|  |  |
| --- | --- |
| **National-level CoB proportions sum to 100** | **Each city CoB proportions sum to 100** |
| [1] Glasgow, urban, formula: xij11 ~ xij91 + w91q + migShareMinusOwn91 + lph91 + hsperacre91 + lpophs91 + ea91  $poor  Call:  lm(formula = lmfunction, data = x)  Residuals:  Min 1Q Median 3Q Max  -1.734 -0.107 -0.036 0.041 3.796  Coefficients:  Estimate Std. Error t value Pr(>|t|)  (Intercept) 0.884630 0.210077 4.21 0.000026922236748 \*\*\*  xij91 0.413189 0.020314 20.34 < 0.0000000000000002 \*\*\*  w91q 0.384903 0.030834 12.48 < 0.0000000000000002 \*\*\*  migShareMinusOwn91 0.002046 0.002501 0.82 0.41  lph91 -0.031438 0.025732 -1.22 0.22  hsperacre91 -0.007206 0.001809 -3.98 0.000070875130287 \*\*\*  lpophs91 -0.505834 0.066857 -7.57 0.000000000000066 \*\*\*  ea91 -0.000542 0.001115 -0.49 0.63  ---  Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1  Residual standard error: 0.296 on 1516 degrees of freedom  Multiple R-squared: 0.479, Adjusted R-squared: 0.476  F-statistic: 199 on 7 and 1516 DF, p-value: <0.0000000000000002  $rich  Call:  lm(formula = lmfunction, data = x)  Residuals:  Min 1Q Median 3Q Max  -0.3306 -0.0507 -0.0114 0.0290 1.0506  Coefficients:  Estimate Std. Error t value Pr(>|t|)  (Intercept) -0.238869 0.083561 -2.86 0.0043 \*\*  xij91 0.372871 0.022433 16.62 < 0.0000000000000002 \*\*\*  w91q 0.158315 0.034324 4.61 0.0000044 \*\*\*  migShareMinusOwn91 0.008525 0.000933 9.14 < 0.0000000000000002 \*\*\*  lph91 0.043031 0.010218 4.21 0.0000272 \*\*\*  hsperacre91 -0.000321 0.000736 -0.44 0.6630  lpophs91 -0.337469 0.026319 -12.82 < 0.0000000000000002 \*\*\*  ea91 0.001078 0.000445 2.42 0.0155 \*  ---  Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1  Residual standard error: 0.107 on 1262 degrees of freedom  Multiple R-squared: 0.536, Adjusted R-squared: 0.534  F-statistic: 209 on 7 and 1262 DF, p-value: <0.0000000000000002  [1] Edinburgh, urban, formula: xij11 ~ xij91 + w91q + migShareMinusOwn91 + lph91 + hsperacre91 + lpophs91 + ea91  $poor  Call:  lm(formula = lmfunction, data = x)  Residuals:  Min 1Q Median 3Q Max  -1.385 -0.141 -0.038 0.085 3.587  Coefficients:  Estimate Std. Error t value Pr(>|t|)  (Intercept) 2.18293 0.37571 5.81 0.0000000092 \*\*\*  xij91 0.49654 0.05004 9.92 < 0.0000000000000002 \*\*\*  w91q 0.50022 0.08165 6.13 0.0000000014 \*\*\*  migShareMinusOwn91 -0.01566 0.00737 -2.12 0.03394 \*  lph91 -0.13130 0.05080 -2.58 0.00993 \*\*  hsperacre91 0.00907 0.00252 3.60 0.00034 \*\*\*  lpophs91 -0.33642 0.12062 -2.79 0.00542 \*\*  ea91 -0.00514 0.00361 -1.42 0.15512  ---  Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1  Residual standard error: 0.313 on 760 degrees of freedom  Multiple R-squared: 0.374, Adjusted R-squared: 0.368  F-statistic: 64.9 on 7 and 760 DF, p-value: <0.0000000000000002  $rich  Call:  lm(formula = lmfunction, data = x)  Residuals:  Min 1Q Median 3Q Max  -0.9094 -0.1100 -0.0190 0.0853 1.7168  Coefficients:  Estimate Std. Error t value Pr(>|t|)  (Intercept) 0.88015 0.31330 2.81 0.00512 \*\*  xij91 0.60415 0.05068 11.92 < 0.0000000000000002 \*\*\*  w91q 0.47850 0.08419 5.68 0.000000020169036 \*\*\*  migShareMinusOwn91 0.02570 0.00573 4.49 0.000008502205923 \*\*\*  lph91 -0.17696 0.04211 -4.20 0.000030196768560 \*\*\*  hsperacre91 0.01659 0.00211 7.87 0.000000000000015 \*\*\*  lpophs91 -0.15403 0.09746 -1.58 0.11452  ea91 0.01099 0.00300 3.66 0.00028 \*\*\*  ---  Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1  Residual standard error: 0.239 on 632 degrees of freedom  Multiple R-squared: 0.64, Adjusted R-squared: 0.636  F-statistic: 160 on 7 and 632 DF, p-value: <0.0000000000000002  [1] Aberdeen, urban, formula: xij11 ~ xij91 + w91q + migShareMinusOwn91 + lph91 + hsperacre91 + lpophs91 + ea91  $poor  Call:  lm(formula = lmfunction, data = x)  Residuals:  Min 1Q Median 3Q Max  -0.883 -0.328 -0.117 0.117 3.506  Coefficients:  Estimate Std. Error t value Pr(>|t|)  (Intercept) 6.3833 2.7023 2.36 0.0193 \*  xij91 0.2933 0.1204 2.44 0.0159 \*  w91q 0.6310 0.1746 3.61 0.0004 \*\*\*  migShareMinusOwn91 0.0829 0.0537 1.54 0.1246  lph91 0.0545 0.3155 0.17 0.8630  hsperacre91 -0.0443 0.0204 -2.17 0.0311 \*  lpophs91 -0.5750 0.4681 -1.23 0.2210  ea91 -0.0669 0.0296 -2.26 0.0252 \*  ---  Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1  Residual standard error: 0.616 on 172 degrees of freedom  Multiple R-squared: 0.314, Adjusted R-squared: 0.286  F-statistic: 11.3 on 7 and 172 DF, p-value: 0.0000000000106  $rich  Call:  lm(formula = lmfunction, data = x)  Residuals:  Min 1Q Median 3Q Max  -1.1870 -0.1420 -0.0182 0.0906 1.7100  Coefficients:  Estimate Std. Error t value Pr(>|t|)  (Intercept) 2.9258 1.4632 2.00 0.04746 \*  xij91 0.2124 0.0510 4.17 0.000053 \*\*\*  w91q 0.1824 0.0806 2.26 0.02510 \*  migShareMinusOwn91 0.1092 0.0288 3.80 0.00021 \*\*\*  lph91 -0.0740 0.1700 -0.44 0.66420  hsperacre91 -0.0145 0.0110 -1.32 0.18990  lpophs91 -0.4206 0.2494 -1.69 0.09391 .  ea91 -0.0203 0.0160 -1.27 0.20593  ---  Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1  Residual standard error: 0.304 on 142 degrees of freedom  Multiple R-squared: 0.501, Adjusted R-squared: 0.477  F-statistic: 20.4 on 7 and 142 DF, p-value: <0.0000000000000002  [1] Dundee, urban, formula: xij11 ~ xij91 + w91q + migShareMinusOwn91 + lph91 + hsperacre91 + lpophs91 + ea91  $poor  Call:  lm(formula = lmfunction, data = x)  Residuals:  Min 1Q Median 3Q Max  -0.4605 -0.0999 -0.0249 0.0543 1.0952  Coefficients:  Estimate Std. Error t value Pr(>|t|)  (Intercept) 0.59808 0.53496 1.12 0.26479  xij91 0.24857 0.06298 3.95 0.00011 \*\*\*  w91q 0.46268 0.12008 3.85 0.00015 \*\*\*  migShareMinusOwn91 0.00741 0.00574 1.29 0.19786  lph91 -0.04448 0.07217 -0.62 0.53835  hsperacre91 -0.00792 0.00470 -1.69 0.09316 .  lpophs91 -0.65478 0.14787 -4.43 0.000015 \*\*\*  ea91 0.00485 0.00374 1.29 0.19671  ---  Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1  Residual standard error: 0.192 on 220 degrees of freedom  Multiple R-squared: 0.392, Adjusted R-squared: 0.373  F-statistic: 20.3 on 7 and 220 DF, p-value: <0.0000000000000002  $rich  Call:  lm(formula = lmfunction, data = x)  Residuals:  Min 1Q Median 3Q Max  -0.1792 -0.0722 -0.0193 0.0469 0.8056  Coefficients:  Estimate Std. Error t value Pr(>|t|)  (Intercept) 0.44925 0.37363 1.20 0.2308  xij91 0.21285 0.08190 2.60 0.0101 \*  w91q 0.25724 0.16190 1.59 0.1138  migShareMinusOwn91 0.00675 0.00384 1.76 0.0808 .  lph91 -0.01329 0.05087 -0.26 0.7942  hsperacre91 -0.00880 0.00318 -2.77 0.0063 \*\*  lpophs91 -0.61293 0.10120 -6.06 0.0000000078 \*\*\*  ea91 0.00291 0.00265 1.10 0.2737  ---  Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1  Residual standard error: 0.126 on 182 degrees of freedom  Multiple R-squared: 0.307, Adjusted R-squared: 0.28  F-statistic: 11.5 on 7 and 182 DF, p-value: 0.00000000000456 | [1] Glasgow, formula: xij11 ~ xij91 + w91q + migShareMinusOwn91 + lph91 + hsperacre91 + lpophs91 + ea91  $poor  Call:  lm(formula = lmfunction, data = x)  Residuals:  Min 1Q Median 3Q Max  -4.561 -0.373 -0.105 0.188 13.668  Coefficients:  Estimate Std. Error t value Pr(>|t|)  (Intercept) 2.56889 0.65170 3.94 0.000085 \*\*\*  xij91 0.31408 0.01997 15.73 < 0.0000000000000002 \*\*\*  w91q 0.25725 0.02979 8.63 < 0.0000000000000002 \*\*\*  migShareMinusOwn91 0.02126 0.00799 2.66 0.00786 \*\*  lph91 -0.06106 0.07981 -0.77 0.44438  hsperacre91 -0.02088 0.00564 -3.70 0.00022 \*\*\*  lpophs91 -1.86031 0.20593 -9.03 < 0.0000000000000002 \*\*\*  ea91 -0.00103 0.00343 -0.30 0.76409  ---  Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1  Residual standard error: 0.912 on 1516 degrees of freedom  Multiple R-squared: 0.375, Adjusted R-squared: 0.372  F-statistic: 130 on 7 and 1516 DF, p-value: <0.0000000000000002  $rich  Call:  lm(formula = lmfunction, data = x)  Residuals:  Min 1Q Median 3Q Max  -2.047 -0.309 -0.060 0.197 5.535  Coefficients:  Estimate Std. Error t value Pr(>|t|)  (Intercept) -1.099424 0.484766 -2.27 0.02350 \*  xij91 0.317655 0.023459 13.54 < 0.0000000000000002 \*\*\*  w91q 0.215531 0.038284 5.63 0.000000022 \*\*\*  migShareMinusOwn91 0.052346 0.005402 9.69 < 0.0000000000000002 \*\*\*  lph91 0.216388 0.058994 3.67 0.00025 \*\*\*  hsperacre91 -0.000338 0.004371 -0.08 0.93847  lpophs91 -1.988375 0.150994 -13.17 < 0.0000000000000002 \*\*\*  ea91 0.006847 0.002562 2.67 0.00763 \*\*  ---  Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1  Residual standard error: 0.615 on 1262 degrees of freedom  Multiple R-squared: 0.512, Adjusted R-squared: 0.51  F-statistic: 189 on 7 and 1262 DF, p-value: <0.0000000000000002  [1] Edinburgh, formula: xij11 ~ xij91 + w91q + migShareMinusOwn91 + lph91 + hsperacre91 + lpophs91 + ea91  $poor  Call:  lm(formula = lmfunction, data = x)  Residuals:  Min 1Q Median 3Q Max  -4.537 -0.699 -0.146 0.402 10.689  Coefficients:  Estimate Std. Error t value Pr(>|t|)  (Intercept) 10.2514 1.5372 6.67 0.000000000050 \*\*\*  xij91 0.4206 0.0376 11.19 < 0.0000000000000002 \*\*\*  w91q 0.3885 0.0590 6.59 0.000000000084 \*\*\*  migShareMinusOwn91 -0.1335 0.0305 -4.38 0.000013639642 \*\*\*  lph91 -0.3815 0.2073 -1.84 0.0660 .  hsperacre91 0.0458 0.0104 4.40 0.000012387879 \*\*\*  lpophs91 -1.9495 0.4947 -3.94 0.000088818017 \*\*\*  ea91 -0.0454 0.0148 -3.07 0.0022 \*\*  ---  Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1  Residual standard error: 1.28 on 760 degrees of freedom  Multiple R-squared: 0.402, Adjusted R-squared: 0.396  F-statistic: 72.9 on 7 and 760 DF, p-value: <0.0000000000000002  $rich  Call:  lm(formula = lmfunction, data = x)  Residuals:  Min 1Q Median 3Q Max  -3.574 -0.466 -0.034 0.371 5.984  Coefficients:  Estimate Std. Error t value Pr(>|t|)  (Intercept) 2.8997 1.1002 2.64 0.0086 \*\*  xij91 0.4359 0.0299 14.60 < 0.0000000000000002 \*\*\*  w91q 0.1213 0.0479 2.53 0.0116 \*  migShareMinusOwn91 0.1266 0.0203 6.22 0.00000000089 \*\*\*  lph91 -0.6908 0.1473 -4.69 0.00000333933 \*\*\*  hsperacre91 0.0708 0.0075 9.44 < 0.0000000000000002 \*\*\*  lpophs91 -0.4947 0.3420 -1.45 0.1485  ea91 0.0484 0.0105 4.59 0.00000526354 \*\*\*  ---  Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1  Residual standard error: 0.835 on 632 degrees of freedom  Multiple R-squared: 0.672, Adjusted R-squared: 0.668  F-statistic: 185 on 7 and 632 DF, p-value: <0.0000000000000002  [1] Aberdeen, formula: xij11 ~ xij91 + w91q + migShareMinusOwn91 + lph91 + hsperacre91 + lpophs91 + ea91  $poor  Call:  lm(formula = lmfunction, data = x)  Residuals:  Min 1Q Median 3Q Max  -7.682 -2.344 -0.274 1.801 11.615  Coefficients:  Estimate Std. Error t value Pr(>|t|)  (Intercept) 73.0237 14.7144 4.96 0.0000016615 \*\*\*  xij91 0.3243 0.0508 6.38 0.0000000016 \*\*\*  w91q 0.1884 0.0720 2.62 0.00970 \*\*  migShareMinusOwn91 0.8432 0.3040 2.77 0.00616 \*\*  lph91 -1.8096 1.7130 -1.06 0.29228  hsperacre91 -0.4132 0.1136 -3.64 0.00037 \*\*\*  lpophs91 -8.1429 2.6041 -3.13 0.00207 \*\*  ea91 -0.4815 0.1604 -3.00 0.00308 \*\*  ---  Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1  Residual standard error: 3.36 on 172 degrees of freedom  Multiple R-squared: 0.573, Adjusted R-squared: 0.556  F-statistic: 33 on 7 and 172 DF, p-value: <0.0000000000000002  $rich  Call:  lm(formula = lmfunction, data = x)  Residuals:  Min 1Q Median 3Q Max  -11.997 -2.126 -0.413 1.697 10.887  Coefficients:  Estimate Std. Error t value Pr(>|t|)  (Intercept) 68.7790 17.4101 3.95 0.00012 \*\*\*  xij91 0.3297 0.0586 5.62 0.000000095 \*\*\*  w91q 0.0921 0.0667 1.38 0.16981  migShareMinusOwn91 1.7090 0.3229 5.29 0.000000447 \*\*\*  lph91 -2.3450 1.9150 -1.22 0.22276  hsperacre91 -0.4378 0.1285 -3.41 0.00086 \*\*\*  lpophs91 -8.4914 2.7611 -3.08 0.00252 \*\*  ea91 -0.4006 0.1769 -2.26 0.02508 \*  ---  Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1  Residual standard error: 3.31 on 142 degrees of freedom  Multiple R-squared: 0.658, Adjusted R-squared: 0.641  F-statistic: 39 on 7 and 142 DF, p-value: <0.0000000000000002  [1] Dundee, formula: xij11 ~ xij91 + w91q + migShareMinusOwn91 + lph91 + hsperacre91 + lpophs91 + ea91  $poor  Call:  lm(formula = lmfunction, data = x)  Residuals:  Min 1Q Median 3Q Max  -9.011 -2.231 -0.497 1.062 25.507  Coefficients:  Estimate Std. Error t value Pr(>|t|)  (Intercept) 3.2176 11.6439 0.28 0.78  xij91 0.2840 0.0598 4.75 0.00000363 \*\*\*  w91q 0.4752 0.1153 4.12 0.00005358 \*\*\*  migShareMinusOwn91 0.0564 0.1252 0.45 0.65  lph91 0.5431 1.5700 0.35 0.73  hsperacre91 -0.1291 0.1002 -1.29 0.20  lpophs91 -16.0982 3.0493 -5.28 0.00000031 \*\*\*  ea91 0.0551 0.0806 0.68 0.49  ---  Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1  Residual standard error: 4.03 on 220 degrees of freedom  Multiple R-squared: 0.417, Adjusted R-squared: 0.399  F-statistic: 22.5 on 7 and 220 DF, p-value: <0.0000000000000002  $rich  Call:  lm(formula = lmfunction, data = x)  Residuals:  Min 1Q Median 3Q Max  -6.103 -2.284 -0.252 1.525 16.966  Coefficients:  Estimate Std. Error t value Pr(>|t|)  (Intercept) 17.8541 10.2796 1.74 0.08411 .  xij91 0.1861 0.0668 2.78 0.00592 \*\*  w91q 0.0376 0.1180 0.32 0.75055  migShareMinusOwn91 0.2601 0.1054 2.47 0.01454 \*  lph91 -0.8072 1.4162 -0.57 0.56941  hsperacre91 -0.3142 0.0866 -3.63 0.00037 \*\*\*  lpophs91 -19.3286 2.7321 -7.07 0.000000000031 \*\*\*  ea91 0.1108 0.0736 1.50 0.13410  ---  Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1  Residual standard error: 3.41 on 182 degrees of freedom  Multiple R-squared: 0.356, Adjusted R-squared: 0.331  F-statistic: 14.3 on 7 and 182 DF, p-value: 0.00000000000000847 |

## Just xij91 and w91q for easy viewing

|  |  |
| --- | --- |
| **National CoB proportions** | **By-city CoB proportions** |
| Glasgow poor xij91 0.413189  w91q 0.384903 Rich xij91 0.372871  w91q 0.158315 Edinburgh poor xij91 0.49654  w91q 0.50022 Rich xij91 0.60415  w91q 0.47850 Aberdeen poor xij91 0.2933  w91q 0.6310 Rich xij91 0.2124  w91q 0.1824 Dundee poor xij91 0.24857  w91q 0.46268 Rich xij91 0.21285  w91q 0.25724 | Glasgow poor xij91 0.31408  w91q 0.25725 Rich xij91 0.317655  w91q 0.215531 Edinburgh poor xij91 0.4206  w91q 0.3885 Rich xij91 0.4359  w91q 0.1213 Aberdeen poor xij91 0.3243  w91q 0.1884 Rich xij91 0.3297  w91q 0.0921 Dundee poor xij91 0.2840  w91q 0.4752 Rich xij91 0.1861  w91q 0.0376 |