New Method 4

Table 1. Housing Project Areas Description

	All		City		Suburb	
	Const.	Unconst.	Const.	Unconst.	Const.	Unconst.
Number of Projects	166	139	84	92	82	47
Area (km2)	1.20	1.18	1.19	1.00	1.22	1.53
Median Construction Yr.	2006	2006	2005	2006	2006	2005
Delivered Houses	298	0	409	0	184	0
House Price in 1 km (R†)	200,919	230,175	214,620	242,025	186,691	209,249
Distance to CBD‡ (km)	32.4	28.0	23.1	21.1	42.0	41.6

Const. refers to constructed projects and unconst. refers to unconstructed projects.
*Calculated from *expected* completion dates using Gauteng National Treasury budget reports.
† The USD averaged to about 7.70 Rands during the 2001-2011 period.
‡Measured as the average minimum distance with respect to Johannesburg and Pretoria CBDs.
City includes projects whose centroids are within 30.4 km of their nearest CBD.
Suburb includes projects whose centroids are further than 30.4 km from their nearest CBD.

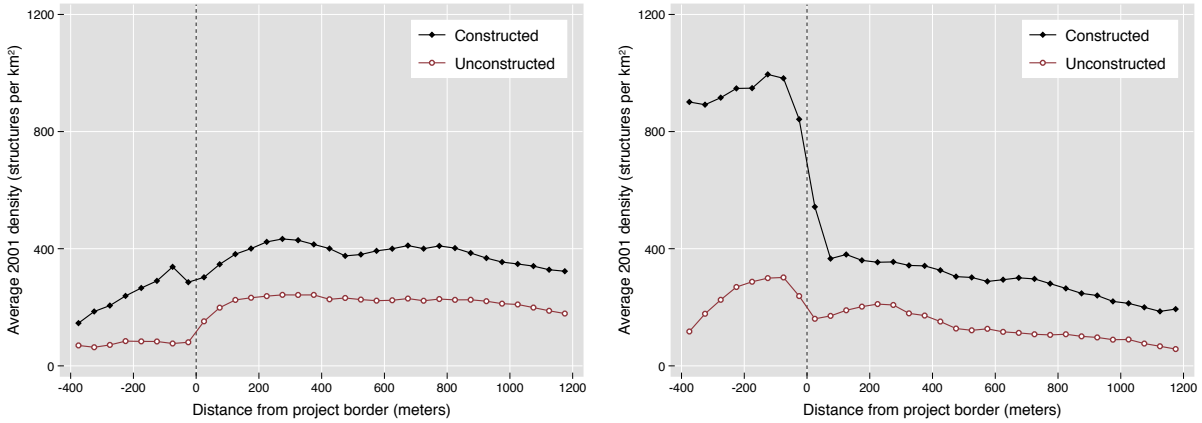
Table 2. Dwelling Characteristics at Baseline from 2001 Census

	Constructed	Unconstructed	All Small Areas
Flush Toilet	0.65	0.45	0.82
Piped Water in Home	0.14	0.21	0.42
Electricity for Cooking	0.34	0.41	0.71
Electricity for Heating	0.29	0.38	0.68
Electricity for Lighting	0.58	0.48	0.80
Number of Rooms	2.64	2.63	3.47
Household Size	3.39	3.27	3.40
% Area Overlap with Projects	0.89	0.82	0.17
N	1,062	226	6,803

"Constructed" and "Unconstructed" include census small-areas with over 30% area overlap with constructed and unconstructed projects respectively.
"All" includes all small areas.

	(1) Total	(2) Formal	(3) Informal	(4) Informal Bkyd.	(5) Informal Non-Bkyd.
inside × constr	687.39[a]	630.34[a]	145.52	605.88[a]	-291.79[a]
	(113.76)	(74.75)	(89.91)	(97.85)	(79.05)
0-200m outside × constr	107.79[b]	78.23[a]	63.80	104.97[a]	-27.52
	(43.74)	(22.44)	(39.06)	(28.03)	(30.87)
200-400m outside × constr	29.92	42.01[b]	22.10	35.88	-32.35
	(32.03)	(18.45)	(30.14)	(24.53)	(24.41)
inside	212.70[a]	73.84[a]	140.02[a]	41.00[c]	144.79[a]
	(60.72)	(22.75)	(52.35)	(22.62)	(48.40)
0-200m outside	125.62[a]	51.96[a]	106.50[a]	61.70[a]	70.91[a]
	(24.21)	(12.77)	(20.45)	(15.25)	(18.62)
200-400m outside	104.13[a]	52.58[a]	93.76[a]	79.37[a]	33.53[b]
	(22.26)	(12.33)	(20.75)	(18.50)	(14.67)
constr	27.13[c]	12.26[c]	37.75[b]	24.45[b]	9.99[c]
	(15.19)	(6.23)	(14.74)	(11.37)	(5.63)
lag outcome	0.21[a]	-0.02[a]	0.11[a]	0.34[a]	-0.15[a]
	(0.02)	(0.00)	(0.03)	(0.06)	(0.04)
Mean dep. var.	381.7	199.2	182.5	97.1	85.4
# Projects	316	316	316	316	316
R^2	0.135	0.143	0.031	0.113	0.039
N	1,855,507	1,855,507	1,855,507	1,855,507	1,855,507

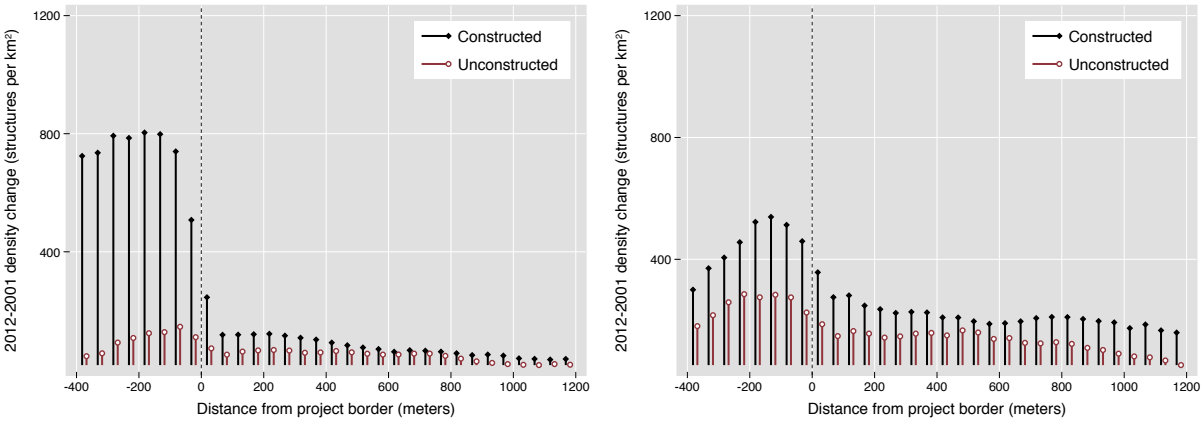
Figure 1. Pre-Period Housing Densities in Constructed and Unconstructed projects



(a) pre-period formal housing density

(b) pre-period informal housing density

Figure 2. Housing Densities in Constructed and Unconstructed projects



(a) formal housing density change

(b) informal housing density change

Table 3. Effect of Housing Projects on Socio-demographics

	(1) Age	(2) P.O.B. not Gauteng	(3) Unemployed	(4) Years of Education	(5) Monthly Income
inside × constr × post	-1.192[a]	-0.066[a]	0.109[a]	-1.144[a]	-2697.579[a]
	(0.214)	(0.018)	(0.016)	(0.119)	(322.905)
0-200m out × constr × post	-0.969[a]	-0.033	0.088[a]	-1.059[a]	-2770.531[a]
	(0.306)	(0.020)	(0.020)	(0.123)	(452.937)
200-400m out × constr × post	-0.706[a]	-0.047[a]	0.093[a]	-1.365[a]	-2863.673[a]
	(0.249)	(0.013)	(0.017)	(0.100)	(493.604)
Mean Outcome 2001	27.53	0.36	0.46	8.35	2,627.57
Mean Outcome 2011	28.53	0.43	0.32	9.76	5,005.47
R^2	0.441	0.579	0.378	0.505	0.393
# projects	314	314	314	314	314
N project areas	3,658	3,658	3,658	3,658	3,658
N spillover areas	2,849	2,846	2,844	2,847	2,845
N	14,251	14,245	14,237	14,243	14,239

Standard errors clustered at the project level in parenthesis. [c] p<0.10, [b] p<0.05, [a] p<0.01
P.O.B. means "place of birth." Monthly income is in Rands.

Figure 3. Price Estimates over Distance from Project

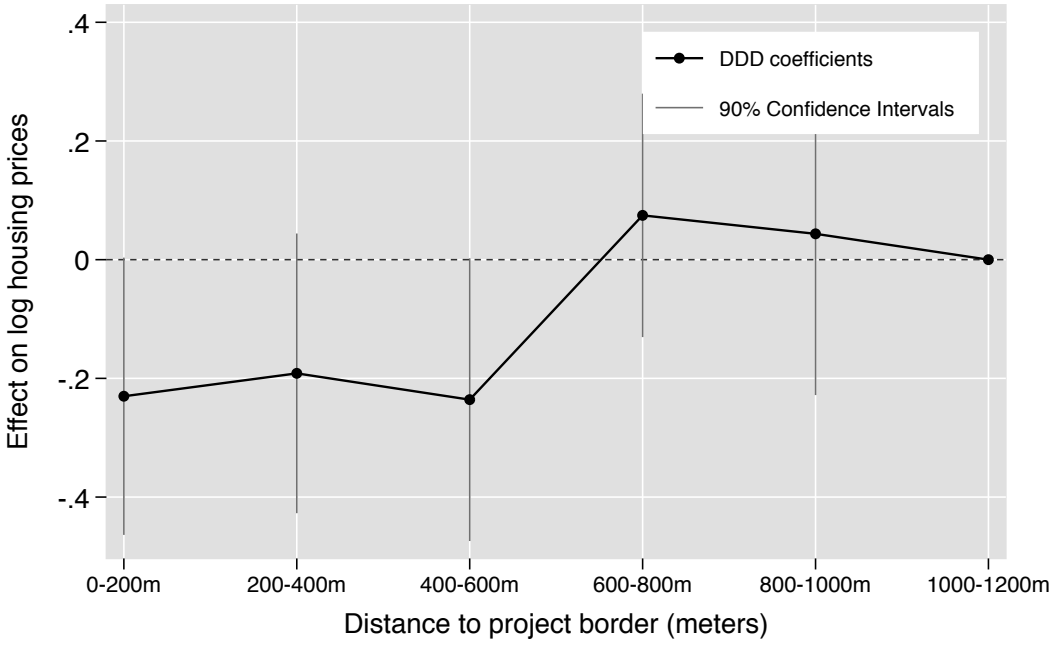


Table 4. Effect of Housing Projects on Socio-demographics

	(1) Age	(2) P.O.B. not Gauteng	(3) Unemployed	(4) Years of Education	(5) Monthly Income
inside × constr × post	-1.192[a]	-0.066[a]	0.109[a]	-1.144[a]	-2697.579[a]
	(0.214)	(0.018)	(0.016)	(0.119)	(322.905)
0-200m out × constr × post	-0.969[a]	-0.033	0.088[a]	-1.059[a]	-2770.531[a]
	(0.306)	(0.020)	(0.020)	(0.123)	(452.937)
200-400m out × constr × post	-0.706[a]	-0.047[a]	0.093[a]	-1.365[a]	-2863.673[a]
	(0.249)	(0.013)	(0.017)	(0.100)	(493.604)
inside × post	0.962[a]	0.029[c]	-0.141[a]	1.471[a]	880.980[a]
	(0.166)	(0.016)	(0.013)	(0.099)	(252.503)
0-200m out × post	1.013[a]	0.039[b]	-0.106[a]	1.109[a]	1679.019[a]
	(0.240)	(0.017)	(0.016)	(0.097)	(374.141)
200-400m out × post	0.869[a]	0.050[a]	-0.100[a]	1.305[a]	2346.577[a]
	(0.216)	(0.010)	(0.013)	(0.083)	(440.341)
constr × post	1.257[a]	0.049[a]	-0.132[a]	1.347[a]	2167.915[a]
	(0.109)	(0.005)	(0.006)	(0.032)	(169.883)
inside × constr	0.124	0.072[c]	-0.094[a]	0.700[a]	2701.694[a]
	(0.419)	(0.037)	(0.021)	(0.206)	(592.490)
0-200m out × constr	0.721[b]	0.032	-0.075[a]	0.731[a]	2908.312[a]
	(0.364)	(0.027)	(0.020)	(0.150)	(512.040)
200-400m out × constr	0.857[a]	0.017	-0.089[a]	1.048[a]	2784.175[a]
	(0.291)	(0.021)	(0.019)	(0.120)	(388.503)
inside	-2.165[a]	0.090[a]	0.173[a]	-1.684[a]	-3442.485[a]
	(0.375)	(0.032)	(0.018)	(0.186)	(560.873)
0-200m out	-1.708[a]	0.022	0.115[a]	-1.062[a]	-3144.437[a]
	(0.283)	(0.020)	(0.016)	(0.112)	(468.800)
200-400m out	-1.512[a]	0.004	0.106[a]	-1.084[a]	-2903.031[a]
	(0.235)	(0.017)	(0.015)	(0.095)	(357.620)
constr	-0.367	-0.033	0.107[b]	-1.201[a]	-2801.184[a]
	(0.420)	(0.033)	(0.044)	(0.192)	(948.021)
Mean Outcome 2001	27.53	0.36	0.46	8.35	2,627.57
Mean Outcome 2011	28.53	0.43	0.32	9.76	5,005.47
R^2	0.441	0.579	0.378	0.505	0.393
# projects	314	314	314	314	314
N project areas	3,658	3,658	3,658	3,658	3,658
N spillover areas	2,849	2,846	2,844	2,847	2,845
N	14,251	14,245	14,237	14,243	14,239

Standard errors clustered at the project level in parenthesis. [c] p<0.10, [b] p<0.05, [a] p<0.01
P.O.B. means "place of birth." Monthly income is in Rands.

Table 5. Census Household-level Post × Constructed Coefficients: City Versus Suburb

	(1) Age	(2) P.O.B. not Gauteng	(3) Unemployed	(4) Years of Education	(5) Monthly Income
City × proj	0.137	-0.024	-0.063[b]	0.524[b]	-1275.500[b]
	(0.329)	(0.028)	(0.028)	(0.243)	(633.922)
City × spill	0.400[c]	0.018	-0.070[a]	0.350[a]	-743.794
	(0.214)	(0.012)	(0.013)	(0.102)	(457.428)
Suburb × proj	0.859[b]	-0.016	-0.062[c]	0.523[b]	-651.882
	(0.368)	(0.017)	(0.034)	(0.217)	(441.660)
Suburb × spill	0.941[a]	-0.003	-0.106[a]	0.809[a]	-21.545
	(0.242)	(0.012)	(0.018)	(0.130)	(405.773)
p-val, h_0 City: proj = spill	0.348	0.112	0.767	0.443	0.194
p-val, h_0 Suburb: proj = spill	0.808	0.429	0.147	0.177	0.122
R^2	0.452	0.602	0.363	0.539	0.399
N City proj areas	2,152	2,152	2,152	2,152	2,152
N City spill areas	5,917	5,913	5,910	5,913	5,910
N Suburb proj areas	1,504	1,504	1,504	1,504	1,504
N Suburb spill areas	3,160	3,159	3,157	3,159	3,158

All difference-in-differences controls are included in the specification while only the interaction terms for Post × Constructed are shown. Standard errors clustered at the project level in parenthesis.
[c] p<0.10, [b] p<0.05, [a] p<0.01. P.O.B. means "place of birth." Monthly income is in Rands.

Figure 4. Price Estimates over Distance from Project Het

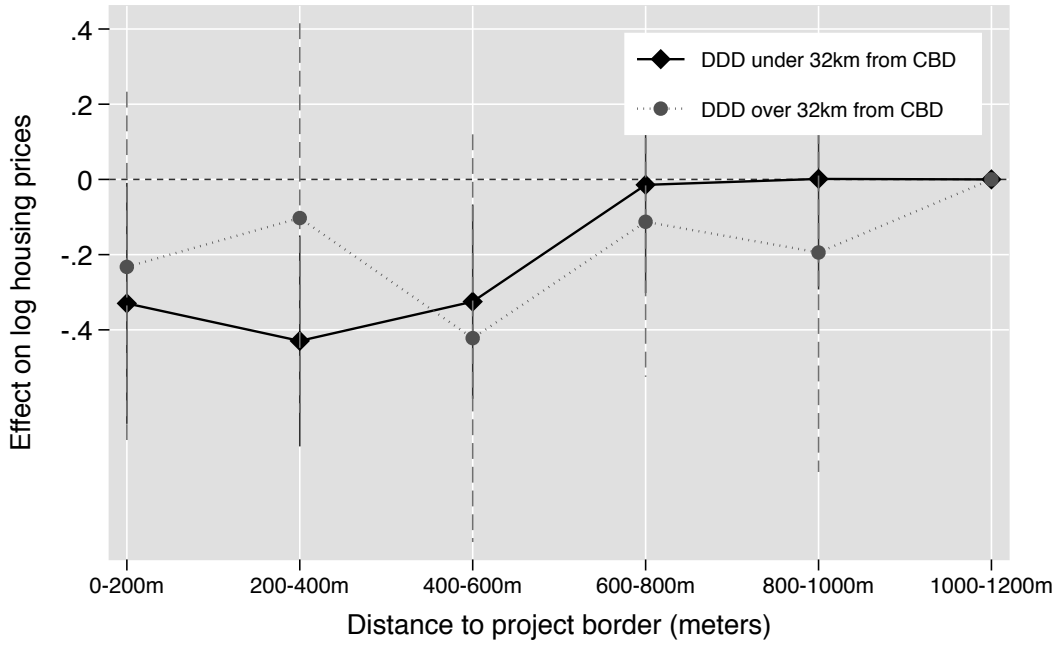


Table 6. Census Household-level Estimates

	(1) Flush Toilet	(2) Water Indoors	(3) Electricity Cooking	(4) Electricity Heating	(5) Electricity Lighting	(6) Number of Rooms	(7) Household Size	(8) Population Density
inside × constr × post	0.101	-0.022	0.165[b]	0.126[c]	0.045	-0.282[c]	0.255[b]	-1323.017
	(0.076)	(0.040)	(0.074)	(0.068)	(0.079)	(0.150)	(0.099)	(1652.834)
0-200m out × constr × post	-0.029	-0.096[b]	-0.036	-0.005	-0.067	-0.230	0.160[b]	473.519
	(0.049)	(0.046)	(0.044)	(0.049)	(0.044)	(0.152)	(0.066)	(1108.833)
200-400m out × constr × post	-0.015	-0.158[a]	-0.030	-0.012	-0.054[c]	-0.245[b]	0.206[a]	-379.912
	(0.035)	(0.035)	(0.035)	(0.038)	(0.030)	(0.114)	(0.051)	(770.742)
Mean Outcome 2001	0.82	0.42	0.71	0.68	0.80	3.47	3.40	8,381.79
Mean Outcome 2011	0.85	0.60	0.82	0.74	0.85	3.84	3.11	8,792.50
R^2	0.322	0.375	0.384	0.370	0.344	0.383	0.407	0.292
# projects	314	314	314	314	314	314	314	314
N project areas	3,659	3,659	3,659	3,659	3,659	3,653	3,659	3,659
N spillover areas	2,849	2,849	2,849	2,849	2,849	2,844	2,847	2,849
N	17,499	17,499	17,499	17,499	17,499	17,463	17,488	17,501

All regressions include project Fixed-Effects. Standard errors clustered at the project level in parenthesis. [c] $p<0.10$,[b] $p<0.05$,[a] $p<0.01$

Table 7. Census Household-level Estimates

	(1) Flush Toilet	(2) Water Indoors	(3) Electricity Cooking	(4) Electricity Heating	(5) Electricity Lighting	(6) Number of Rooms	(7) Household Size	(8) Population Density
inside × constr × post	0.101	-0.022	0.165[b]	0.126[c]	0.045	-0.282[c]	0.255[b]	-1323.017
	(0.076)	(0.040)	(0.074)	(0.068)	(0.079)	(0.150)	(0.099)	(1652.834)
0-200m out × constr × post	-0.029	-0.096[b]	-0.036	-0.005	-0.067	-0.230	0.160[b]	473.519
	(0.049)	(0.046)	(0.044)	(0.049)	(0.044)	(0.152)	(0.066)	(1108.833)
200-400m out × constr × post	-0.015	-0.158[a]	-0.030	-0.012	-0.054[c]	-0.245[b]	0.206[a]	-379.912
	(0.035)	(0.035)	(0.035)	(0.038)	(0.030)	(0.114)	(0.051)	(770.742)
inside × post	0.056	0.088[a]	0.198[a]	0.180[a]	0.150[b]	0.405[a]	-0.187[b]	4056.730[a]
	(0.063)	(0.033)	(0.067)	(0.062)	(0.068)	(0.126)	(0.079)	(1527.197)
0-200m out × post	0.044	0.086[b]	0.112[a]	0.058	0.075[b]	0.164	-0.239[a]	1028.656
	(0.041)	(0.037)	(0.037)	(0.040)	(0.038)	(0.121)	(0.053)	(948.021)
200-400m out × post	0.019	0.130[a]	0.089[a]	0.051[c]	0.052[b]	0.170[c]	-0.257[a]	1717.660[a]
	(0.026)	(0.027)	(0.027)	(0.028)	(0.023)	(0.088)	(0.036)	(549.486)
constr × post	0.025[b]	0.185[a]	0.071[a]	0.033[c]	0.026[a]	0.299[a]	-0.272[a]	232.409
	(0.012)	(0.016)	(0.015)	(0.018)	(0.009)	(0.044)	(0.027)	(459.371)
inside × constr	0.147	0.057	0.024	0.024	0.126	0.448[c]	-0.135	-486.758
	(0.091)	(0.065)	(0.090)	(0.085)	(0.100)	(0.258)	(0.116)	(1380.175)
0-200m out × constr	0.064	0.058	0.069	0.039	0.100[c]	0.245	-0.232[a]	-1753.677
	(0.054)	(0.053)	(0.053)	(0.055)	(0.053)	(0.191)	(0.076)	(1103.256)
200-400m out × constr	0.117[a]	0.178[a]	0.111[a]	0.085[b]	0.138[a]	0.441[a]	-0.136[c]	-906.936
	(0.043)	(0.042)	(0.039)	(0.040)	(0.038)	(0.158)	(0.072)	(1109.994)
inside	-0.349[a]	-0.323[a]	-0.453[a]	-0.434[a]	-0.424[a]	-1.432[a]	-0.096	1034.240
	(0.079)	(0.055)	(0.080)	(0.076)	(0.086)	(0.231)	(0.094)	(1245.361)
0-200m out	-0.167[a]	-0.166[a]	-0.220[a]	-0.176[a]	-0.207[a]	-0.715[a]	0.175[a]	1672.548[c]
	(0.041)	(0.041)	(0.039)	(0.041)	(0.039)	(0.152)	(0.056)	(938.686)
200-400m out	-0.145[a]	-0.190[a]	-0.192[a]	-0.159[a]	-0.179[a]	-0.617[a]	0.173[a]	653.608
	(0.033)	(0.032)	(0.030)	(0.030)	(0.029)	(0.125)	(0.055)	(929.663)
constr	-0.401[a]	-0.218[a]	-0.198[a]	-0.156[b]	-0.195[a]	-0.857[b]	0.084	-793.705
	(0.127)	(0.074)	(0.062)	(0.070)	(0.067)	(0.334)	(0.120)	(1609.062)
Mean Outcome 2001	0.82	0.42	0.71	0.68	0.80	3.47	3.40	8,381.79
Mean Outcome 2011	0.85	0.60	0.82	0.74	0.85	3.84	3.11	8,792.50
R^2	0.322	0.375	0.384	0.370	0.344	0.383	0.407	0.292
# projects	314	314	314	314	314	314	314	314