	0533 ^ь	.0478	0423
Married, head				
40-49, 2+ children	.1656ª	0481 ^b	0907	3175ª
Married, head 50+,				
no children	.1187ª	0122	0764 ^b	—.1637 ^ь
Married, head 50+,				
1 child	.1704ª	0371	.0987	0405
Married, head 50+,				
2+ children	.1521 ª	0281	.0960	6266 ^b

TABLE A.9 PROBABILITY LOT SIZE GREATER THAN .5 ACRE, OWNERS

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$Q_{2} = \beta_{0} (Y)^{\beta_{1}} (RR)^{\beta_{2}} (RA_{2})^{\beta_{3}}$			
		Incremental Price of Adding	Incremental Price of Newer
	Income	Room	Unit
Life-Cycle Class	β1	β ₂	β ₃
Single, alone	.1859ª	1395 ^b	.3822 ^b
Single, with others	.0931ª	1501 ^ь	.2332
Separated, no children	.0602ª	1045 ^b	2118
Separated, children	.0756ª	.0969	2265
Married, head < 30 , no children	.0949ª	2206ª	2374
Married, head < 30 , 1 child	.0693ª	.0821	0813
Married, head $< 30, 2 + $ children	.1016ª	1091 ^b	.1343
Married, head 30-39, no children	.0926ª	~.0016	—.6535 ^ь
Married, head 30-39, 1 child	.0627 ^b	.0925	.2149
Married, head 30-39, 2+ children	.1133ª	0370	.3211 ^b
Married, head 40-49, no children	.0612 ^b	.0313	.0795
Married, head 40-49, 1 child	.2220ª	0555	.5946 ^b
Married, head 40-49, 2+ children	.1497ª	.1722	1433
Married, head 50+, no children	.1439ª	0842 ^b	2664
Married, head 50+, 1 child	.1796ª	0853	.9192
Married, head 50+, 2+ children	.0881	.4013	-1.8426 ^b

TABLE A.10STRUCTURE SIZE, RENTERS (ROOMS)

^aSignificant at .05 level.

^b t-ratio greater than one.

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$Q_{3} = \beta_{0} Y^{\beta_{1}} R^{\beta_{2}} (RA_{2})^{\beta_{3}}$					
Life-Cycle Class	Income β ₁	Price of Standard Bundle β_2	Incremental Price of Newer Unit β ₃		
Single, alone	2681ª	1.3155ª	3.6048ª		
Single, with others	3017ª	1.6290ª	3.2968ª		
Separated, no children	4136ª	.0027	6.2973ª		
Separated, children	2555ª	.7652 ^b	2.7709ª		
Married, head < 30 , no children	4406ª	1710	2.7143ª		
Married, head $< 30, 1$ child	3396ª	.9022ª	2.3530ª		
Married, head $< 30, 2 +$ children	1754 ^b	.1443	2.8617ª		
Married, head 30-39, no children	2470 ^ь	.8113 ^b	2.0560ª		
Married, head 30-39, 1 child	1939ª	.8284ª	1.2645ª		
Married, head 30-39, 2+ children	3767ª	.6404 ^b	1.9142 ^b		
Married, head 40-49, no children	5100ª	1.6080ª	-1.7798		
Married, head 40-49, 1 child	5147ª	-1.7267	6.5962ª		
Married, head 40-49, 2+ children	5530ª	.9894 ^b	.9788		
Married, head 50+, no children	3169ª	.8442ª	2.5582ª		
Married, head 50+, 1 child	1448	2325	4.2427 ^b		
Married, head 50+, 2+ children	1033	6696	10.1680ª		

TABLE A.11STRUCTURE AGE, RENTERS (YEARS)

^aSignificant at .05 level.

^b t-ratio greater than one.

$Q_4 = \beta_0 + \beta_1 \ln Y + \beta_2 \ln R + \beta_3 \ln (RA_2)$					
Life-Cycle Class	Income β ₁	Price of Standard Bundle β_2	Incremental Price of Newer Unit β_3		
Single, alone	.1633ª	7529ª	8320ª		
Single, with others	.1315ª	-1.1085ª	3681 ^b		
Separated, no children	.1571ª	4614ª	5148 ^b		
Separated, children	.0743 ^b	5483ª	.0900		
Married, head < 30 , no children	.1475ª	3406ª	.3940		
Married, head < 30 , 1 child	.1519ª	5525ª	4911 ⁶		
Married, head $< 30, 2 +$ children	.1175ª	4131ª	.5840 ^b		
Married, head 30-39, no children	.0564	7247ª	2202		
Married, head 30-39, 1 child	.1608 ^b	—.3869 ^ь	2808		
Married, head 30-39, 2+ children	.1809ª	1244	4120 ^b		
Married, head 40-49, no children	.1202 ^b	2287 ^b	.0866		
Married, head 40-49, 1 child	.2061ª	0756	.5630		
Married, head 40-49, 2+ children	· .3077*	3590 ^b	.3917		
Married, head 50+, no children	.1259ª	7412ª	.8451ª		
Married, head 50+, 1 child	.0950	-1.4871ª	2.5545ª		
Married, head 50+, 2+ children	.5367ª	—.7552 ^ь	2.5840 ^b		

TABLE A.12 PROBABILITY STRUCTURE AGE POST-1940, RENTERS

$Q_5 = \beta_0 + \beta_1 \ln Y + \beta_2 \ln R + \beta_3 \ln (RA_1)$					
Life-Cycle Class	Income β ₁	Price of Standard Bundle β ₂	Incremental Price of Newer Unit β_3		
Single, alone	.0885ª	5175ª	9128ª		
Single, with others	.1173ª	5593ª	-1.1177ª		
Separated, no children	.1476ª	0279	-2.3415 ^ª		
Separated, children	.1025ª	2591 ^b	9234 ^b		
Married, head < 30 , no children	.1963 ª	.0307	6041 ^b		
Married, head < 30 , 1 child	.1366ª	2378 ^b	7255 ^b		
Married, head < 30 , 2+ children	.0200	.0066	—.7785 ^ь		
Married, head 30-39, no children	.1151 ^b	1602	5038 ^b		
Married, head 30-39, 1 child	.1247ª	—.2774 ^ь	6131 ^b		
Married, head 30-39, 2+ children	.1095ª	2588 ^b	2578		
Married, head 40-49, no children	.2478ª	8307ª	-1.2141 ^b		
Married, head 40-49, 1 child	.1322 ^b	.6814ª	-2.0196 ^a		
Married, head 40-49, 2+ children	.1888ª	5187ª	.5559		
Married, head 50+, no children	.1098ª	4539ª	3069		
Married, head 50+, 1 child	.0417	.0506	8925		
Married, head 50+, 2+ children	0463	1742	-2.8982 ^b		

TABLE A.13 PROBABILITY STRUCTURE AGE POST-1960, RENTERS

186