

Electronic Supplemental Information (ESI) for Environmental Science: Processes and Impacts.
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Supplementary Information
for
Total Surface Area in Indoor Environments

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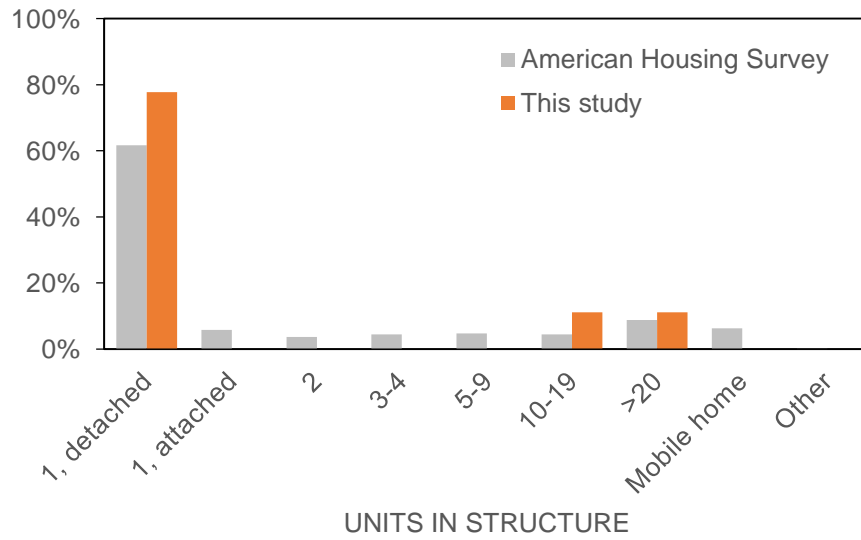
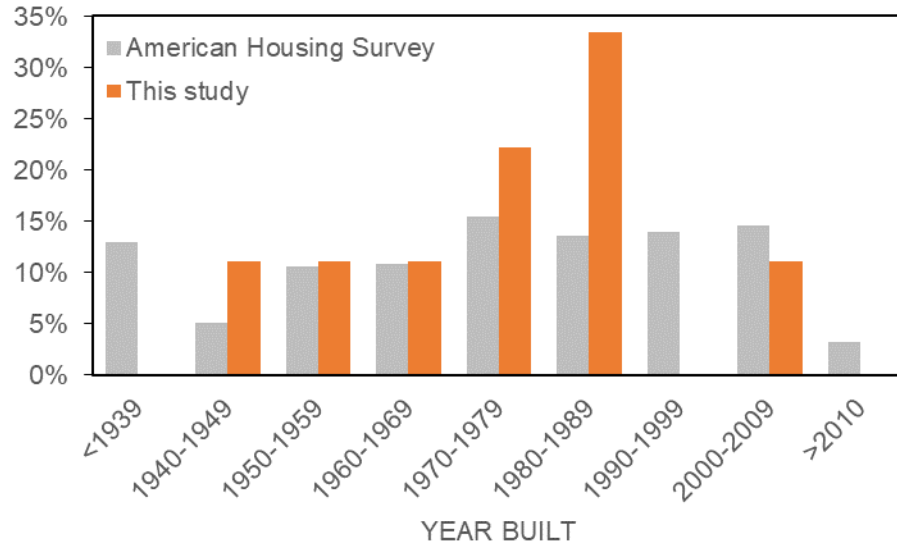


Fig. S1. Comparison between the American Housing Survey and this study in terms of year built and number of units in the structure.

Table S1. Dimensions, surface area without (S) and with (S^*) contents, volume without (V) and with (V^*) contents, and ratios for bedrooms, kitchens, and offices.

Room	Dimensions (m)			Surface Area (m ²)		S*/S	Volume (m ³)		V*/V	S/V (m ⁻¹)	S*/V* (m ⁻¹)
	L	W	H	S	S*		V	V*			
Bedrooms											
1	3.8	3.7	2.4	64	94	1.5	34	31	0.94	1.9	3.0
2	2.8	2.6	2.4	40	62	1.6	17	16	0.93	2.4	3.9
3	5.0 ^a	3.9	1.4-2.1 ^b	58	90	1.6	36	32	0.90	1.6	2.8
4	4.0	3.5	2.4	63	109	1.7	33	32	0.97	1.9	3.4
5	4.2	3.9	2.2	66	101	1.5	33	30	0.91	2.0	3.4
6	3.4	2.7	2.4	47	59	1.2	22	21	0.96	2.2	2.8
7	3.8	3.5	2.4	61	83	1.4	32	29	0.91	1.9	2.9
8	6.1	2.9	2.4	79	103	1.3	43	40	0.93	1.8	2.6
9	3.8	3.6 ^b	2.4	60	76	1.3	29	28	0.96	2.1	2.7
10	3.9	3.8	2.4	65	81	1.2	34	31	0.90	1.9	2.6
Average ± standard deviation				60 ± 11	86 ± 17	1.4 ± 0.2	31 ± 7	29 ± 7	0.93 ± 0.03	2.0 ± 0.2	3.0 ± 0.4
Kitchens											
1	2.1	1.7	2.4	22	41	1.9	9	6	0.74	2.5	6.8
2	3.8	3.7	2.4	54	71	1.3	32	28	0.88	1.7	2.5
3	2.7	2.4	2.4	32	70	2.2	15	12	0.75	2.1	5.8
4	4.3	4.1	2.4-3.4 ^b	60	96	1.6	50	46	0.91	1.2	2.1
5	2.8	2.6	2.4	28	36	1.3	17	13	0.77	1.6	2.7
6	4.0	3.6	2.4	52	62	1.2	34	30	0.86	1.5	2.1
7	5.3 ^d	3.7 ^d	2.7	66	88	1.3	50	44	0.87	1.3	2.0
8	4.4	2.8	2.4	49	56	1.1	30	23	0.77	1.6	2.4
9	3.4	3.3	2.4	46	52	1.1	28	19	0.70	1.6	2.7
Average ± standard deviation				45 ± 15	64 ± 20	1.4 ± 0.4	29 ± 14	25 ± 14	0.8 ± 0.1	1.7 ± 0.4	3.2 ± 1.8
Offices											
1	3.7	2.9	2.7	56	103	1.8	29	26	0.90	1.9	4.0
2	4.4	2.7	2.7	86	146	1.7	48	45	0.94	1.8	3.2
3	4.6	2.9	2.7	68	126	1.9	36	34	0.96	1.9	3.7
Average ± standard deviation				70 ± 15	125 ± 22	1.8 ± 0.1	38 ± 10	35 ± 10	0.93 ± 0.03	1.9 ± 0.1	3.6 ± 0.4
Overall											
average ± standard deviation				56 ± 16	82 ± 27	1.5 ± 0.3	31 ± 11	28 ± 11	0.9 ± 0.1	1.8 ± 0.3	3.2 ± 1.2

^a This is the maximum length of the room, including an extension leading to a dormer window.

^b A range is shown because these rooms had slanted ceilings.

^c This is the maximum width of the room; it had a short, hall-like entrance area near the door.

^d This room was not cuboidal in shape because one of the walls formed a diagonal section at what would normally be a 90-degree corner. The length and width are reported assuming a cuboidal shape.