

TABLES

TABLE 1 – DESCRIPTIVE STATISTICS

	(1)	(2)	(3)	(4)
	mean	sd	min	max
Gross hourly income (<i>in €</i>)	34.66	19.19	7.051	153.9
Land price (<i>in €</i>)	1,370	914.7	280.5	5,645
Lot size (<i>in m²</i>)	141.3	43.18	48.40	867.4
Amenities ($\delta=0.793$)	171.3	316.1	2.153	2,358
Hedonic amenity index	3,472	688.7	2,851	4,826
Expected commuting time (<i>in minutes</i>)	18.66	2.365	6.233	32.54
Travel time to city center (<i>in minutes</i>)	13.78	4.745	0.0611	29.33
Distance to city center (<i>in km</i>)	5.924	2.496	0.0153	10.000
FTEs in the household	1.279	0.420	0.632	2
Non-/unemployed	0.188			
Self-employed	0.0645			
Cars in household	1.132	0.641	0	2
Male (average in household)	0.682	0.255	0	1
Age (average age of adults in household)	45.62	14.10	18	90
Household size	2.650	1.270	1	6
Household – single	0.129			
Household – couple	0.147			
Household – with young children	0.125			
Household – with older children	0.128			
Household – other	0.143			
House size	102.8	33.88	25	250
Apartment	0.430			
Terraced	0.453			
Semi-detached	0.0690			
Detached	0.0476			
Number of railway stations <250m	0.0109	0.104	0	1
Number of railway stations 250-500m	0.0493	0.217	0	1
Number of metro stations <250m	0.0509	0.220	0	2
Number of metro stations 250-500m	0.181	0.456	0	3
Number of bus stops <250m	1.303	1.715	0	22
Number of bus stops 250-500m	3.588	3.175	0	26
Share owner-occupied housing <250m	0.560	0.224	0	1
Share owner-occupied housing <500m	0.513	0.180	0	1
Average construction year <250m	1,965	26.87	1,805	2,016
Average construction year <500m	1,964	25.44	1,845	2,016

Note: The number of observations is 54,279. The gender and age refer to the average of the two oldest adults in the household. The dataset also includes construction year decades from 1945 onwards.

TABLE 2 – ORDINARY-LEAST-SQUARES, REDUCED-FORM ESTIMATES
 (Dependent variable: the log of the gross hourly income in €)

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		<i>Naive estimation</i>	<i>+ Household characteristics</i>	<i>+ Housing attributes</i>	<i>Employment accessibility</i>	<i>+ Location attributes</i>	<i>With car and employed</i>	<i>Control for empl. density</i>	<i>Smaller sample</i>
		OLS	OLS	OLS	OLS	OLS	OLS	OLS	OLS
Amenities, $\log a(x)$	$\beta\gamma$	0.00671 (0.0104)	0.0116 (0.0101)	0.0401*** (0.00711)	0.0419*** (0.00486)	0.0396*** (0.00571)	0.0444*** (0.00713)	0.0491*** (0.00786)	0.0476*** (0.00654)
Commuting to city center, $\log\tau(x)$	$-\theta(1-\mu)\gamma$	0.00198 (0.0224)	-0.0120 (0.0217)	-0.0203 (0.0169)					
Expected commuting time, $\log\tau(x)$	$-\theta(1-\mu)\gamma$				-0.127*** (0.0474)	-0.122*** (0.0461)	-0.125** (0.0521)	-0.166*** (0.0519)	-0.207*** (0.0525)
Employment density (<i>log</i>)								-0.0253* (0.0141)	
Household characteristics (12)		No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Housing attributes (10)		No	No	Yes	Yes	Yes	Yes	Yes	Yes
Location attributes (10)		No	No	No	No	Yes	Yes	Yes	Yes
City fixed effects (2)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects (10)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations		54,239	54,239	54,239	54,279	54,279	35,026	54,279	37,671
R^2		0.012	0.220	0.287	0.288	0.289	0.334	0.289	0.290

Notes: Standard errors are clustered at the neighborhood level and in parentheses.

*** Significant at the 0.01 level

** Significant at the 0.05 level

* Significant at the 0.10 level

TABLE 3 – TWO-STAGE-LEAST-SQUARES, REDUCED-FORM ESTIMATES
 (Dependent variable: the log of the gross hourly income in €)

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		<i>Land use in 1900 instruments</i>				<i>Historic city plan instruments</i>			
		2SLS	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS
Amenities, $\log(a(x))$	$\beta\gamma$	0.0496*** (0.00815)	0.0320*** (0.00713)	0.0418*** (0.00925)	0.0603*** (0.0184)	0.0579*** (0.0114)	0.0453*** (0.00731)	0.0566*** (0.0115)	0.0695*** (0.0152)
Expected commuting time, $\log\tau(x)$	$-\theta(1-\mu)\gamma$	-0.102** (0.0454)	-0.337*** (0.113)	-0.313*** (0.113)	-0.182 (0.150)	-0.185*** (0.0536)	-0.270** (0.127)	-0.329** (0.142)	-0.250 (0.202)
Built-up area 1900 (1)		No	No	No	Yes	No	No	No	No
Residential land use in historic city plans (2)		No	No	No	No	No	No	No	Yes
Household characteristics (12)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Housing attributes (10)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Location attributes (10)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
City fixed effects (2)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects (10)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations		54,279	54,279	54,279	54,279	37,671	37,671	37,671	37,671
Kleibergen-Paap F -statistic		148.1	34.11	33	11.46	21.54	8.315	8.442	2.044

Notes: **Bold** indicates instrumented. The first stages and the included instruments are listed in Table C.7. Standard errors are clustered at the neighborhood level and in parentheses.

*** Significant at the 0.01 level

** Significant at the 0.05 level

* Significant at the 0.10 level

TABLE 4 – A HEDONIC AMENITY INDEX
(Dependent variable: the log of the gross hourly income in €)

	(1)	(2)	(3)	(4)	(5)	(6)
	Ordinary least squares		Land use in 1900 instruments		Historic city plan instruments	
	OLS	OLS	2SLS	2SLS	2SLS	2SLS
Amenities (pictures), $\log a(x)$		0.0359*** (0.00585)		0.0318** (0.0136)		0.0486*** (0.0144)
Hedonic amenity index, $\log a(x)$	0.832*** (0.199)	0.433** (0.185)	1.377*** (0.484)	0.507 (0.544)	1.348** (0.551)	0.492 (0.447)
Expected commuting time, $\log \tau(x)$	-0.209*** (0.0500)	-0.135*** (0.0472)	-0.600*** (0.0995)	-0.385*** (0.143)	-0.619*** (0.165)	-0.390** (0.153)
Household characteristics (12)	Yes	Yes	Yes	Yes	Yes	Yes
Housing attributes (10)	Yes	Yes	Yes	Yes	Yes	Yes
Location attributes (10)	Yes	Yes	Yes	Yes	Yes	Yes
City fixed effects (2)	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects (10)	Yes	Yes	Yes	Yes	Yes	Yes
Observations	54,279	54,279	54,279	54,279	37,671	37,671
R^2	0.286	0.289				
Kleibergen-Paap F -statistic			45.33	9.531	8.553	6.600

Notes: Standard errors are clustered at the neighborhood level and in parentheses.

*** Significant at the 0.01 level

** Significant at the 0.05 level

* Significant at the 0.10 level

TABLE 5 – RESULTS FOR LAND PRICES
(Dependent variable: the log of the land price in €)

	(1)	(2)	(3)	(4)	(5)	(6)
	Naive estimation	+ Housing attributes	Employment accessibility	+ Location attributes	Land use 1900 instruments	Historic city plan instruments
	OLS	OLS	OLS	OLS	2SLS	2SLS
Amenities, $\log a(x)$	0.163*** (0.0186)	0.156*** (0.0175)	0.210*** (0.0137)	0.180*** (0.0160)	0.278*** (0.0290)	0.393*** (0.0255)
Commuting to city center, $\log \tau(x)$	-0.174*** (0.0533)	-0.174*** (0.0517)				
Expected commuting time, $\log \tau(x)$			-0.0674 (0.0964)	-0.0527 (0.0954)	-0.363 (0.257)	-0.264 (0.438)
Housing attributes (10)	No	Yes	Yes	Yes	Yes	Yes
Location attributes (10)	No	No	No	Yes	Yes	Yes
City fixed effects (2)	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects (10)	Yes	Yes	Yes	Yes	Yes	Yes
Observations	54,239	54,239	54,279	54,279	54,279	37,671
R^2	0.793	0.797	0.788	0.813		
Kleibergen-Paap F -statistic					32.89	8.439

Notes: Standard errors are clustered at the neighborhood level and in parentheses.

*** Significant at the 0.01 level

** Significant at the 0.05 level

* Significant at the 0.10 level

TABLE 6 – STRUCTURAL ESTIMATION

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>Panel A: Structural parameters</i>		<i>All observations</i>			<i>Amsterdam</i>			<i>Rotterdam</i>		
		OLS	2SLS	2SLS	OLS	2SLS	2SLS	OLS	2SLS	2SLS
β		0.0390*	0.0511*	0.156*	0.0815**	0.0960	0.0628	0.0688	-0.121	0.0744*
		(0.0229)	(0.0300)	(0.0846)	(0.0332)	(0.0833)	(0.103)	(0.378)	(0.577)	(0.0411)
θ		0.154*	0.492**	1.168***	0.425***	0.595*	0.215	0.0222	0.123	1.174***
		(0.0933)	(0.201)	(0.293)	(0.142)	(0.334)	(0.331)	(0.107)	(0.233)	(0.266)
γ		1.017*	0.819**	0.362**	0.748***	0.647	1.259	0.493	-0.361	0.451***
		(0.550)	(0.372)	(0.175)	(0.240)	(0.437)	(1.948)	(2.681)	(1.766)	(0.129)
<i>Fixed parameters</i>										
\bar{h}		15	15	15	15	15	15	15	15	15
$\bar{\mu}$		0.222	0.222	0.222	0.222	0.222	0.222	0.222	0.222	0.222
Household characteristics (10)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Housing attributes (10)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Location attributes (10)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
City fixed effects (2)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects (10)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations		50,921	50,921	35,296	18,201	18,201	17,659	32,720	32,720	17,637
<i>Panel B: Income predictions</i>		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Baseline	5 th percentile	22.798	22.637	22.228	23.400	23.343	22.941	22.487	21.152	22.214
	median	24.369	24.464	24.600	25.564	25.580	25.655	23.597	22.452	23.794
	95 th percentile	27.349	27.778	29.137	30.691	30.860	32.378	25.790	25.166	26.047
Case 1	5 th percentile	23.086	22.665	22.374	22.969	22.898	22.422	22.401	20.247	22.176
	median	23.835	24.228	24.131	26.119	26.150	26.363	23.723	22.635	23.824
	95 th percentile	27.073	27.409	28.668	29.196	29.340	30.335	25.271	25.046	25.782
Case 2	5 th percentile	22.793	22.623	22.222	23.375	23.316	22.922	22.490	21.134	22.287
	median	24.378	24.454	24.597	25.566	25.578	25.662	23.594	22.466	23.661
	95 th percentile	27.388	27.935	29.288	30.855	31.065	32.523	25.792	25.171	26.448
Case 3	5 th percentile	22.792	22.629	22.228	23.377	23.317	22.925	22.492	21.135	22.298
	median	24.383	24.451	24.597	25.561	25.579	25.647	23.591	22.471	23.637
	95 th percentile	27.377	27.877	29.238	30.877	31.080	32.567	25.801	25.164	26.312

Notes: In columns (2), (5) and (8), we use land use in 1900 as instruments. In columns (3), (6) and (9) we use historic city plan instruments. Standard errors are clustered at the neighborhood and in parentheses.

*** Significant at the 0.01 level

** Significant at the 0.05 level

* Significant at the 0.10 level

APPENDIX TABLES

TABLE C.1 – DESCRIPTIVE STATISTICS FOR THE HOUSING SAMPLE

	(1)	(2)	(3)	(4)
	mean	sd	min	max
Size of property (<i>in m²</i>)	130.9	37.53	30	250
Number of rooms	4.915	1.295	0	18
Terraced property	0.634			
Semi-detached property	0.317			
Detached property	0.0495			
Property has garage	0.224			
Property has garden	0.969			
Maintenance state is good	0.847			
Property has central heating	0.908			
Property is listed building	0.00720			
Construction year <1945	0.351			
Construction year 1945-1959	0.0668			
Construction year 1960-1970	0.0972			
Construction year 1971-1980	0.118			
Construction year 1981-1990	0.116			
Construction year 1991-2000	0.151			
Construction year >2000	0.101			

Note: The number of observations is 154,341. The data are from 2000-2015.

TABLE C.2 – SEMIPARAMETRIC REGRESSIONS TO DETERMINE LAND PRICES,
CONTROL VARIABLES

(Dependent variable: the log of house price per m² of lot size)

	(1)	(2)
	<i>Amsterdam</i>	<i>Rotterdam</i>
	SEMIPAR	SEMIPAR
Size of property (<i>in m²</i>)	0.00153** (0.0000163)	0.000351** (0.0000127)
Number of rooms	0.0102** (0.000342)	0.0195** (0.000339)
Terraced property	-0.161** (0.000748)	-0.18** (0.000494)
Semi-detached property	-0.453** (0.00189)	-0.52** (0.00187)
Property has garage	-0.0349** (0.000991)	-0.0498** (0.000552)
Property has garden	0.0144** (0.00318)	0.022** (0.00182)
Maintenance state is good	0.123** (0.00078)	0.153** (0.000885)
Property has central heating	0.0827** (0.001524)	0.0938** (0.001037)
Property is listed building	0.291** (0.00499)	0.119** (0.00514)
Construction year 1945-1959	-0.162** (0.00229)	-0.16** (0.0017)
Construction year 1960-1970	-0.0386** (0.00262)	-0.0592** (0.00207)
Construction year 1971-1980	-0.0178** (0.00304)	0.0843** (0.00165)
Construction year 1981-1990	0.0229** (0.00278)	0.162** (0.00203)
Construction year 1991-2000	0.154** (0.003)	0.252** (0.00182)
Construction year >2000	0.308** (0.00325)	0.49** (0.00277)
Year fixed effects (15)	Yes	Yes
Observations	27,320	36,228

Notes: Standard errors are clustered at the neighborhood and in parentheses.

*** Significant at the 0.01 level

** Significant at the 0.05 level

* Significant at the 0.10 level

TABLE C.3 – DESCRIPTIVE STATISTICS FOR PICTURES

	(1)	(2)	(3)	(4)
	mean	sd	min	max
Year the picture was taken	2011	2.243	2004	2014
Hour the picture was taken	13.88	4.561	0	23
In Amsterdam	0.653	0.476		
Picture inside a building	0.263	0.440		
Local inhabitant	0.441	0.496		

Notes: The number of observations is 54,279. The data are from 2004-2014.

TABLE C.4 – DESCRIPTIVE STATISTICS FOR AMENITY VARIABLES

	(1)	(2)	(3)	(4)
	mean	sd	min	max
In historic district – future	0.0362			
In historic district – in process	0.0234			
In historic district – completed	0.0361			
Listed buildings, 0-500m	25.73	144.0	0	1,586
Share open space, 0-500m	0.153	0.141	0	0.969
Share water 0-500m	0.0710	0.0927	0	0.829
Max flood depth (<i>in m</i>)	0.984	1.268	0	6.180
Shops 0-500m	28.82	40.58	0	378
Hotels, cafes and restaurants, 0-500m	19.89	48.80	0	622
Cultural establishments, 0-500m	1.713	5.409	0	77
Leisure establishments, 0-500m	1.099	1.983	0	22

Notes: The number of observations is 54,279.

TABLE C.5 – REGRESSIONS TO DETERMINE AMENITY LEVELS
(Dependent variable: amenities, loga(x))

	(1)	(2)	(3)	(4)
	OLS	OLS	OLS	OLS
In historic district – future	0.737*** (0.219)			0.489*** (0.142)
In historic district – in process	0.745*** (0.138)			0.660*** (0.151)
In historic district – completed	0.915*** (0.174)			0.838*** (0.202)
Listed buildings, 0-500m	0.000689*** (0.000198)			-0.00227*** (0.000564)
Share open space, 0-500m		-1.334*** (0.244)		-0.572*** (0.190)
Share water 0-500m		1.355*** (0.453)		1.712*** (0.418)
Max flood depth (<i>in m</i>)		-0.126*** (0.0400)		-0.0929*** (0.0345)
Shops 0-500m			0.00814*** (0.00138)	0.00639*** (0.00133)
Hotels, cafes and restaurants, 0-500m			-0.000977 (0.00197)	0.00366* (0.00208)
Cultural establishments, 0-500m			0.0179** (0.00832)	0.0248*** (0.00846)
Leisure establishments, 0-500m			0.0573** (0.0236)	0.0416* (0.0226)
Housing attributes (11)	Yes	Yes	Yes	Yes
Location attributes (10)	Yes	Yes	Yes	Yes
City fixed effects (4)	Yes	Yes	Yes	Yes
Year fixed effects (12)	Yes	Yes	Yes	Yes
Observations	54,279	54,279	54,279	54,279
R^2	0.607	0.611	0.644	0.692

Notes: Standard errors are clustered at the neighborhood and in parentheses.

*** Significant at the 0.01 level

** Significant at the 0.05 level

* Significant at the 0.10 level

TABLE C.6 – DESCRIPTIVE STATISTICS FOR HISTORIC LAND USE DATA

	(1)	(2)	(3)	(4)
	mean	sd	min	max
Share built-up area in 1900, 0-500m	0.101	0.190	0	0.969
Share water bodies in 1900, 0-500m	0.0603	0.122	0	1
Share open space in 1900, 0-500m	0.839	0.246	0.000264	1
Travel time to population in 1900	25.27	7.217	7.879	39.38
Share existing residential use in historic city plans, 0-500m	0.168	0.217	0	0.839
Share planned residential use in historic city plans, 0-500m	0.105	0.189	0	0.808
Share water bodies in historic city plans, 0-500m	0.0754	0.131	0	1
Share parks in historic city plans, 0-500m	0.0471	0.0927	0	0.776
Share other land use in historic city plans, 0-500m	0.605	0.296	0	1
Travel time to existing built-up land in historic city plans	24.47	4.252	16.81	40.23
Travel time to planned built-up land in historic city plans	23.31	5.863	12.68	35.82
Share built-up area in 1832, 0-500m	0.0518	0.112	0	0.612
Share infrastructure in 1832, 0-500m	0.0251	0.0413	0	0.273
Share water bodies in 1832, 0-500m	0.199	0.247	0.000264	1
Share open space in 1832, 0-500m	0.724	0.292	0	1
Travel time to population in 1832	32.23	6.767	9.888	44.99
Parcel price in 1832 per m ² (<i>normalised</i>)	0.297	0.208	0	0.799

Note: The number of observations is 54,279 for the 1900 land use instruments. It is 37,671 for the historic city plan instruments and for the data of 1832 it is 32,545.

TABLE C.7 – FIRST-STAGE RESULTS

	<i>(Dep. var.: amenities, log$a(x)$)</i>				<i>(Dep. var.: Expected commuting time, log$t(x)$)</i>			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	OLS	OLS	OLS	OLS	OLS	OLS	OLS	OLS
Amenities, log($a(z)$)					-0.0286*** (0.00897)		-0.0445*** (0.00693)	
Employment density, log($t(z)$)	-0.956*** (0.337)		-1.919*** (0.473)					
Share built-up area in 1900, 0-500m	1.807*** (0.228)	1.677*** (0.220)			0.184*** (0.0299)	0.136*** (0.0286)		
Share water bodies in 1900, 0-500m	0.954*** (0.209)	0.797*** (0.191)			0.186*** (0.0469)	0.163*** (0.0450)		
Travel time to population in 1900 (log)	-1.811*** (0.169)	-2.062*** (0.151)			0.204*** (0.0298)	0.263*** (0.0239)		
Share existing residential use in historic city plans, 0-500m			1.467*** (0.305)	1.162*** (0.312)			0.210*** (0.0462)	0.159*** (0.0470)
Share planned residential use in historic city plans, 0-500m			1.009*** (0.268)	0.972*** (0.269)			0.0625 (0.0452)	0.0192 (0.0467)
Share water bodies in historic city plans, 0-500m			0.980*** (0.309)	0.684** (0.290)			0.185*** (0.0711)	0.154** (0.0706)
Share parks in historic city plans, 0-500m			0.662** (0.294)	0.669*** (0.239)			0.0260 (0.0825)	-0.00383 (0.0810)
Travel time to existing built-up land in historic city plans (log)			0.914** (0.359)	1.042** (0.425)			-0.0204 (0.0445)	-0.0668 (0.0528)
Travel time to planned built-up land in historic city plans (log)			-1.978*** (0.280)	-2.348*** (0.268)			0.0885** (0.0373)	0.193*** (0.0335)
Household characteristics (10)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Housing attributes (10)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Location attributes (10)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
City fixed effects (2)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects (10)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	54,279	54,279	37,671	37,671	54,279	54,279	37,671	37,671
R^2	0.791	0.785	0.716	0.689	0.354	0.336	0.342	0.281

Notes: Standard errors are clustered at the street level and in parentheses.

*** Significant at the 0.01 level

** Significant at the 0.05 level

* Significant at the 0.10 level

TABLE C.8 – SENSITIVITY ANALYSIS: IDENTIFICATION REVISITED
(Dependent variable: the log of the gross hourly income in €)

	(1)	(2)	(3)	(4)	(5)	(6)
	<i>Ordinary least squares</i>		<i>Land use in 1900 instruments</i>		<i>Historic city plan instruments</i>	
	OLS	OLS	2SLS	2SLS	2SLS	2SLS
Amenities (pictures), $\log a(x)$	0.0305*** (0.00749)	0.0427*** (0.00761)	0.0494*** (0.0158)	0.0477*** (0.0181)	0.0402* (0.0220)	0.0867 (0.0745)
Hedonic amenity index, $\log a(x)$	-0.0848* (0.0464)	-0.199*** (0.0521)	-0.230* (0.125)	-0.159 (0.131)	-0.459* (0.252)	-0.452 (0.304)
Parcel price per m ² in 1832 (<i>log</i>)					0.00209 (0.00404)	0.000471 (0.00457)
1900 Land use instruments (3)	Yes	Yes	No	No	No	No
Historic city plan instruments (6)	Yes	Yes	No	No	No	No
Built-up area 1900 (1)	Yes	Yes	Yes	Yes	No	No
Built-up area 1832 (2)	No	No	No	No	No	Yes
Residential land use in HCPs (2)	Yes	Yes	Yes	Yes	No	No
Housing attributes (10)	Yes	Yes	Yes	Yes	Yes	Yes
Location attributes (10)	Yes	Yes	Yes	Yes	Yes	Yes
City fixed effects (2)	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects (10)	Yes	Yes	Yes	Yes	Yes	Yes
Household characteristics (12)	Yes	Yes	Yes	Yes	Yes	Yes
Observations	54,279	37,671	37,671	32,479	28,938	28,938
R^2	0.290	0.291				
Kleibergen-Paap F -statistic			7.919	6.444	3.313	0.978

Notes: Standard errors are clustered at the neighborhood level and in parentheses.

- *** Significant at the 0.01 level
- ** Significant at the 0.05 level
- * Significant at the 0.10 level

TABLE C.9 – SENSITIVITY ANALYSIS: ANCILLARY REGRESSIONS

		(1)	(2)	(3)	(4)	(5)	(6)	(7)
		$\delta = 1.121,$ $\bar{\tau} = 45$	$\delta = 0.560,$ $\bar{\tau} = 45$	$\delta = 793,$ $\bar{\tau} = 30$	$\delta = 0.793,$ $\bar{\tau} = 60$	<i>Municipality</i> <i>fixed effects</i>	<i>Bachelor's</i> <i>degree or higher</i>	<i>Interval</i> <i>regression</i>
<i>Panel A: OLS estimates</i>								
Amenities, $\log a(x)$	$\beta\gamma$	0.0376*** (0.00512)	0.0404*** (0.00654)	0.0391*** (0.00572)	0.0396*** (0.00571)	0.0418*** (0.00602)	0.0458*** (0.00612)	0.0394*** (0.00557)
Expected commuting time, $\log t(x)$	$-\theta(1 - \mu)\gamma$	-0.129*** (0.0453)	-0.115** (0.0473)	-0.158*** (0.0585)	-0.122*** (0.0461)	-0.0661 (0.0421)	-0.179*** (0.0540)	-0.122*** (0.0444)
Observations		54,279	54,279	54,279	54,279	54,279	54,279	54,279
R^2		0.290	0.288	0.289	0.289	0.296	0.092	—
<i>Panel B: IV estimates with 1900 land use instruments</i>								
Amenities, $\log a(x)$	$\beta\gamma$	0.0384*** (0.00855)	0.0483*** (0.0106)	0.0425*** (0.00906)	0.0418*** (0.00925)	0.0510*** (0.00960)	0.0535*** (0.00998)	0.0426*** (0.00927)
Expected commuting time, $\log t(x)$	$-\theta(1 - \mu)\gamma$	-0.360*** (0.108)	-0.235* (0.124)	-0.361*** (0.129)	-0.313*** (0.113)	-0.178 (0.149)	-0.468*** (0.137)	-0.0302*** (0.117)
Observations		54,279	54,279	54,279	54,279	54,279	54,279	54,279
Kleibergen-Paap F -statistic		36.28	28.12	39.79	32.97	14.09	33	33
<i>Panel C: IV estimates with historic city plan instruments</i>								
Amenities, $\log a(x)$	$\beta\gamma$	0.0527*** (0.0103)	0.0642*** (0.0128)	0.0541*** (0.0111)	0.0566*** (0.0115)	0.0513*** (0.0119)	0.0759*** (0.0165)	0.0588*** (0.0115)
Expected commuting time, $\log t(x)$	$-\theta(1 - \mu)\gamma$	-0.204*** (0.0528)	-0.161*** (0.0553)	-0.403*** (0.152)	-0.329** (0.142)	-0.167 (0.215)	-0.579*** (0.182)	-0.308*** (0.152)
Observations		37,671	37,671	37,671	37,671	37,671	37,671	37,671
		26.83	30.36	9.338	9.991	11.16	10.02	10.02
Household characteristics (12)		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Housing attributes (10)		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Location attributes (10)		Yes	Yes	Yes	Yes	Yes	Yes	Yes
City fixed effects (2)		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality fixed effects (25)		No	No	No	No	Yes	No	No
Year fixed effects (10)		Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: **Bold** indicates instrumented. Standard errors are clustered at the neighborhood level and in parentheses. In column (7) we estimate bootstrapped standard errors (250 replications).

- *** Significant at the 0.01 level
- ** Significant at the 0.05 level
- * Significant at the 0.10 level

TABLE C.10 – ORDINARY-LEAST-SQUARES, USING ALTERNATIVE PROXIES FOR AMENITIES AND COMMUTING COSTS
(Dependent variable: the log of the gross hourly income in €)

	(1)	(2)	(3)	(4)	(5)	(6)
	<i>Population density</i>		<i>Pictures inside buildings</i>	<i>Pictures by tourists</i>	<i>Employment centers</i>	
	OLS	OLS	OLS	OLS	OLS	OLS
Population density	0.0381*** (0.0100)	0.00143 (0.0118)				
Amenities,		0.0394*** (0.00674)			0.0516*** (0.00539)	0.0478*** (0.00567)
Amenities, also inside buildings			0.0375*** (0.00543)			
Amenities, pictures by tourists				0.0355*** (0.00525)		
Expected commuting time, $\log\tau(x)$	-0.169*** (0.0492)	-0.121*** (0.0466)	-0.123*** (0.0463)	-0.128*** (0.0468)		-0.104** (0.0462)
Commuting to nearest employment center, $\log\tau(x)$					0.397*** (0.0573)	0.384*** (0.0572)
Household characteristics (12)	Yes	Yes	Yes	Yes	Yes	Yes
Housing attributes (10)	Yes	Yes	Yes	Yes	Yes	Yes
Location attributes (10)	Yes	Yes	Yes	Yes	Yes	Yes
City fixed effects (2)	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects (10)	Yes	Yes	Yes	Yes	Yes	Yes
Observations	54,239	54,239	54,239	54,239	54,239	54,239
R^2	0.285	0.289	0.289	0.289	0.292	0.292

Notes: Standard errors are clustered at the neighborhood level and in parentheses.

- *** Significant at the 0.01 level
- ** Significant at the 0.05 level
- * Significant at the 0.10 level

TABLE C.11 – EMPLOYMENT SUB CENTER IDENTIFICATION

	(1)	(2)
	Amsterdam	Rotterdam
Number of employment sub centers	9	8
Number of candidate sub centers	38	29
Number of observations (<i>second stage</i>)	223	213
R^2 (<i>second stage</i>)	0.700	0.641
Schwarz information criterion	741.554	685.631

TABLE C.12 – RESULTS FOR AMSTERDAM AND ROTTERDAM SEPARATELY
 (Dependent variable: the log of the gross hourly income in €)

	(1)	(2)	(3)	(4)	(5)	(6)
	<i>Amsterdam</i>			<i>Rotterdam</i>		
	OLS	2SLS	2SLS	OLS	2SLS	2SLS
Amenities, $\log a(x)$	0.0610*** (0.0103)	0.0621*** (0.0183)	0.0790*** (0.0181)	0.0339*** (0.00669)	0.0437*** (0.0113)	0.0336** (0.0143)
Expected commuting time, $\log \tau(x)$	-0.247*** (0.0719)	-0.299* (0.170)	-0.210 (0.145)	-0.00851 (0.0446)	0.0345 (0.137)	-0.412*** (0.123)
Housing attributes (10)	Yes	Yes	Yes	Yes	Yes	Yes
Location attributes (10)	Yes	Yes	Yes	Yes	Yes	Yes
City fixed effects (2)	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects (10)	Yes	Yes	Yes	Yes	Yes	Yes
Observations	19,790	19,790	19,224	34,489	34,489	18,447
R^2	0.256			0.316		
Kleibergen-Paap F -statistic		29.10	17.57		15.22	9.641

Notes: Standard errors are clustered at the neighborhood level and in parentheses.

- *** Significant at the 0.01 level
- ** Significant at the 0.05 level
- * Significant at the 0.10 level