

**Table 1.** Housing Project Areas Description

|                                       | <b>All</b> |          | <b>Greenfield</b> |          | <b>In-Situ</b> |          |
|---------------------------------------|------------|----------|-------------------|----------|----------------|----------|
|                                       | Const.     | Unconst. | Const.            | Unconst. | Const.         | Unconst. |
| Number of Projects                    | 164        | 137      | 41                | 19       | 25             | 29       |
| Area (km <sup>2</sup> )               | 1.21       | 1.19     | 1.75              | 2.53     | 1.60           | 0.88     |
| Median Construction Yr.               | 2006       | 2006     | 2006              | 2005     | 2004           | 2006     |
| Delivered Houses                      | 302        | 0        | 420               | 0        | 557            | 0        |
| House Price in 1 km (R <sup>†</sup> ) | 189,304    | 218,635  | 194,214           | 186,841  | 179,596        | 208,571  |
| Distance to CBD <sup>‡</sup> (km)     | 32.4       | 28.0     | 40.6              | 40.5     | 32.3           | 30.6     |

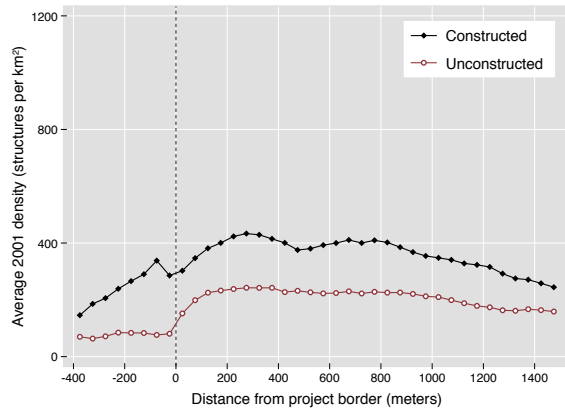
Const. refers to constructed projects and unconst. refers to unconstructed projects.

\*Calculated from *expected* completion dates using Gauteng National Treasury budget reports.

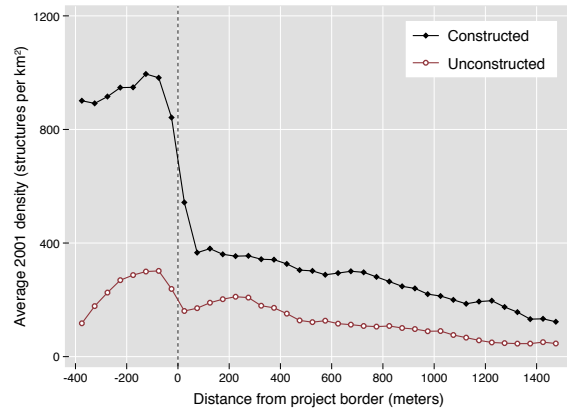
<sup>†</sup> The USD averaged to about 7.70 Rands during the 2001-2011 period.

<sup>‡</sup> Measured as the average minimum distance with respect to Johannesburg and Pretoria CBDs.

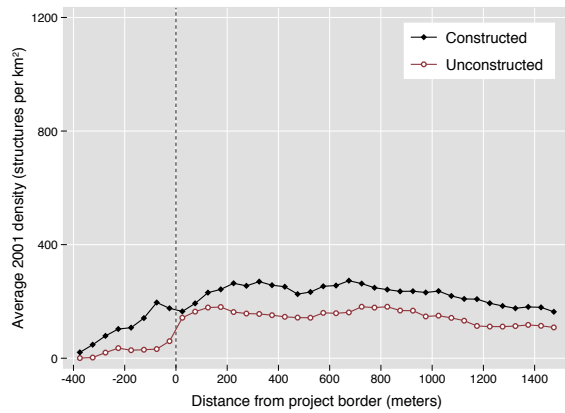
**(a) All Projects pre-period formal raw data**



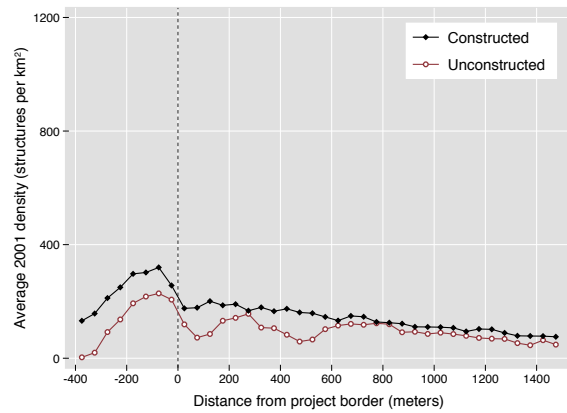
**(b) All Projects pre-period informal raw data**



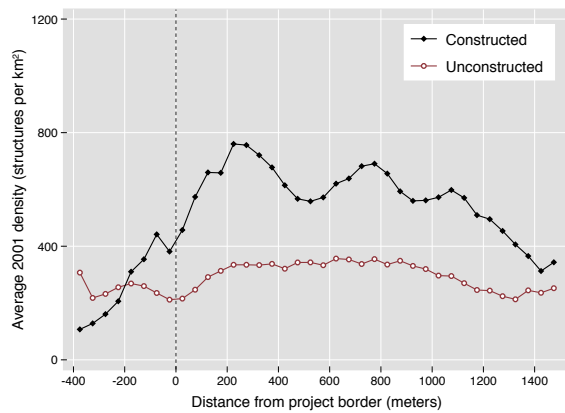
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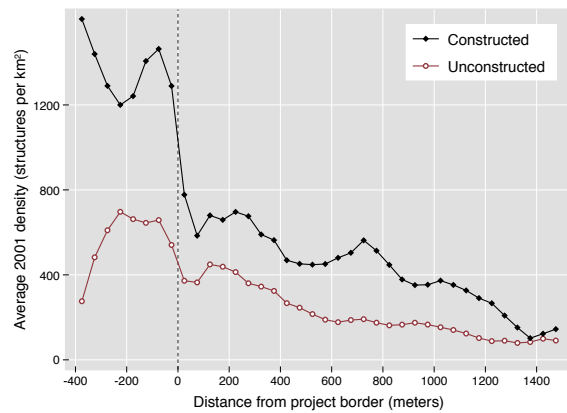
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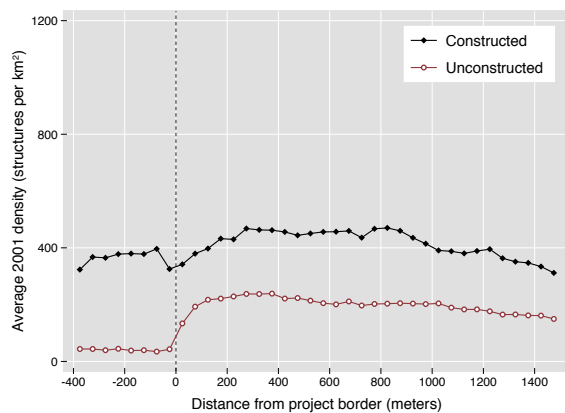
**(e) In-Situ pre-period formal raw data**



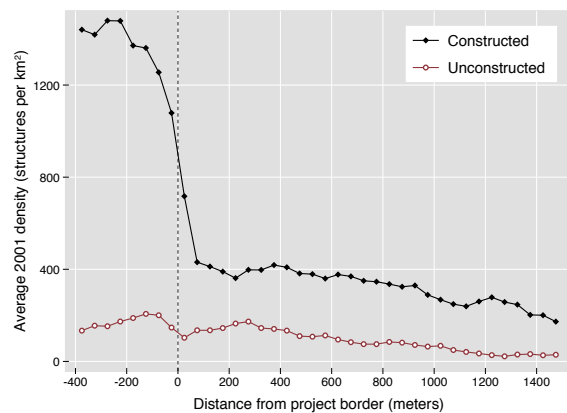
**(f) In-Situ pre-period informal raw data**



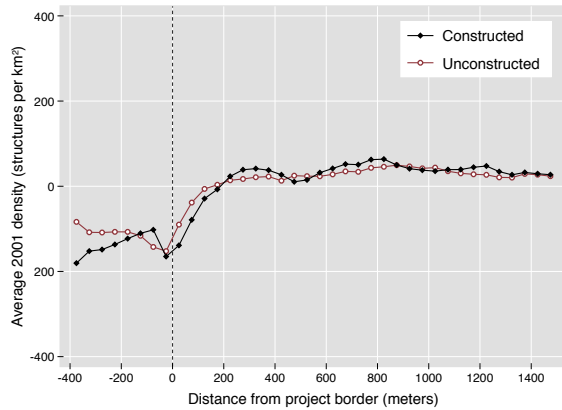
**(g) Other pre-period formal raw data**



**(h) Other pre-period informal raw data**



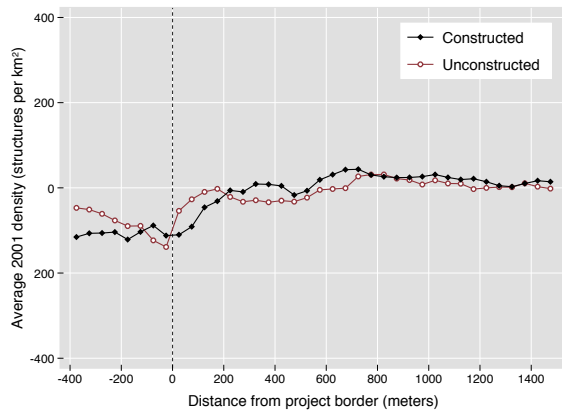
**(a) All Projects pre-period formal fe**



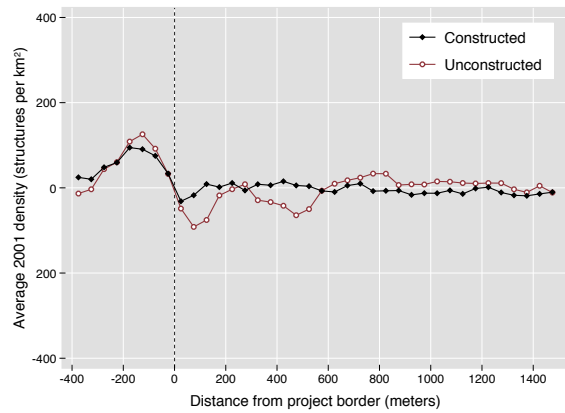
**(b) All Projects pre-period informal fe**



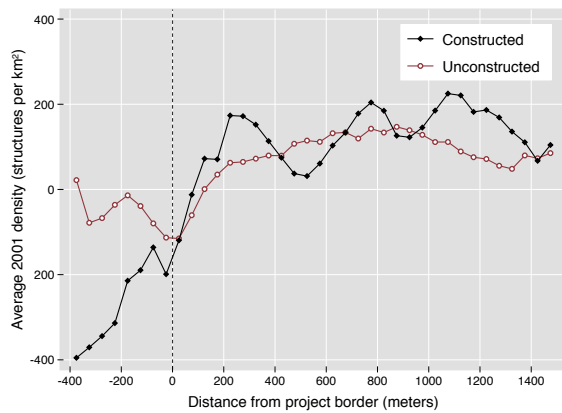
**(c) Greenfield pre-period formal fe**



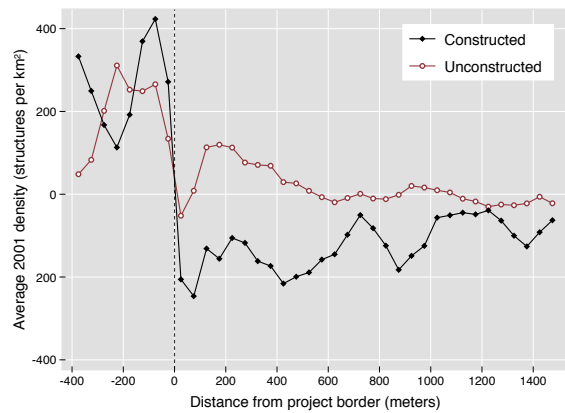
**(d) Greenfield pre-period informal fe**



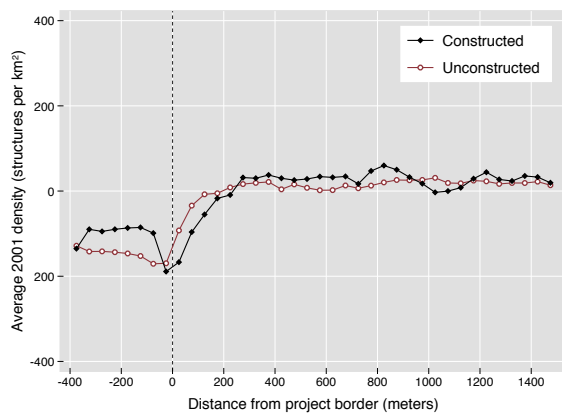
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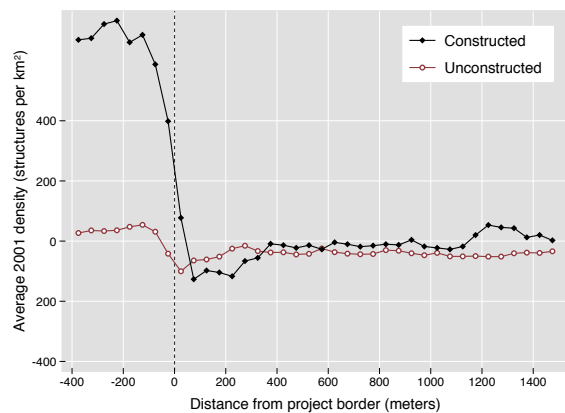
**(f) In-Situ pre-period informal fe**



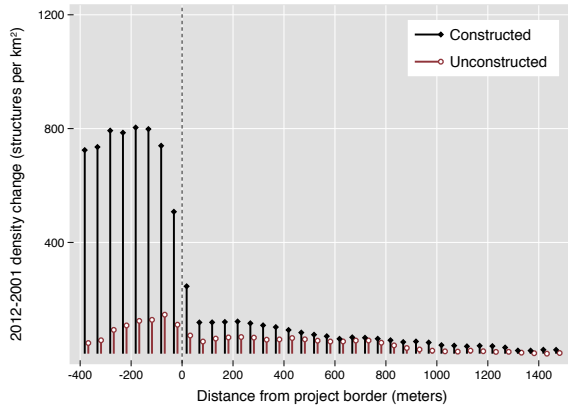
**(g) Other pre-period formal fe**



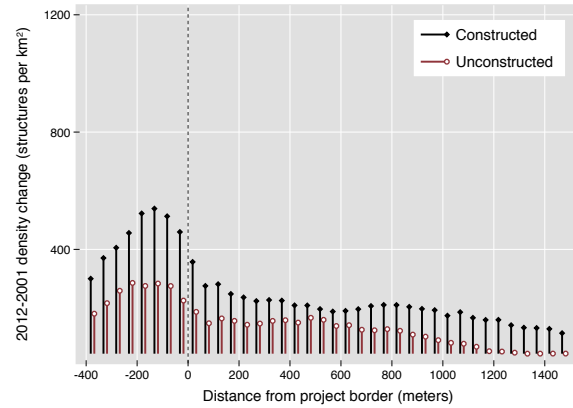
**(h) Other pre-period informal fe**



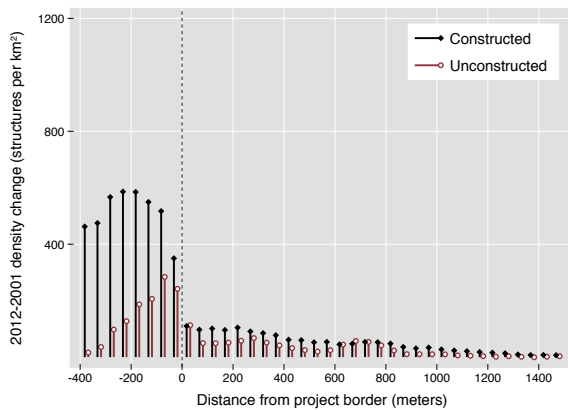
**(a) All Projects changes formal raw data**



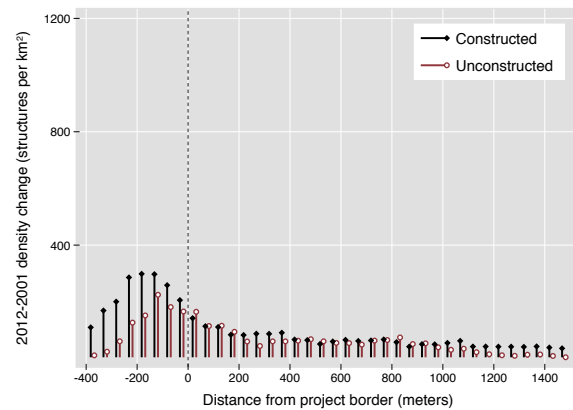
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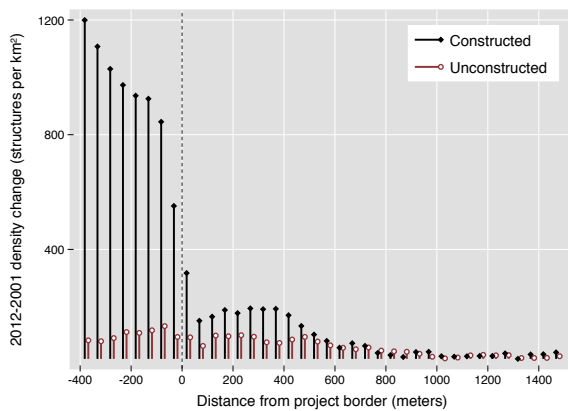
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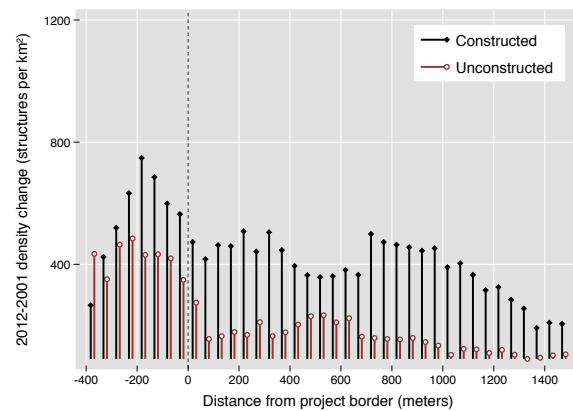
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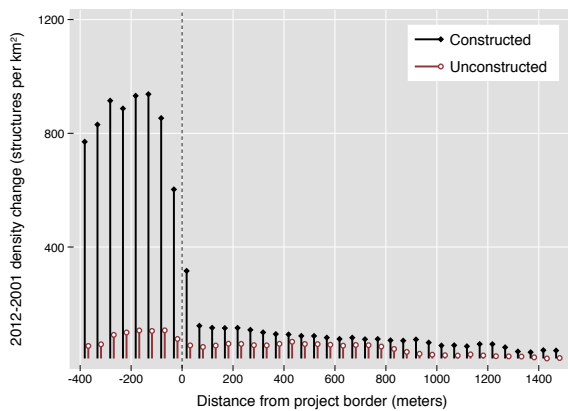
**(e) In-Situ changes formal raw data**



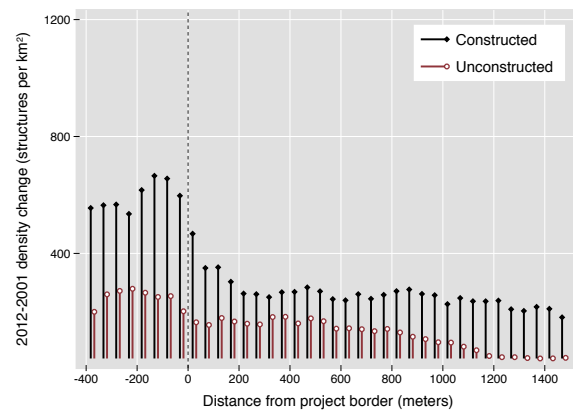
**(f) In-Situ changes informal raw data**



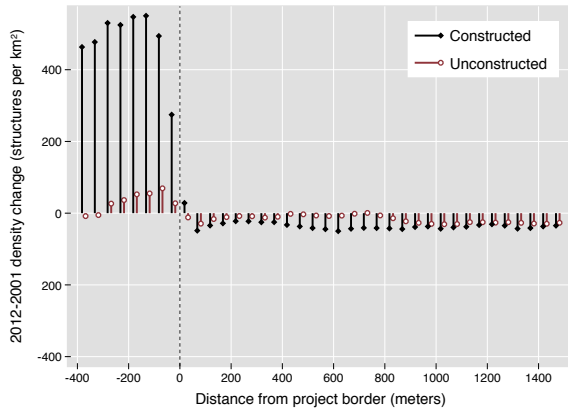
**(g) Other changes formal raw data**



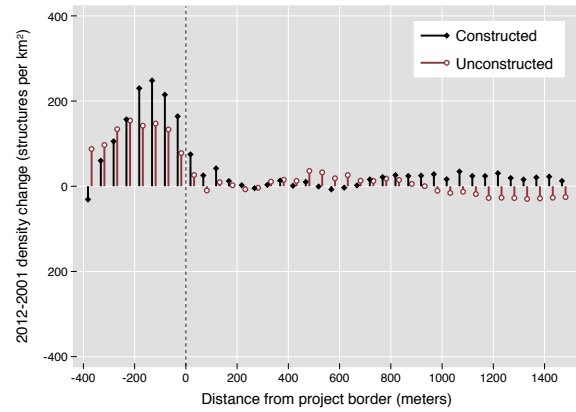
**(h) Other changes informal raw data**



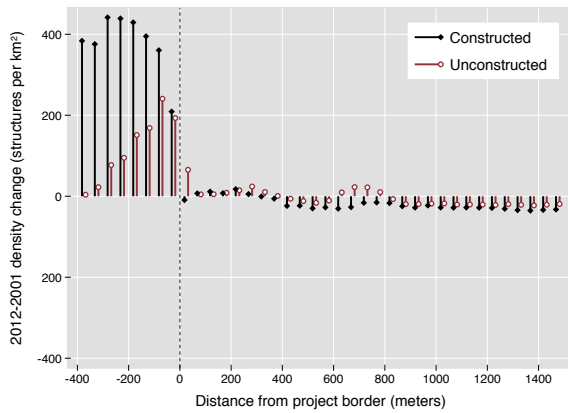
**(a) All Projects changes formal fe**



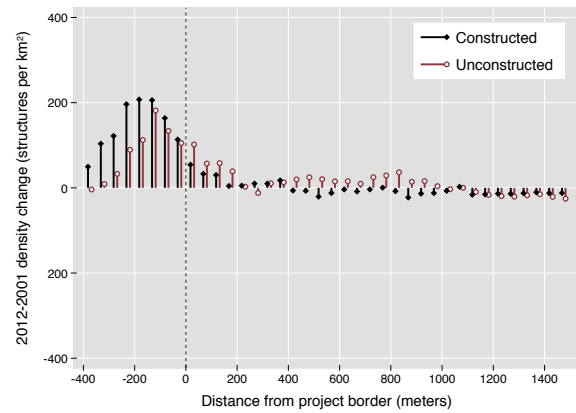
**(b) All Projects changes informal fe**



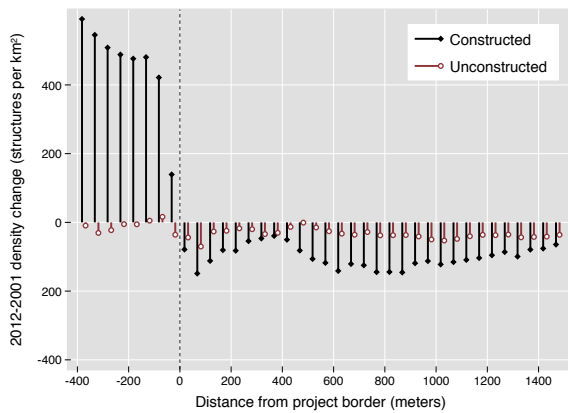
**(c) Greenfield changes formal fe**



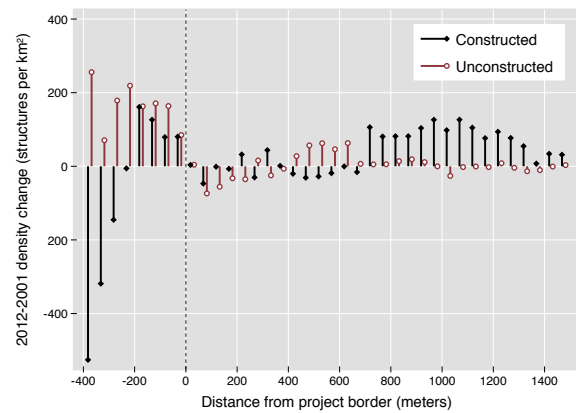
**(d) Greenfield changes informal fe**



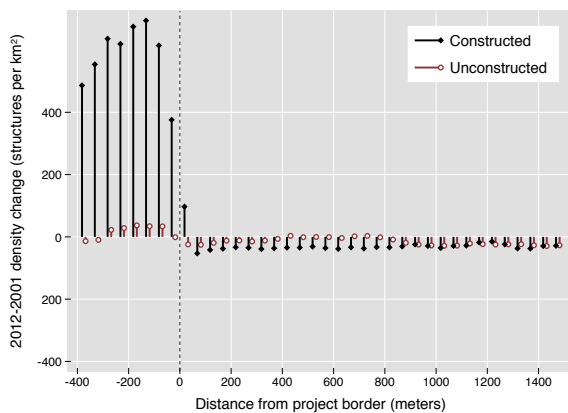
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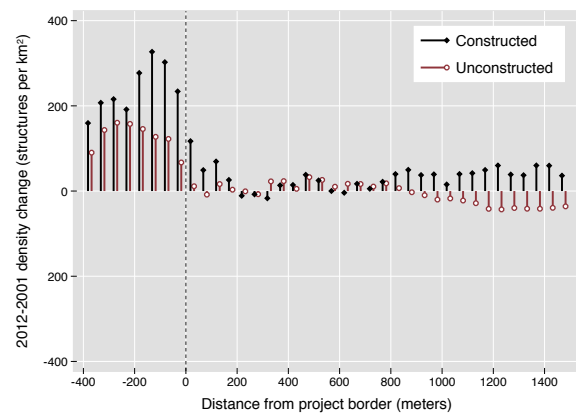
**(f) In-Situ changes informal fe**



**(g) Other changes formal fe**



**(h) Other changes informal fe**



**Table 2.** Building Density

|                          | (1)<br>Total                      | (2)<br>Formal                     | (3)<br>Informal                   | (4)<br>Informal<br>Bkyd.          | (5)<br>Informal<br>Non-Bkyd.       |
|--------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|------------------------------------|
| <b>All Projects</b>      |                                   |                                   |                                   |                                   |                                    |
| inside project           | 649.922 <sup>a</sup><br>(142.586) | 578.443 <sup>a</sup><br>(74.804)  | 71.480<br>(109.401)               | 504.849 <sup>a</sup><br>(103.803) | -433.370 <sup>a</sup><br>(87.274)  |
| 0-300m outside project   | -4.615<br>(43.548)                | 34.561<br>(24.463)                | -39.176<br>(35.468)               | 6.232<br>(31.660)                 | -45.408<br>(28.680)                |
| 300-600m outside project | -93.284 <sup>b</sup><br>(37.620)  | -4.618<br>(16.266)                | -88.666 <sup>a</sup><br>(33.160)  | -65.122 <sup>b</sup><br>(28.282)  | -23.544<br>(16.891)                |
| R <sup>2</sup>           | 0.339                             | 0.284                             | 0.260                             | 0.230                             | 0.141                              |
| <b>Greenfield</b>        |                                   |                                   |                                   |                                   |                                    |
| inside project           | 353.183<br>(230.338)              | 293.597 <sup>b</sup><br>(147.088) | 59.586<br>(112.815)               | 126.015<br>(121.632)              | -66.429<br>(58.470)                |
| 0-300m outside project   | -61.727<br>(97.953)               | -25.684<br>(47.498)               | -36.042<br>(66.667)               | -65.700<br>(60.153)               | 29.657<br>(55.235)                 |
| 300-600m outside project | -58.151<br>(48.864)               | -22.320<br>(24.476)               | -35.831<br>(31.417)               | -34.795<br>(21.621)               | -1.036<br>(19.800)                 |
| <b>In-Situ Upgrading</b> |                                   |                                   |                                   |                                   |                                    |
| inside project           | 591.912<br>(363.396)              | 852.192 <sup>a</sup><br>(147.464) | -260.279<br>(278.235)             | 657.640 <sup>b</sup><br>(270.994) | -917.919 <sup>a</sup><br>(234.130) |
| 0-300m outside project   | 75.490<br>(152.824)               | 130.970<br>(94.942)               | -55.481<br>(111.397)              | 28.294<br>(134.628)               | -83.775<br>(98.608)                |
| 300-600m outside project | 8.443<br>(101.978)                | 107.126<br>(65.588)               | -98.683<br>(83.895)               | -74.819<br>(92.808)               | -23.864<br>(72.003)                |
| <b>Other</b>             |                                   |                                   |                                   |                                   |                                    |
| inside project           | 869.317 <sup>a</sup><br>(178.797) | 657.784 <sup>a</sup><br>(76.542)  | 211.533<br>(146.943)              | 665.816 <sup>a</sup><br>(116.700) | -454.283 <sup>a</sup><br>(102.134) |
| 0-300m outside project   | -14.300<br>(68.395)               | 31.301<br>(27.074)                | -45.601<br>(57.967)               | 9.434<br>(43.293)                 | -55.034<br>(38.193)                |
| 300-600m outside project | -133.906 <sup>a</sup><br>(50.456) | -26.391<br>(19.423)               | -107.515 <sup>b</sup><br>(45.582) | -67.345 <sup>c</sup><br>(38.571)  | -40.170 <sup>c</sup><br>(20.745)   |
| Mean Outcome 2001        | 379.90                            | 203.91                            | 175.98                            | 66.26                             | 109.72                             |
| Mean Outcome 2011        | 584.70                            | 281.66                            | 303.04                            | 192.77                            | 110.27                             |
| R <sup>2</sup>           | 0.346                             | 0.287                             | 0.269                             | 0.237                             | 0.152                              |
| N                        | 2,721,910                         | 2,721,910                         | 2,721,910                         | 2,721,910                         | 2,721,910                          |

**Table 3.** Effect of Housing Projects on Socio-demographics

|                          | (1)<br>Age                     | (2)<br>P.O.B. not<br>Gauteng  | (3)<br>Unemployed             | (4)<br>Years of<br>Education  | (5)<br>Monthly<br>Income           |
|--------------------------|--------------------------------|-------------------------------|-------------------------------|-------------------------------|------------------------------------|
| <b>All Projects</b>      |                                |                               |                               |                               |                                    |
| inside project           | 0.038<br>(0.353)               | -0.021<br>(0.024)             | 0.019<br>(0.019)              | 0.259 <sup>b</sup><br>(0.125) | 1678.766 <sup>a</sup><br>(522.331) |
| 0-300m outside project   | 0.475<br>(0.329)               | 0.018<br>(0.018)              | 0.013<br>(0.018)              | 0.172<br>(0.119)              | 883.133<br>(538.551)               |
| 300-600m outside project | -0.078<br>(0.336)              | 0.009<br>(0.016)              | 0.010<br>(0.016)              | 0.045<br>(0.100)              | 516.694<br>(510.868)               |
| R <sup>2</sup>           | 0.317                          | 0.469                         | 0.319                         | 0.492                         | 0.326                              |
| <b>Greenfield</b>        |                                |                               |                               |                               |                                    |
| inside project           | -1.335 <sup>c</sup><br>(0.753) | -0.003<br>(0.057)             | 0.090 <sup>c</sup><br>(0.047) | -0.205<br>(0.292)             | 507.357<br>(830.382)               |
| 0-300m outside project   | -0.620<br>(0.700)              | 0.062 <sup>b</sup><br>(0.024) | 0.031<br>(0.050)              | 0.018<br>(0.217)              | 505.790<br>(675.641)               |
| 300-600m outside project | -1.180 <sup>c</sup><br>(0.642) | 0.078 <sup>b</sup><br>(0.034) | 0.053<br>(0.037)              | 0.315<br>(0.252)              | -151.795<br>(745.030)              |
| <b>In-Situ Upgrading</b> |                                |                               |                               |                               |                                    |
| inside project           | 0.331<br>(0.731)               | -0.047<br>(0.031)             | -0.005<br>(0.028)             | 0.244<br>(0.226)              | 1430.711<br>(1303.039)             |
| 0-300m outside project   | 0.113<br>(0.751)               | -0.038<br>(0.029)             | 0.025<br>(0.031)              | 0.377<br>(0.282)              | 1451.355<br>(1398.837)             |
| 300-600m outside project | -0.985<br>(0.846)              | 0.006<br>(0.029)              | 0.033<br>(0.030)              | -0.194<br>(0.257)             | -857.690<br>(1210.921)             |
| <b>Other</b>             |                                |                               |                               |                               |                                    |
| inside project           | 0.246<br>(0.598)               | 0.002<br>(0.034)              | 0.018<br>(0.028)              | 0.318<br>(0.195)              | 2341.754 <sup>a</sup><br>(744.384) |
| 0-300m outside project   | 1.078 <sup>c</sup><br>(0.586)  | 0.024<br>(0.029)              | -0.006<br>(0.028)             | 0.133<br>(0.155)              | 1095.453<br>(736.269)              |
| 300-600m outside project | 0.812<br>(0.559)               | -0.008<br>(0.029)             | -0.023<br>(0.024)             | 0.102<br>(0.159)              | 1611.720 <sup>b</sup><br>(716.516) |
| Mean Outcome 2001        | 27.30                          | 0.37                          | 0.47                          | 8.26                          | 2,475.96                           |
| Mean Outcome 2011        | 28.30                          | 0.43                          | 0.33                          | 9.68                          | 4,486.48                           |
| R <sup>2</sup>           | 0.323                          | 0.483                         | 0.324                         | 0.497                         | 0.333                              |
| N                        | 12,733                         | 12,726                        | 12,723                        | 12,727                        | 12,723                             |

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

**Table 4. Census Household-level Estimates**

|                          | (1)<br>Flush<br>Toilet        | (2)<br>Water<br>Indoors       | (3)<br>Electricity<br>Cooking | (4)<br>Electricity<br>Heating | (5)<br>Electricity<br>Lighting | (6)<br>Number of<br>Rooms | (7)<br>Household<br>Size      | (8)<br>Population<br>Density         |
|--------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|--------------------------------|---------------------------|-------------------------------|--------------------------------------|
| <b>All Projects</b>      |                               |                               |                               |                               |                                |                           |                               |                                      |
| inside project           | 0.117<br>(0.077)              | 0.168 <sup>a</sup><br>(0.040) | 0.215 <sup>a</sup><br>(0.077) | 0.146 <sup>b</sup><br>(0.074) | 0.094<br>(0.081)               | 0.161<br>(0.169)          | 0.112<br>(0.106)              | -1631.026<br>(1506.509)              |
| 0-300m outside project   | -0.024<br>(0.041)             | 0.027<br>(0.041)              | 0.024<br>(0.039)              | 0.018<br>(0.045)              | -0.007<br>(0.035)              | 0.092<br>(0.130)          | -0.007<br>(0.060)             | -713.308<br>(756.093)                |
| 300-600m outside project | 0.008<br>(0.029)              | 0.038<br>(0.036)              | 0.022<br>(0.030)              | 0.028<br>(0.034)              | 0.003<br>(0.028)               | -0.003<br>(0.120)         | 0.011<br>(0.060)              | -1364.475<br>(1015.548)              |
| R <sup>2</sup>           | 0.202                         | 0.272                         | 0.295                         | 0.302                         | 0.222                          | 0.285                     | 0.324                         | 0.387                                |
| <b>Greenfield</b>        |                               |                               |                               |                               |                                |                           |                               |                                      |
| inside project           | 0.065<br>(0.145)              | 0.157<br>(0.118)              | 0.105<br>(0.122)              | 0.039<br>(0.132)              | 0.082<br>(0.129)               | 0.352<br>(0.427)          | 0.285<br>(0.205)              | 2390.856<br>(3780.426)               |
| 0-300m outside project   | -0.097<br>(0.071)             | 0.035<br>(0.097)              | -0.078<br>(0.077)             | -0.054<br>(0.084)             | -0.043<br>(0.052)              | 0.338<br>(0.291)          | 0.245 <sup>c</sup><br>(0.139) | 1512.192<br>(1745.342)               |
| 300-600m outside project | 0.004<br>(0.064)              | -0.033<br>(0.073)             | 0.005<br>(0.055)              | -0.011<br>(0.061)             | 0.051<br>(0.046)               | -0.127<br>(0.225)         | 0.026<br>(0.113)              | -430.600<br>(2435.044)               |
| <b>In-Situ Upgrading</b> |                               |                               |                               |                               |                                |                           |                               |                                      |
| inside project           | 0.336 <sup>b</sup><br>(0.154) | 0.167 <sup>c</sup><br>(0.095) | 0.221 <sup>b</sup><br>(0.104) | 0.205 <sup>b</sup><br>(0.097) | 0.116<br>(0.099)               | 0.454<br>(0.293)          | 0.298 <sup>c</sup><br>(0.178) | -4514.304<br>(3430.383)              |
| 0-300m outside project   | 0.010<br>(0.098)              | 0.014<br>(0.102)              | 0.042<br>(0.083)              | 0.032<br>(0.102)              | 0.018<br>(0.071)               | 0.021<br>(0.314)          | 0.122<br>(0.105)              | -1760.017<br>(1681.614)              |
| 300-600m outside project | -0.017<br>(0.067)             | -0.017<br>(0.085)             | 0.015<br>(0.074)              | 0.054<br>(0.085)              | -0.041<br>(0.064)              | -0.301<br>(0.350)         | 0.041<br>(0.100)              | 221.621<br>(1574.700)                |
| <b>Other</b>             |                               |                               |                               |                               |                                |                           |                               |                                      |
| inside project           | -0.039<br>(0.096)             | 0.191 <sup>a</sup><br>(0.061) | 0.186 <sup>c</sup><br>(0.111) | 0.109<br>(0.104)              | 0.039<br>(0.121)               | -0.095<br>(0.263)         | -0.101<br>(0.139)             | -1749.712<br>(1320.522)              |
| 0-300m outside project   | -0.022<br>(0.048)             | 0.064<br>(0.054)              | 0.027<br>(0.047)              | 0.021<br>(0.050)              | -0.016<br>(0.044)              | 0.162<br>(0.185)          | -0.134<br>(0.087)             | -1603.812<br>(1109.921)              |
| 300-600m outside project | 0.023<br>(0.041)              | 0.103 <sup>c</sup><br>(0.056) | 0.038<br>(0.040)              | 0.039<br>(0.041)              | 0.015<br>(0.039)               | 0.189<br>(0.179)          | -0.055<br>(0.094)             | -2850.050 <sup>b</sup><br>(1314.476) |
| Mean Outcome 2001        | 0.79                          | 0.35                          | 0.66                          | 0.62                          | 0.77                           | 3.30                      | 3.51                          | 8,566.83                             |
| Mean Outcome 2011        | 0.83                          | 0.54                          | 0.81                          | 0.72                          | 0.82                           | 3.56                      | 3.18                          | 9,823.82                             |
| R <sup>2</sup>           | 0.222                         | 0.288                         | 0.314                         | 0.318                         | 0.246                          | 0.293                     | 0.338                         | 0.393                                |
| N                        | 12,732                        | 12,732                        | 12,732                        | 12,732                        | 12,732                         | 12,709                    | 12,730                        | 12,734                               |

All regressions include 3km grid Fixed-Effects. Standard errors clustered at the project level in parenthesis. <sup>c</sup> p<0.10, <sup>b</sup> p<0.05, <sup>a</sup> p<0.01



**Table 5.** Triple Difference Estimates on Log-Prices

|                          | (1)                            | (2)                            |
|--------------------------|--------------------------------|--------------------------------|
| <b>All Projects</b>      |                                |                                |
| inside project           | -0.325<br>(0.369)              | -0.318<br>(0.369)              |
| 0-300m outside project   | -0.205<br>(0.151)              | -0.203<br>(0.151)              |
| 300-600m outside project | -0.217 <sup>b</sup><br>(0.096) | -0.216 <sup>b</sup><br>(0.097) |
| Lot Size Controls        |                                | ✓                              |
| r2                       | 0.32                           | 0.32                           |
| N                        | 67,751                         | 67,751                         |
| <b>Greenfield</b>        |                                |                                |
| inside project           | 0.270<br>(0.220)               | 0.259<br>(0.218)               |
| 0-300m outside project   | 0.004<br>(0.175)               | 0.010<br>(0.175)               |
| 300-600m outside project | 0.034<br>(0.159)               | 0.038<br>(0.160)               |
| <b>In-Situ Upgrading</b> |                                |                                |
| inside project           | -0.119<br>(0.394)              | -0.099<br>(0.396)              |
| 0-300m outside project   | -0.573 <sup>c</sup><br>(0.318) | -0.573 <sup>c</sup><br>(0.318) |
| 300-600m outside project | -0.436 <sup>c</sup><br>(0.224) | -0.437 <sup>c</sup><br>(0.224) |
| <b>Other</b>             |                                |                                |
| inside project           | -0.953 <sup>b</sup><br>(0.414) | -0.947 <sup>b</sup><br>(0.412) |
| 0-300m outside project   | -0.206<br>(0.155)              | -0.205<br>(0.155)              |
| 300-600m outside project | -0.197<br>(0.121)              | -0.197<br>(0.121)              |
| Lot Size Controls        |                                | ✓                              |
| r2                       | 0.33                           | 0.33                           |
| N                        | 67,751                         | 67,751                         |

Standard errors clustered at the project level in parenthesis.

<sup>c</sup> p<0.10, <sup>b</sup> p<0.05, <sup>a</sup> p<0.01