Supplementary Table 1: Describing the SES and sociodemographic (SD) characteristics for model 1

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|  |  | **Model 1 (n=1052)** |  |  |  |
| **SES and SD indicators** | **Class 1****(n=351)** | **Class 2****(n=43)** | **Class 3****(n=244)** | **Class 4****(n=103)** | **Class 5** **(n=213)** | **Class 6****(n=98)** |
| **Social occupational class** |  |  |  |  |  |  |
|  Class I | 69 (19.9) | 9 (22.9) | 5 (1.6) | 0 | 0 | 0 |
|  Class II | 229(65.1) | 19 (40.7) | 58 (24.1) | 0 | 0 | 0  |
|  Class IIINM | 30 (8.7) | 8 (19.6) | 65 (26.5) | 0 | 0  | 0 |
|  Class IIIM | 18 (5.0) | 0 | 34 (14.7) | 0 | 0 | 0 |
|  Class IV | 4 (1.0 | 7 (16.9) | 64 (25.9) | 0 | 0 | 0 |
|  Class V | 1 (0.3) | 0 | 18 (7.2) | 0 | 0 | 0 |
|  No SOC assigned | 0 | 0 | 0 | 102 (100) | 213 (100) | 98 (100) |
| **Employment status** |  |  |  |  |  |  |
|  Full/part-time employed | 351 (100) | 43 (100) | 244 (100) | 0 | 0 | 0 |
|  Student | 0 | 0 | 0 | 74 (75.9) | 10 (6.3) | 0 |
|  Unemployed | 0 | 0 | 0 | 28 (24.1) | 55 (29.5) | 13 (14.6) |
|  Temporary sick/disabled | 0 | 0 | 0 | 0 | 38 (18.9) | 3 (4.0) |
|  Retired | 0 | 0 | 0 | 0 | 84 (32.8) | 55 (52.9) |
|  Looking after children | 0 | 0 | 0 | 0  | 26 (12.6) | 27 (28.5) |
| **Educational attainment** |  |  |  |  |  |  |
|  No qualifications/GCSE | 4 (1.0) | 3 (6.9) | 86 (34.9) | 11 (10.2) | 136 (61.5) | 20 (18.7) |
|  A Level | 28 (7.7) | 9 (20.1) | 104 (44.0) | 54 (53.6) | 56 (28.1) | 11 (11.1) |
|  Degree or above | 319 (91.3) | 31 (73.0) | 54 (21.1) | 38 (36.1) | 21 (10.4) | 67 (70.2) |
| **Household income** |  |  |  |  |  |  |
|  £0-12,096 | 1 (0.3) | 0 | 38 (16.1) | 13 (15.7) | 116 (63.0) | 8 (8.7) |
|  £12,097- £31,494 | 23 (6.6) | 9 (20.7) | 106 (47.3) | 13 (16.9) | 65 (32.8) | 24 (28.9) |
|  £31495+ | 314 (93.1) | 32 (79.3) | 79 (36.6) | 49 (67.4) | 7 (4.1) | 50 (62.4) |
| **Any debt** |  |  |  |  |  |  |
|  No | 337 (96.0) | 40 (94.0) | 179 (73.0) | 84 (82.1) | 153 (68.1) | 98 (100) |
|  Yes | 14 (4.0) | 3 (6.0) | 65 (27.0) | 19 (17.9) | 60 (31.9) | 0 |
| **Any benefits** |  |  |  |  |  |  |
|  No | 341 (97.2) | 39 (90.2) | 184 (76.9) | 87 (85.5) | 59 (23.6) | 87 (88.1) |
|  Yes | 10 (2.8) | 4 (9.8) | 60 (23.1) | 16 (14.5) | 154 (76.4) | 11 (11.9) |
| **Tenure** |  |  |  |  |  |  |
|  Own outright/ mortgage | 237 (69.0) | 5 (8.9) | 41 (15.6) | 31 (31.7) | 4 (1.8) | 87 (89.1) |
|  Private rented | 77 (25.4) | 36 (86.2) | 44 (20.4) | 32 (30.8) | 28 (14.1) | 5(6.2) |
|  Social housing | 12 (3.6) | 1 (2.3) | 142 (58.7) | 12 (11.3) | 177 (83.7) | 4 (4.7) |
|  Rent free | 7 (2.0) | 1 (2.6) | 11 (5.3) | 25 (26.3) | 1 (0.4) | 0 |
| **Moved in past 2 years** |  |  |  |  |  |  |
|  Not moved or moved once  | 330 (99.1) | 0 | 223 (96.7) | 86 (86.5) | 199 (93.2) | 96 (100.0) |
|  Moved twice or more | 3 (0.9) | 43 (100) | 7 (3.3) | 14 (13.5) | 12 (6.8) | 0  |
| **Gender** |  |  |  |  |  |  |
|  Male | 163 (52.4) | 22 (58.7) | 96 (45.7) | 44 (49.9) | 79 (41.3) | 33 (37.1) |
|  Female | 188 (47.6) | 21 (41.3) | 148 (54.3) | 59 (50.1) | 134 (58.7) | 65 (62.9) |
| **Age (in years)** |  |  |  |  |  |  |
|  16-34 | 111 (38.0) | 30 (74.7) | 82 (43.0) | 92 (92.8) | 44 (26.7) | 14 (17.4) |
|  35-54 | 187 (50.5) | 12 (23.6) | 114 (42.3) | 10 (6.6) | 62 (30.5) | 21 (22.3) |
|  55+ | 53 (11.5) | 1 (1.7) | 48 (14.7) | 1 (0.6) | 107 (42.8) | 63 (60.3) |
| **Ethnicity** |  |  |  |  |  |  |
|  White British | 220 (62.4) | 22 (46.5) | 97 (38.9) | 37 (37.0) | 109 (49.1) | 51 (51.7) |
|  Black Caribbean | 12 (3.3) | 1 (2.0) | 35 (15.3) | 7 (7.5) | 23 (11.1) | 7 (7.5) |
|  Black African | 25 (7.3) | 3 (7.6) | 44 (17.6) | 26 (25.4) | 30 (15.2) | 7 (7.7) |
|  White Other | 57 (15.9) | 7 (17.4) | 31 (12.4) | 12 (10.0) | 22 (10.9) | 18 (17.7) |
|  Non-White Other | 24 (7.1) | 6 (15.2) | 26 (10.8) | 13 (11.8) | 17 (8.2) | 12 (11.9) |
|  Mixed ethnicity | 13 (4.0) | 4 (11.3) | 11 (5.0) | 8 (8.3) | 11 (5.5) | 3 (3.5) |
| **Migrant status** |  |  |  |  |  |  |
|  Born in the UK | 243 (70.2) | 25 (57.6) | 136 (57.6) | 69 (69.6) | 139 (65.5) | 54 (55.8) |
|  0-10 years | 45 (13.5) | 8 (18.9) | 36 (15.8) | 18 (15.7) | 11 (5.7) | 9 (9.9) |
|  11-20 years | 29 (7.6) | 8 (20.0) | 33 (13.9) | 11 (11.3) | 25 (13.1) | 5 (5.4) |
|  21+ years | 32 (8.7) | 2 (3.5) | 37 (12.7) | 5 (3.4) | 38 (15.7) | 29 (28.9) |

***Model 1 classes****; Class 1-Professional, homeowners; Class 2- Professional, renters; Class 3-Skilled, renters; Class 4-Students, renters; Class 5-Economically inactive, renters; Class 6-Economically inactive, home owners.*

**Supplementary Table 2 Describing the SES and sociodemographic (SD) characteristics for model 2**

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|  | **Model 2 (n=1052)** |
|  |  | **Class 1****(n=305)** | **Class 2****(n=107)** | **Class 3****(n=106)** | **Class 4****(n=153)** | **Class 5****(n=100)** | **Class 6****(n=181)** | **Class 7 (n=100)** |
| **SES and SD Indicators** |  |  |  |  |  |  |  |
| **Social occupational class** |  |  |  |  |  |  |  |
|  Class I | 59(19.4) | 0 | 0 | 1(0.7) | 0 | 23(13.3) | 0 |
|  Class II | 197(64.4) | 0 | 0 | 23(14.6) | 0 | 86(47.2) | 0 |
|  Class IIINM | 30(10.2) | 0 | 0 | 44(27.8) | 0 | 29(16.9) | 0 |
|  Class IIIM | 16(4.9) | 0 | 0 | 27(18.7) | 0 | 9(5.1) | 0 |
|  Class IV | 3(1.0) | 0 | 0 | 46(30.3) | 0 | 26(14.0) | 0 |
|  Class V | 0 | 0 | 0 | 12(8.0) | 0 | 7(3.5) | 0 |
|  No SOC assigned | 0 | 107(100) | 106(100) | 0 | 100(100) | 0 | 100(100) |
| **Employment status** |  |  |  |  |  |  |  |
|  Full/part-time employed | 305(100) | 0 | 0 | 153(100) | 0 | 180(100) | 0 |
|  Student | 0 | 0 | 78(76.0) | 0 | 0 | 0 | 6(8.0) |
|  Unemployed | 0 | 27(28.8) | 28(24.0) | 0 | 16(16.6) | 0 | 25(29.1) |
|  Temporary sick/disabled | 0 | 18(19.2) | 0 | 0 | 4(5.0) | 0 | 19(19.0) |
|  Retired | 0 | 56(45.8) | 0 | 0 | 53(50.2) | 0 | 30(24.2) |
|  Looking after children | 0 | 6(6.2) | 0 | 0 | 27(28.2) | 0 | 20(19.7) |
| **Educational attainment** |  |  |  |  |  |  |  |
|  No qualifications/GCSE | 6(1.8) | 88(80.7) | 13(12.1) | 75(47.9) | 19(17.6) | 12(6.8) | 47(45.0) |
|  A Level | 32(11.1) | 17(17.4) | 55(52.3) | 65(43.4) | 13(12.7) | 45(24.4) | 35(36.9) |
|  Degree or above | 267(87.1) | 2(1.9) | 38(35.6) | 13(8.7) | 68(69.7) | 124(68.8) | 18(18.1) |
| **Household income** |  |  |  |  |  |  |  |
|  £0 - £12,096 | 3(0.8) | 53(56.8) | 14(17.0) | 25(16.6) | 11(11.7) | 11(6.3) | 59(68.6) |
|  £12,097-£31,494 | 29(9.6) | 41(43.2) | 14(17.5) | 71(51.1) | 25(29.1) | 38(21.5) | 22(23.2) |
|  £31495+ | 261(89.6) | 0 | 49(65.5) | 43(32.3) | 49(59.2) | 122(72.2) | 7(8.2) |
| **Any debt** |  |  |  |  |  |  |  |
|  No | 289(94.3) | 86(76.7) | 88(83.4) | 104(69.1) | 99(99.0) | 164(90.3) | 61(57.5) |
|  Yes | 16(5.7) | 21(23.3) | 18(16.6) | 49(30.9) | 1(1.0) | 17(9.7) | 39(42.5) |
| **Any benefits** |  |  |  |  |  |  |  |
|  No | 294(96.6) | 39(31.6) | 87(83.8) | 108(72.1) | 87(86.5) | 162(89.6) | 20(16.4) |
|  Yes | 11(3.4) | 68(68.4) | 19(16.2) | 45(27.9) | 13(13.5) | 19(10.4) | 80(83.6) |
| **Tenure** |  |  |  |  |  |  |  |
|  Own outright/ mortgage | 199(66.4) | 3(2.9) | 31(30.7) | 27(16.3) | 88(89.4) | 57(29.3) | 0 |
|  Private rented | 68(26.9) | 10(8.8) | 32(29.9) | 16(11.6) | 5(6.2) | 73(45.3) | 18(19.9) |
|  Social housing | 15(4.6) | 93(87.6) | 17(15.2) | 101(66.7) | 4(4.4) | 39(21.3) | 79(80.1) |
|  Other | 6(2.1) | 1(0.8) | 24(24.2) | 7(5.4) | 0 | 7(4.1) | 0 |
| **Moved in past 2 years** |  |  |  |  |  |  |  |
|  Not moved or moved once  | 262(90.4) | 106(98.8) | 88(85.2) | 145(94.6) | 97(100) | 157(85.7) | 89(89.6) |
|  Moved twice or more | 26(9.6) | 1(1.2) | 16(14.8) | 7(5.4) | 0 | 20(14.3) | 9(10.4) |
| **Ethnicity** |  |  |  |  |  |  |  |
|  White British | 265(86.0) | 103(97.2) | 42(39.8) | 74(46.5) | 52(52.0) | 0 | 0 |
|  Black Caribbean | 11(3.6) | 0 | 8(7.9) | 37(25.4) | 8(8.5) | 0 | 21(20.8) |
|  Black African | 1(0.5) | 0 | 27(26.0) | 9(5.5) | 6(6.4) | 62(33.8) | 30(29.8) |
|  White Other | 14(4.6) | 0 | 8(6.6) | 11(7.7) | 19(18.3) | 71(38.0) | 24(24.3) |
|  Non-White Other | 6(2.3) | 0 | 12(10.9) | 11(6.7) | 13(12.7) | 39(22.5) | 17(16.6) |
|  Mixed | 8(3.0) | 3(2.8) | 9(8.8) | 11(8.2) | 2(2.1) | 9(5.7) | 8(8.5) |
| **Migrant status** |  |  |  |  |  |  |  |
|  Born in the UK | 285(95.1) | 107(100) | 79(76.8) | 110(74.9) | 52(54.7) | 10(6.8) | 25(28.0) |
|  Migrant (0-10) | 2(0.6) | 0 | 17(14.4) | 6(4.3) | 9(10.1) | 81(47.3) | 11(12.1) |
|  Migrant (11-20) | 3(1.0) | 0 | 8(8.2) | 16(11.1) | 4(4.4) | 52(28.6) | 27(28.5) |
|  Migrant (21+) | 10(3.3) | 0 | 1(0.7) | 17(9.7) | 31(30.8) | 37(17.2) | 37(31.5) |
| **Gender** |  |  |  |  |  |  |  |
|  Male | 144(53.6) | 44(45.8) | 48(52.3) | 60(45.5) | 32(35.2) | 77(48.6) | 32(35.5) |
|  Female | 161(46.4) | 63(54.2) | 58(47.7) | 93(54.5) | 68(64.8) | 104(51.4) | 68(64.5) |
| **Age** |  |  |  |  |  |  |  |
|  16-34 | 105(41.5) | 13(16.6) | 93(91.1) | 52(44.0) | 15(18.3) | 67(44.3) | 28(34.1) |
|  35-54 | 155(47.5) | 23(23.8) | 13(8.9) | 70(40.9) | 22(22.2) | 88(44.7) | 35(35.5) |
|  55+ | 45(11.0) | 71(60.0) | 0 | 31(15.1) | 63(59.5) | 26(11.0) | 37(30.4) |

***Model 2 classes****; Class 1-Professional, homeowners, White British; Class 2-Economically inactive, renters, White British; Class 3-Students, mixed tenure, non-migrant, mixed ethnicity; Class 4-Skilled, renters, non-migrant, mixed ethnicity; Class 5-Economically inactive, homeowners, mixed migration status, mixed ethnicity; Class 6- Professional, renters, migrant, mixed ethnicity; Class 7- Economically inactive, renters, migrant, mixed ethnicity*

**Supplementary Table 3 Overlap between classes for the two different models**

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| **Model 1 vs. model 2** | **Classes in model 2 (SES, migration status and ethnicity)2** |  |
| **Class 1** **n** | **Class 2****n** | **Class 3****n** | **Class 4****n** | **Class 5****n** | **Class 6****n** | **Class 7****n** |
| **Classes in model 1(SES only)1** | **Class 1 n (row %)** | 258(74.0) | **0** | 0 | 1 (0.2) | 0 | 92 (25.8) | **0** |
| **Class 2 n (row %)** | **24 (51.2)** | 0 | 0 | 2 (5.1) | 0 | **17 (43.7)** | 0 |
| **Class 3 n (row %)** | 23 (9.5) | 0 | 0 | 150(61.8) | **0** | 71 (28.7) | 0 |
| **Class 4 n (row %)** | 0  | 0 | **97 (95.6)** | 0 | 3 (1.8) | 1 (1.0) | 2 (1.7) |
| **Class 5 n (row %)** | 0 | 106(47.3) | 8 (4.6) | **0** | **3 (1.2)** | 0 | 96 (47.0) |
| **Class 6 n (row %)** | 0 | 1 (1.0) | 1 (1.4) | **0** | 94 (95.5) | 0 | 2 (2.2) |

***1Model 1 classes****; Class 1-Professional, homeowners; Class 2- Professional, renters; Class 3-Skilled, renters; Class 4-Students, renters; Class 5-Economically inactive, renters; Class 6-Economically inactive, home owners.*

***2Model 2 classes****; Class 1-Professional, homeowners, White British; Class 2-Economically inactive, renters, White British; Class 3-Students, mixed tenure, non-migrant, mixed ethnicity; Class 4-Skilled, renters, non-migrant, mixed ethnicity; Class 5-Economically inactive, homeowners, mixed migration status, mixed ethnicity; Class 6- Professional, renters, migrant, mixed ethnicity; Class 7- Economically inactive, renters, migrant, mixed ethnicity*