

Supporting Informations

A Data

Table S1: Year life data 2016 of Japanese women : Annual change of ratio of those who survive to specified age on life table [10].

Age (years old)	40	65	75	90	95
Survival ratio (%)	99.0	94.3	87.8	49.9	25.2

Table S2: Parameter data for estimating β and γ . The data is based on the data of nationwide of Japan.

Land price[†] (ω_{ij}) [11]		1,580,000(JPY)/200(m^2)
Initial ratio (1983 year data)[12]	H	91.4 %
	E	4.3 %
	R	4.3 %
House holder's age [13, 15]		
1983 year	[15, 64](years old)	86.81 %
	[65, 74](years old)	8.54 %
	[76, 90](years old)	4.65 %
1988 year	[15, 64](years old)	81.14 %
	[65, 74](years old)	9.18 %
	[76, 90](years old)	9.68 %
1993 year	[15, 64](years old)	79.15 %
	[65, 74](years old)	10.00 %
	[76, 90](years old)	10.85 %
1998 year	[15, 64](years old)	75.63 %
	[65, 74](years old)	11.42 %
	[76, 90](years old)	12.95 %
2003 year	[15, 64](years old)	73.20 %
	[65, 74](years old)	12.47 %
	[76, 90](years old)	14.33 %
2008 year	[15, 64](years old)	70.13 %
	[65, 74](years old)	13.14 %
	[76, 90](years old)	16.73 %
2013 year	[15, 64](years old)	67.57 %
	[65, 74](years old)	14.10 %
	[76, 90](years old)	18.33 %

[†] Average land value of nationwide during 1983-2013 excluding economic bubble period (1987-1994) was calculated.

Table S3: Distance and land price data for subsections in Hiroshima city [17].

Name of subsection	Distance from Hiroshima state [†] (km)	Land price (JPY/200m ²)
舟入幸 (Funairisaiwai)	3.3	44,400,000
吉島西 (Yoshijimanishi)	3.5	38,000,000
江波二本松 1 (Enaminihonmatsu 1)	5.1	3,0600,000
白島中町 (Hakushimanakamachi)	1.6	61,200,000
牛田本町 5 (Ushitahonmachi 5)	1.9	45,600,000
戸坂山根 2 (Hesakayamane 2)	4.4	20,600,000
牛田早稲田 3 (Ushitawaseda 3)	1.9	24,200,000
戸坂南 1 (Hesakaminami 1)	3.4	14,100,000
福田 8 (Fukuda 8)	9.6	7,020,000
翠 3 (Midori 3)	3.1	45,400,000
堀越 3 (Horikoshi 3)	4.4	18,360,000
日宇那町 (Hiunacho)	4.3	20,000,000
山手町 (Yamatecho)	3.6	21,600,000
東観音町 (Higashikannonmachi)	3.5	40,000,000
大芝 3 (Oshiba 3)	3.1	33,800,000
祇園 7 (Gion 7)	5.7	27,800,000
伴東 4 (Tomohigashi 4)	9.5	10,940,000
沼田町大字吉山 (NumatachoOjiyoshiyama)	15	2,920,000
大塚西 1 (Odukanishi 1)	8.4	6,880,000
長東西 (Nagatsukanishi)	4.6	12,840,000
亀山 6 (Kameyama 6)	15	6,700,000
真亀 5 (Magame 5)	10	14,240,000
矢野東 2 (Yanohigashi 2)	7.1	24,600,000
阿戸町 (Atocho)	14	3,080,000
船越 2 (Funakoshi 2)	4.4	16,820,000
海老園 2 (Kairouen 2)	11	32,000,000
湯来町大字多田 (Yukichoojitada)	23	1,400,000
杉並台 (Suginamidai)	17	2,920,000
河内南 2 (Kouchiminami)	12	7,440,000

[†] The distance has been measured by google map.