

Additional file 3. Correlations and Contributions of Variables to the First Component and Variance Explained by the First Component, According to the Study Area

| Variables | Lille Métropole | | Grand Lyon | | Marseille urban unit | | Global | |
|---|--------------------|------------------|--------------------|------------------|----------------------|------------------|--------------------|------------------|
| | Coord ^a | Ctr ^b | Coord ^a | Ctr ^b | Coord ^a | Ctr ^b | Coord ^a | Ctr ^b |
| SINGLE-PARENT FAMILIES | 0.86 | 5.79 | 0.79 | 5.44 | 0.86 | 6.38 | 0.83 | 6.29 |
| FOREIGNERS | 0.82 | 5.33 | 0.87 | 6.59 | 0.79 | 5.51 | 0.78 | 5.66 |
| FOREIGN IMMIGRANTS (SINCE THE LAST CENSUS) | 0.70 | 3.88 | 0.67 | 3.84 | 0.65 | 3.67 | 0.62 | 3.59 |
| SELF-EMPLOYED | -0.61 | 2.89 | -0.70 | 4.22 | -0.63 | 3.45 | -0.62 | 3.57 |
| UNSTABLE JOBS | 0.88 | 6.14 | 0.79 | 5.45 | 0.62 | 3.32 | 0.73 | 4.91 |
| STEADY JOBS | -0.89 | 6.16 | -0.76 | 5.03 | -0.85 | 6.29 | -0.83 | 6.29 |
| MEDIAN INCOME | -0.71 | 3.97 | -0.78 | 5.27 | -0.86 | 6.48 | -0.80 | 5.83 |
| NO DIPLOMA | 0.74 | 4.29 | 0.84 | 6.14 | 0.81 | 5.69 | 0.83 | 6.33 |
| BASIC OR INTERMEDIATE GENERAL OR VOCATION QUALIFICATIONS | -0.71 | 3.98 | -0.79 | 5.43 | -0.72 | 4.52 | -0.74 | 5.06 |
| GENERAL OR VOCATIONAL MATURITY CERTIFICATES | -0.64 | 3.26 | -0.75 | 4.88 | -0.75 | 4.95 | -0.74 | 5.08 |
| NON-OWNER-OCCUPIED IN THE MAIN RESIDENCES | 0.85 | 5.61 | 0.77 | 5.11 | 0.83 | 6.01 | 0.78 | 5.62 |
| MAIN RESIDENCES WITH MORE THAN ONE PERSON PER ROOM | 0.81 | 5.16 | 0.83 | 5.91 | 0.74 | 4.73 | 0.79 | 5.74 |
| AVERAGE NUMBER OF PEOPLE PER ROOM | 0.85 | 5.66 | 0.78 | 5.24 | 0.73 | 4.64 | 0.76 | 5.26 |
| HOUSEHOLDS WITHOUT A CAR | 0.90 | 6.30 | 0.66 | 3.80 | 0.84 | 6.13 | 0.79 | 5.79 |
| HOUSEHOLD WITH 2 OR MORE CARS | -0.86 | 5.77 | -0.67 | 3.92 | -0.80 | 5.55 | -0.76 | 5.27 |
| Under age of 25 | 0.65 | 3.28 | - | - | - | - | - | - |
| Unemployed for more than 1 year | 0.87 | 5.97 | - | - | - | - | - | - |
| Individual house | -0.69 | 3.69 | - | - | -0.65 | 3.66 | - | - |
| Multiple dwelling units | 0.67 | 3.51 | - | - | 0.63 | 3.50 | - | - |
| Subsidized housing | 0.75 | 4.38 | 0.80 | 5.50 | - | - | 0.67 | 4.13 |
| Parking space | -0.80 | 4.98 | -0.59 | 3.01 | -0.75 | 4.87 | -0.71 | 4.66 |
| Unemployed | - | - | 0.93 | 7.48 | 0.92 | 7.44 | 0.90 | 7.38 |
| Managers | - | - | -0.65 | 3.64 | -0.61 | 3.20 | -0.62 | 3.55 |
| Blue-collar workers | - | - | 0.69 | 4.11 | - | - | - | - |
| <i>Contribution of the common variables to the 1st component</i> | 80.16% | | 83.75% | | 77.62% | | 87.67% | |
| <i>Variance explained by the first component</i> | 60.73% | | 57.79% | | 57.29% | | 57.22% | |

^a Coordinate of the variable on the first axis, i.e. correlation coefficient between the variable and the socio-economic index

^b Contribution of the variable to the first component (in %)

UPPERCASE : variables selected commonly for each metropolitan areas and global analysis