Office for National Statistics

Radial Plots for the 2011 Area Classification for Output Areas

Updated April 2015

Office for National Statistics

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Radial Plots

Contents

Introduction **2**

Radial plot legend summary **3**

List of 60 final 2011 Census Variables **4**

Census variable glossary **6**

Supergroups, and groups and subgroups contained within **7**

1 - Rural residents 7

2 - Cosmopolitans 21

3 - Ethnicity central 37

4 - Multicultural metropolitans 52

5 - Urbanites 64

6 - Suburbanites 73

7 - Constrained city dwellers 84

8 - Hard-pressed living 102

Radial Plots for the 2011 Area Classification for Output Areas

Introduction

This paper displays radial plots for the 60 Census variables used to derive the 2011 Area Classification for Output Areas (2011 OAC). The classification places each UK output area (small area in Northern Ireland), as defined following the 2011 Census, into clusters with those other output areas that are most similar in terms of census variables. This enables similar areas to be classified according to their particular combination of characteristics. For more information about the methodology used to produce the 2011 OAC, see the Methodology Note.

Radial plots are presented for each of the 8 supergroups, 26 groups and 76 subgroups that comprise the 2011 OAC. Each data point on a radial plot displays the value for each one of the 60 standardised and transformed 2011 Census variables used. So, data points with positive values represent variables that have a higher value than the standardised UK mean or the standardised parent cluster mean. A parent cluster refers to a supergroup or group in which a given group or subgroup belongs. For example the parent cluster for the group 1a – Farming communities is the supergroup 1- Rural residents, and the parent cluster for the subgroup 1a1 – Rural workers and families is the group 1a – Farming communities. Data points with negative values represent variables that have a lower value than the standardised UK mean or the standardised parent cluster mean.

On each radial plot, a red circle represents the standardised UK mean and the standardised parent cluster mean (zero in both cases). This circle around the radial is at a constant distance from the centre. Therefore, data points that appear on the outside of the circle represent variables that have a higher value than the standardised UK mean or the standardised parent cluster mean, while data points that appear on the inside of the circle represent variables that have a lower value than the standardised UK mean or the standardised parent cluster mean.

In addition to the data points, each of the radial plots shows a brief description for the 60 final 2011 Census variables five main Census domains. A full description of these Census variables is shown on page 4 with further detail about some of these variables in the glossary on page 6.

For supergroups, there are no parent clusters and so the red circles on these radial plots represent the standardised UK mean only. The blue line on radial plots for supergroups represents the difference between the values of standardised 2011 Census variables for output areas within a given supergroup and the value for the standardised UK mean (which includes all output areas).

For radial plots showing groups, there are two lines in addition to the red circle: the blue line represents the difference between the standardised values of 2011 Census variables for output areas within a given group and the value of the standardised parent cluster mean (for groups, the parent cluster is the supergroup to which it belongs). Data points on the blue line that appear on the outside of the circle represent variables where the standardised value for the given group is higher than the standardised mean for the supergroup to which it belongs.

Data points that appear on the inside of the circle represent standardised values that are lower than the parent group standardised mean. The green line on each radial plot for groups represents the difference between the standardised values of Census variables and the standardised UK

mean for each variable. Again, data points outside the circle indicate a higher standardised value than the UK mean and data points inside the circle indicate a lower value.

Radial plots for subgroups contain a green line - which displays the difference from the standardised values of Census variables and the standardised parent cluster mean (in this case the parent cluster is the group in which the given subgroup belongs) – and a purple line, which represents the difference between the standardised values of Census variables for a given subgroup and the standardised UK mean for each variable.

Radial plot legend summary

Supergroups

standardised UK mean

difference between standardised supergroup mean and standardised UK mean

Groups

standardised UK mean and standardised parent cluster mean

difference between standardised group mean and standardised supergroup mean

difference between standardised group mean and standardised UK mean

Subgroups

standardised UK mean and standardised parent cluster mean

difference between standardised subgroup mean and standardised group mean

difference between standardised subgroup mean and standardised UK mean

List of 60 final 2011 Census Variables

Variable Number	Variable Description	Domain
1	% Persons aged 0– 4	Demographic structure
2	% Persons aged 5–14	
3	% Persons aged 25–44	
4	% Persons aged 45–64	
5	% Persons aged 65–89	
6	% Persons aged 90+	
7	Number of persons per hectare	
8	% Persons living in a communal establishment	
9	% Persons aged over 16 who are single	
10	% Persons aged over 16 who are married or in a registered same-sex civil partnership	
11	% Persons aged over 16 who are divorced or separated	
12	% Persons who are white	
13	% Persons who have mixed ethnicity or are from multiple ethnic groups	
14	% Persons who are Asian/Asian British: Indian	
15	% Persons who are Asian/Asian British: Pakistani	
16	% Persons who are Asian/Asian British: Bangladeshi	
17	% Persons who are Asian/Asian British: Chinese and Other	
18	% Persons who are Black/African/Caribbean/Black British	
19	% Persons who are Arab or from other ethnic groups	
20	% Persons whose country of birth is the United Kingdom or Ireland	
21	% Persons whose country of birth is in the old EU (pre 2004 accession countries)	
22	% Persons whose country of birth is in the new EU (post 2004 accession countries)	
23	% Persons whose main language is not English and they cannot speak English well or at all	
24	% Households with no children	Household composition
25	% Households with non-dependent children	
26	% Households with full-time students	
27	% Households who live in a detached house or bungalow	Housing
28	% Households who live in a semi-detached house or bungalow	
29	% Households who live in a terrace or end-terrace house	
30	% Households who live in a flat	
31	% Households who own or have shared ownership of property	
32	% Households who are social renting	
33	% Households who are private renting	
34	% Households who have one fewer or less rooms than required	
35	Individuals day-to-day activities limited a lot or a little (Standardised Illness Ratio)	Socio-Economic
36	% Persons providing unpaid care	
37	% Persons aged over 16 whose highest level of qualification is Level 1, Level 2 or Apprenticeship	
38	% Persons aged over 16 whose highest level of qualification is Level 3 qualifications	
39	% Persons aged over 16 whose highest level of qualification is Level 4 qualifications and above	
40	% Persons aged over 16 who are schoolchildren or full-time students	
41	% Households with two or more cars or vans	
42	% Persons aged 16–74 who use public transport to get to work	
43	% Persons aged 16–74 who use private transport to get to work	
44	% Persons aged 16–74 who walk, cycle or use an alternative method to get to work	

Variable Number	Variable Description	Domain
45	% Persons aged 16–74 who are unemployed	Employment
46	% Employed persons aged 16–74 who work part-time	
47	% Employed persons aged 16–74 who work full-time	
48	% Employed persons aged 16–74 who work in the agriculture, forestry or fishing industries	
49	% Employed persons aged 16–74 who work in the mining, quarrying or construction industries	
50	% Employed persons aged 16–74 who work in the manufacturing industry	
51	% Employed persons aged 16–74 who work in the energy, water or air conditioning supply industries	
52	% Employed persons aged 16–74 who work in the wholesale and retail trade; repair of motor vehicles and motor cycles industries	
53	% Employed persons aged 16–74 who work in the transport or storage industries	
54	% Employed persons aged 16–74 who work in the accommodation or food service activities industries	
55	% Employed persons aged 16–74 who work in the information and communication or professional, scientific and technical activities industries	
56	% Employed persons aged 16–74 who work in the financial, insurance or real estate industries	
57	% Employed persons aged 16–74 who work in the administrative or support service activities industries	
58	% Employed persons aged 16–74 who work in the in public administration or defence; compulsory social security industries	
59	% Employed persons aged 16–74 who work in the education sector	
60	% Employed persons aged 16–74 who work in the human health and social work activities industries	

Census variable glossary

Old EU countries - refers to the 15 pre 2004 accession countries: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Irish Republic, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden and the UK.

New EU countries - refers to the 10 post 2004 accession countries: Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia.

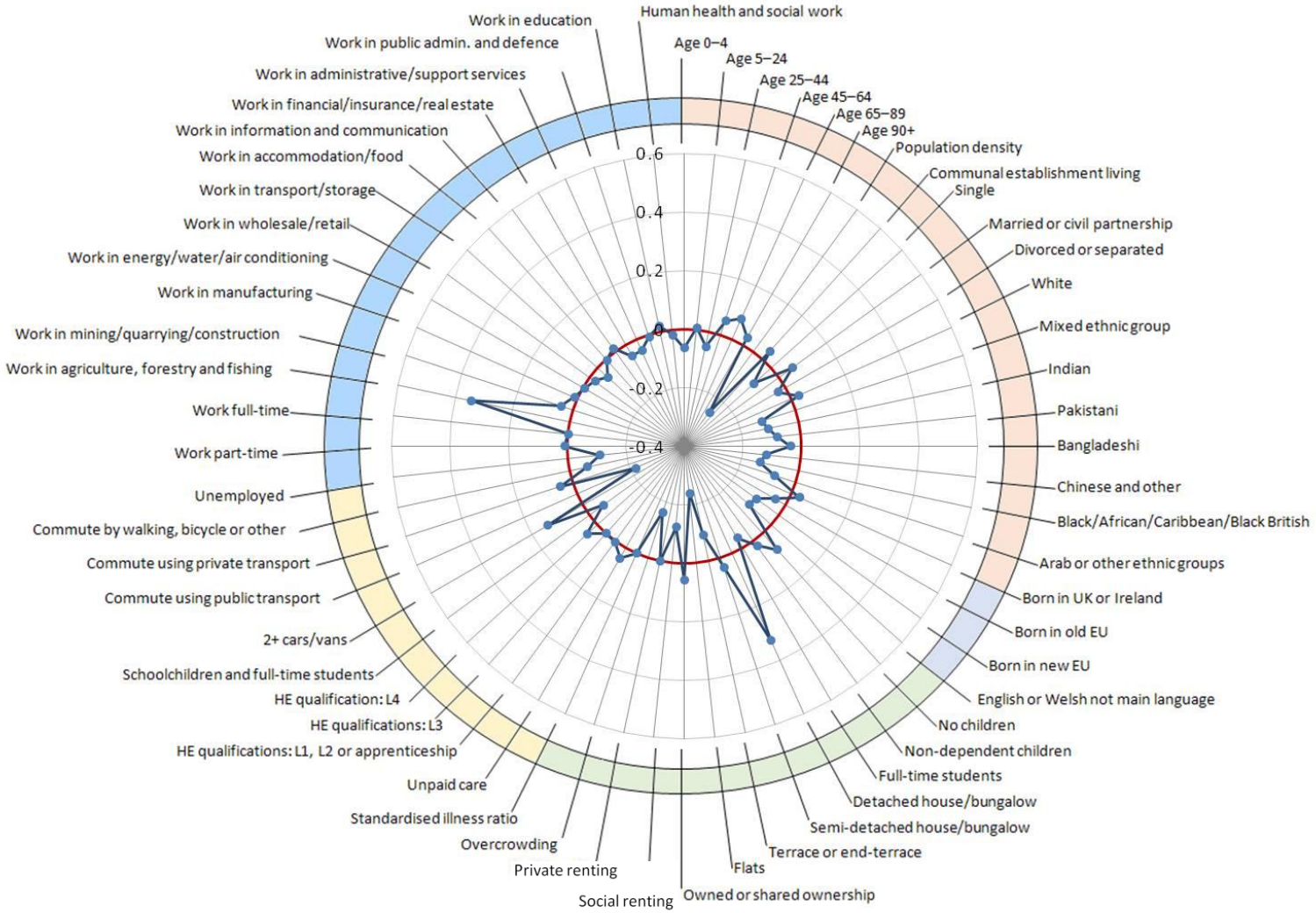
Industries - based on aggregations of industries from the Standard Industrial Classification 2007 (SIC 2007):

- Agriculture, forestry and fishing
- Mining, quarrying or construction industries
- Manufacturing industry
- Energy, water or air conditioning supply industries
- Wholesale and retail trade; repair of motor vehicles and motor cycles industries
- Transport or storage industries
- Accommodation or food service activities industries
- Information and communication or professional, scientific and technical activities industries
- Financial, insurance or real estate industries
- Administrative or support service activities industries
- Public administration or defence; compulsory social security industries

Qualifications – refers to different past and present qualification:

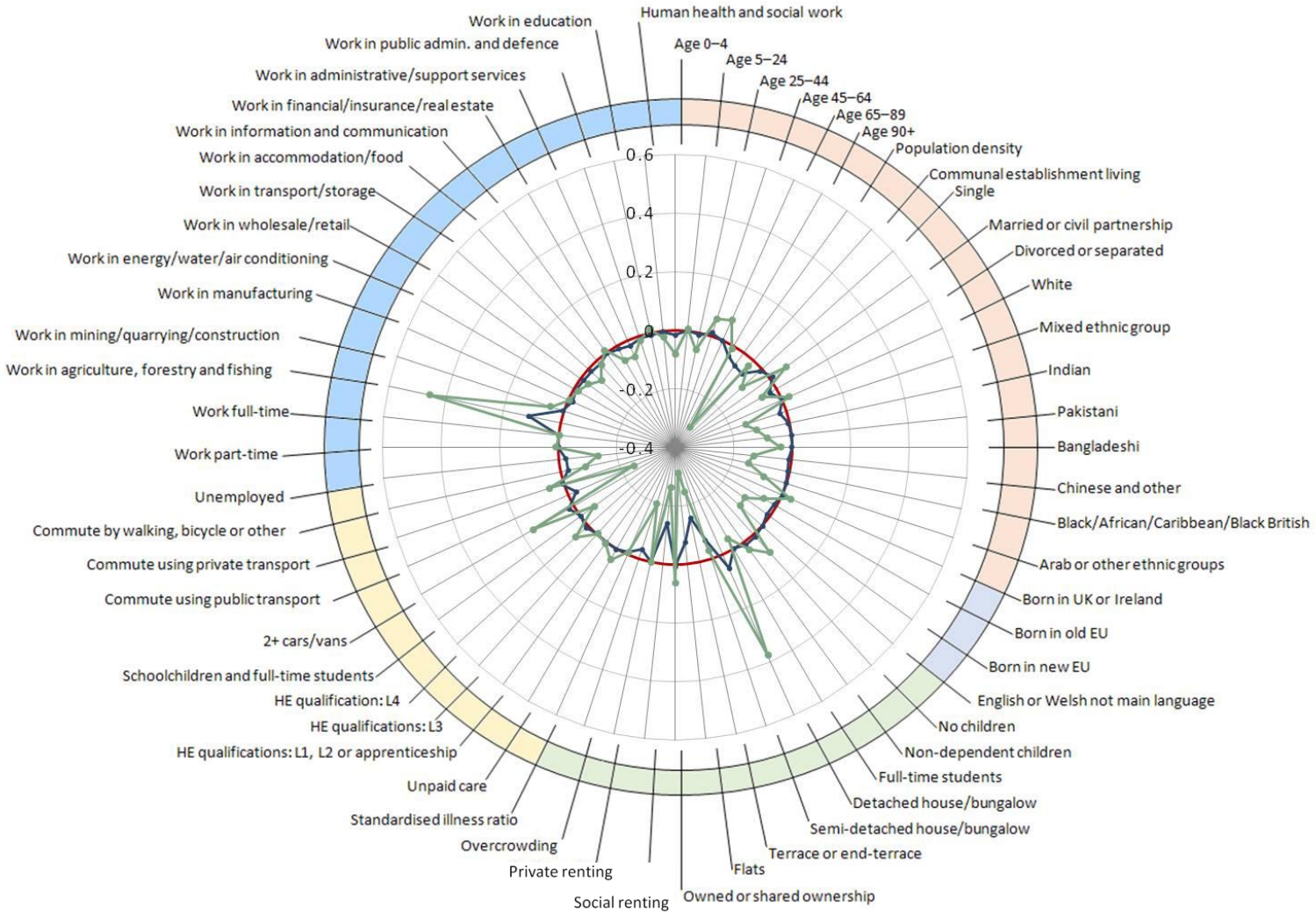
- Level 1, examples include GCSEs (grades D-G) and diplomas (City & Guilds, BTEC)
- Level 2, examples include GCSEs (grades A*-C) and O Levels (grades A-C)
- Level 3, examples include A Levels (grades A-E) and AS Levels
- Level 4 and above, examples include Higher National Certificates (HNCs) and degrees

1 Rural residents

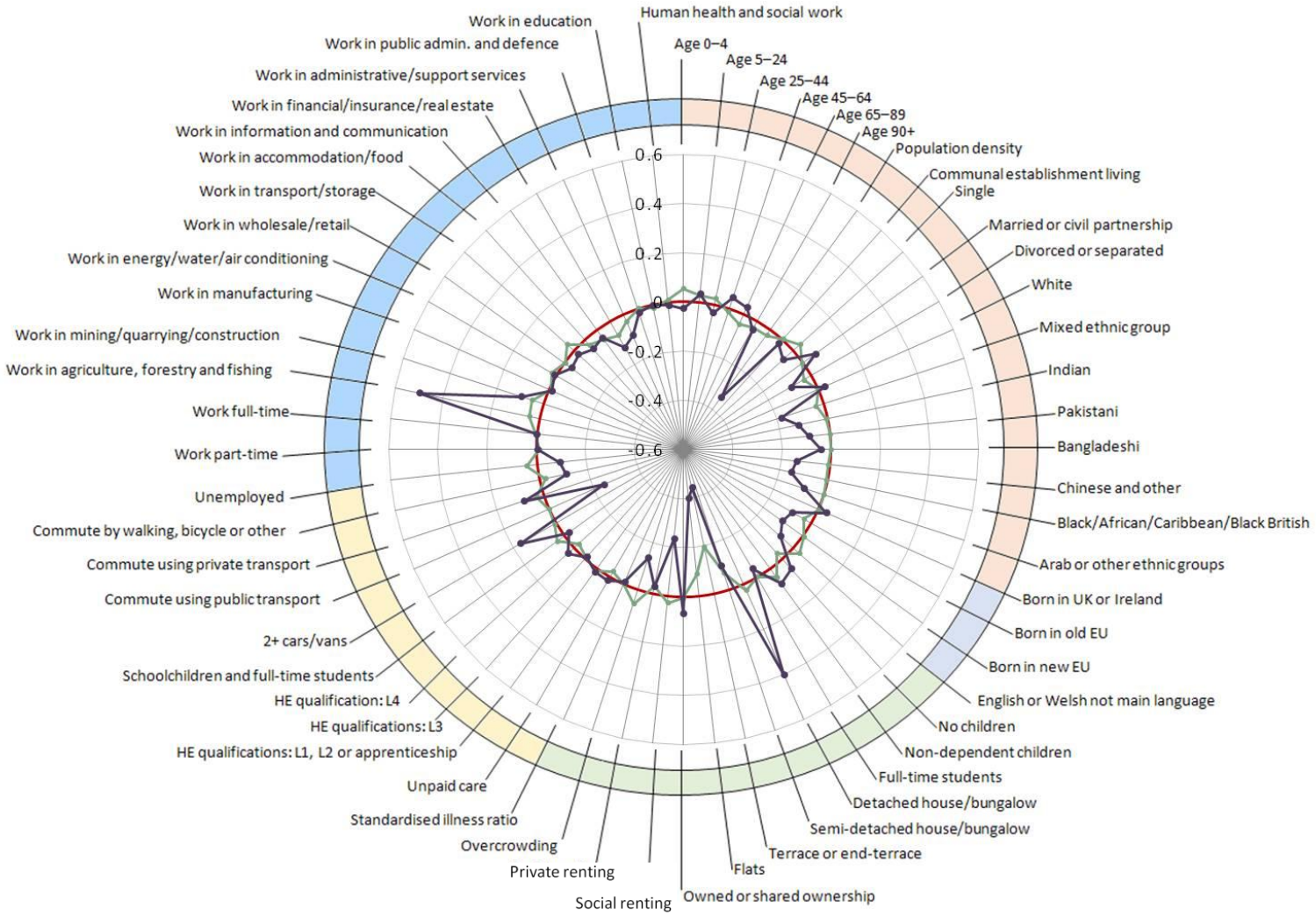


1 Rural residents

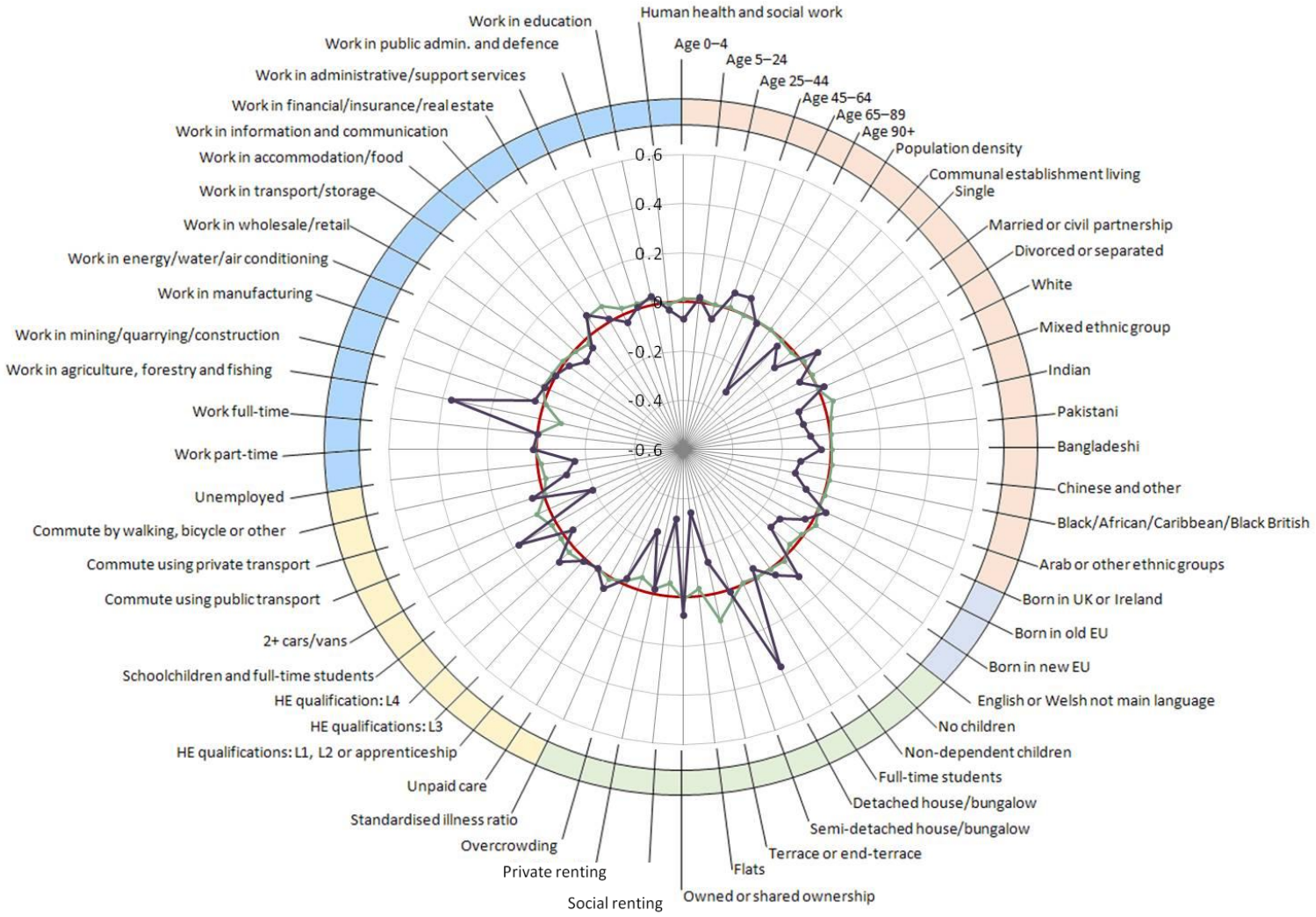
1a Farming communities



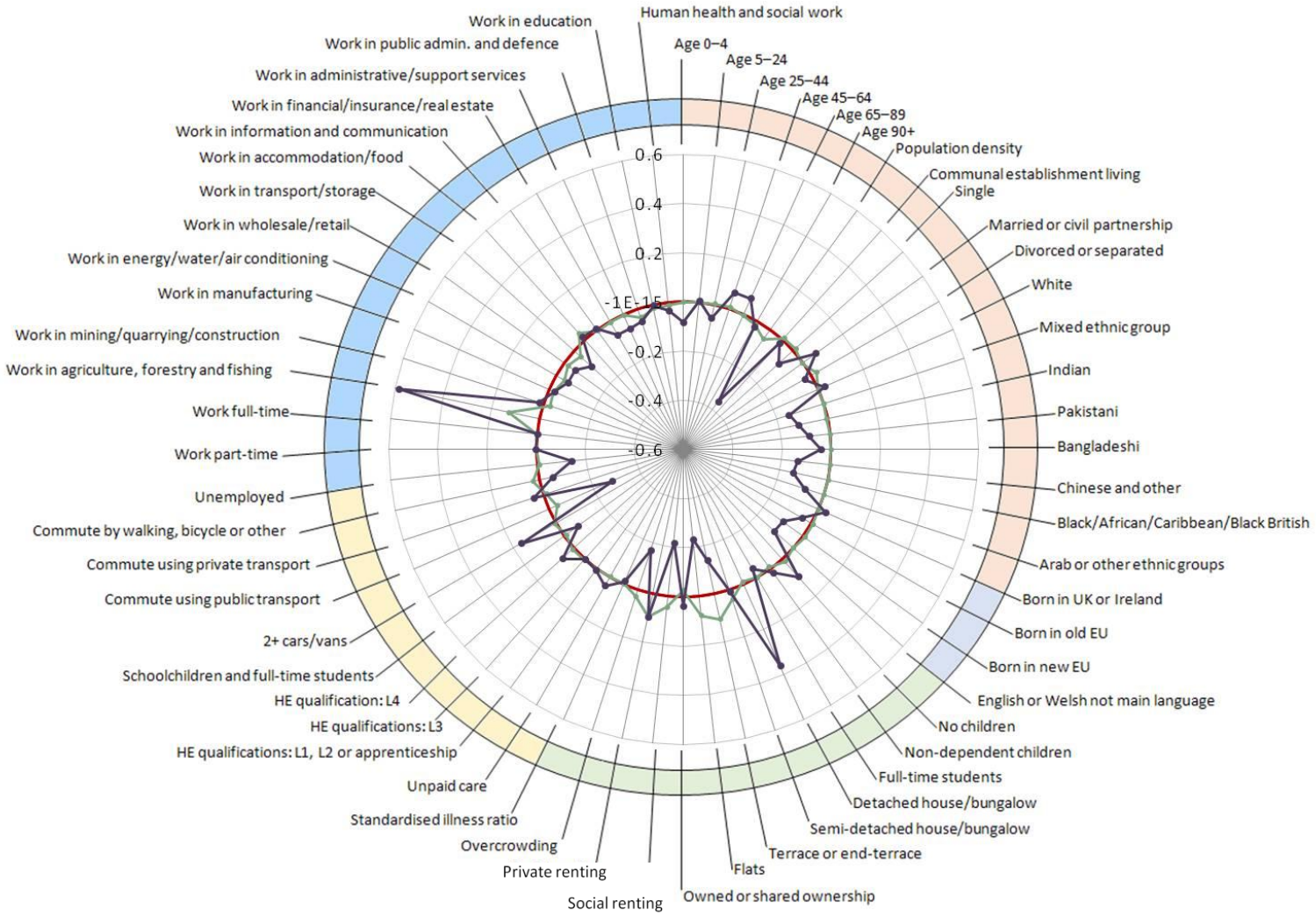
1 Rural residents
1a Farming communities
1a1 Rural workers and families



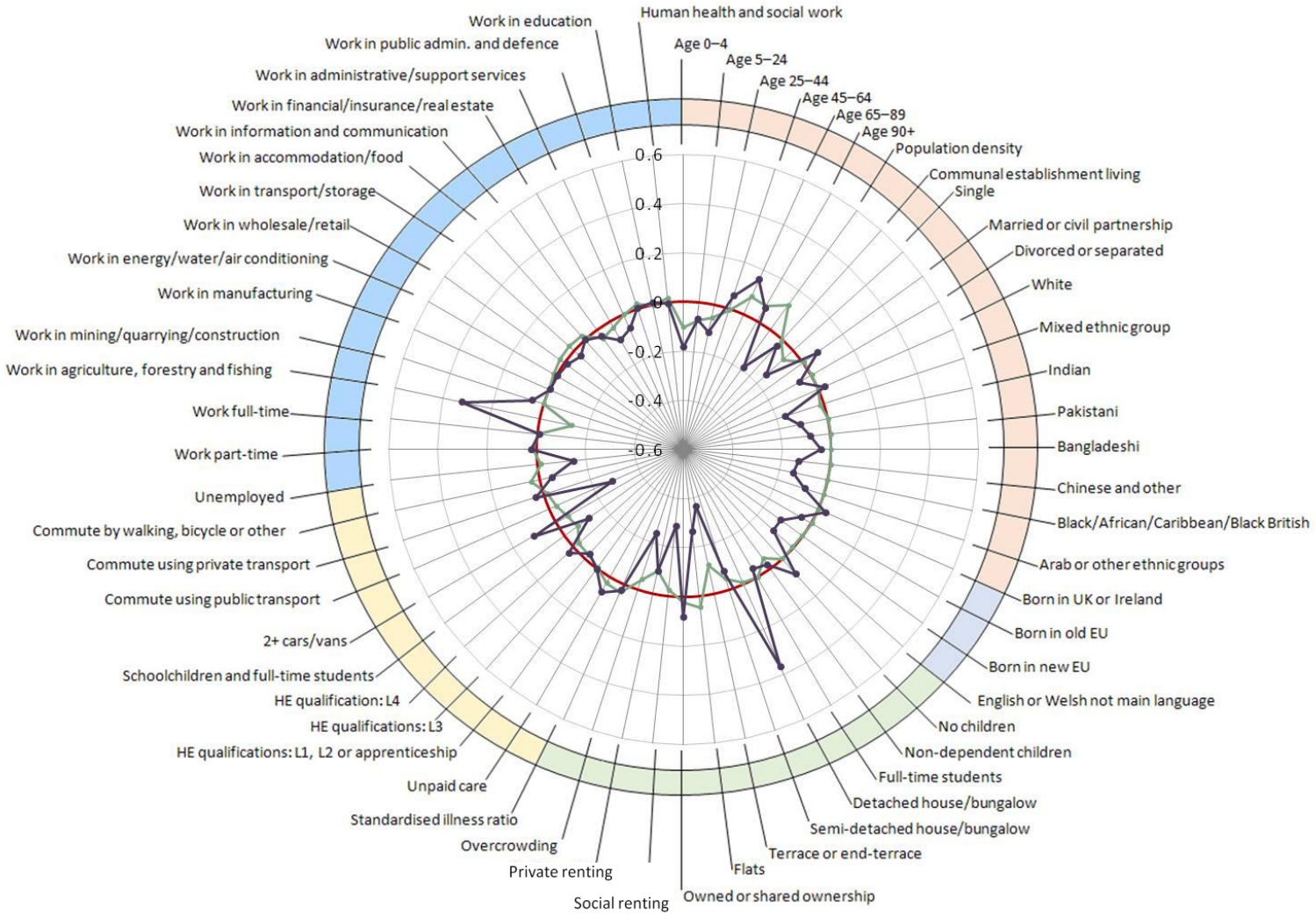
1 Rural residents
1a Farming communities
1a2 Established farming communities



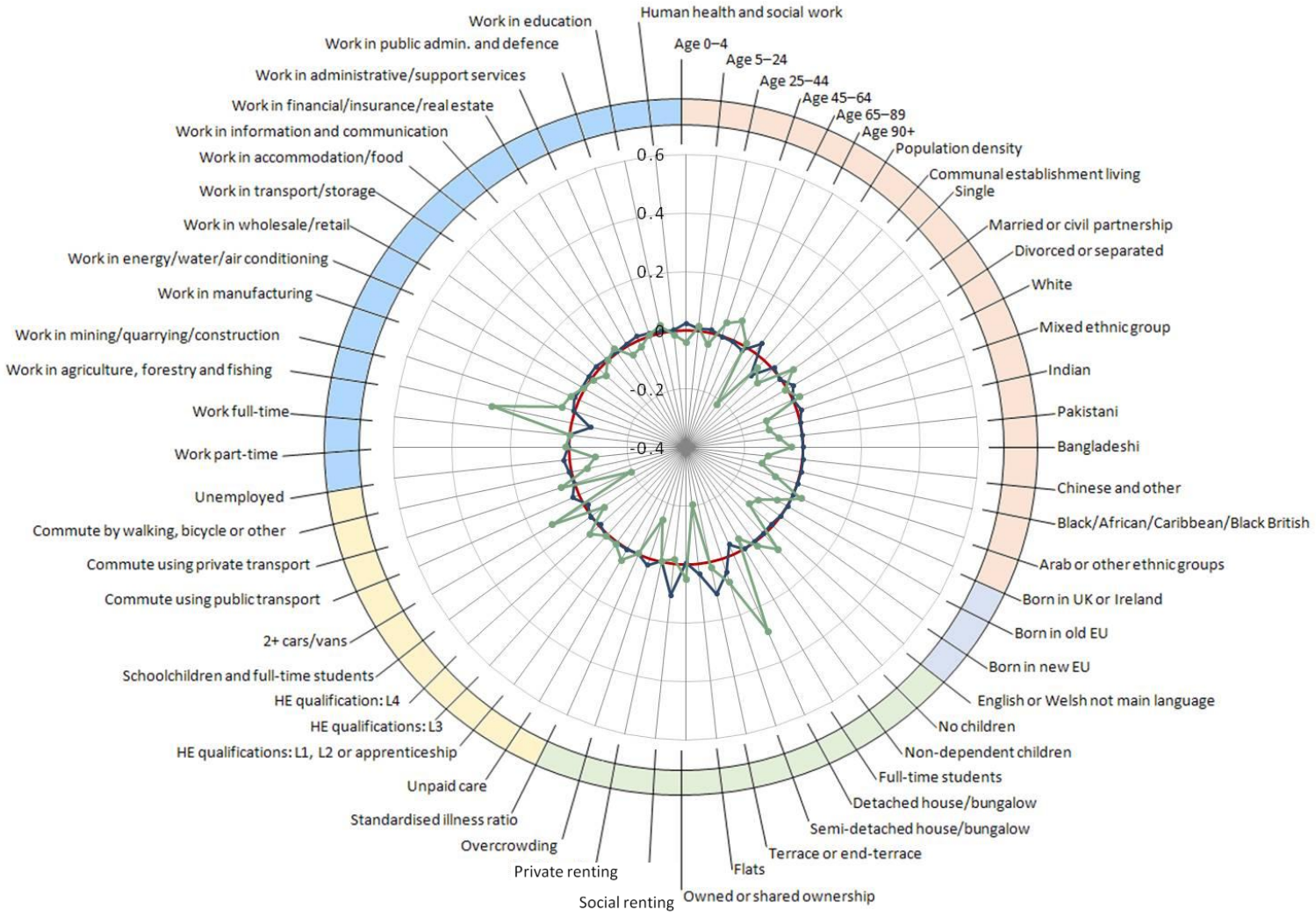
1 Rural residents
1a Farming communities
1a3 Agricultural communities



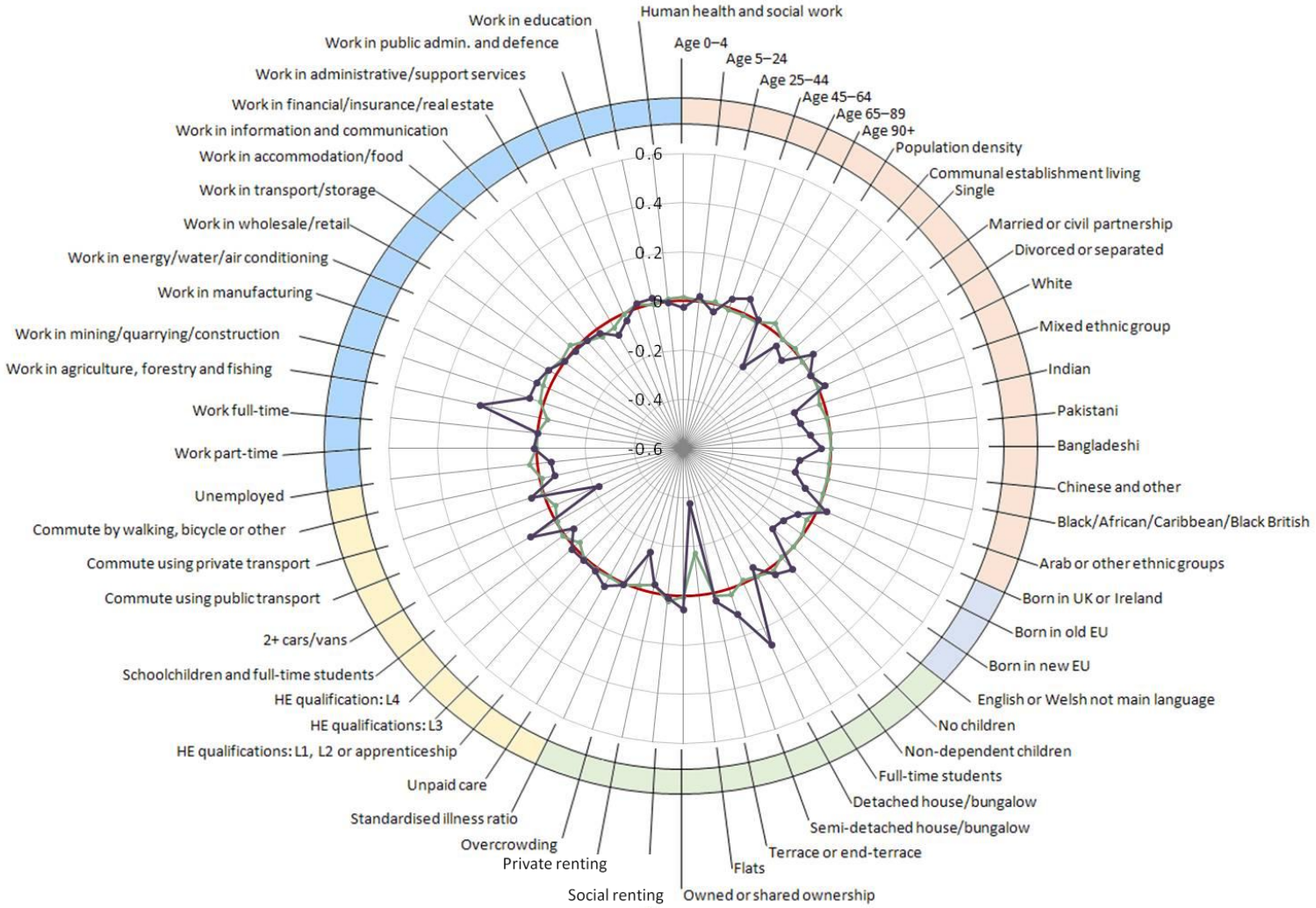
1 Rural residents
1a Farming communities
1a4 Older farming communities



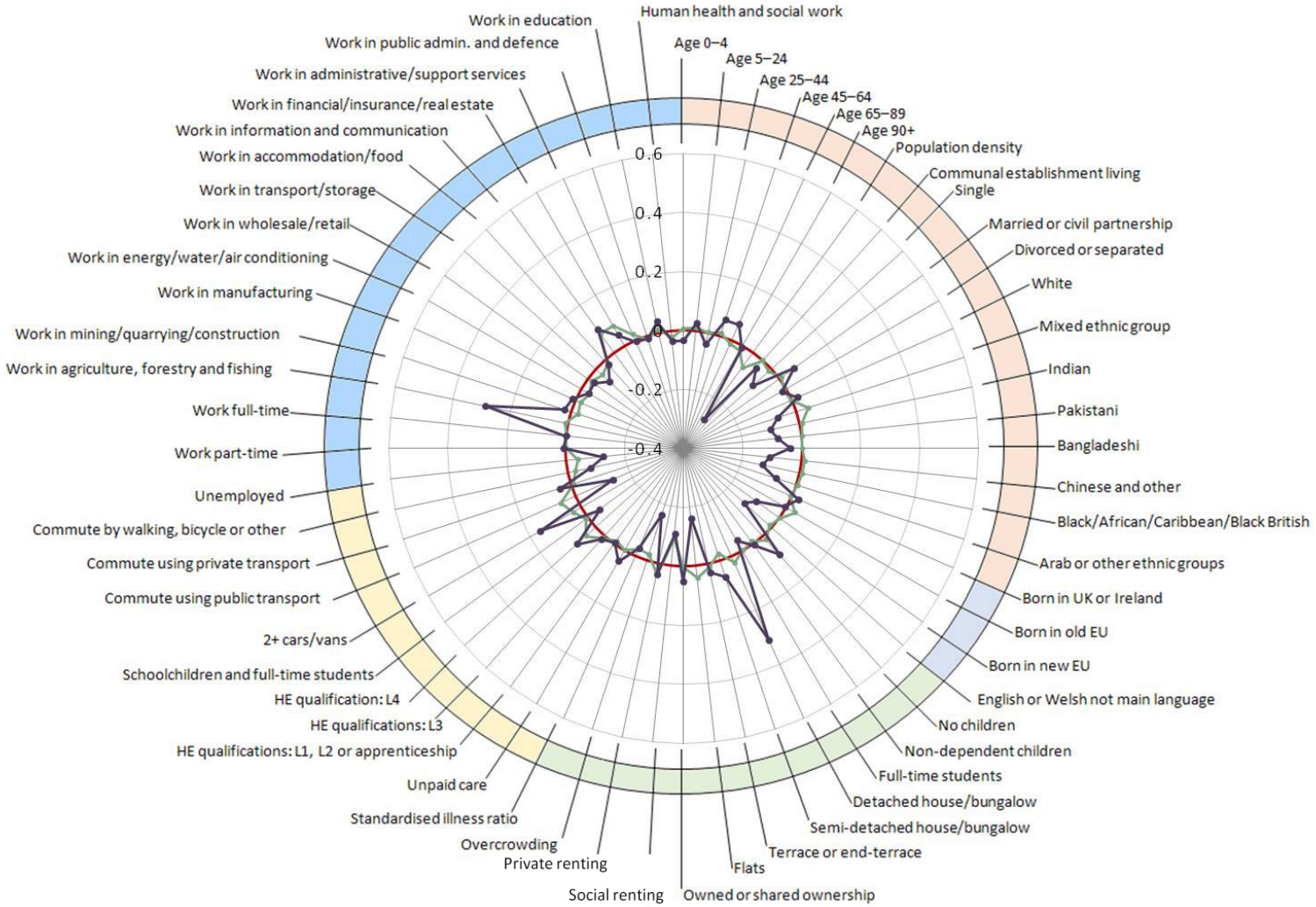
1 Rural residents
1b Rural tenants



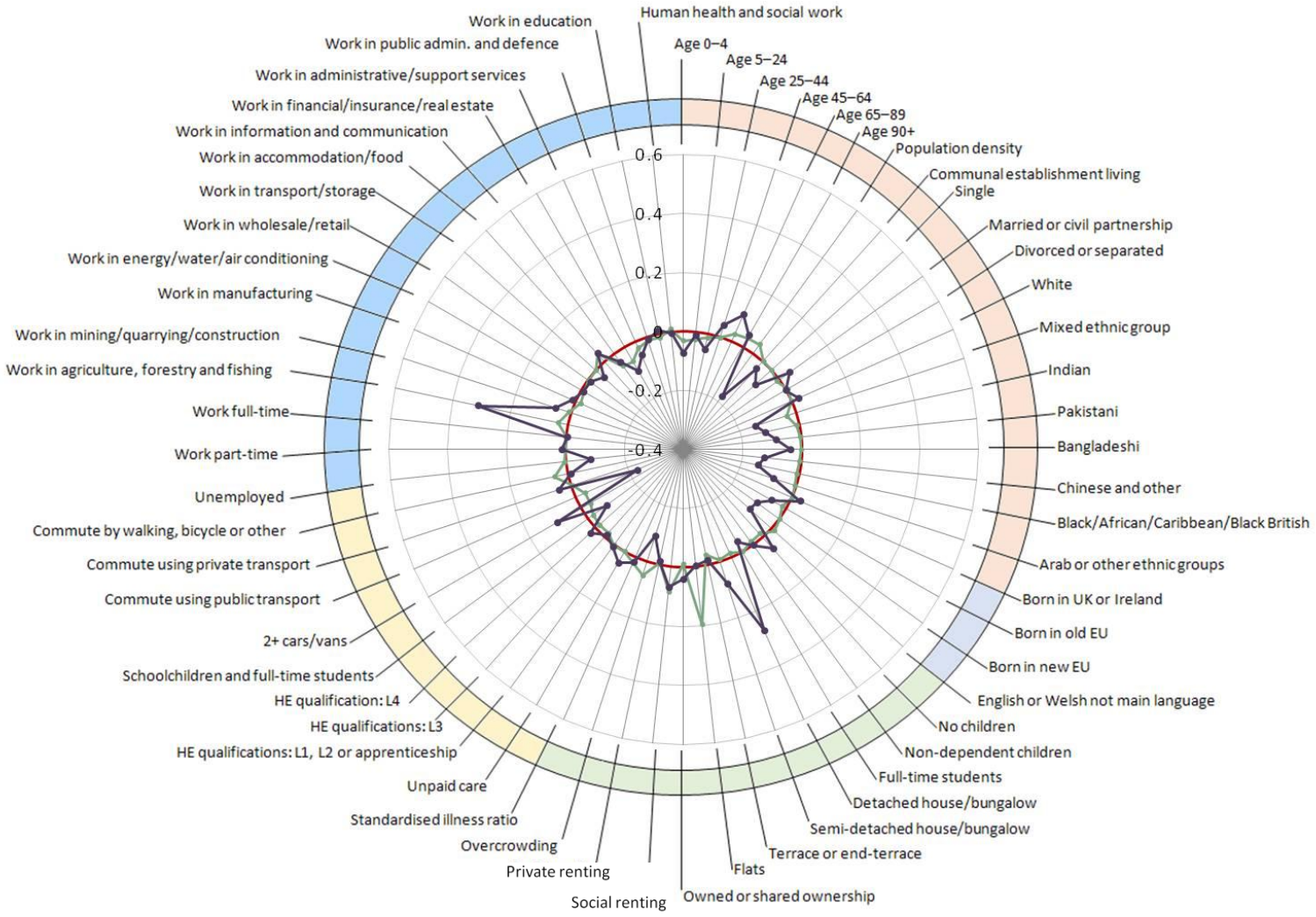
1 Rural residents
1b Rural tenants
1b1 Rural life



1 Rural residents
1b Rural tenants
1b2 Rural white-collar workers

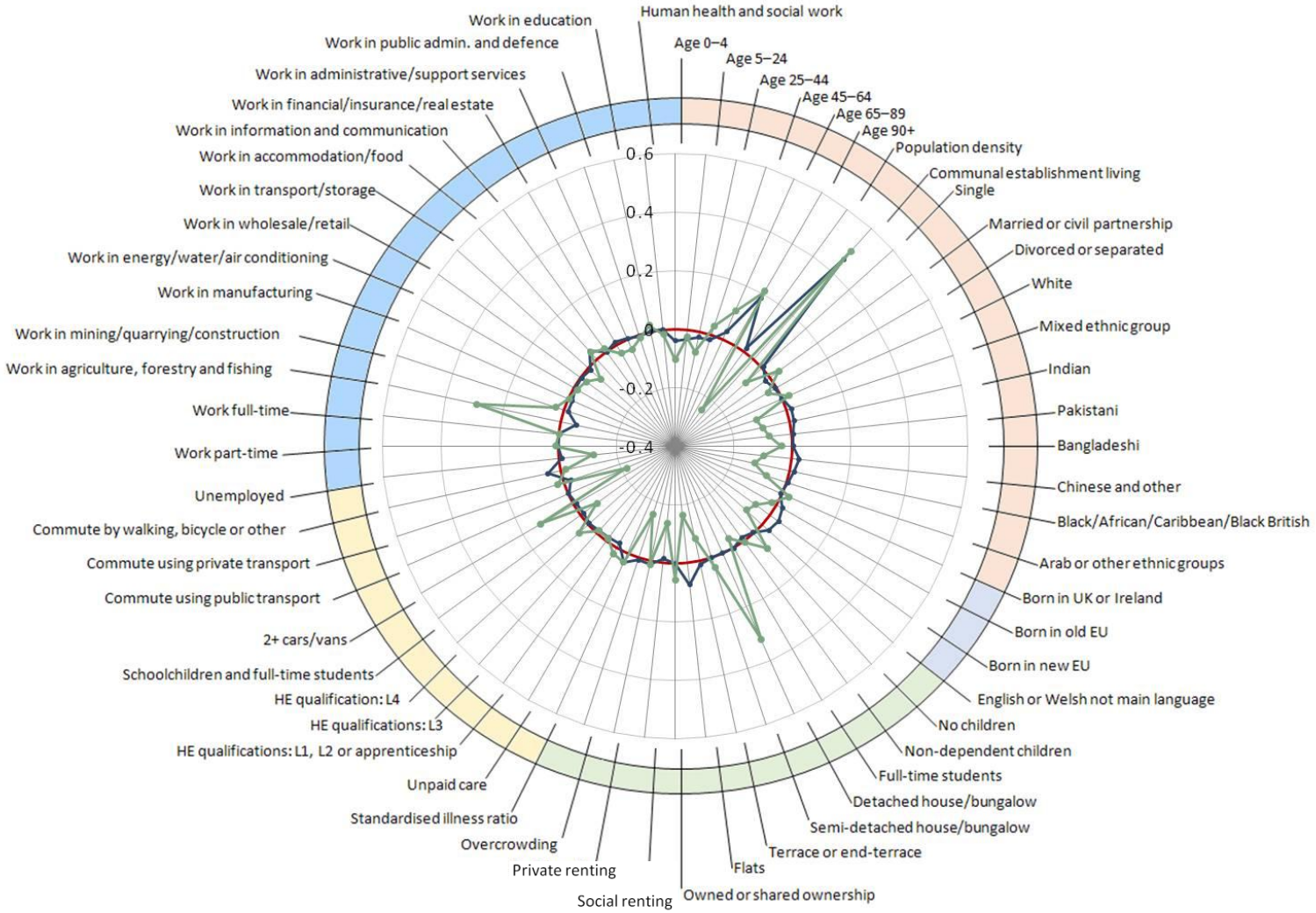


1 Rural residents
1b Rural tenants
1b3 Rural ageing rural flat tenants

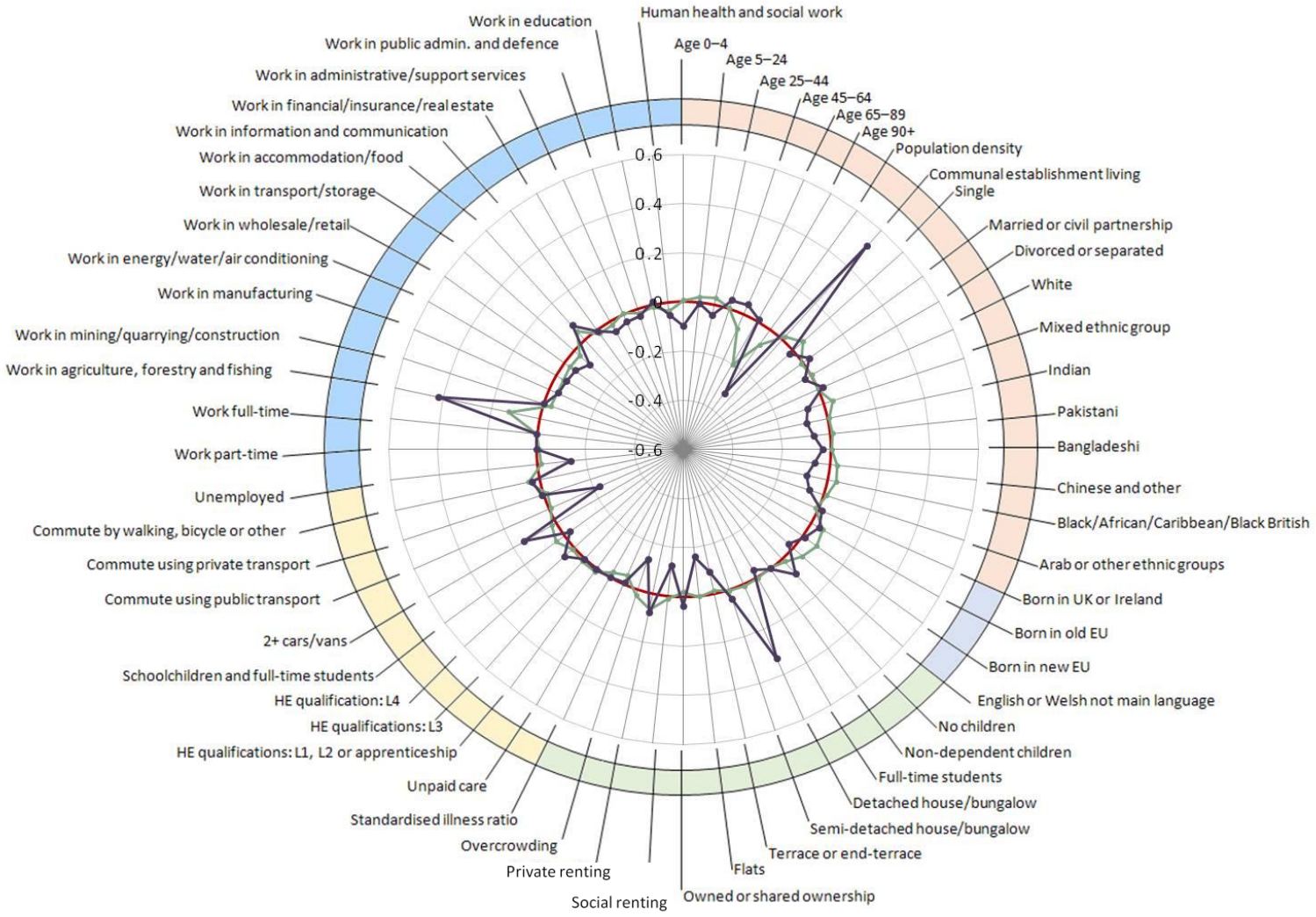


1 Rural residents

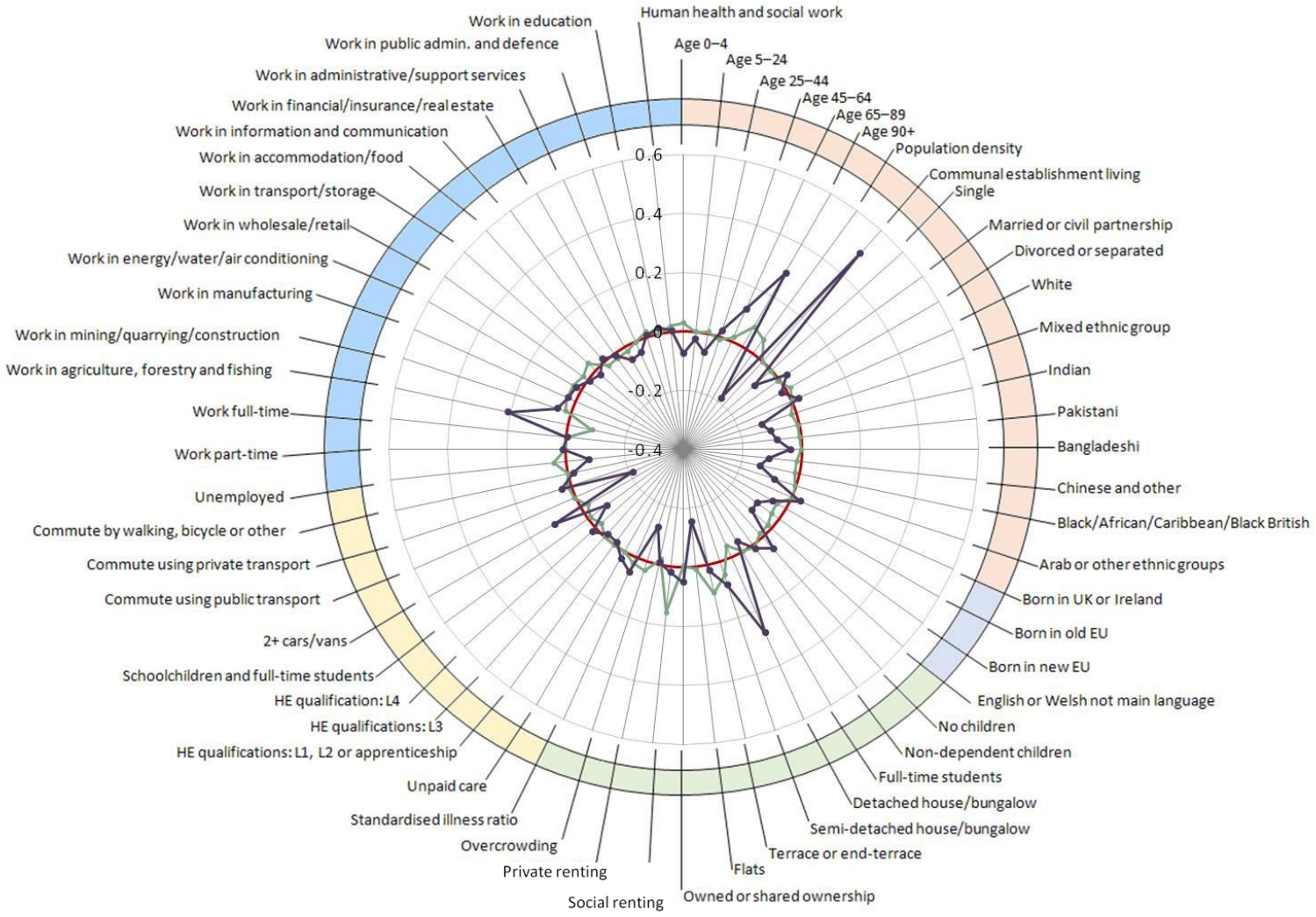
1c Ageing rural dwellers



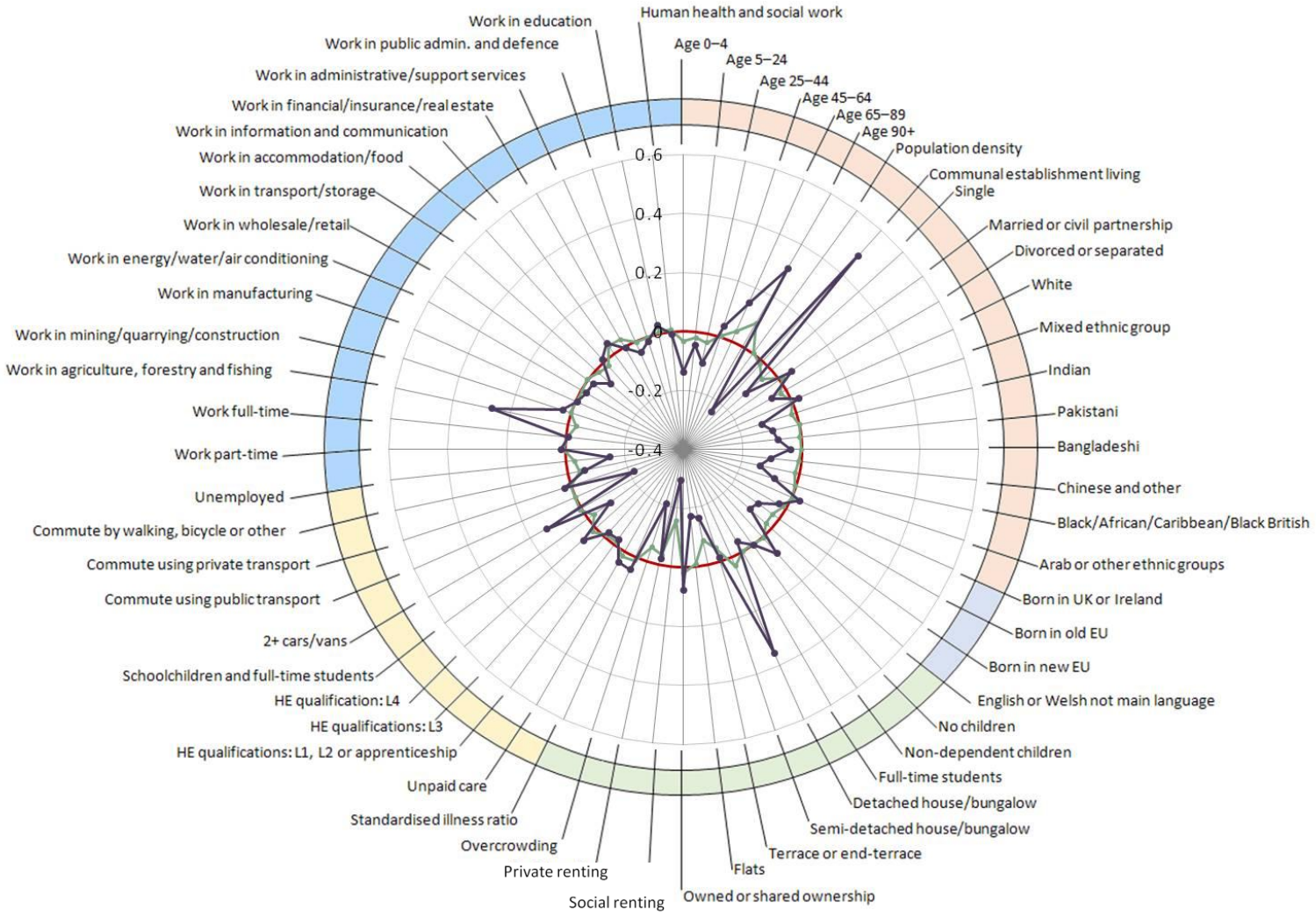
1 Rural residents
1c Ageing rural dwellers
1c1 Rural employment and retirees



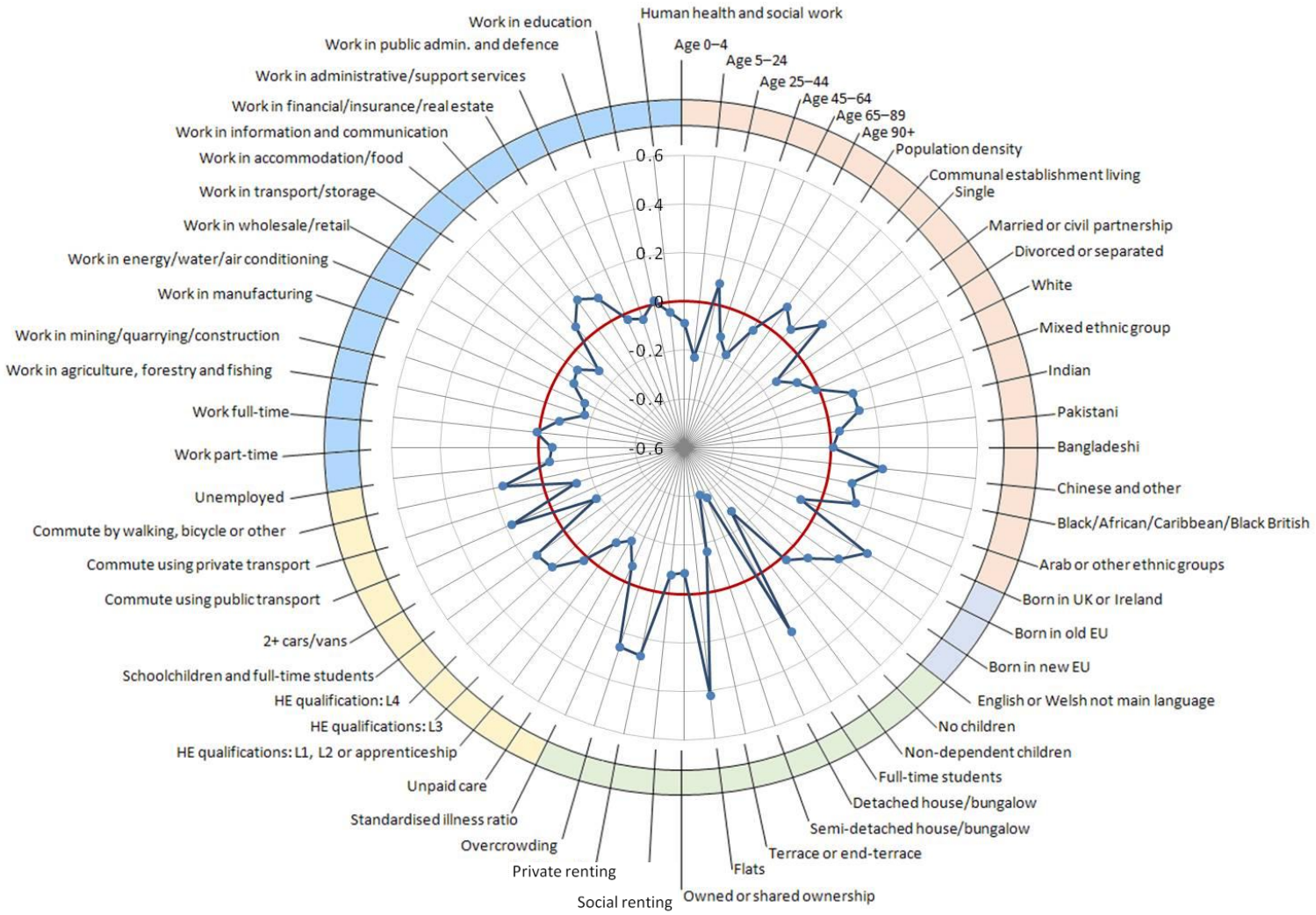
1 Rural residents
1c Ageing rural dwellers
1c2 Renting rural retirement



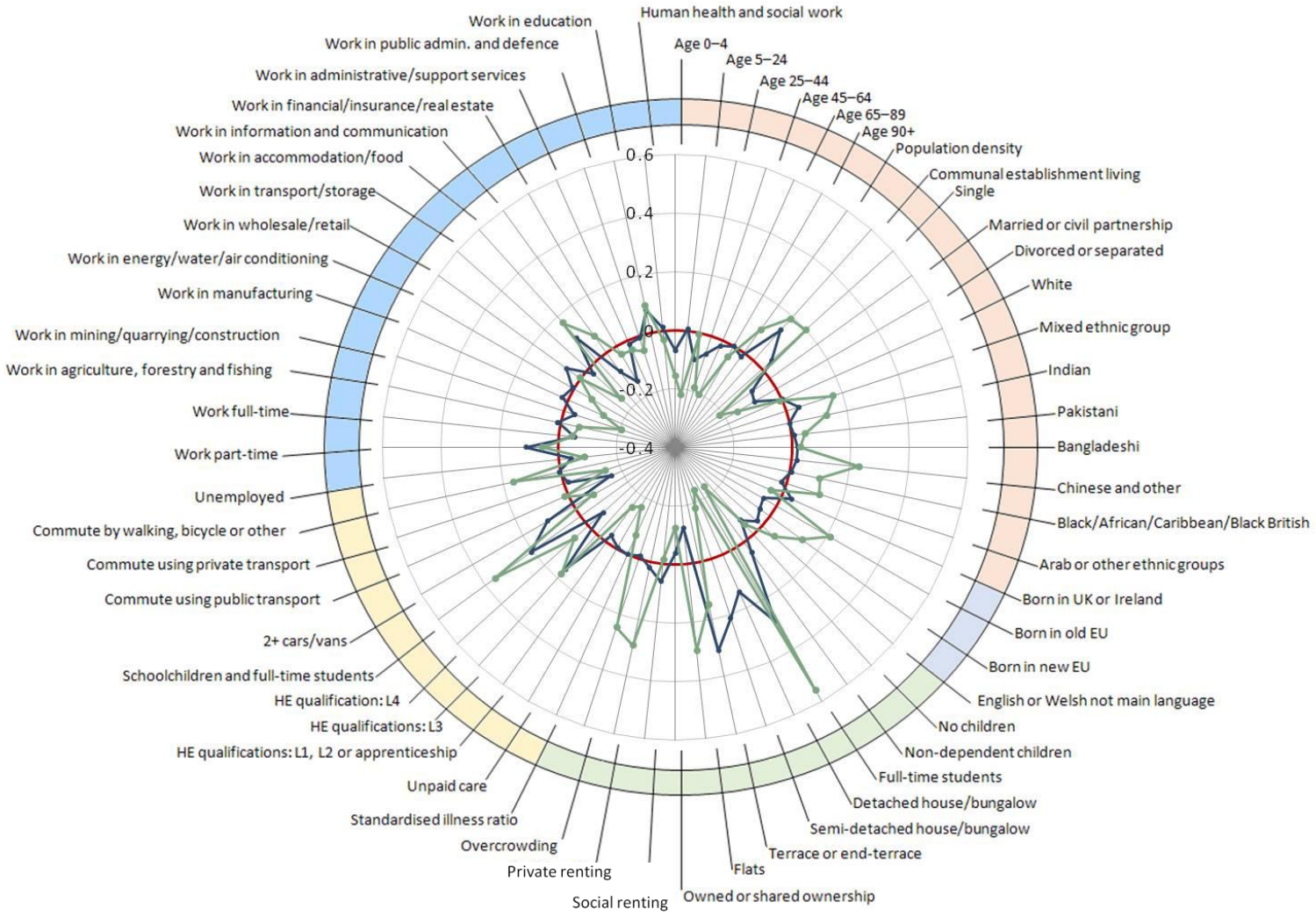
1 Rural residents
1c Ageing rural dwellers
1c3 Detached rural retirement



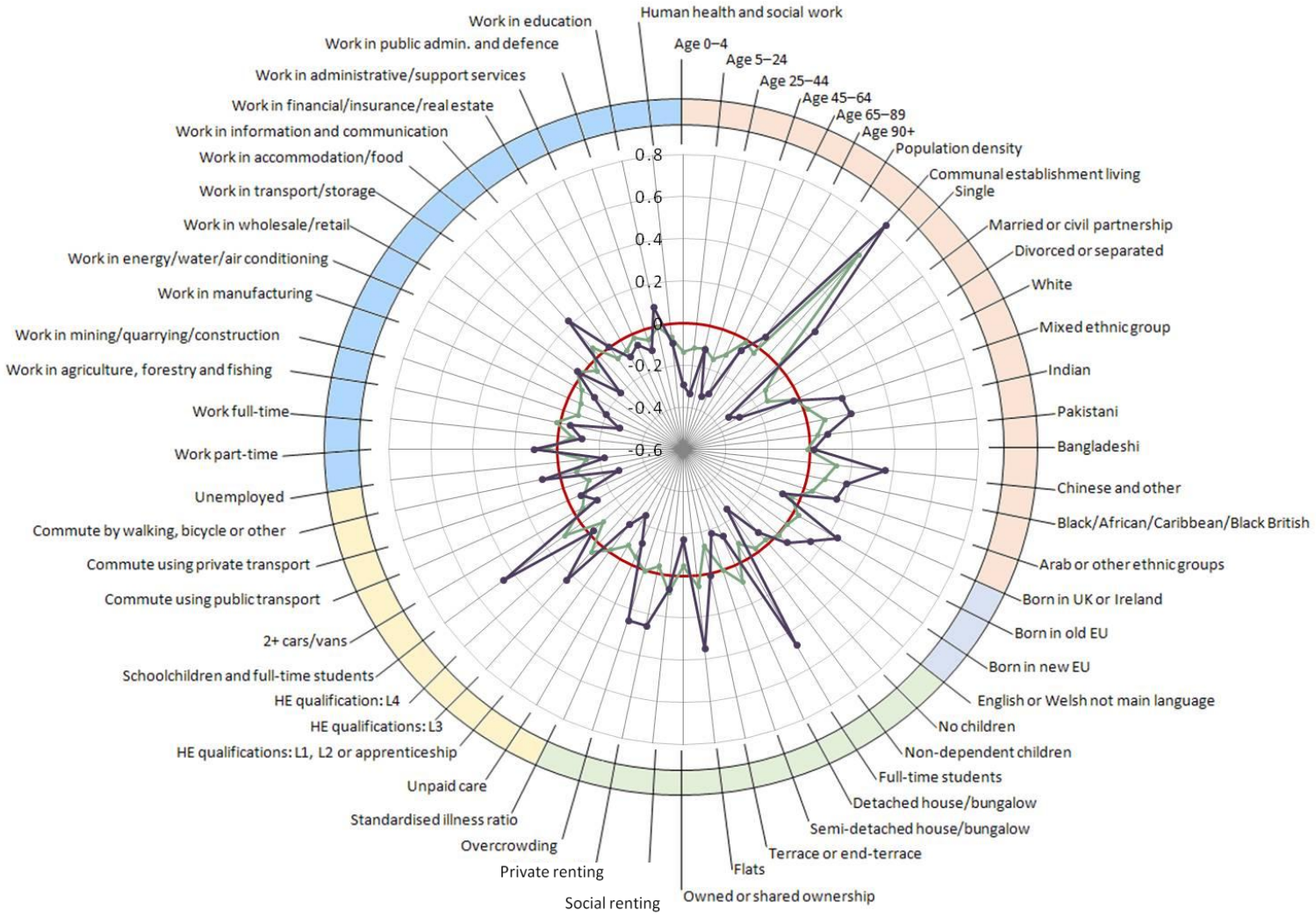
2 Cosmopolitans



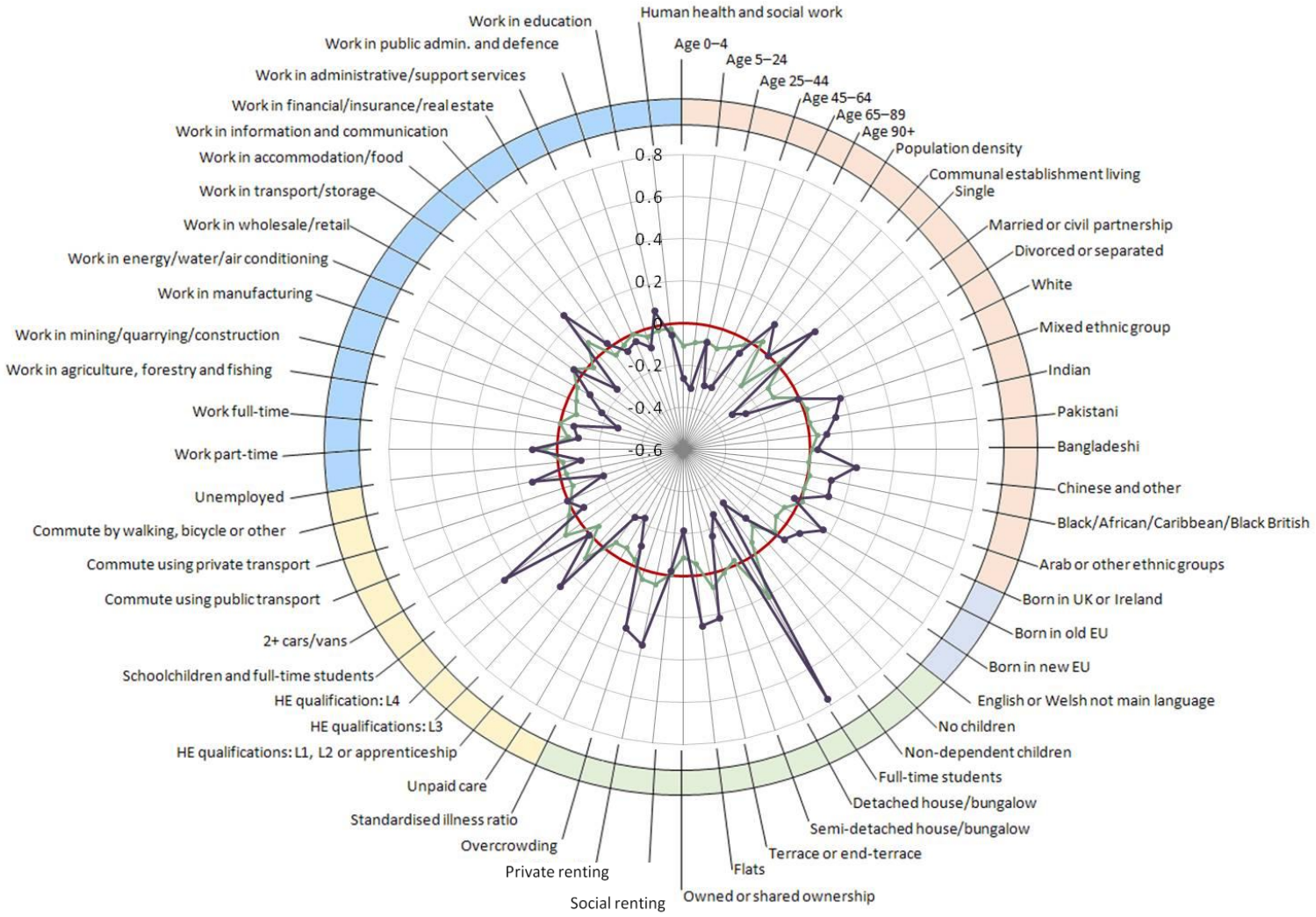
2 Cosmopolitans
2a Students around campus



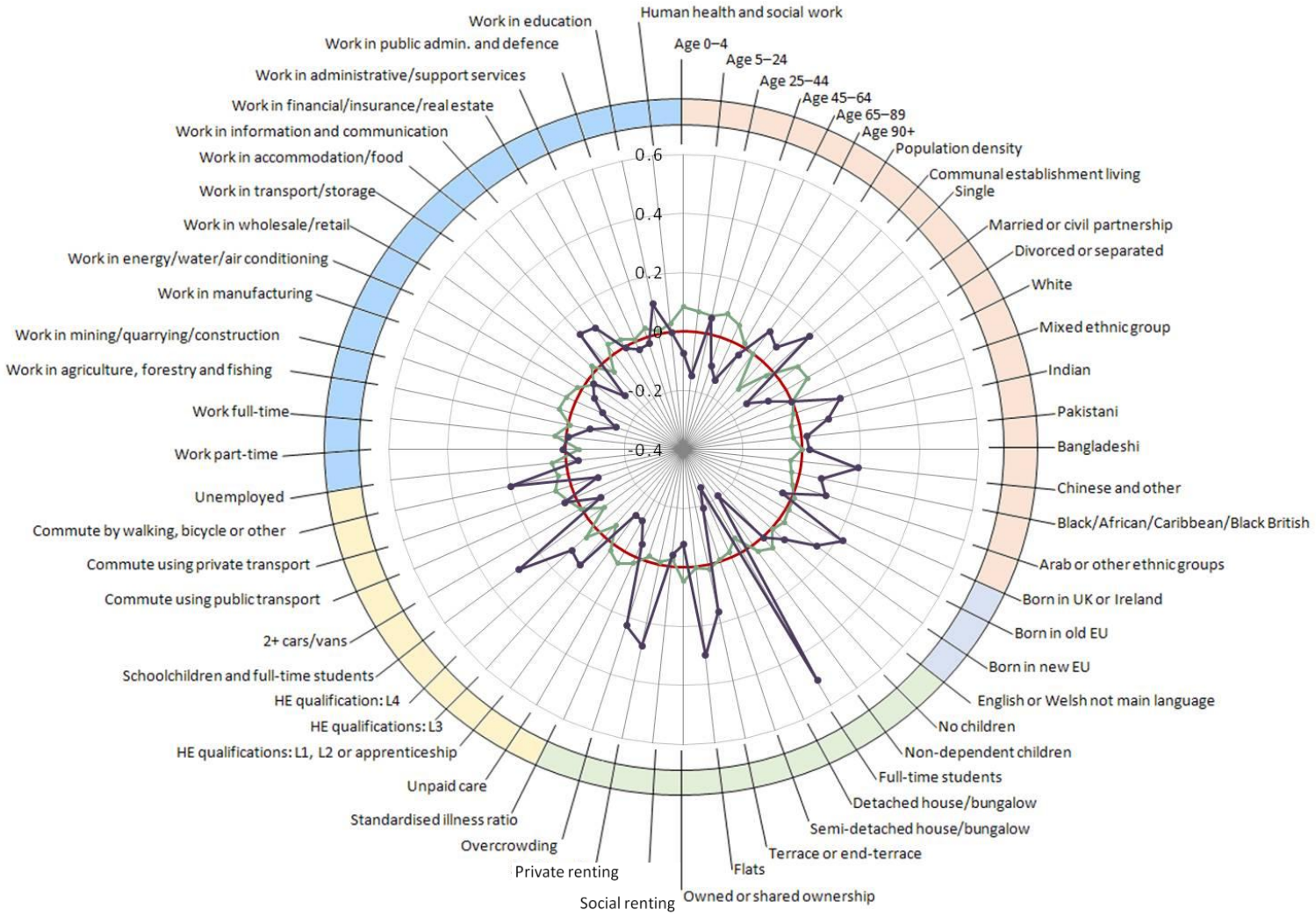
2 Cosmopolitans
2a Students around campus
2a1 Student communal living



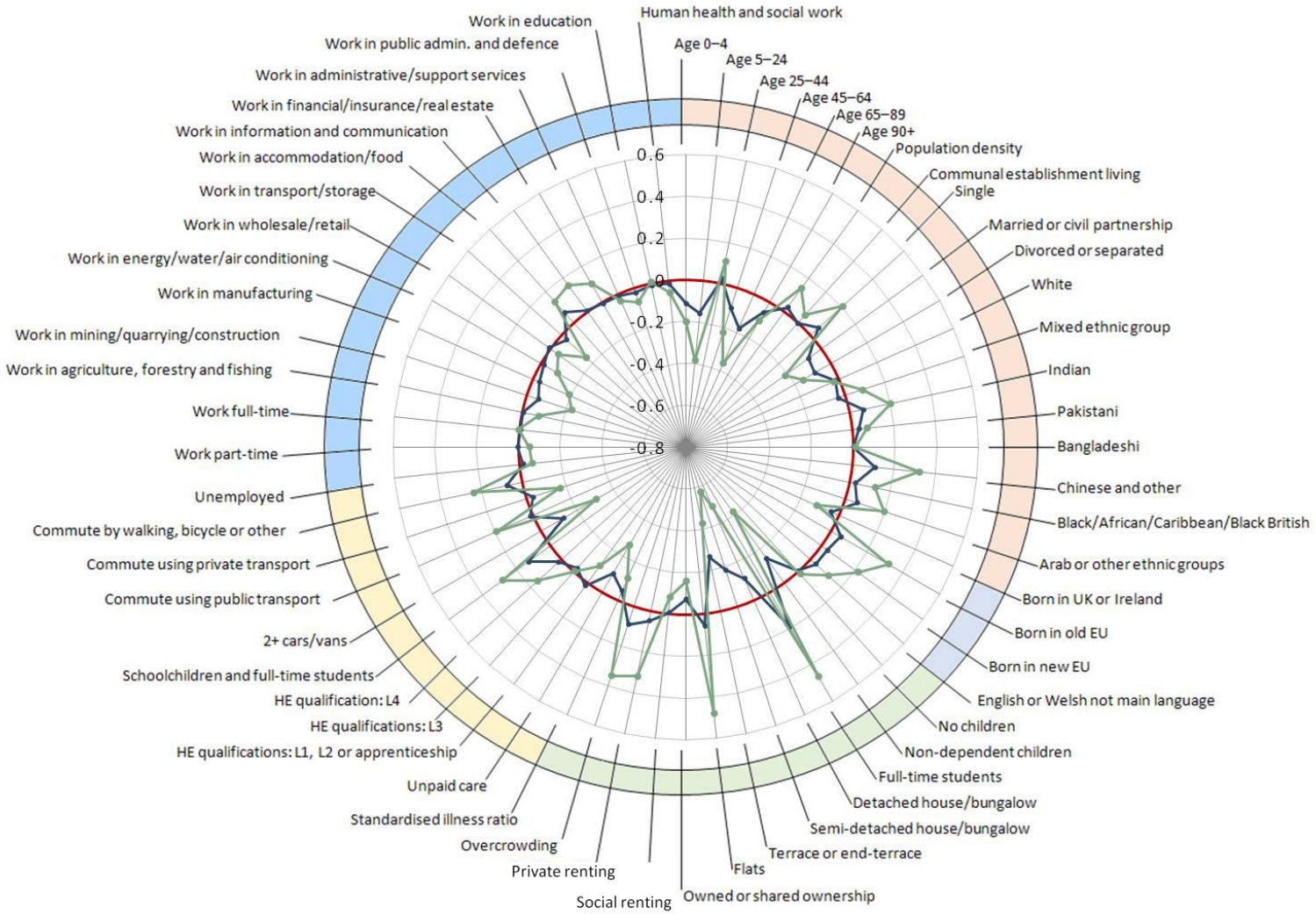
2 Cosmopolitans
2a Students around campus
2a2 Student digs



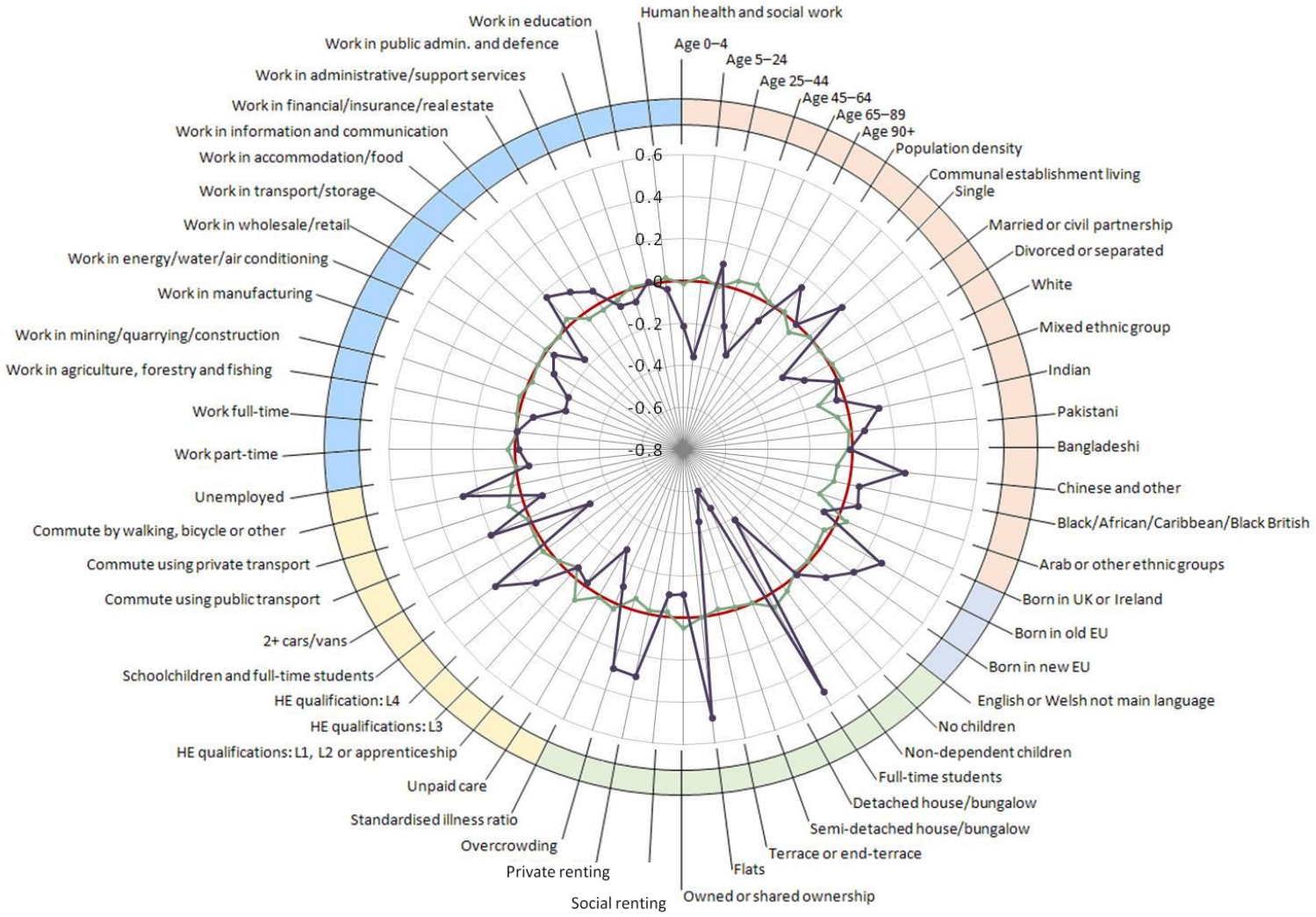
2 Cosmopolitans
2a Students around campus
2a3 Students and professionals



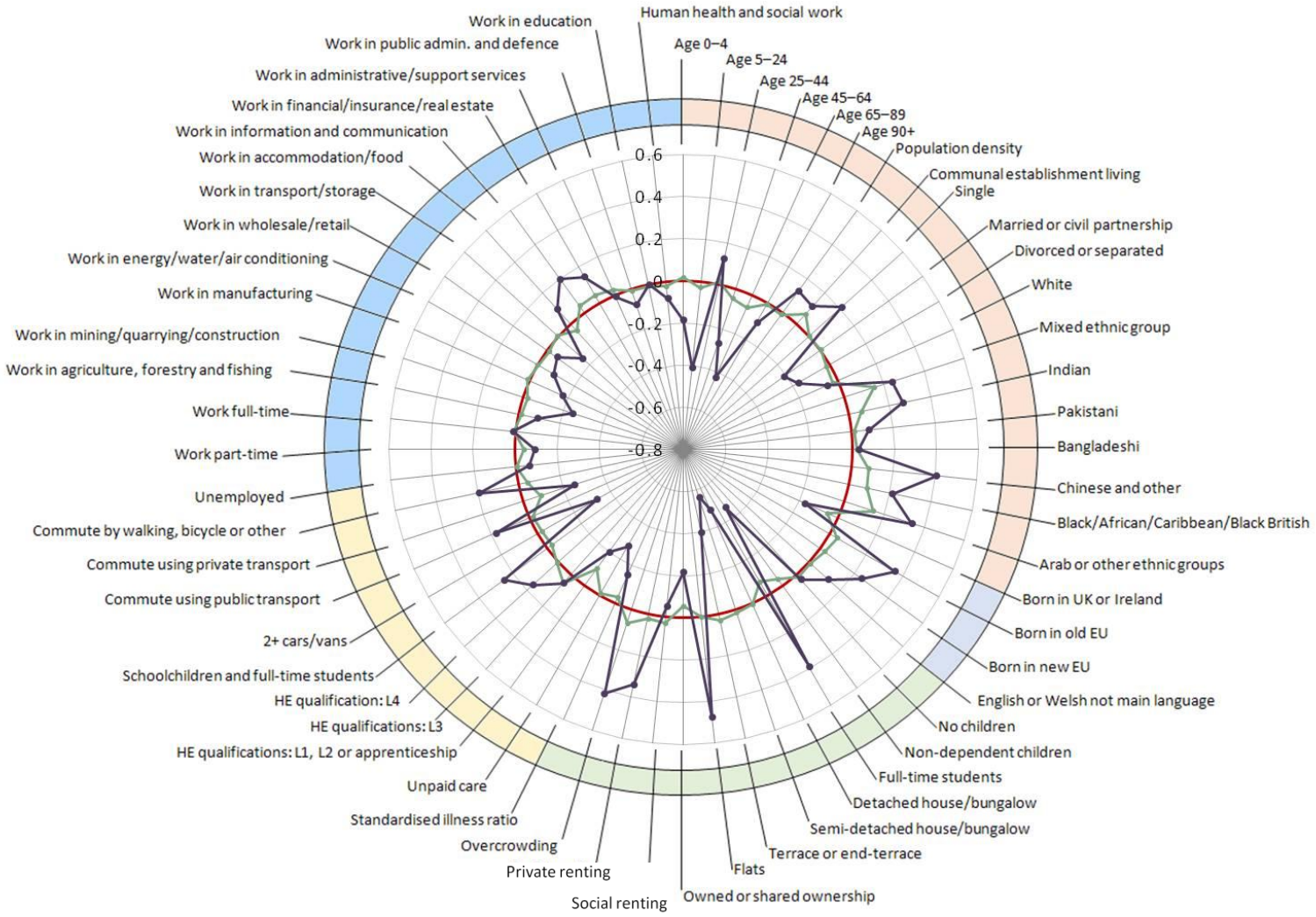
2 Cosmopolitans
2b Inner city students



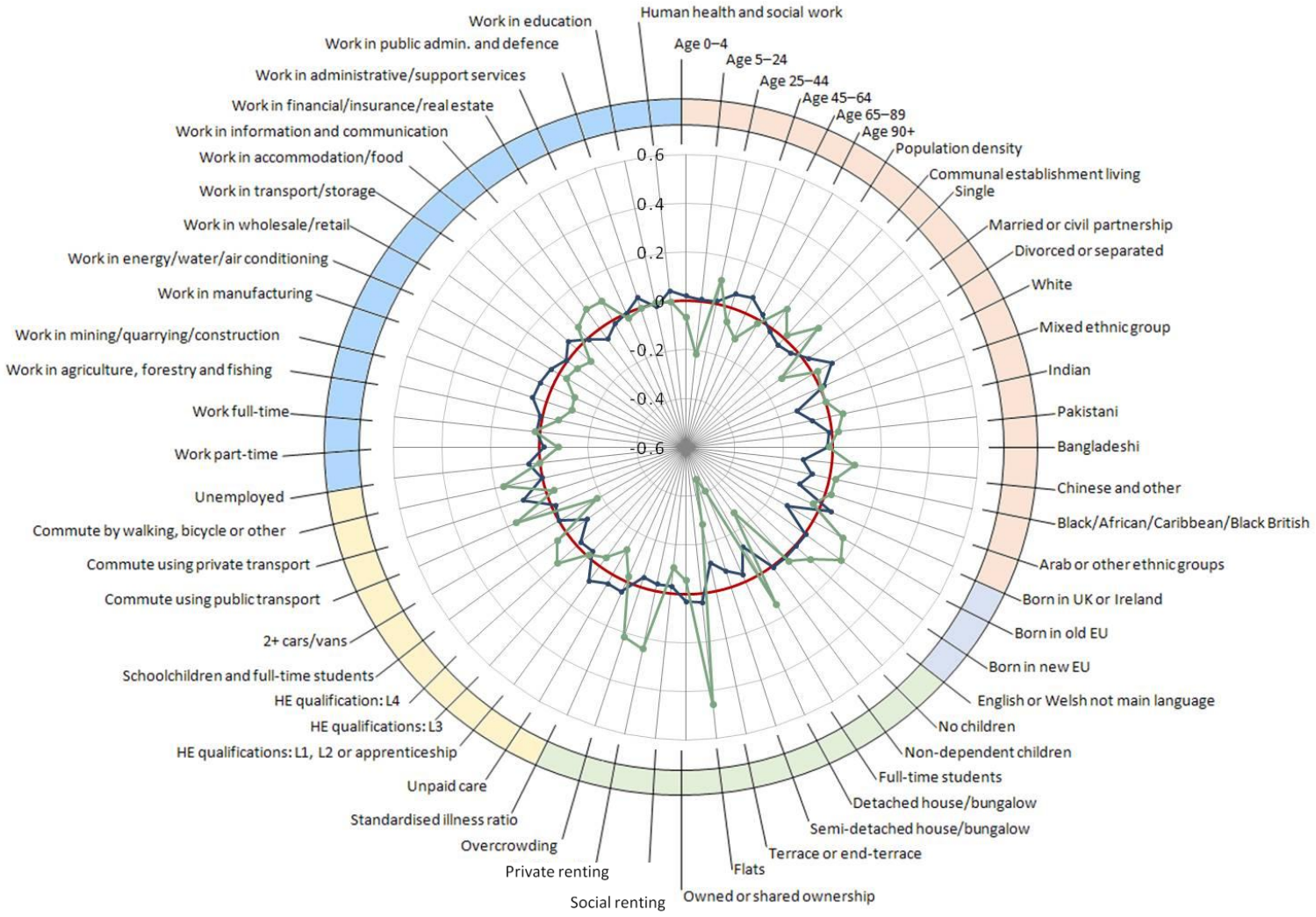
2 Cosmopolitans
2b Inner city students
2b1 Students and commuters



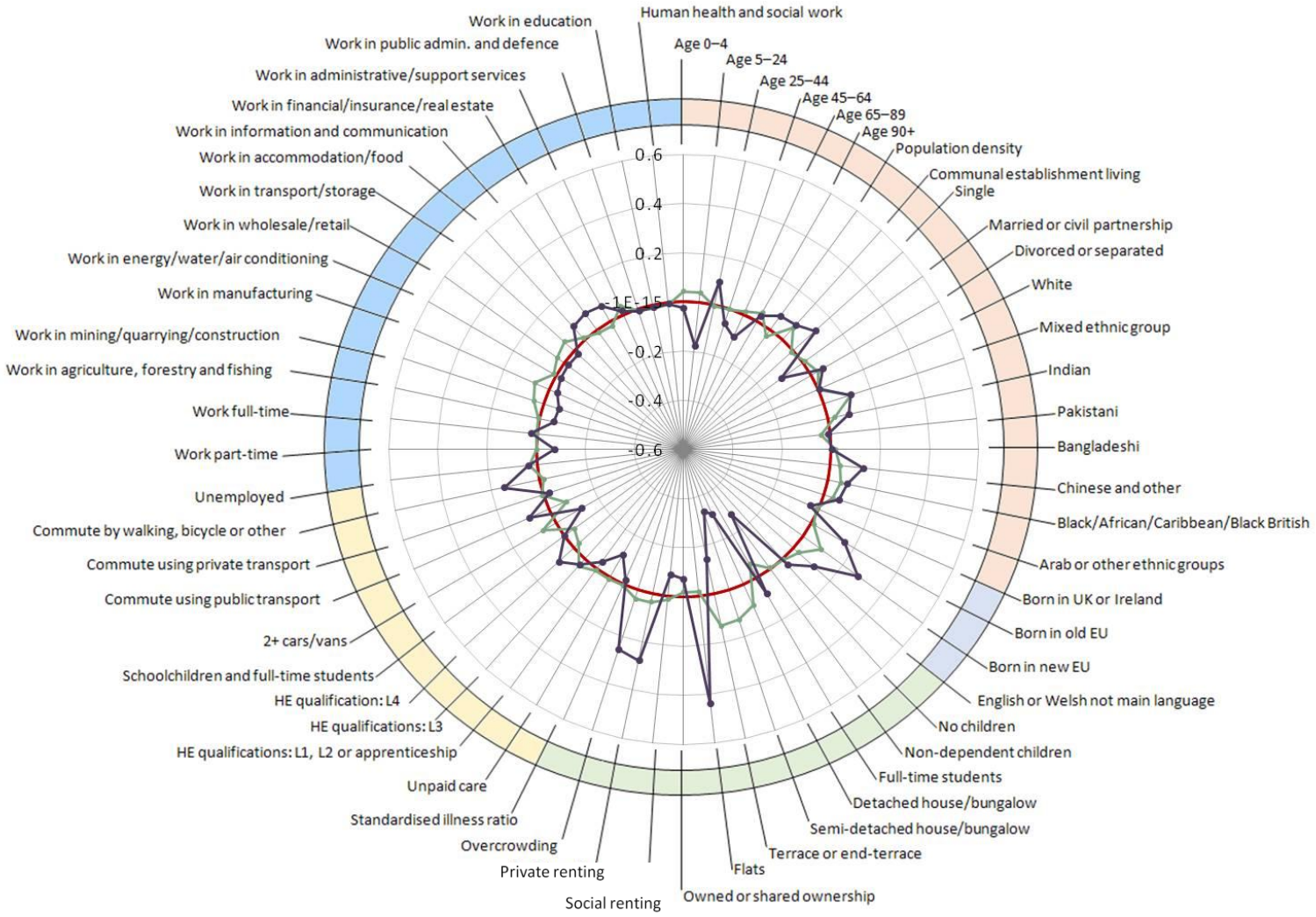
2 Cosmopolitans
2b Inner city students
2b2 Multicultural student neighbourhoods



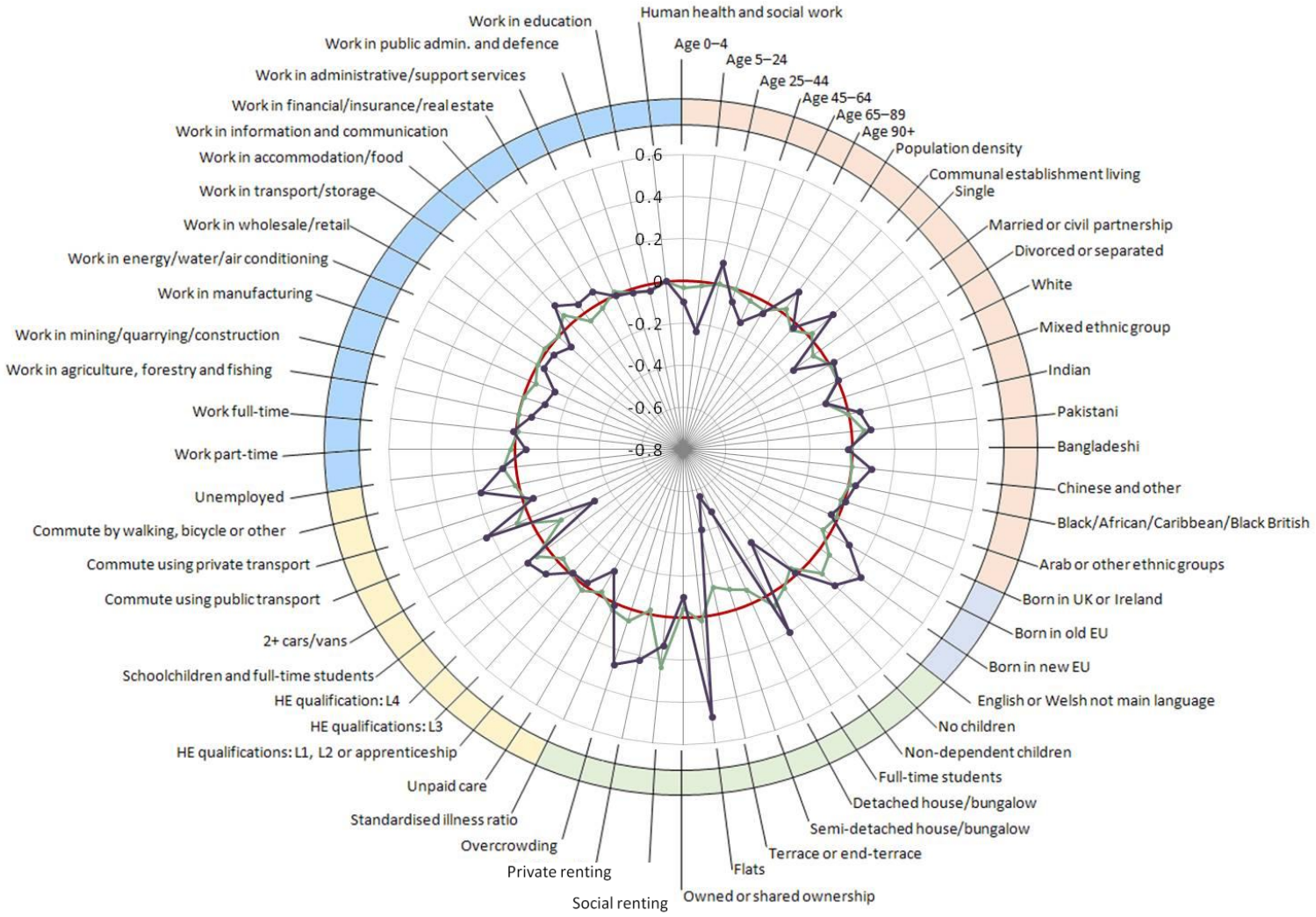
2 Cosmopolitans
2c Comfortable cosmopolitans



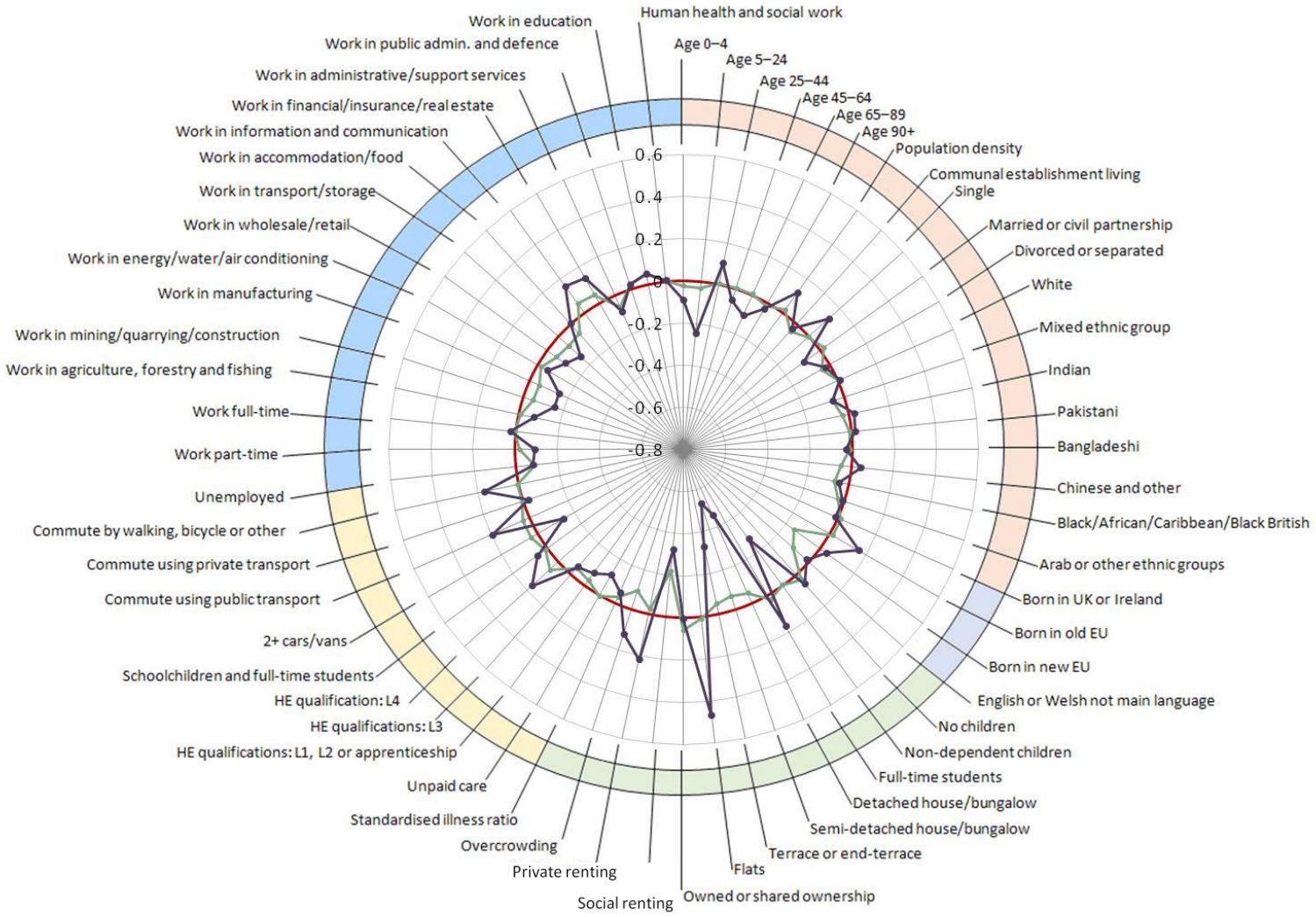
2 Cosmopolitans
2c Comfortable cosmopolitans
2c1 Migrant families



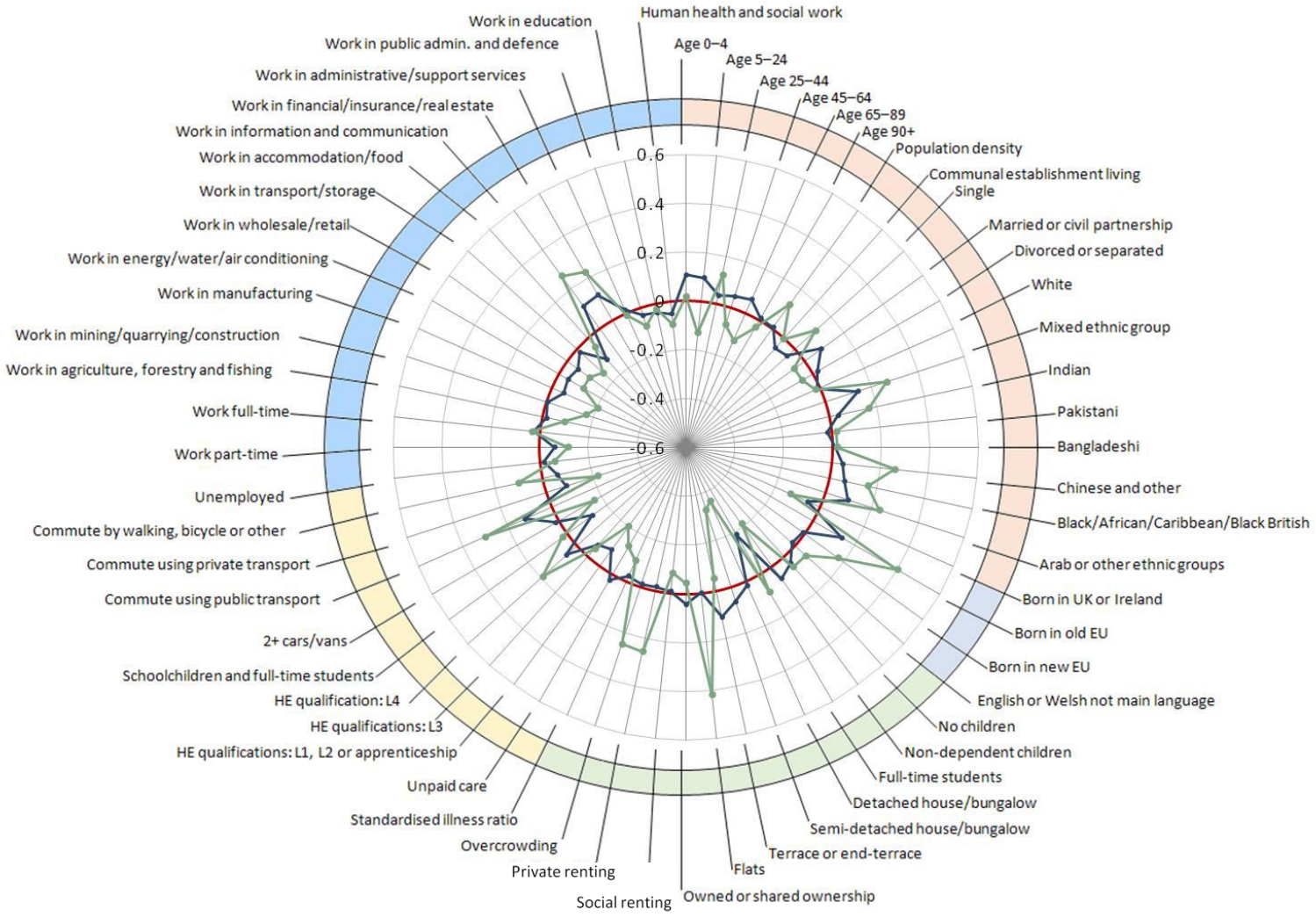
2 Cosmopolitans
2c Comfortable cosmopolitans
2c2 Migrant commuters



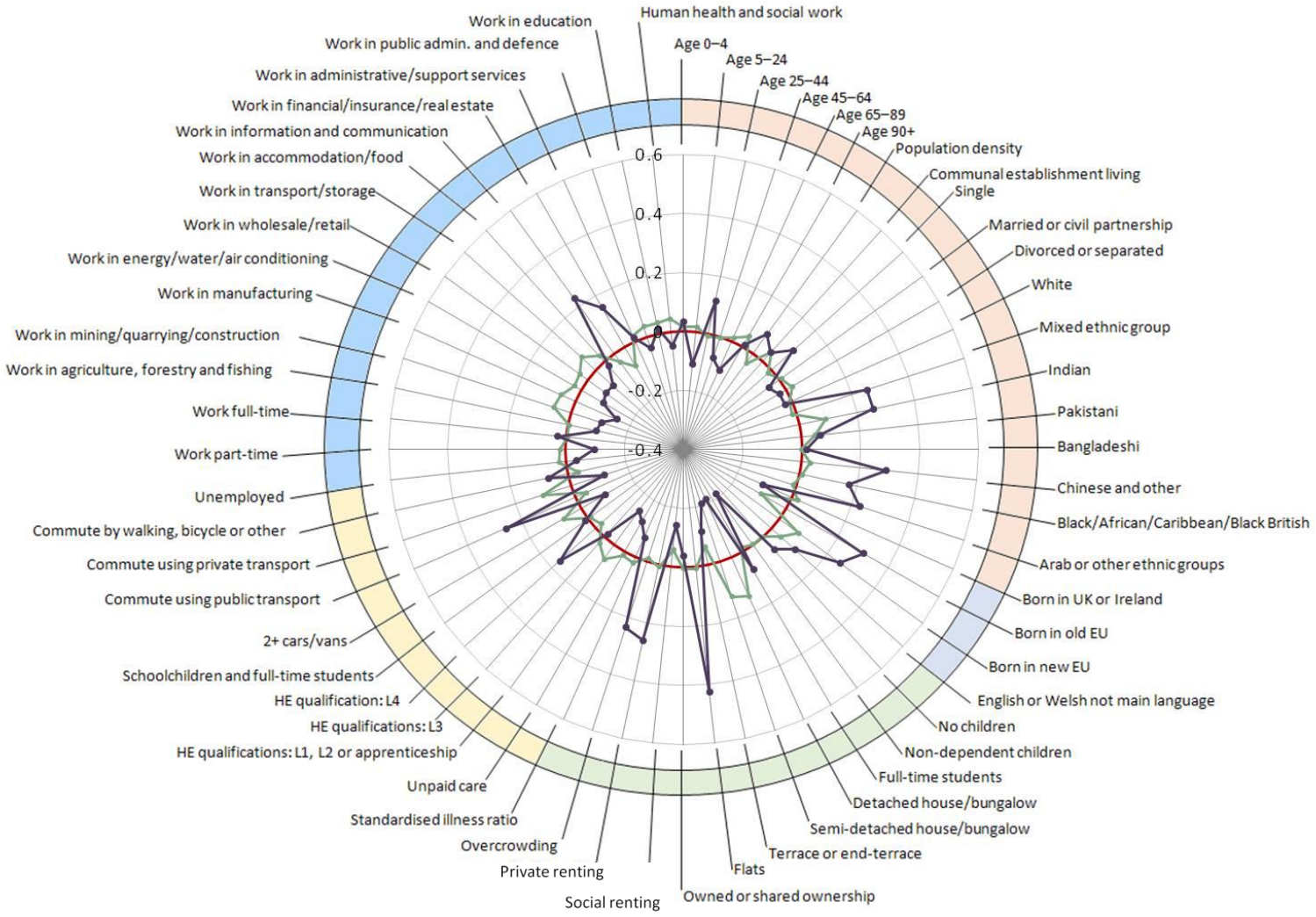
2 Cosmopolitans
2c Comfortable cosmopolitans
2c3 Professional service cosmopolitans



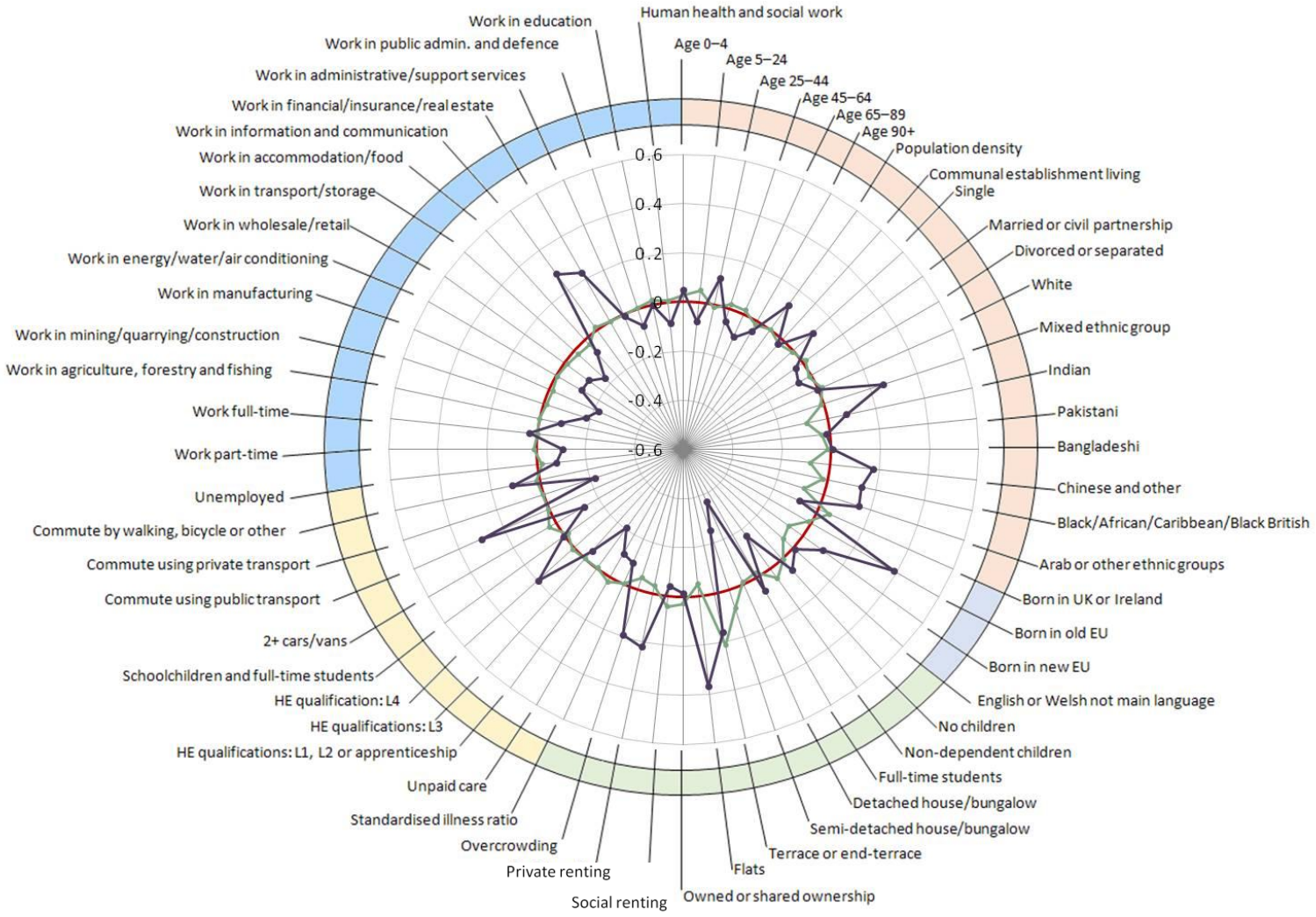
2 Cosmopolitans
2d Aspiring and affluent



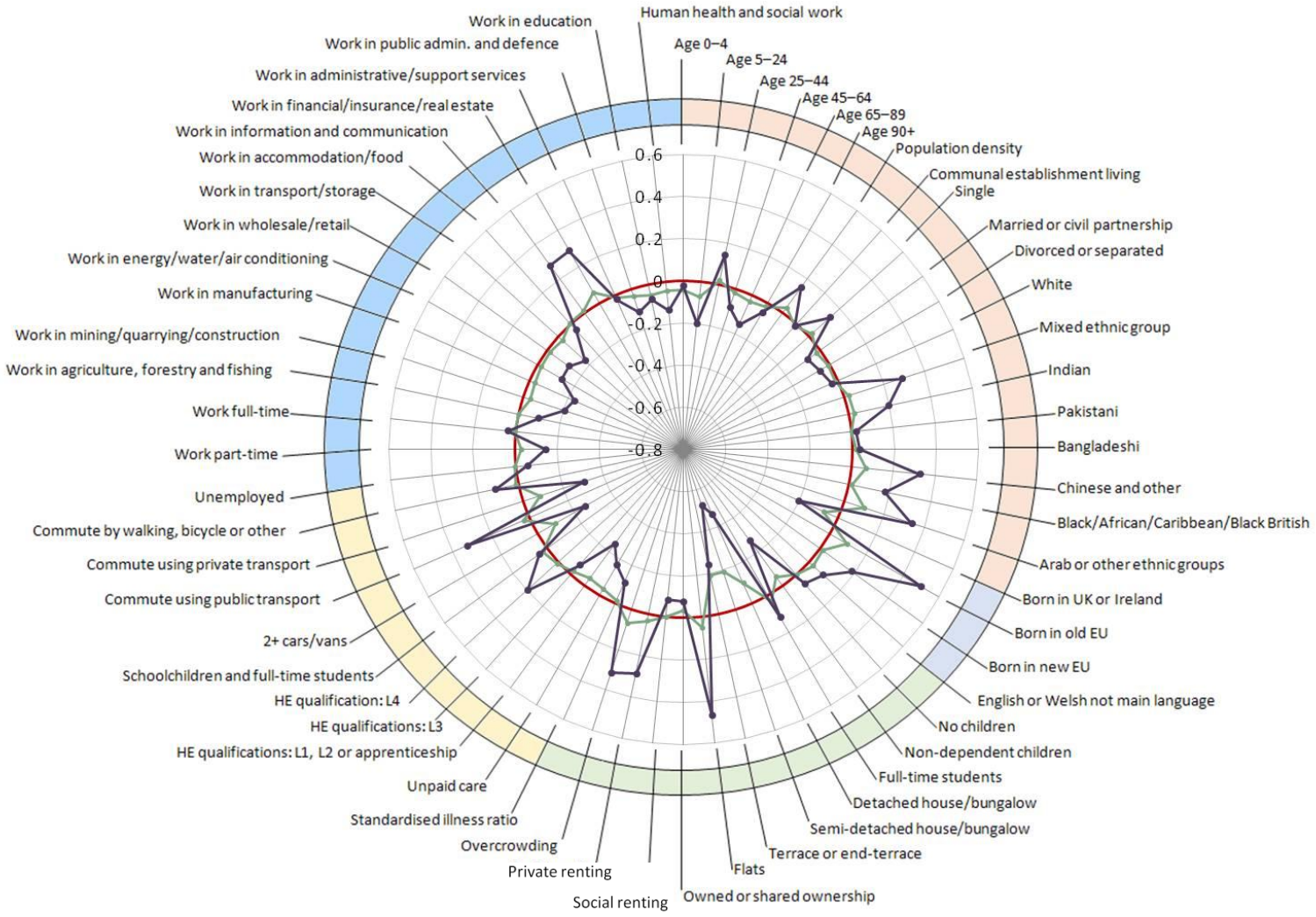
2 Cosmopolitans
2d Aspiring and affluent
2d1 Urban cultural mix



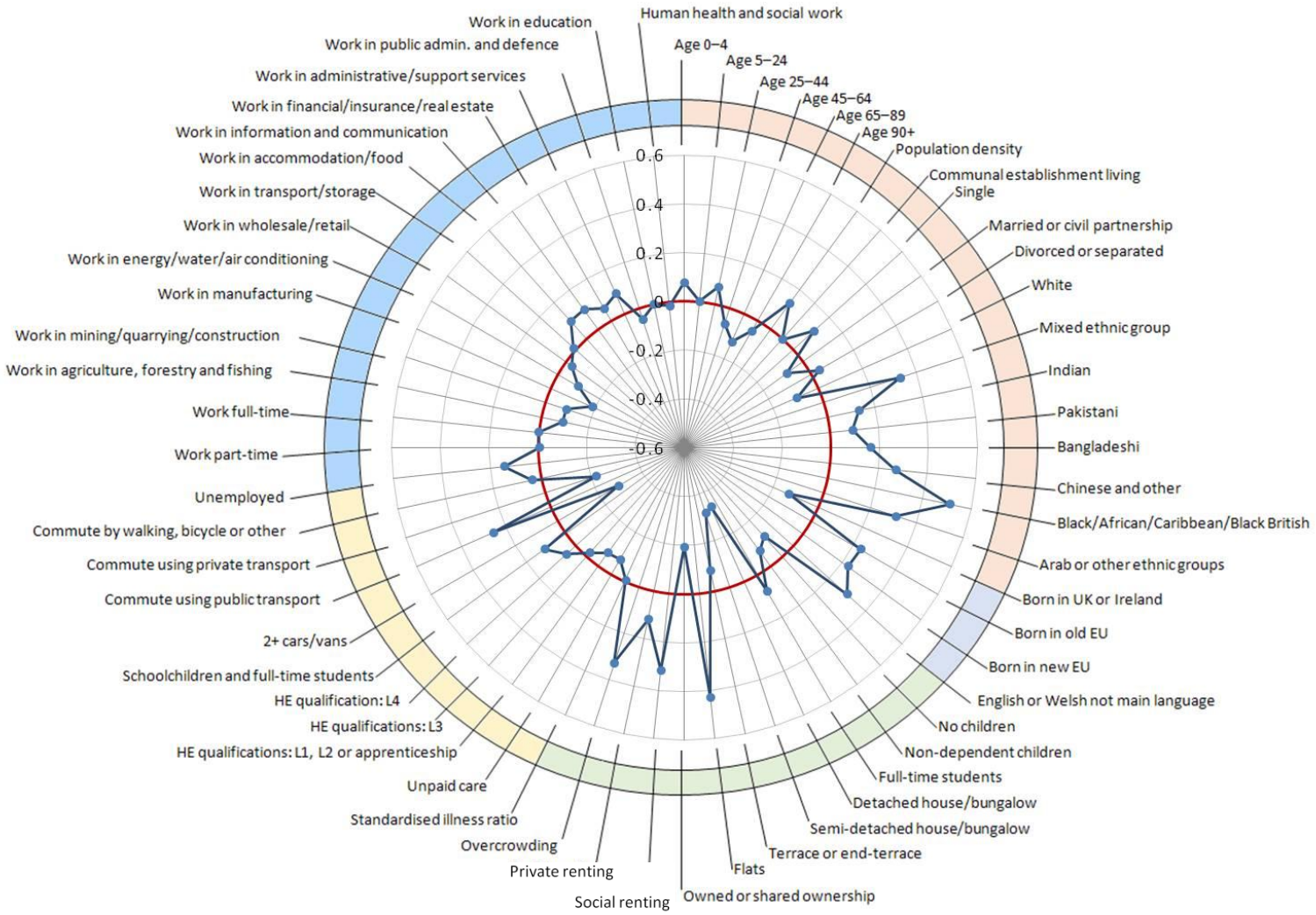
2 Cosmopolitans
2d Aspiring and affluent
2d2 Highly qualified quaternary workers



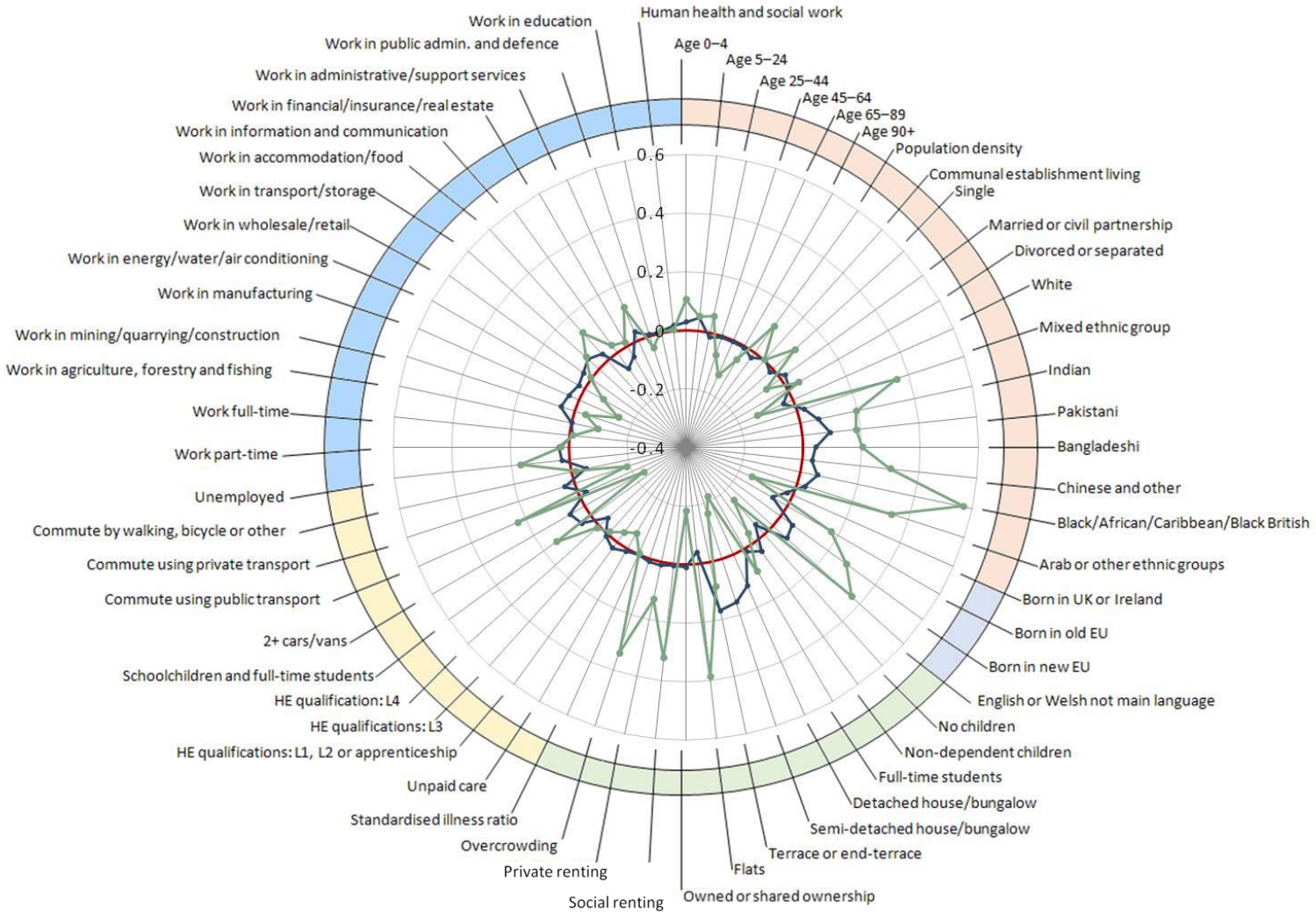
2 Cosmopolitans
2d Aspiring and affluent
2d3 EU white collar workers



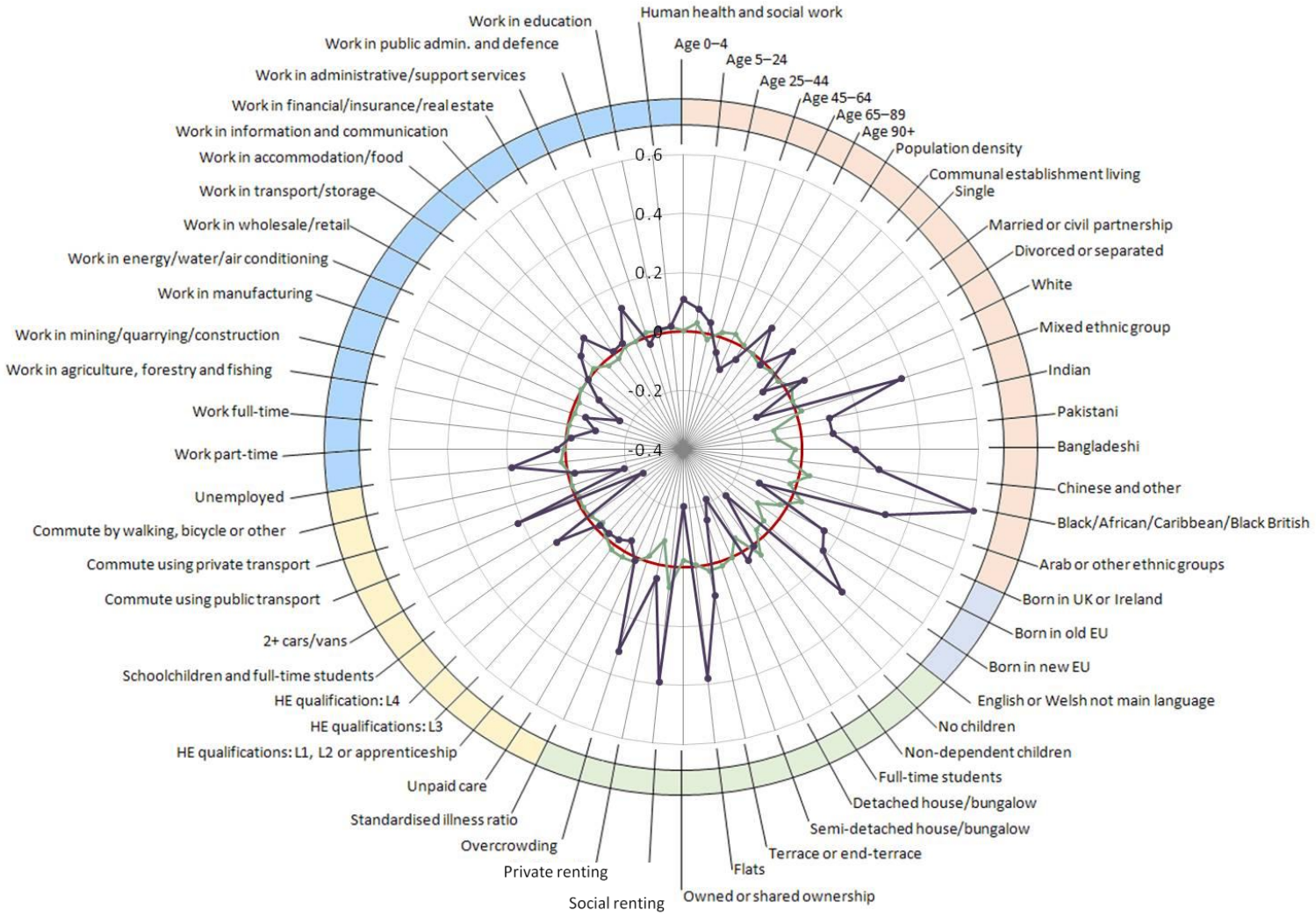
3 Ethnicity central



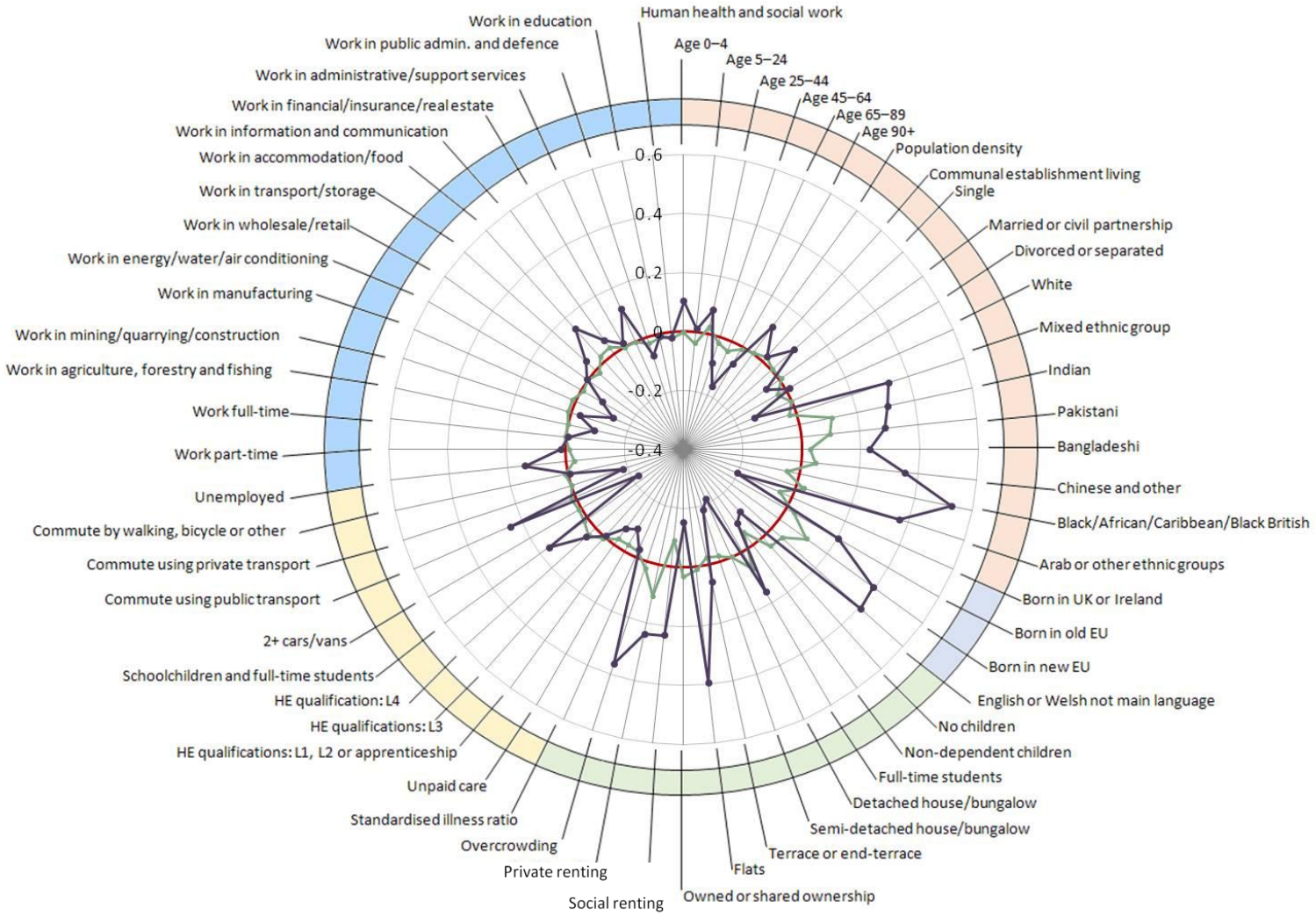
3 Ethnicity central
3a Ethnic family life



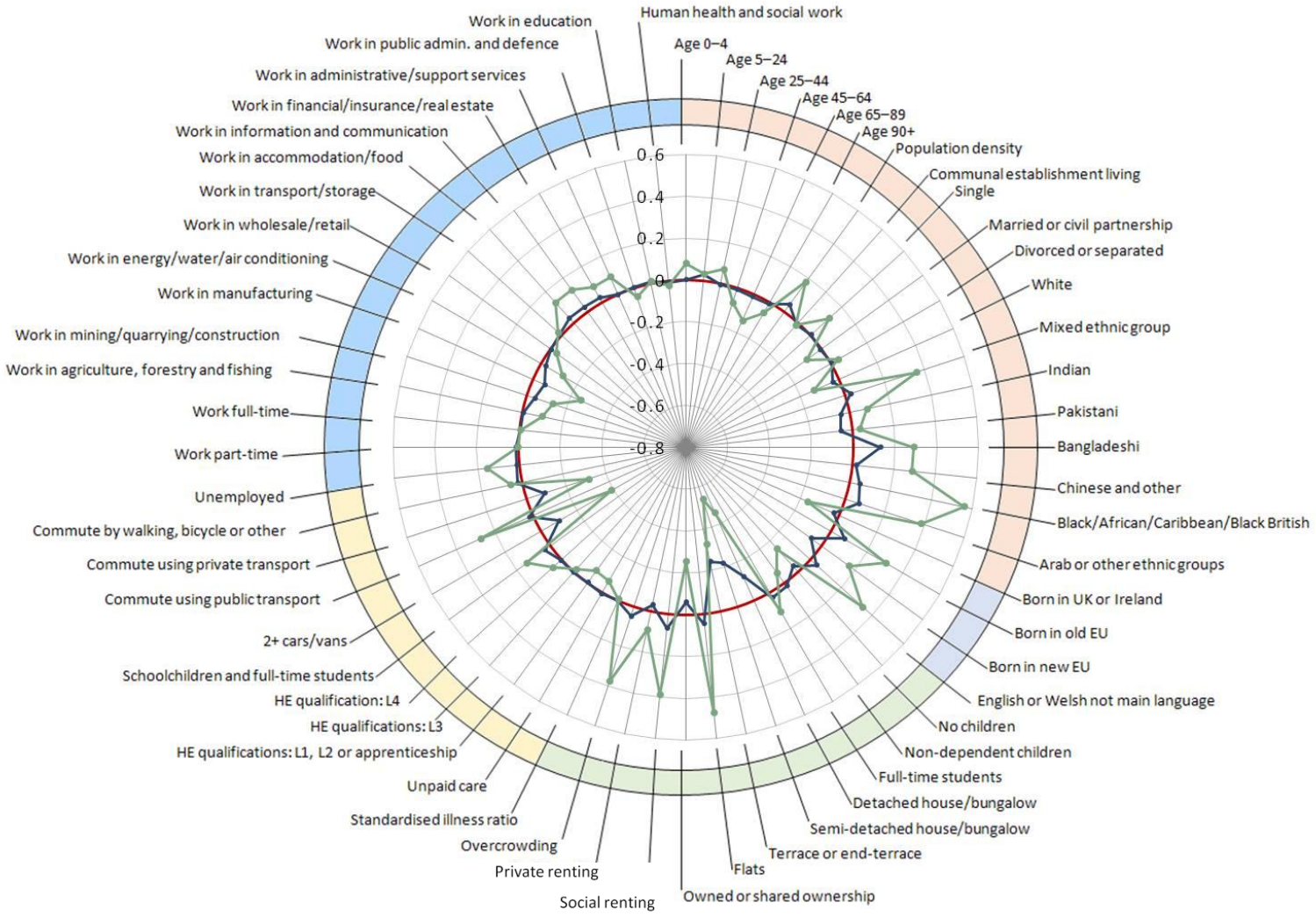
3 Ethnicity central
3a Ethnic family life
3a1 Established renting families



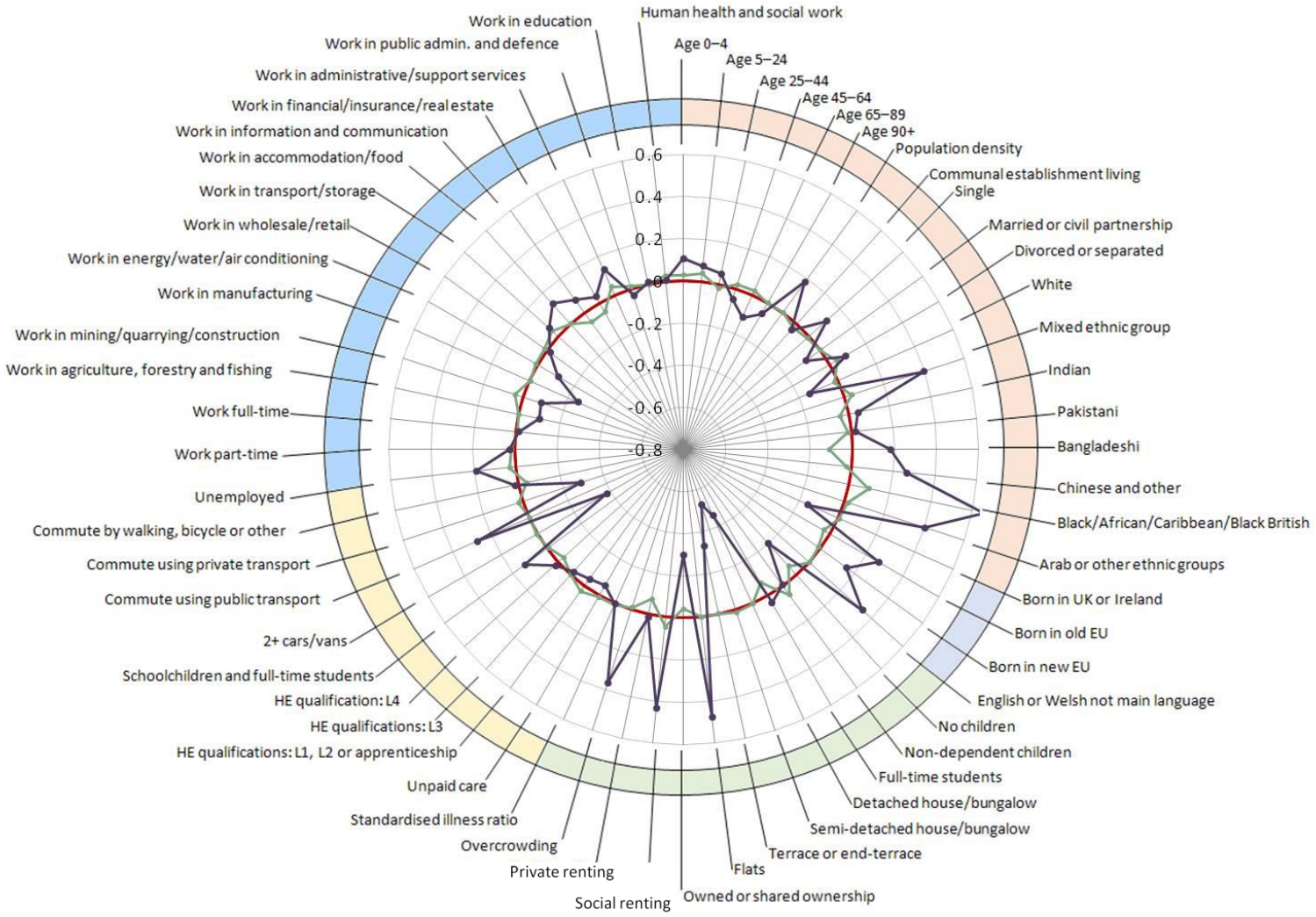
3 Ethnicity central
3a Ethnic family life
3a2 Young families and students



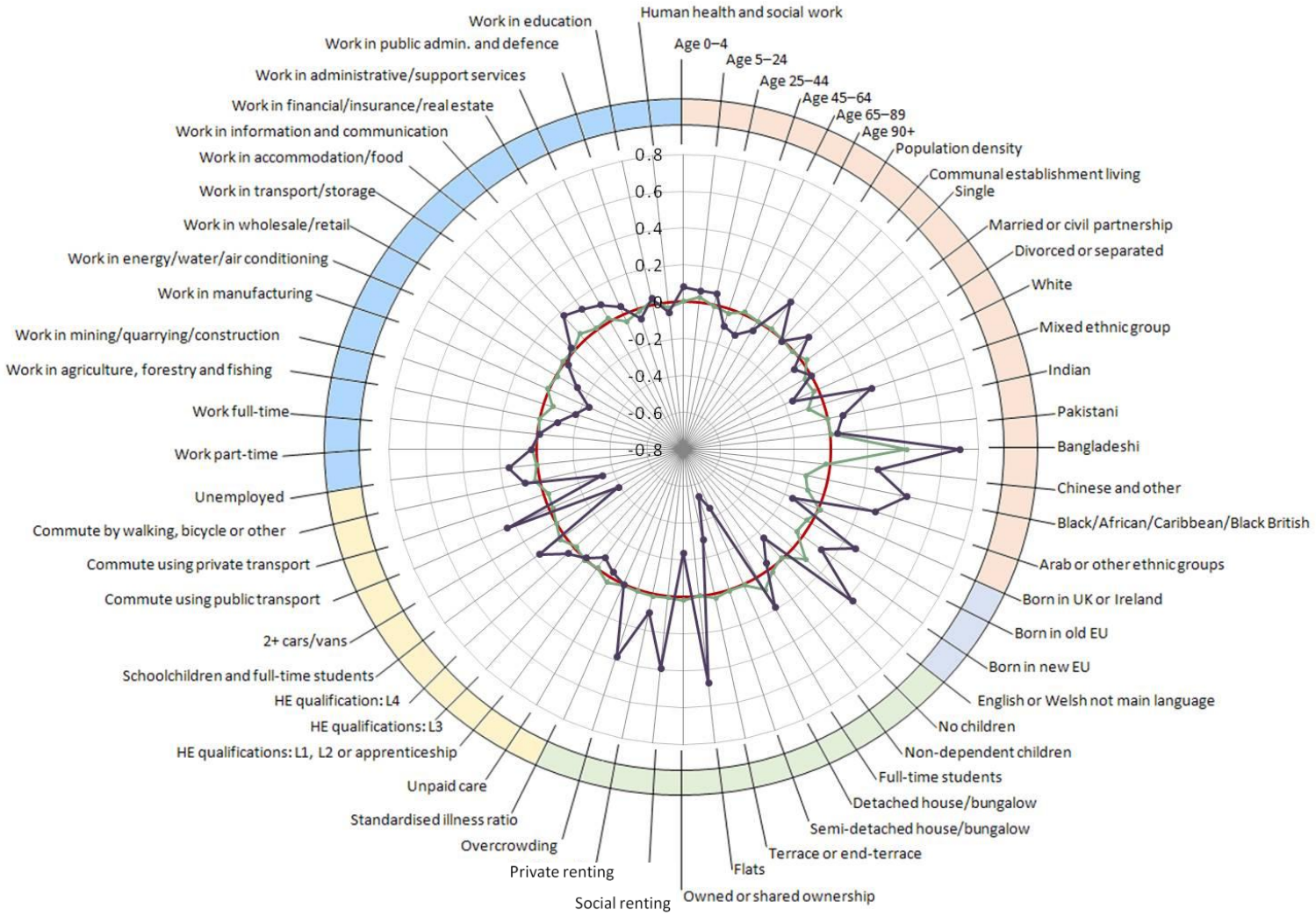
3 Ethnicity central
3b Endeavouring ethnic mix



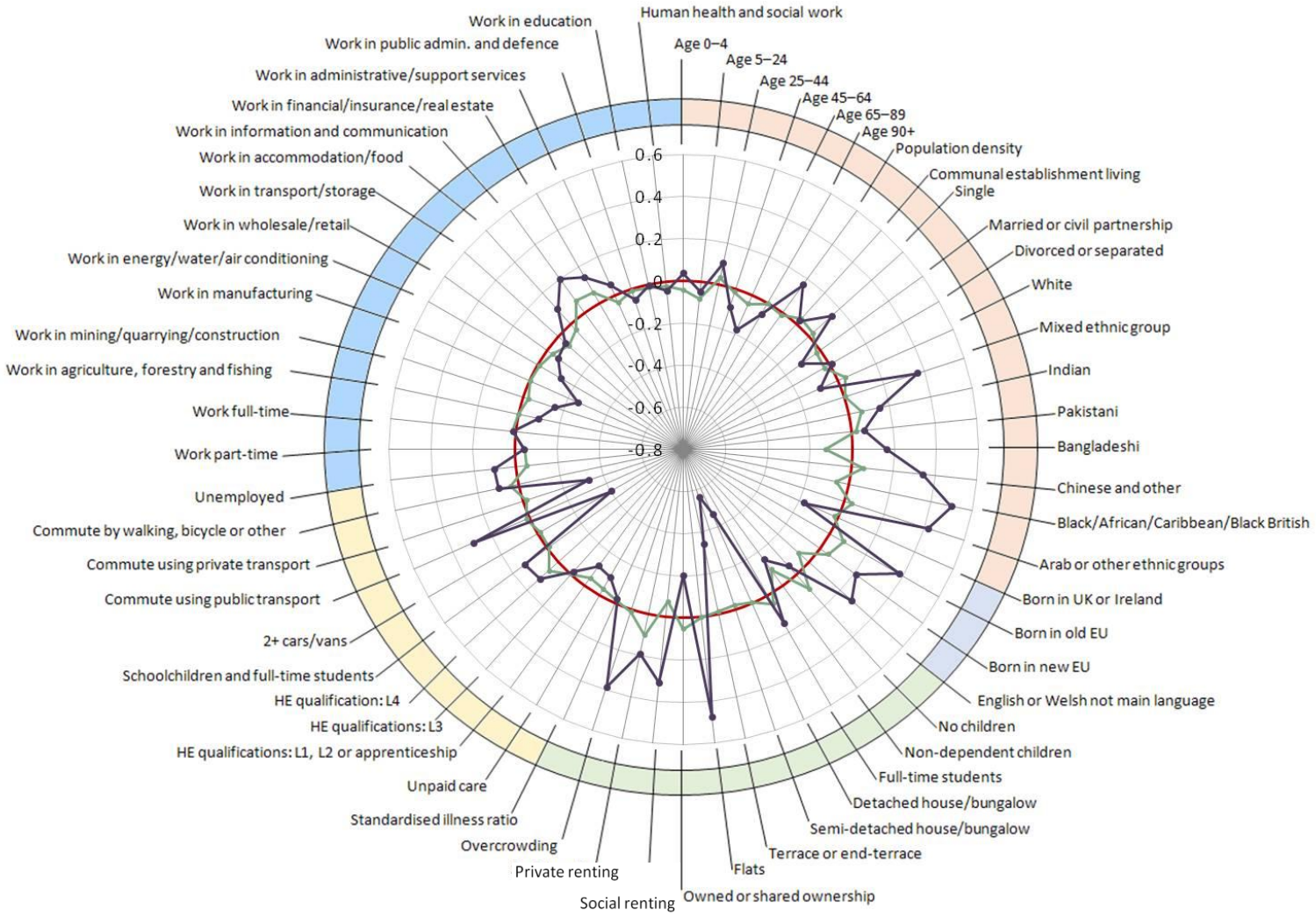
3 Ethnicity central
3b Endeavouring ethnic mix
3b1 Striving service workers



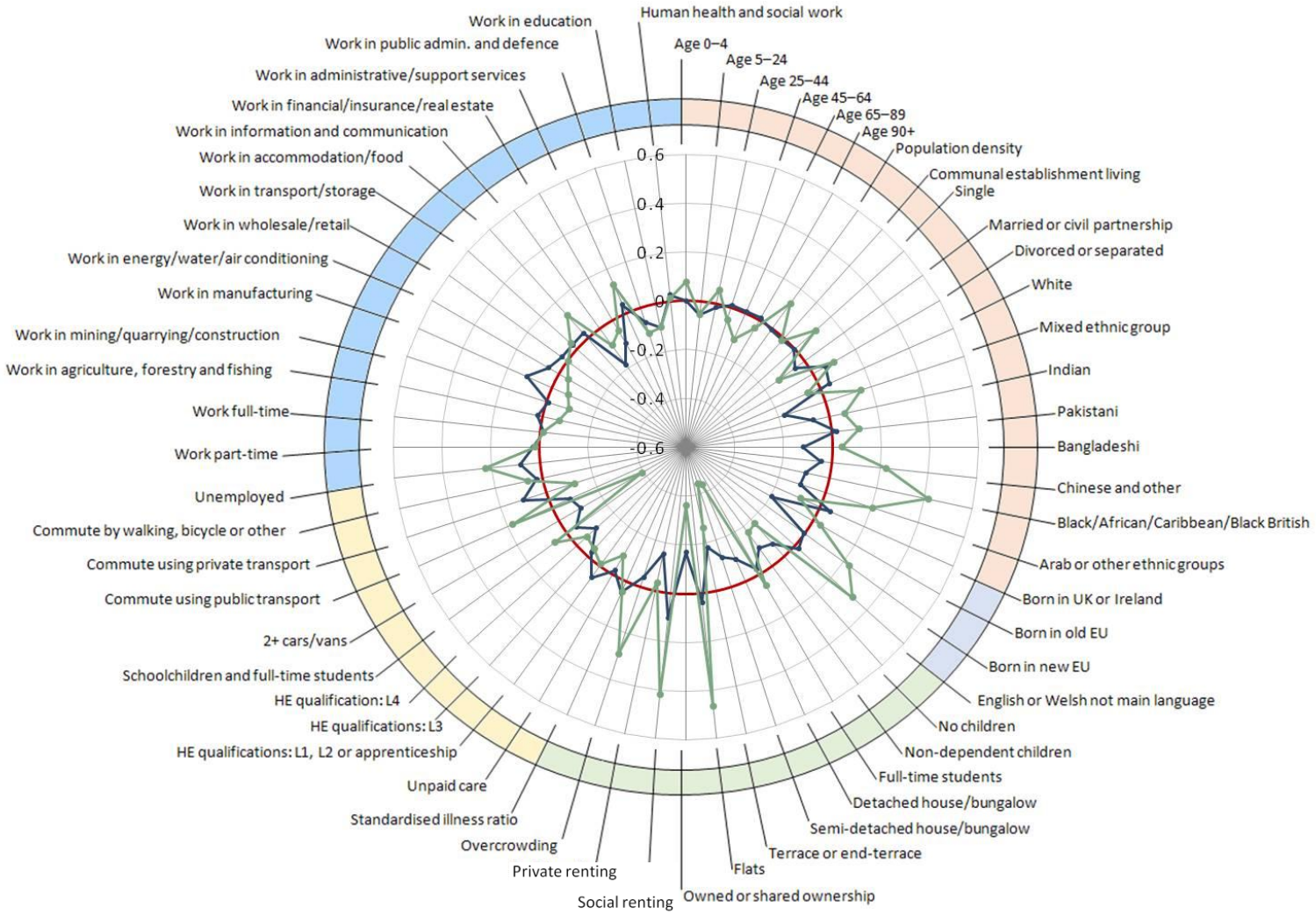
3 Ethnicity central
3b Endeavouring ethnic mix
3b2 Bangladeshi mixed employment



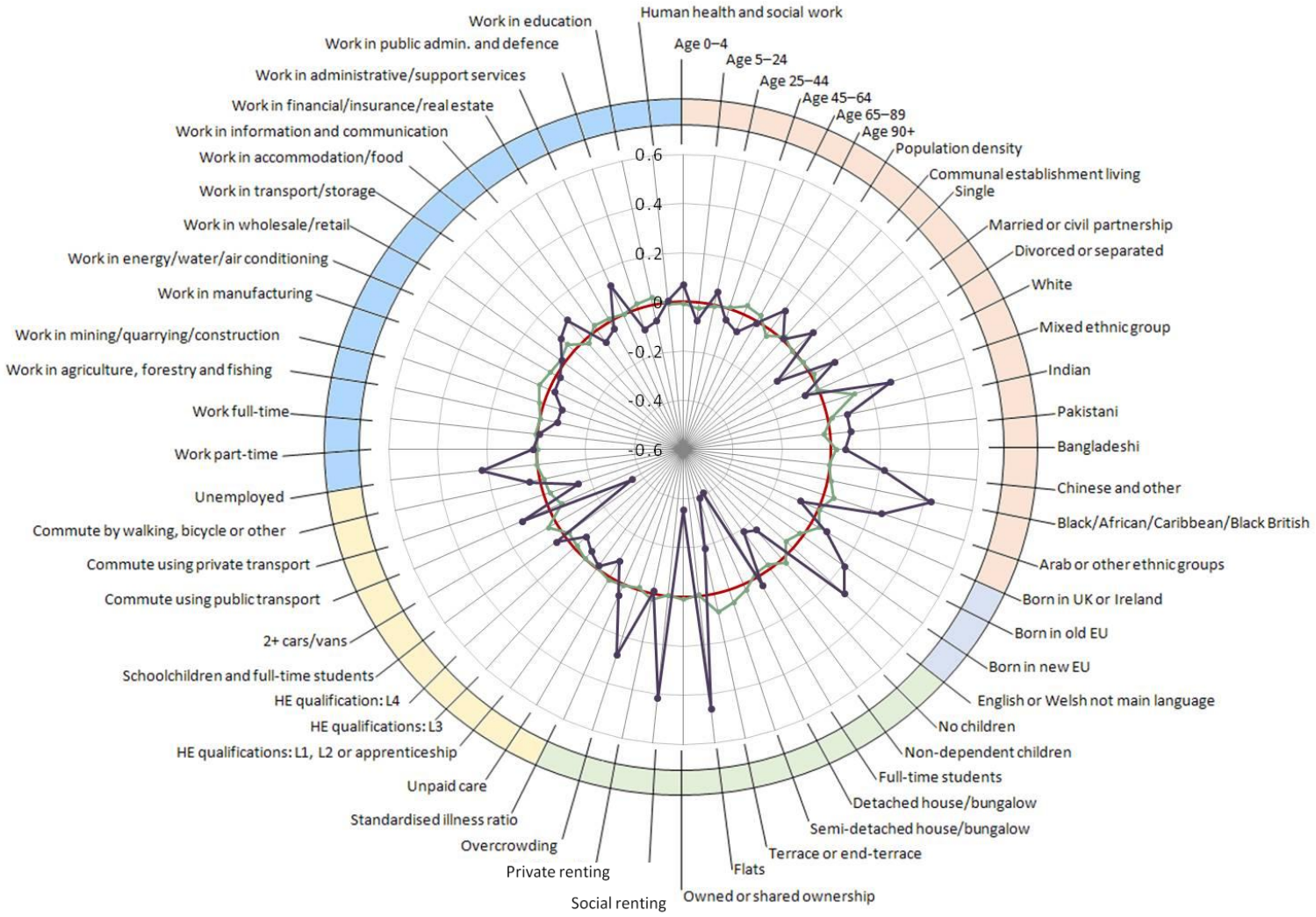
3 Ethnicity central
3b Endeavouring ethnic mix
3b3 Multi-ethnic professional service workers



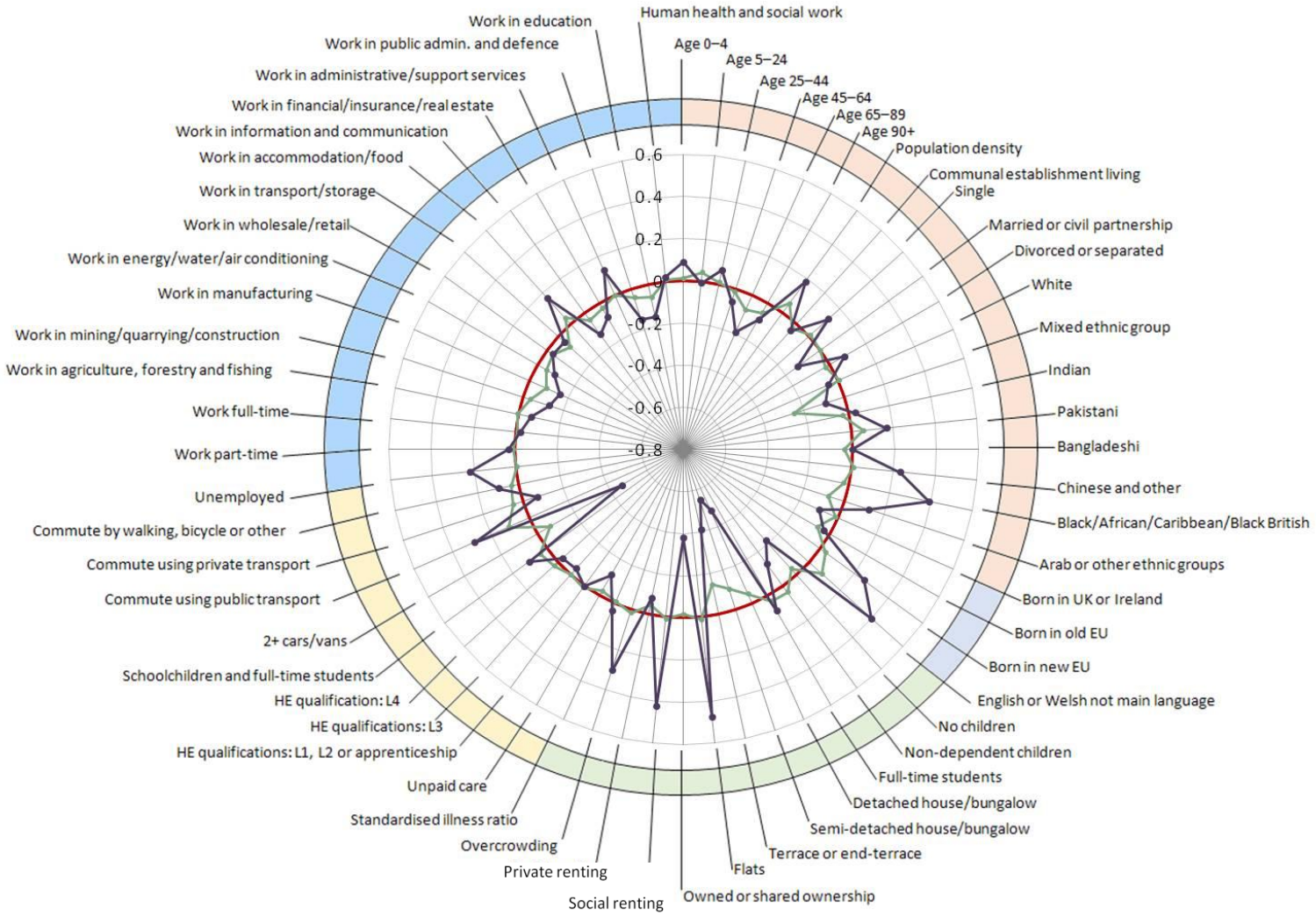
3 Ethnicity central
3c **Ethnic dynamics**



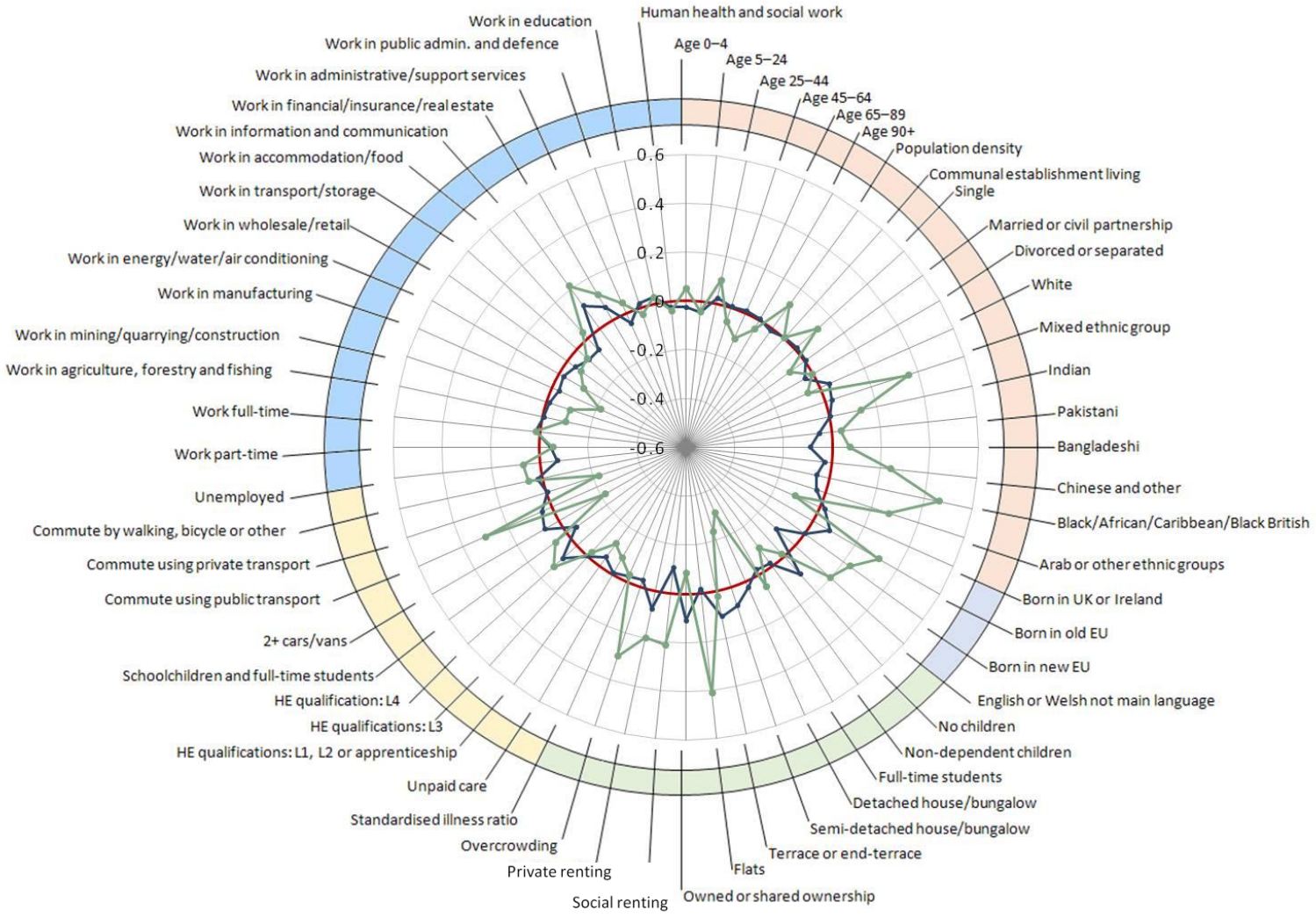
3 Ethnicity central
3c Ethnic dynamics
3c1 Constrained neighbourhoods



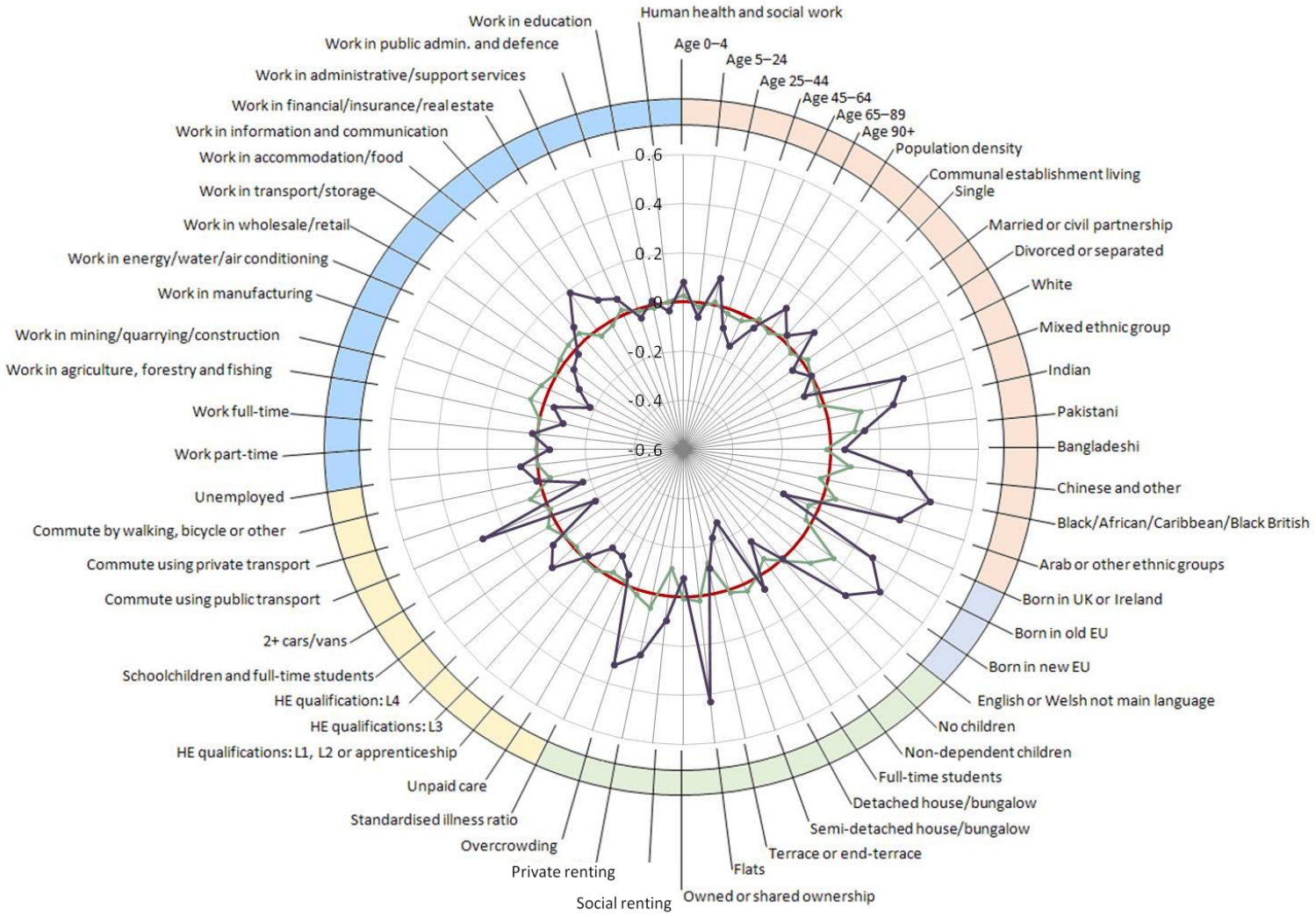
3 Ethnicity central
3c Ethnic dynamics
3c2 Constrained commuters



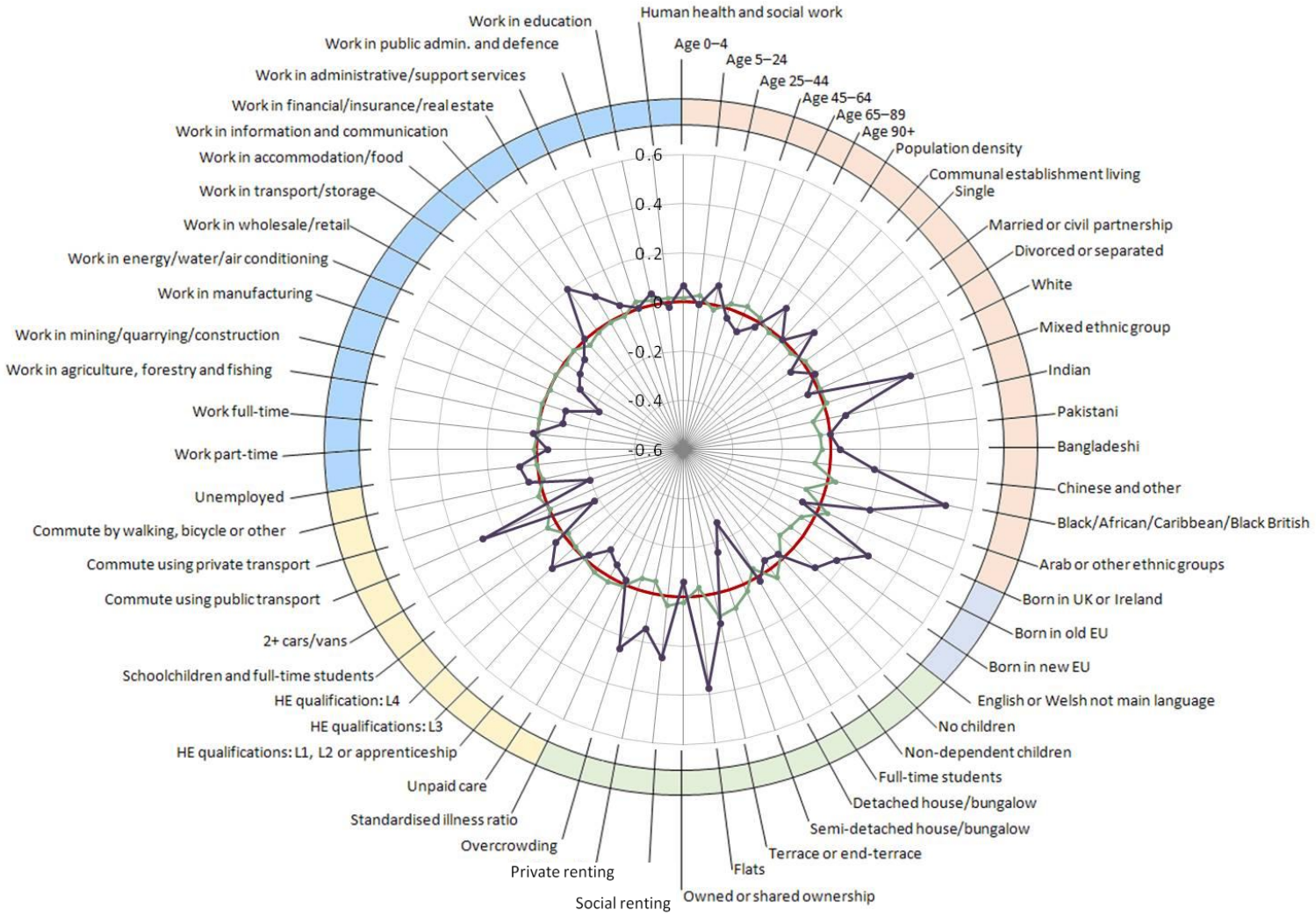
3 Ethnicity central
3d Aspirational techies



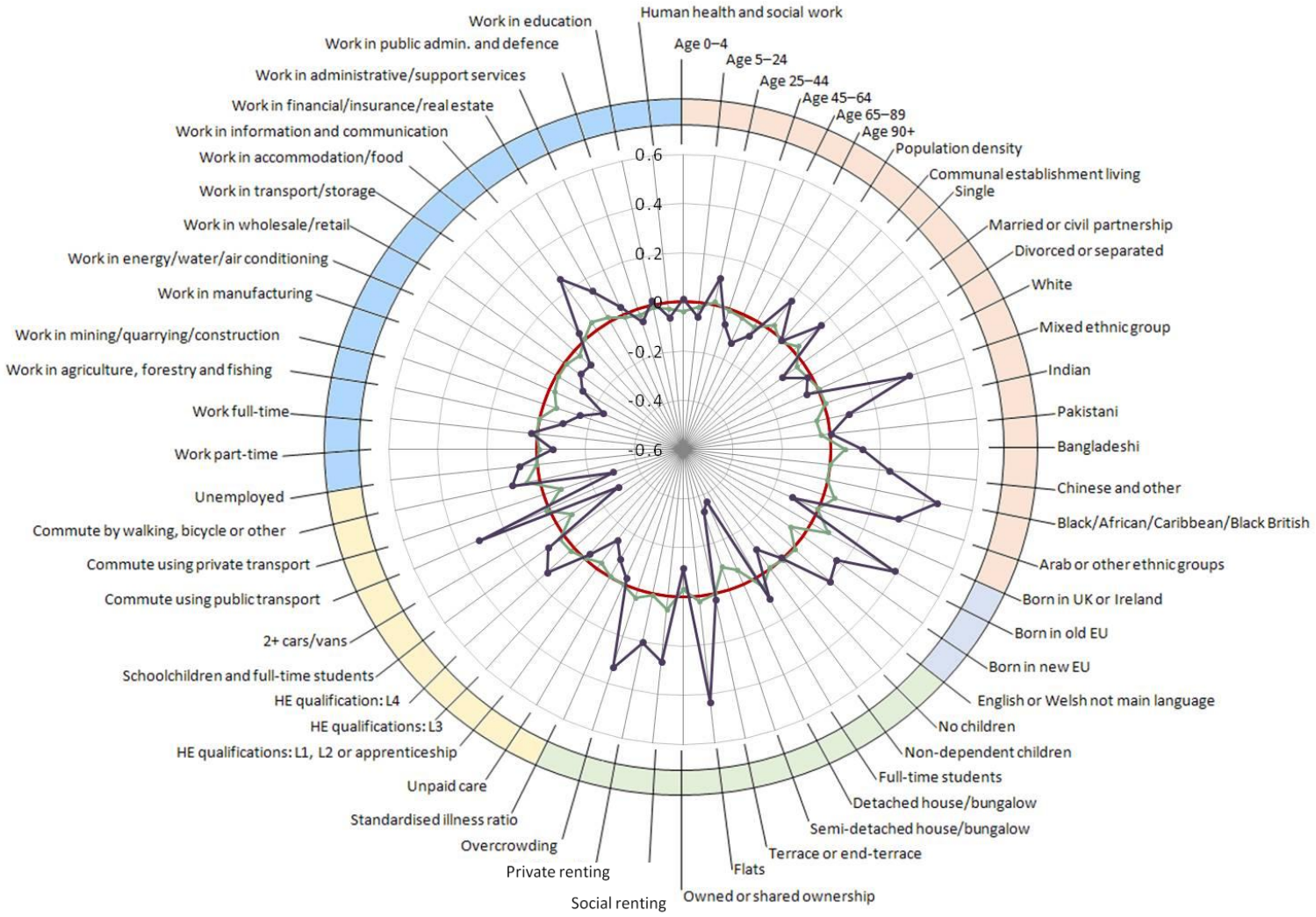
3 Ethnicity central
3d Aspirational techies
3d1 New EU tech workers



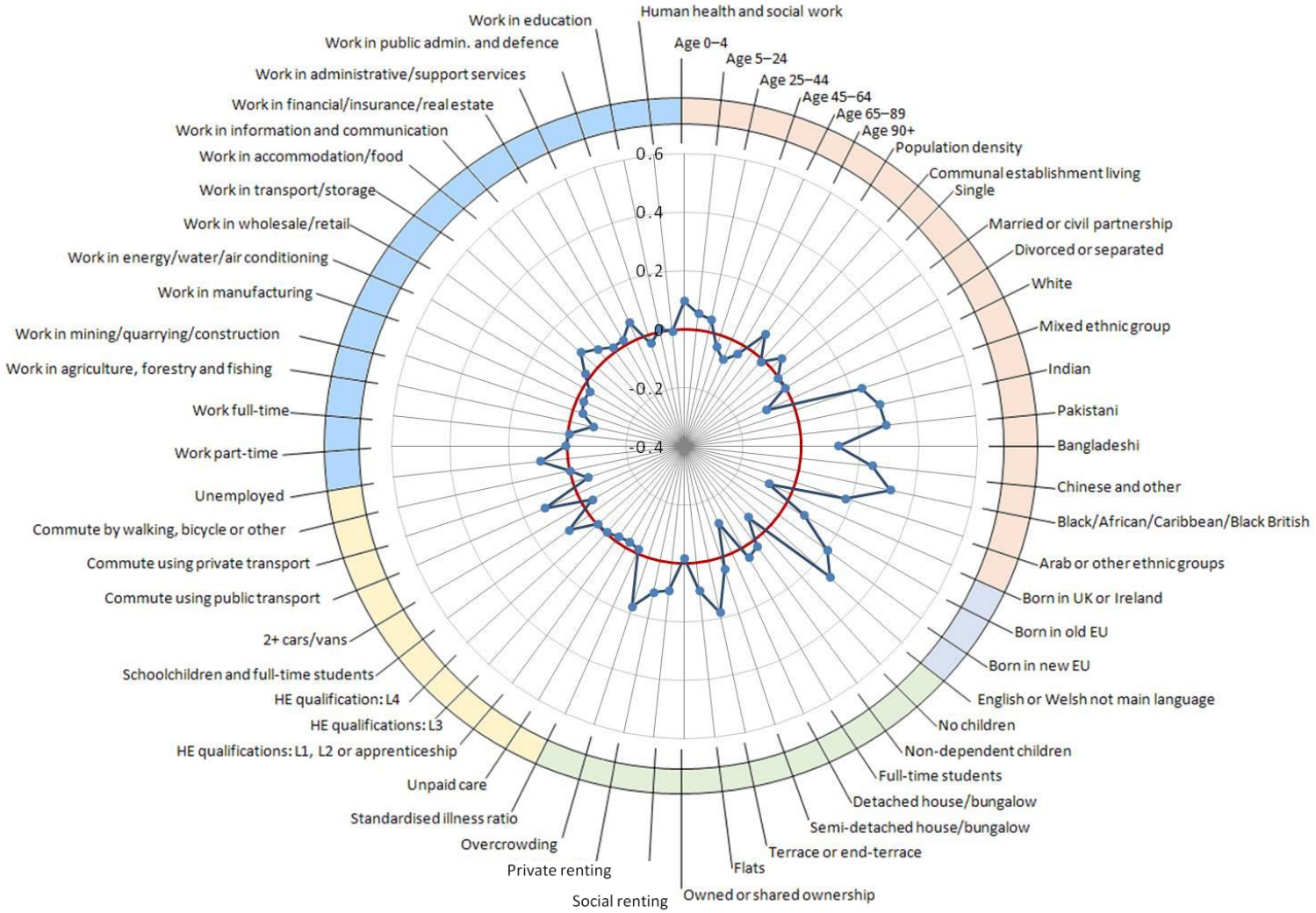
3 Ethnicity central
3d Aspirational techies
3d2 Established tech workers



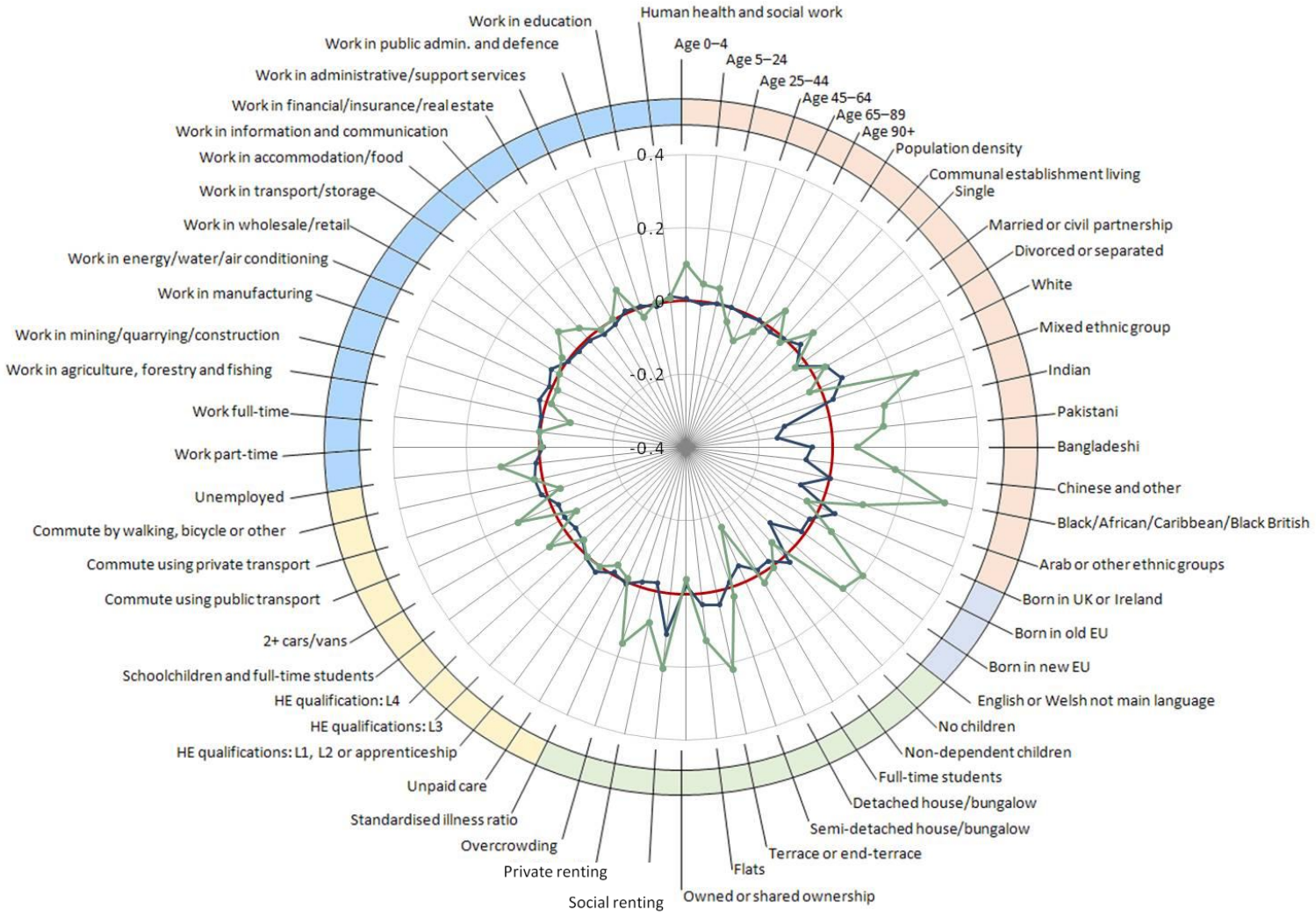
3 Ethnicity central
3d Aspirational techies
3d3 Old EU tech workers



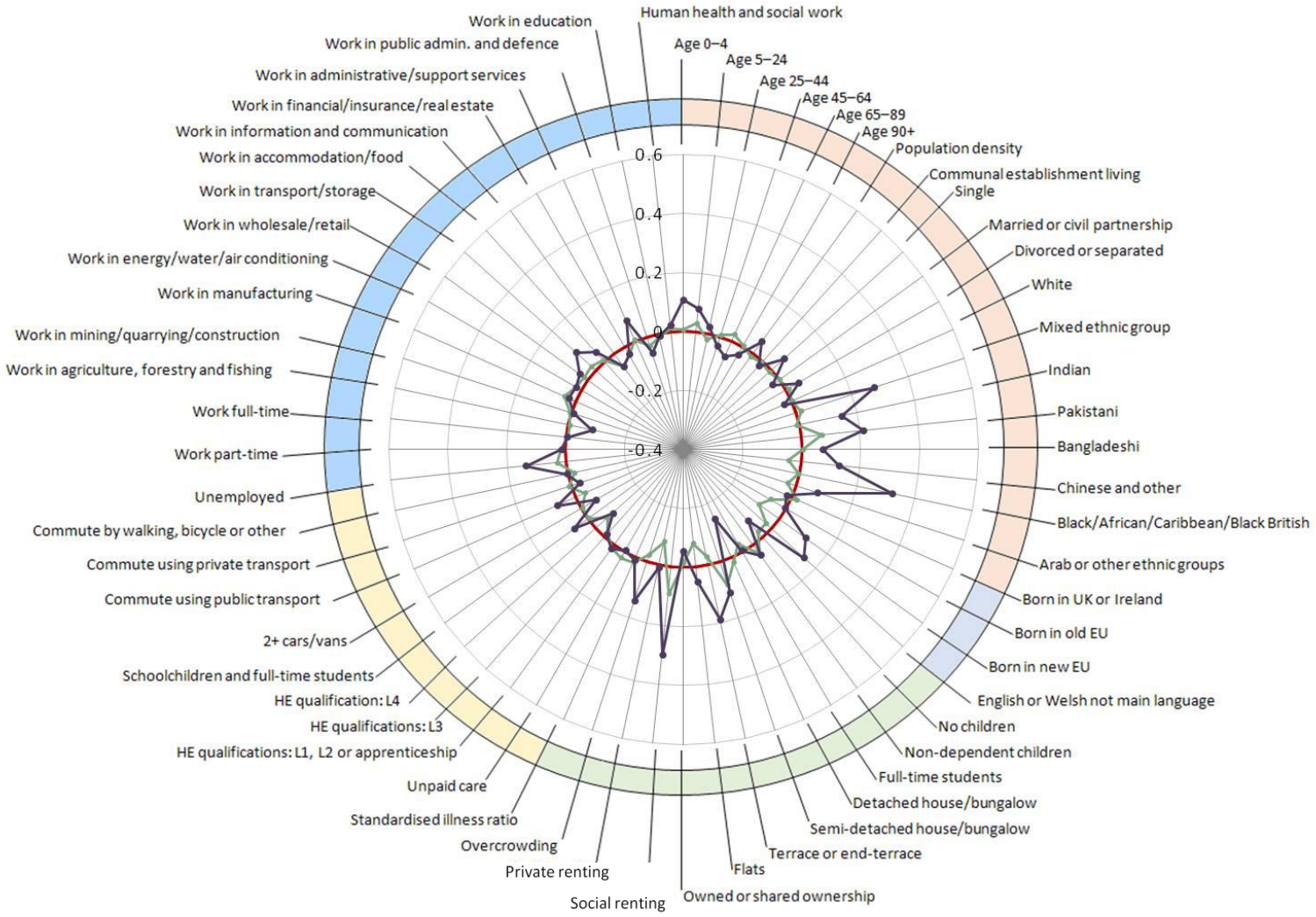
4 Multicultural metropolitans



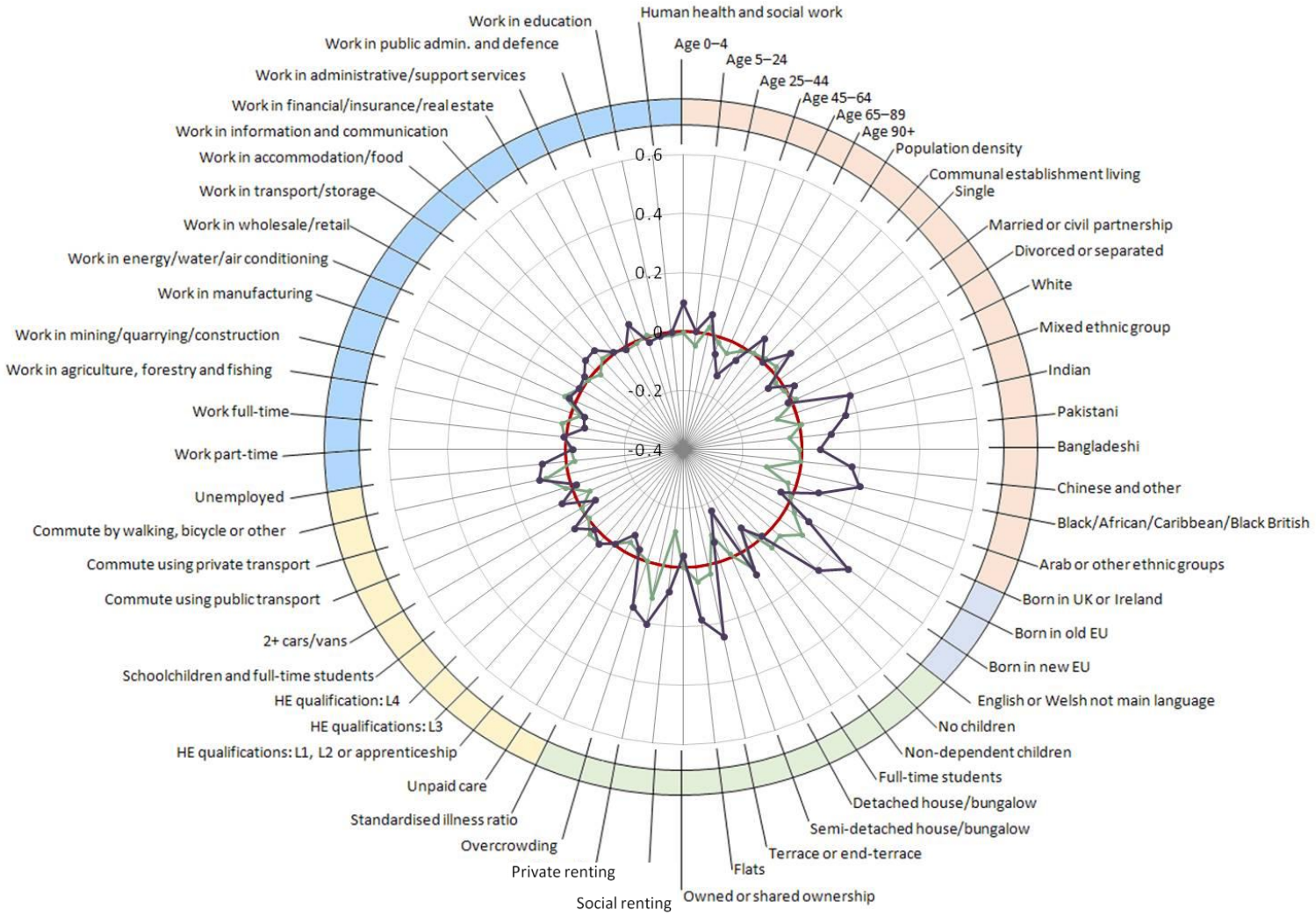
4 Multicultural metropolitans
4a Rented family living



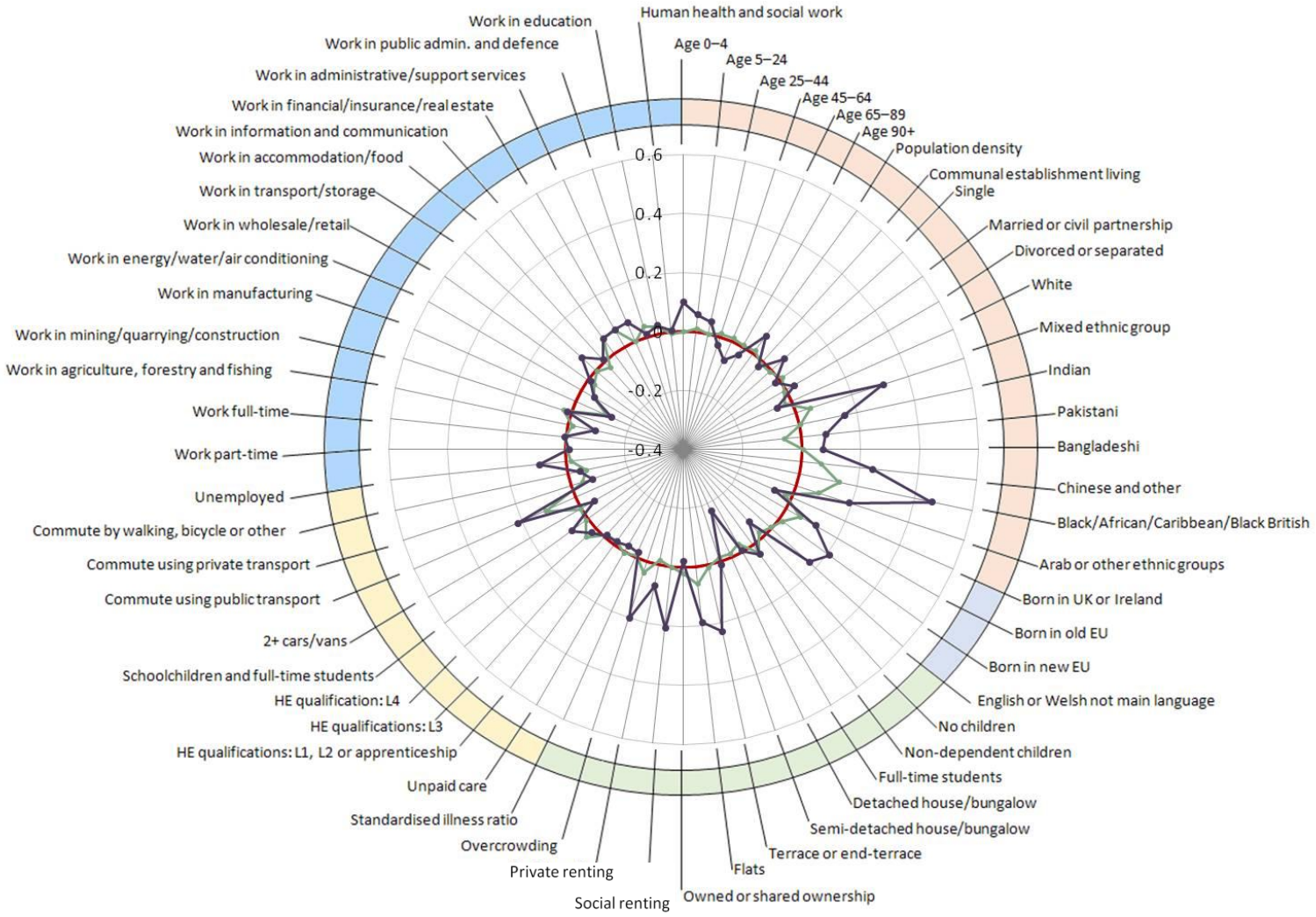
4 Multicultural metropolitans
4a Rented family living
4a1 Social renting young families



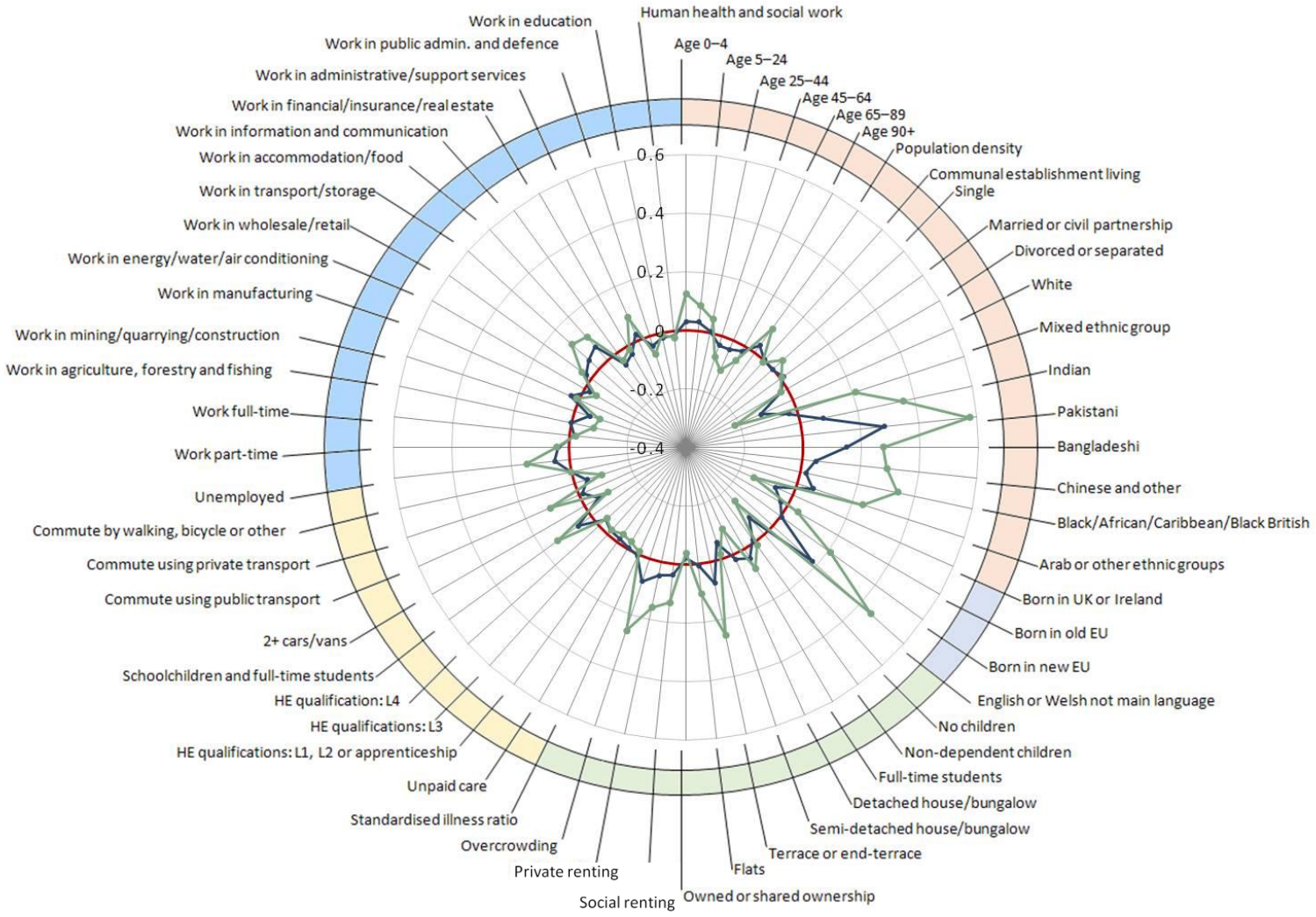
4 Multicultural metropolitans
4a Rented family living
4a2 Private renting new arrivals



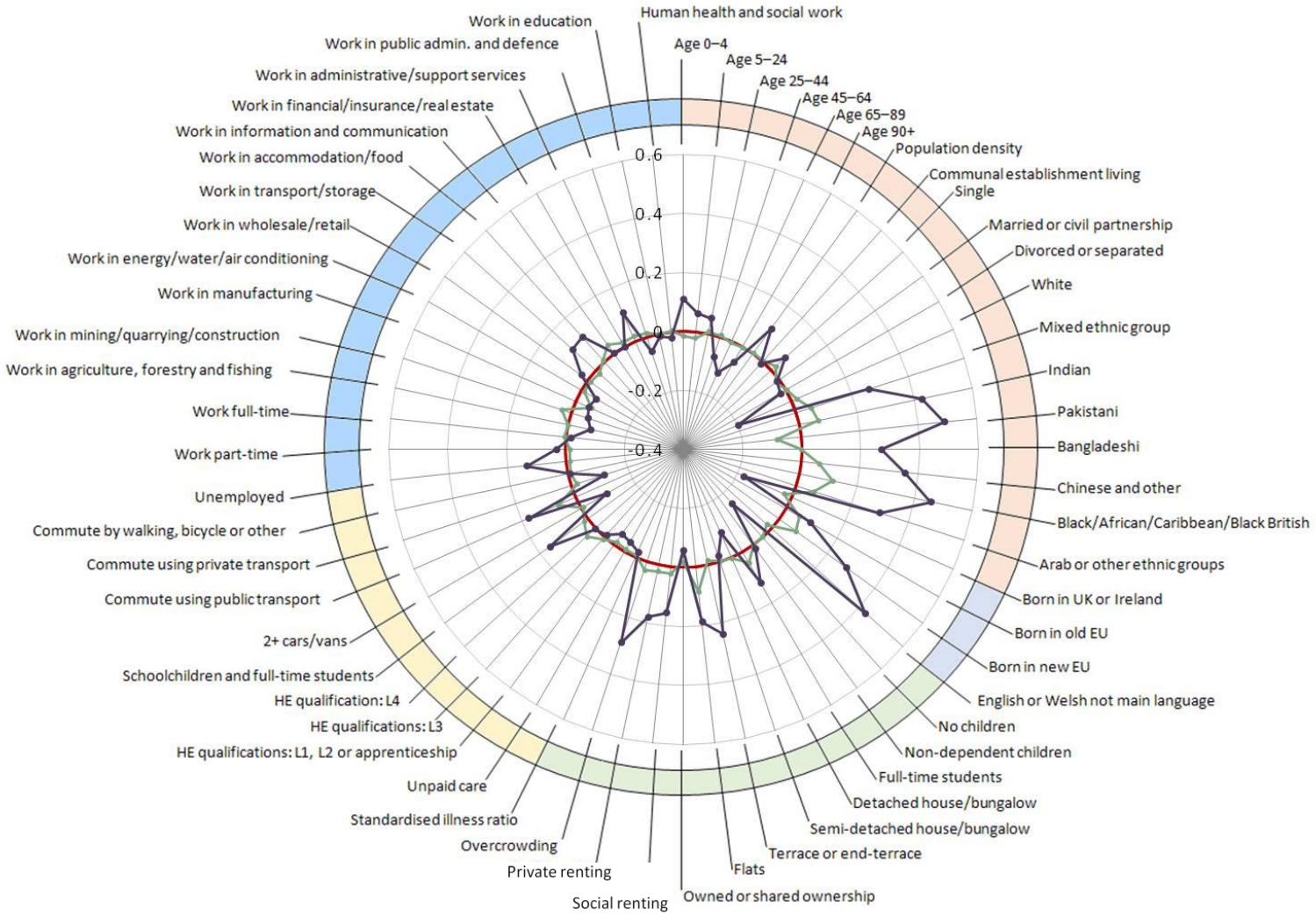
4 Multicultural metropolitans
4a Rented family living
4a3 Commuters with young families



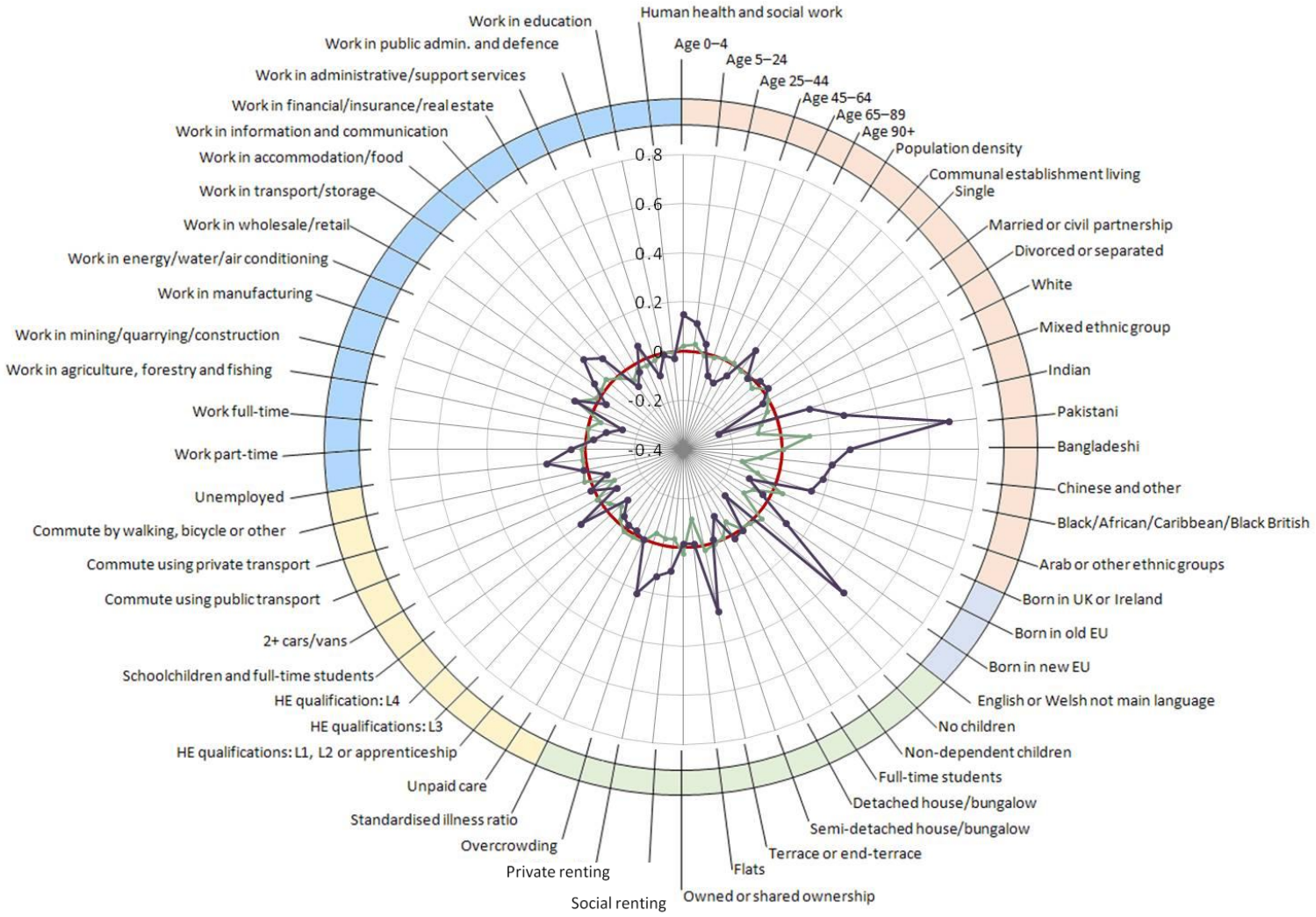
4 Multicultural metropolitans
4b Challenged Asian terraces



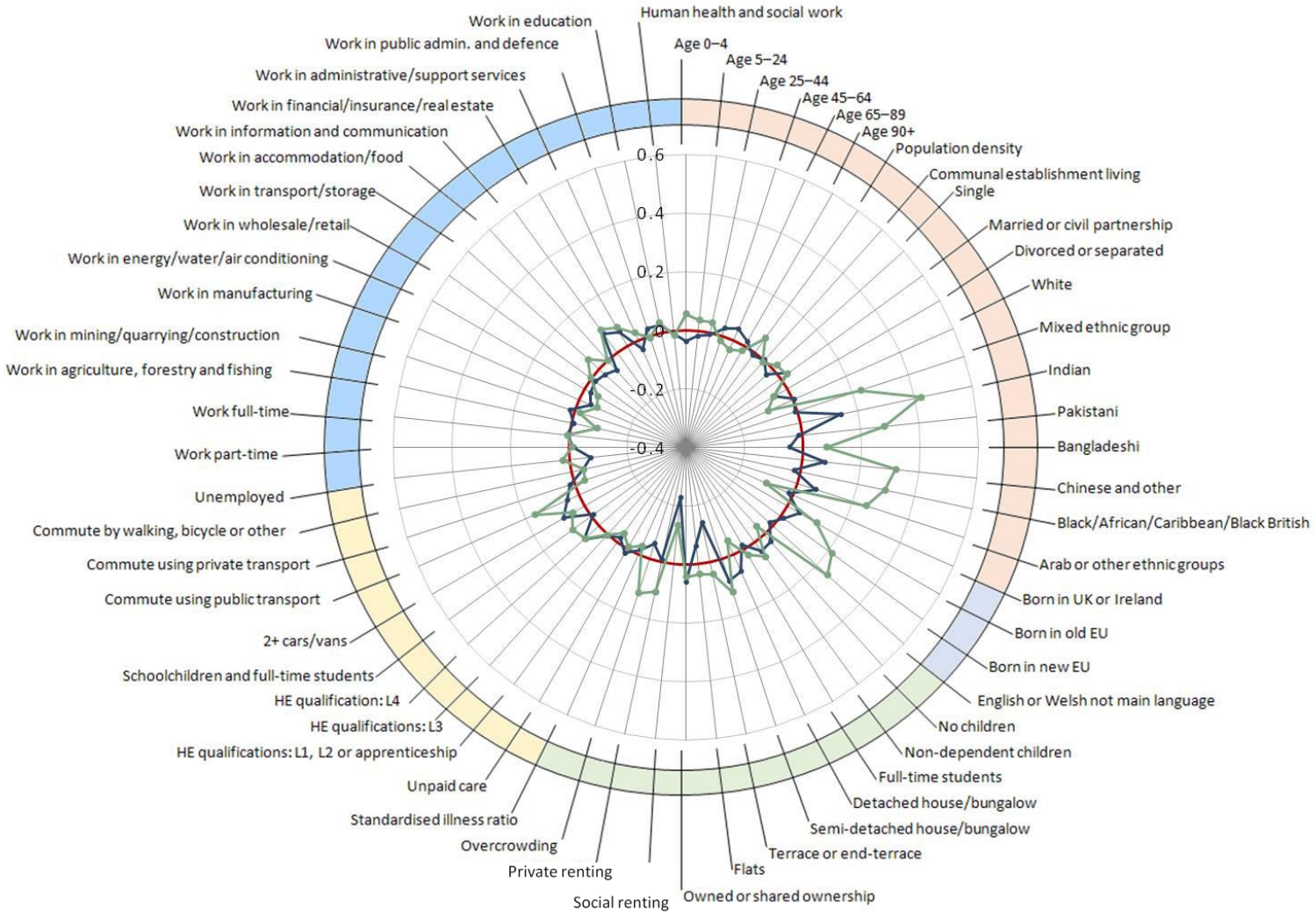
4 Multicultural metropolitans
4b Challenged Asian terraces
4b1 Asian terraces and flats



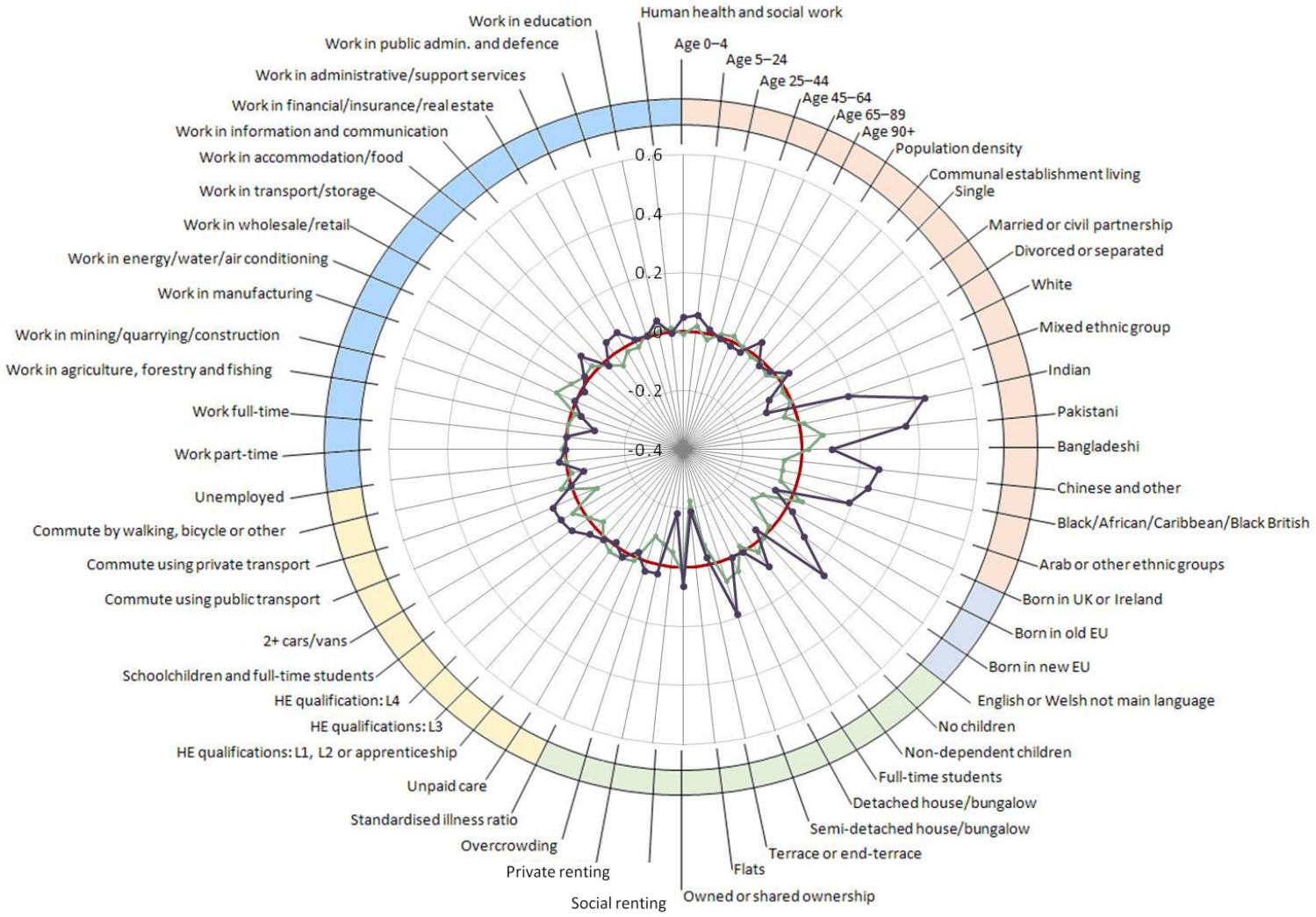
4 Multicultural metropolitans
4b Challenged Asian terraces
4b2 Pakistani communities



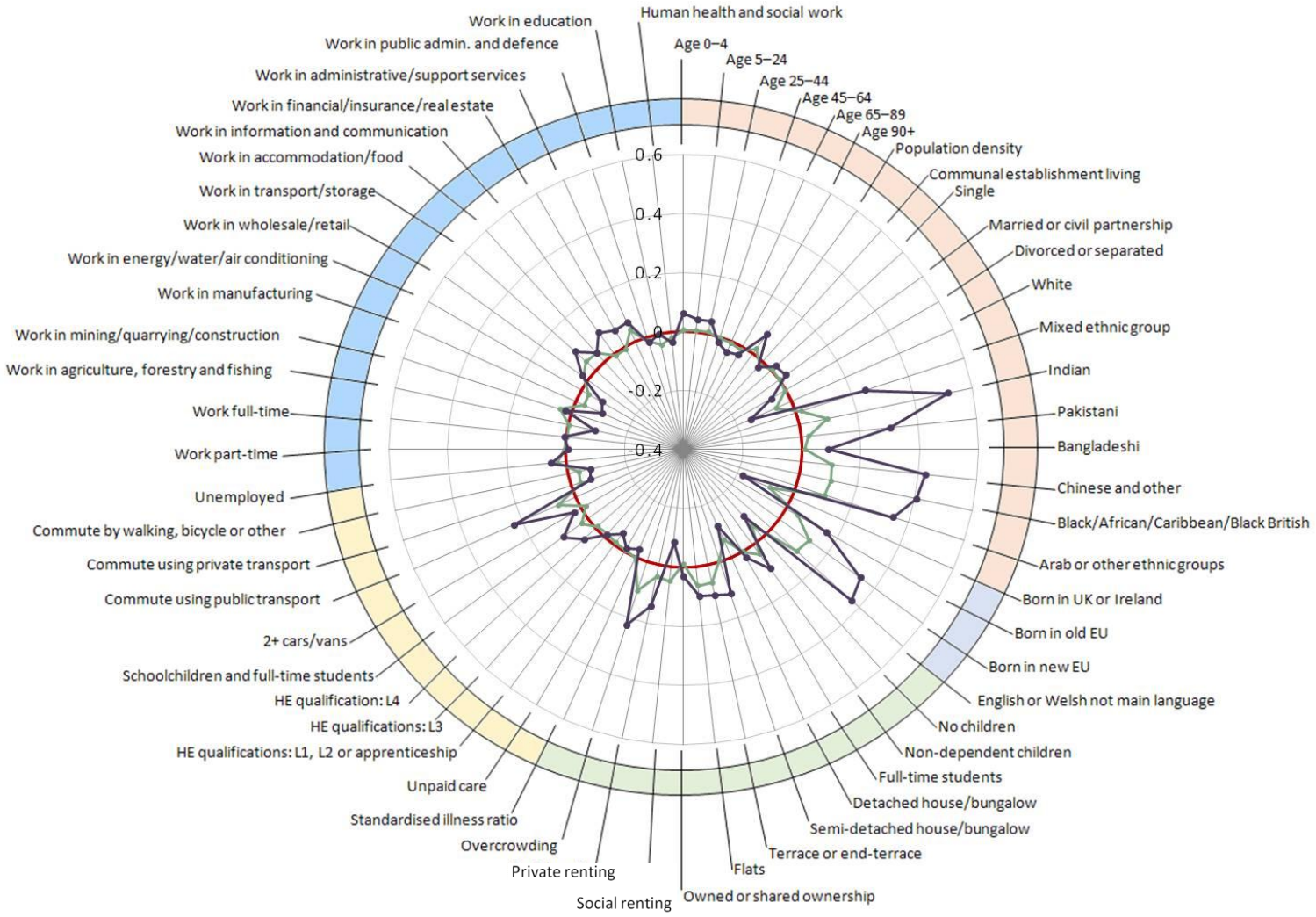
4 Multicultural metropolitans
4c Asian traits



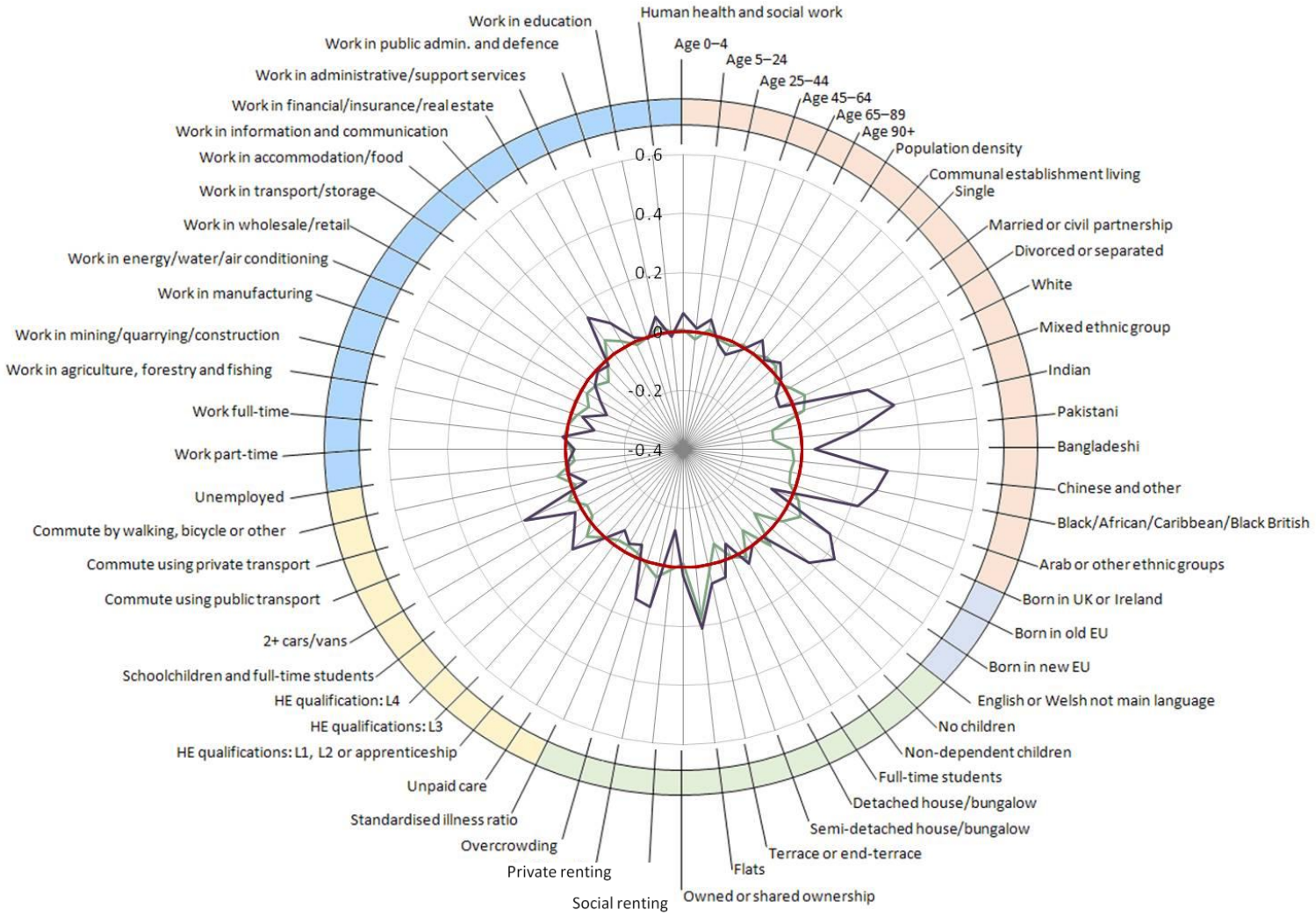
4 Multicultural metropolitans
4c Asian traits
4c1 Achieving minorities



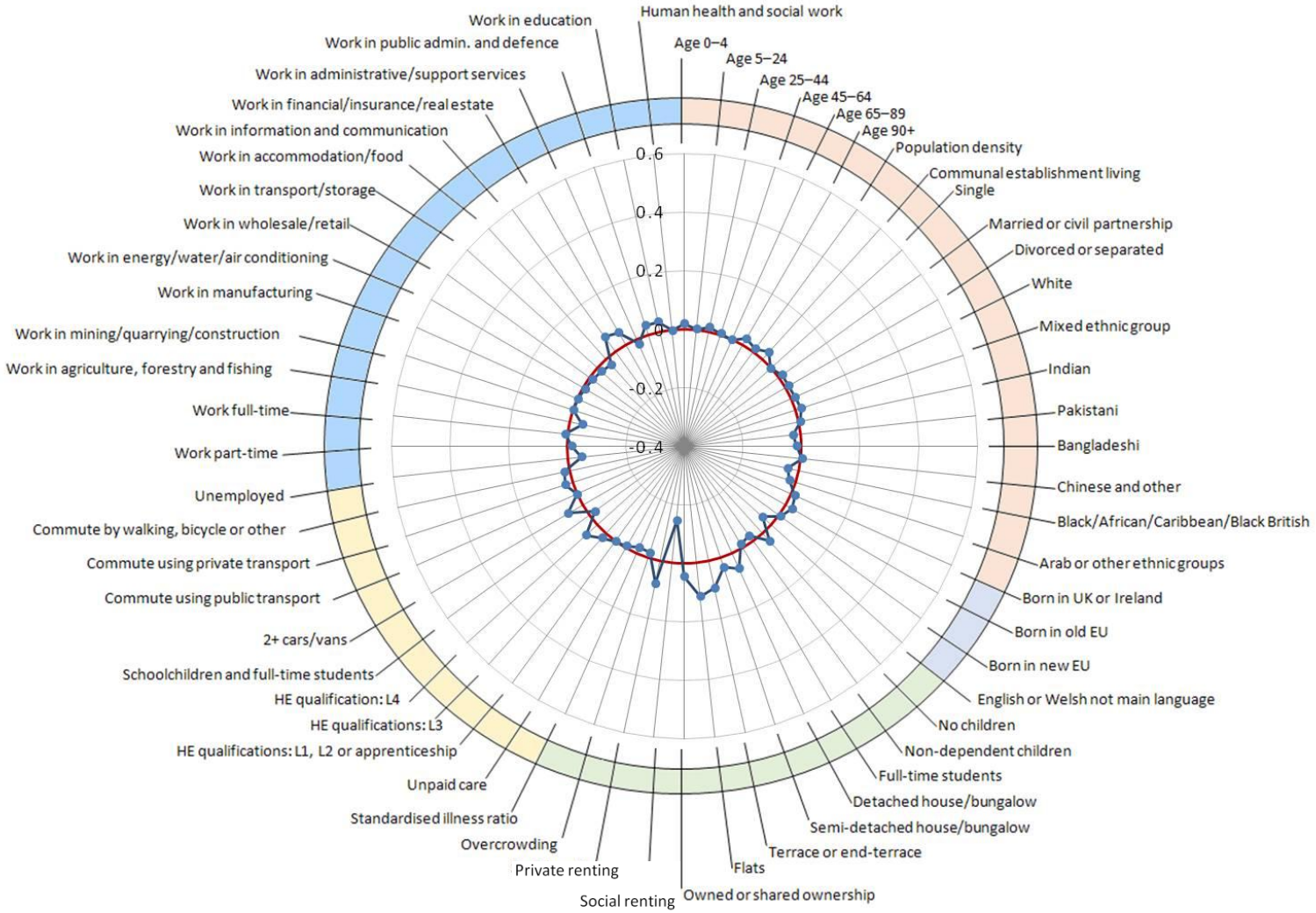
4 Multicultural metropolitans
4c Asian traits
4c2 Multicultural new arrivals



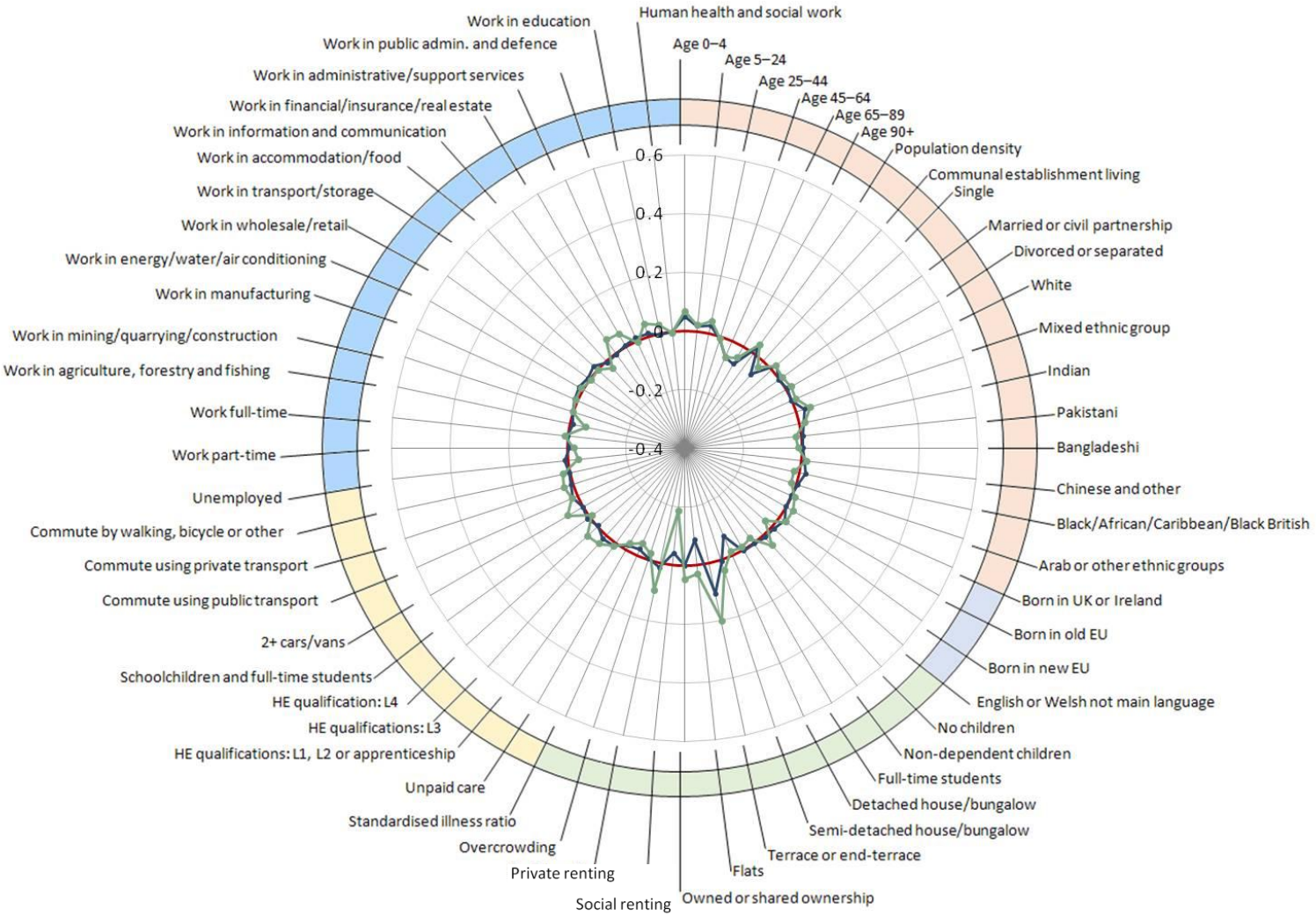
4 Multicultural metropolitans
4c Asian traits
4c3 Inner city ethnic mix



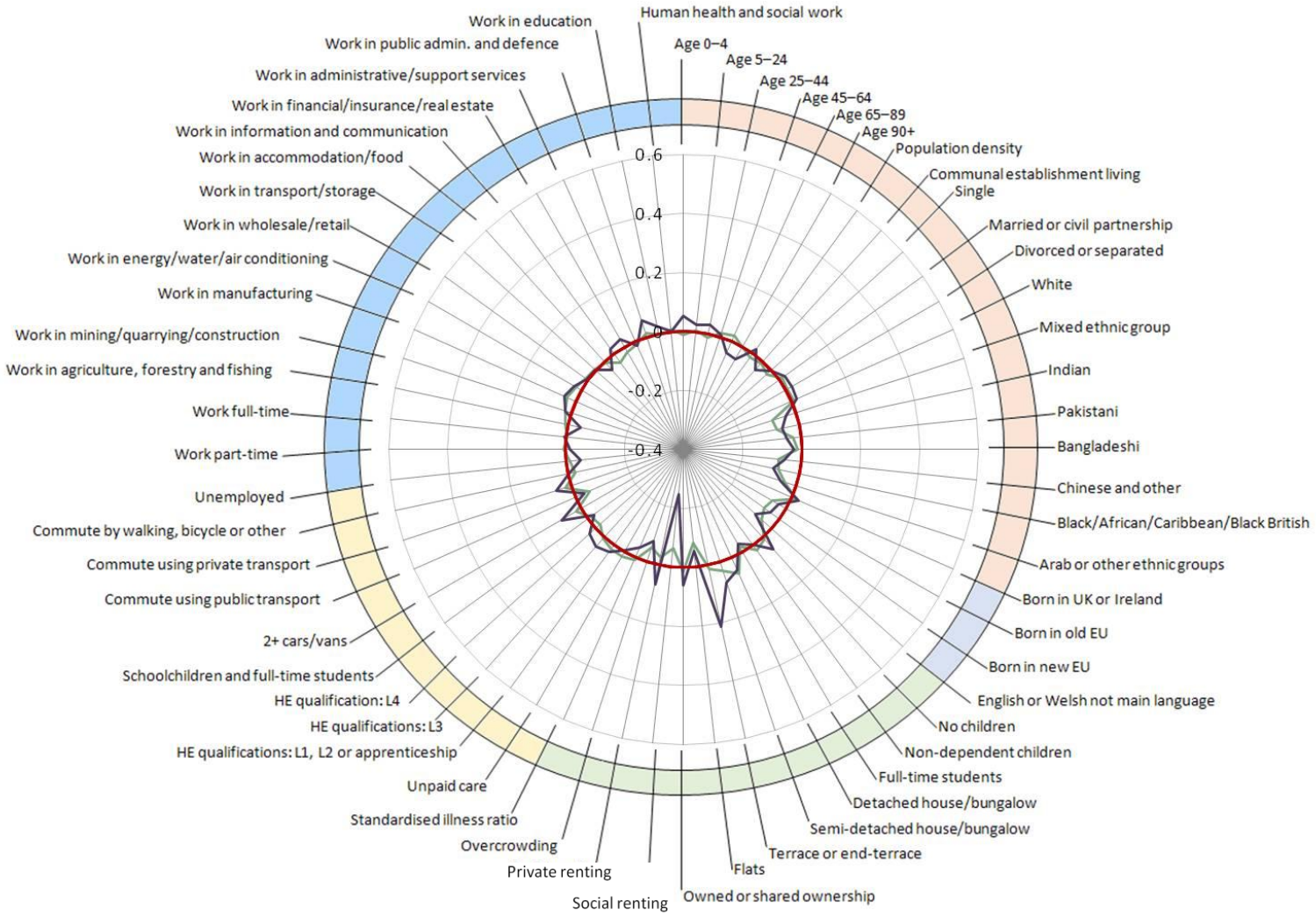
5 Urbanites


Human health and social work
Age 0–4
Age 5–24
Age 25–44
Age 45–64
Age 65–89
Age 90+
Population density
Communal establishment living
Single
Married or civil partnership
Divorced or separated
White
Mixed ethnic group
Indian
Pakistani
Bangladeshi
Chinese and other
Black/African/Caribbean/Black British
Arab or other ethnic groups
Born in UK or Ireland
Born in old EU
Born in new EU
English or Welsh not main language
No children
Non-dependent children
Full-time students
Detached house/bungalow
Semi-detached house/bungalow
Terrace or end-terrace
Flats
Owned or shared ownership
Social renting
Private renting
Overcrowding
Standardised illness ratio
Unpaid care
HE qualifications: L1, L2 or apprenticeship
HE qualifications: L3
HE qualification: L4
Schoolchildren and full-time students
2+ cars/vans
Commute using public transport
Commute using private transport
Commute by walking, bicycle or other
Unemployed
Work part-time
Work full-time
Work in agriculture, forestry and fishing
Work in mining/quarrying/construction
Work in manufacturing
Work in energy/water/air conditioning
Work in wholesale/retail
Work in transport/storage
Work in accommodation/food
Work in information and communication
Work in financial/insurance/real estate
Work in administrative/support services
Work in public admin. and defence
Work in education
0.6
0.4
0.2
0
-0.2
-0.4

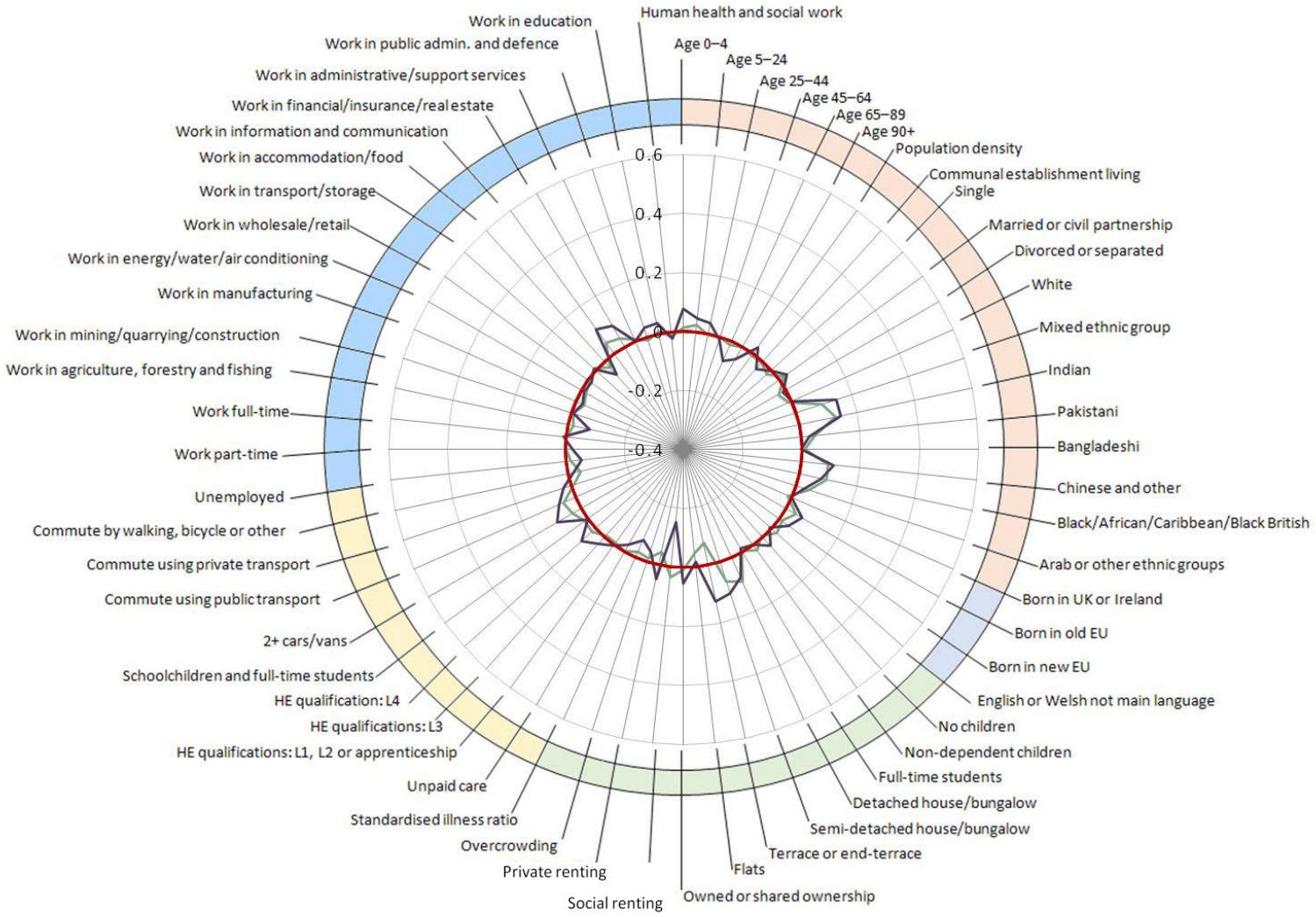
5 Urbanites
5a Urban professionals and families



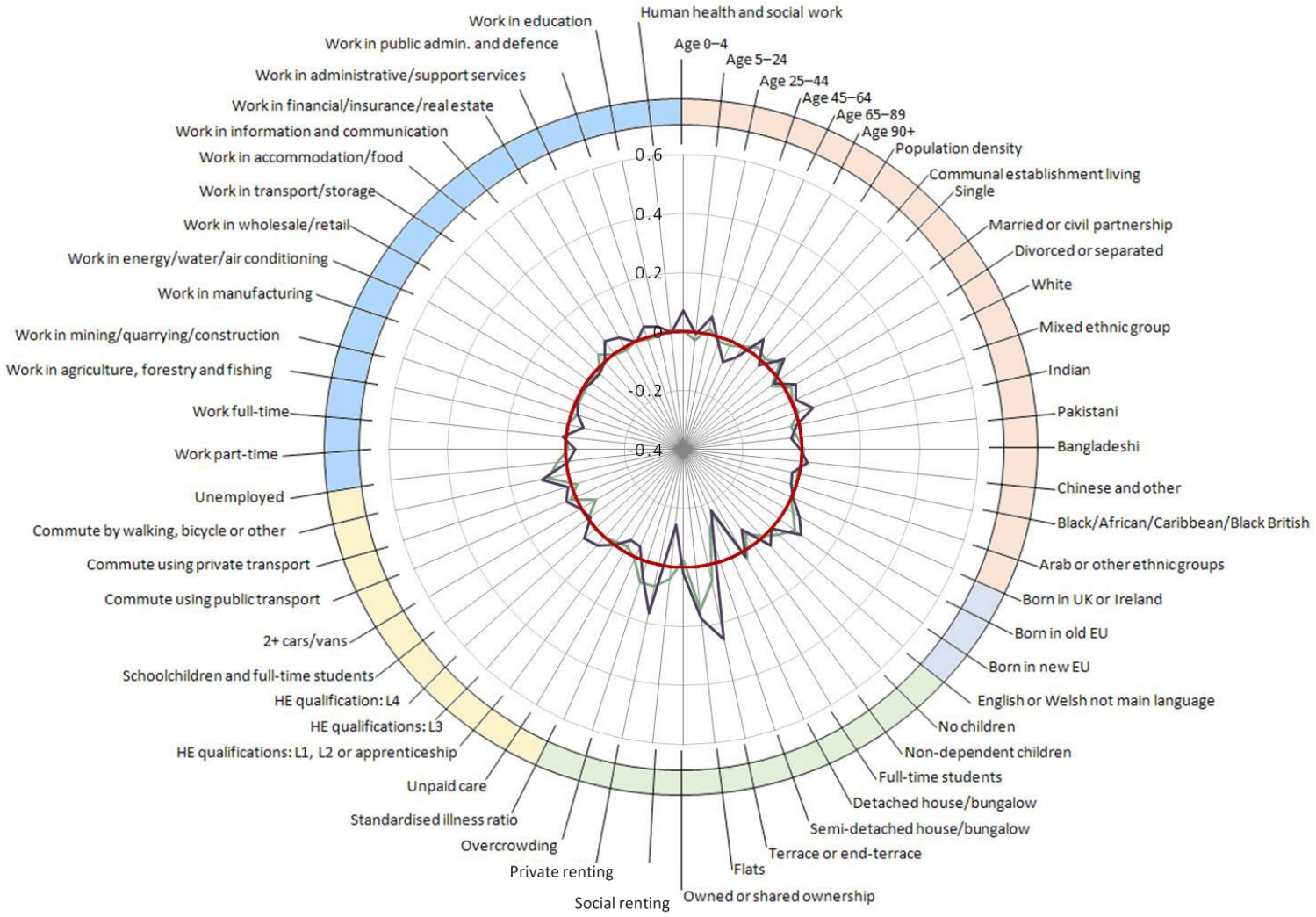
5 Urbanites
5a Urban professionals and families
5a1 White professionals



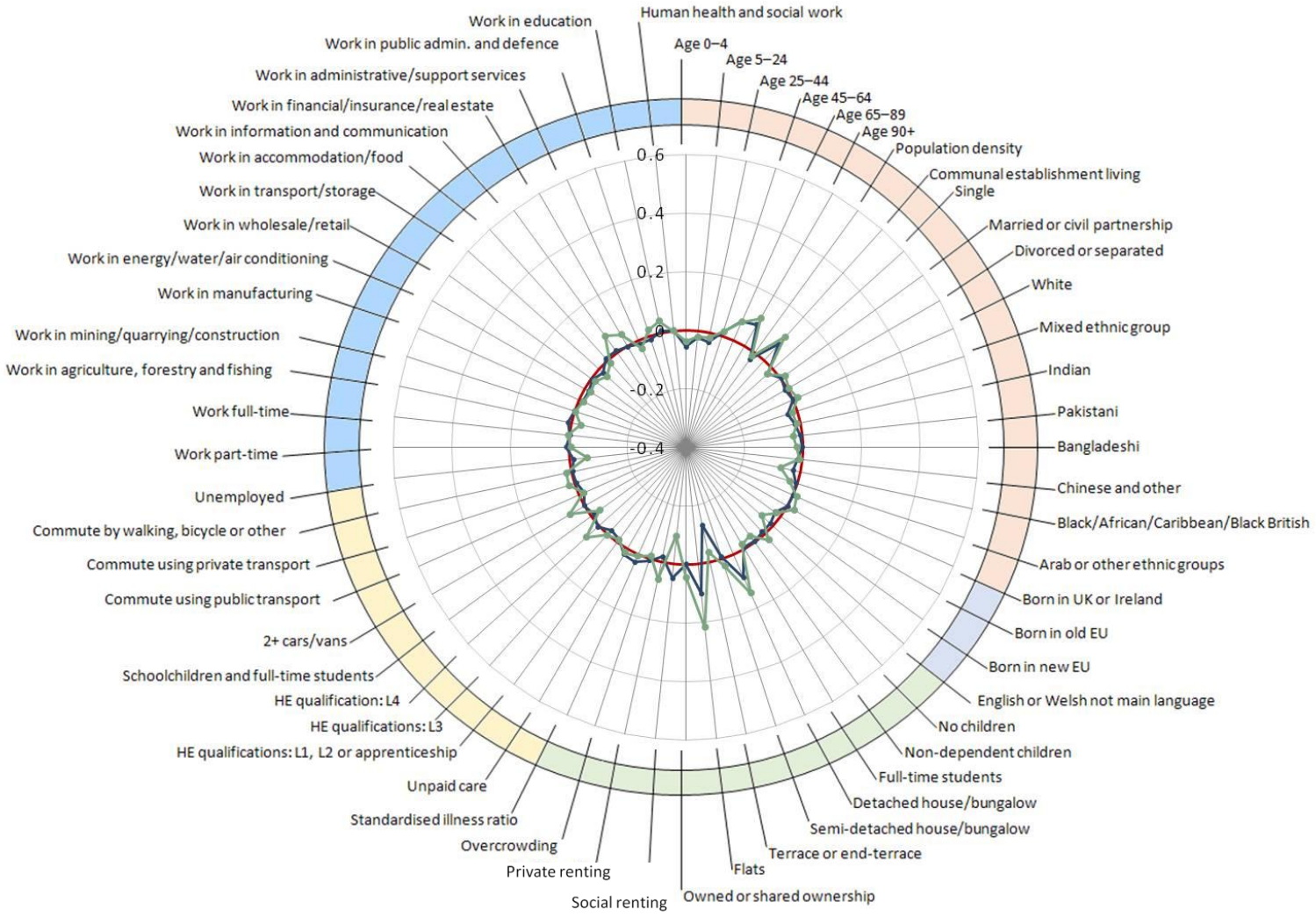
5 Urbanites
5a Urban professionals and families
5a2 Multi-ethnic professionals with families



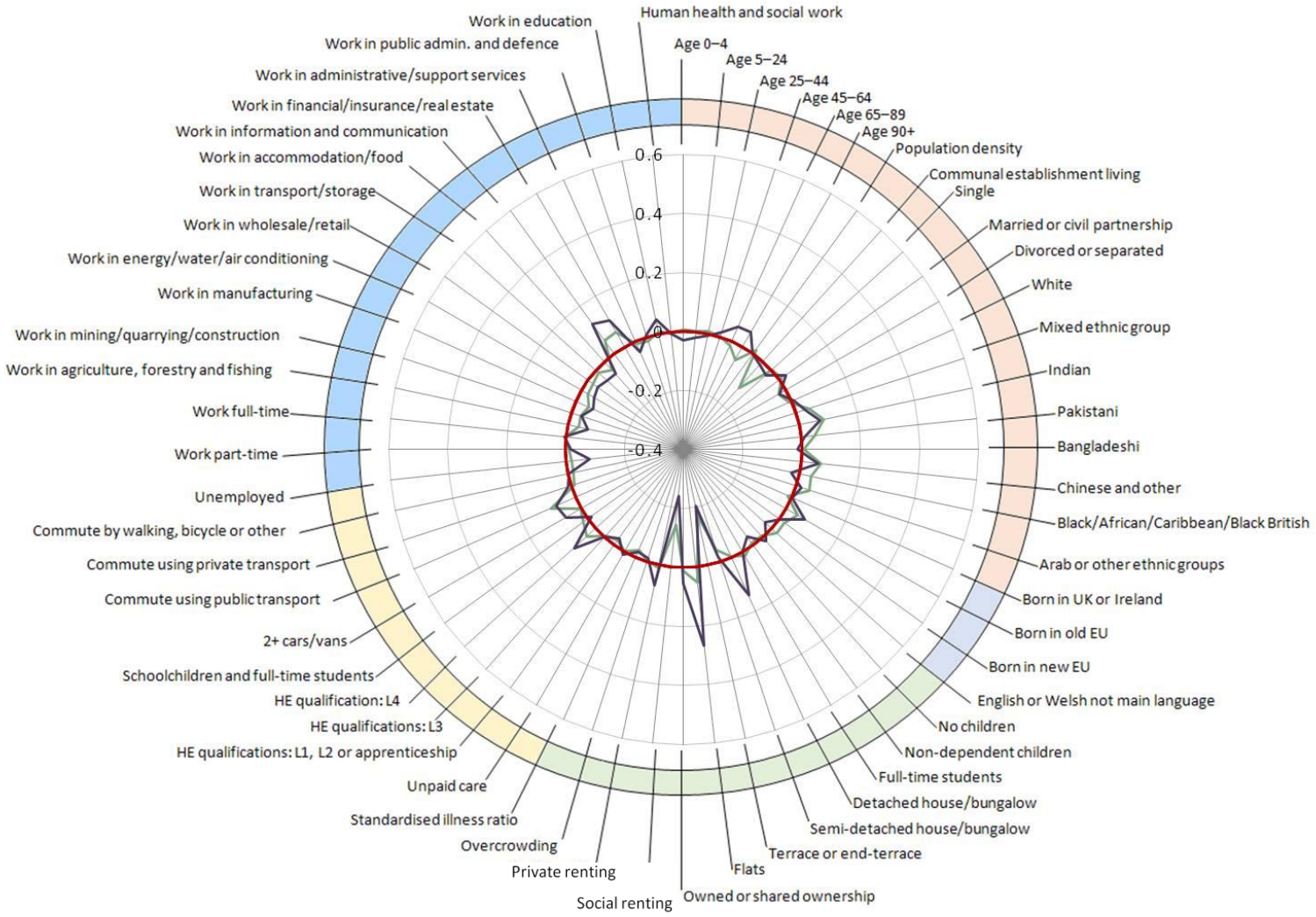
5 Urbanites
5a Urban professionals and families
5a3 Families in terraces and flats



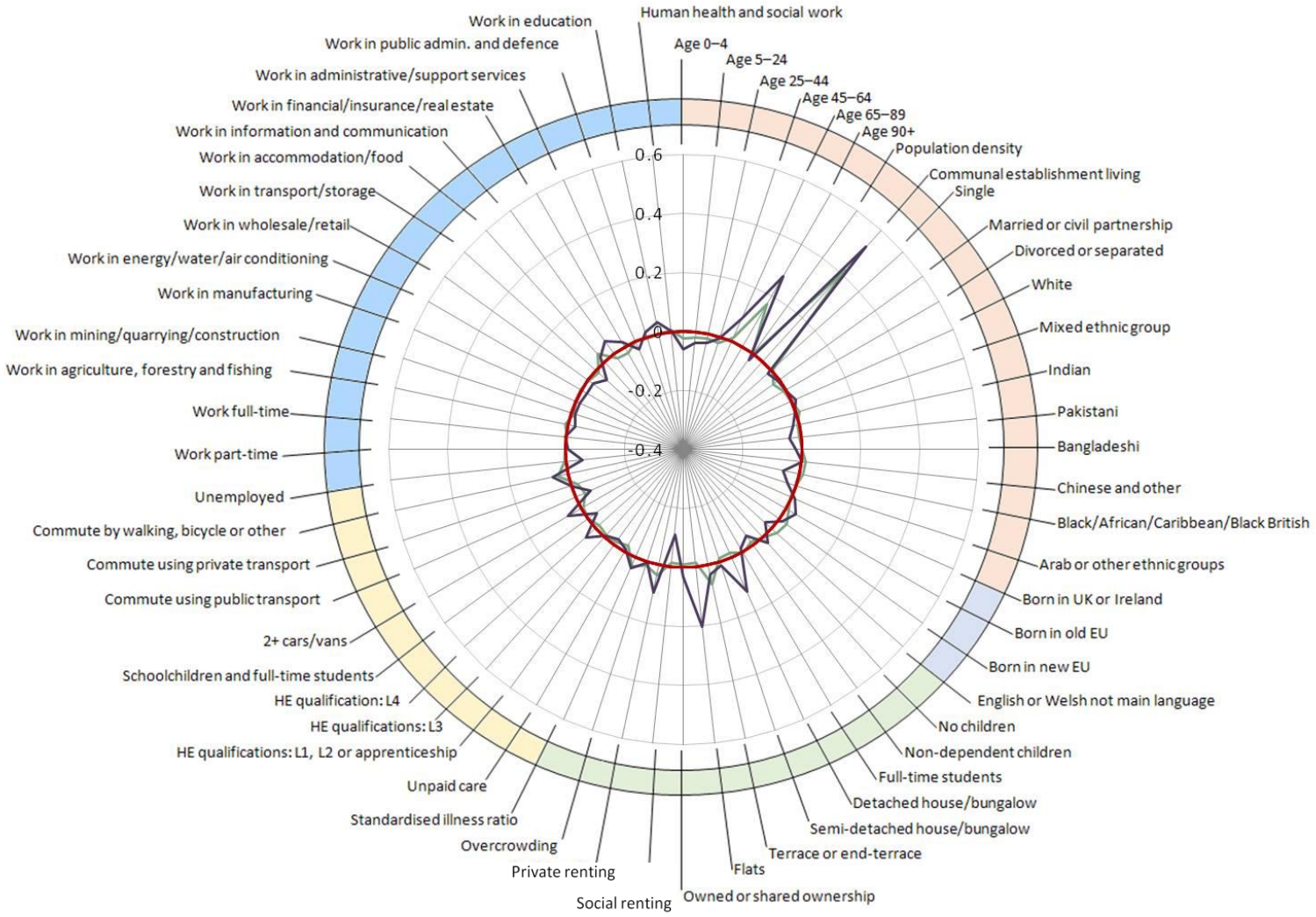
5 Urbanites
5b Ageing urban living



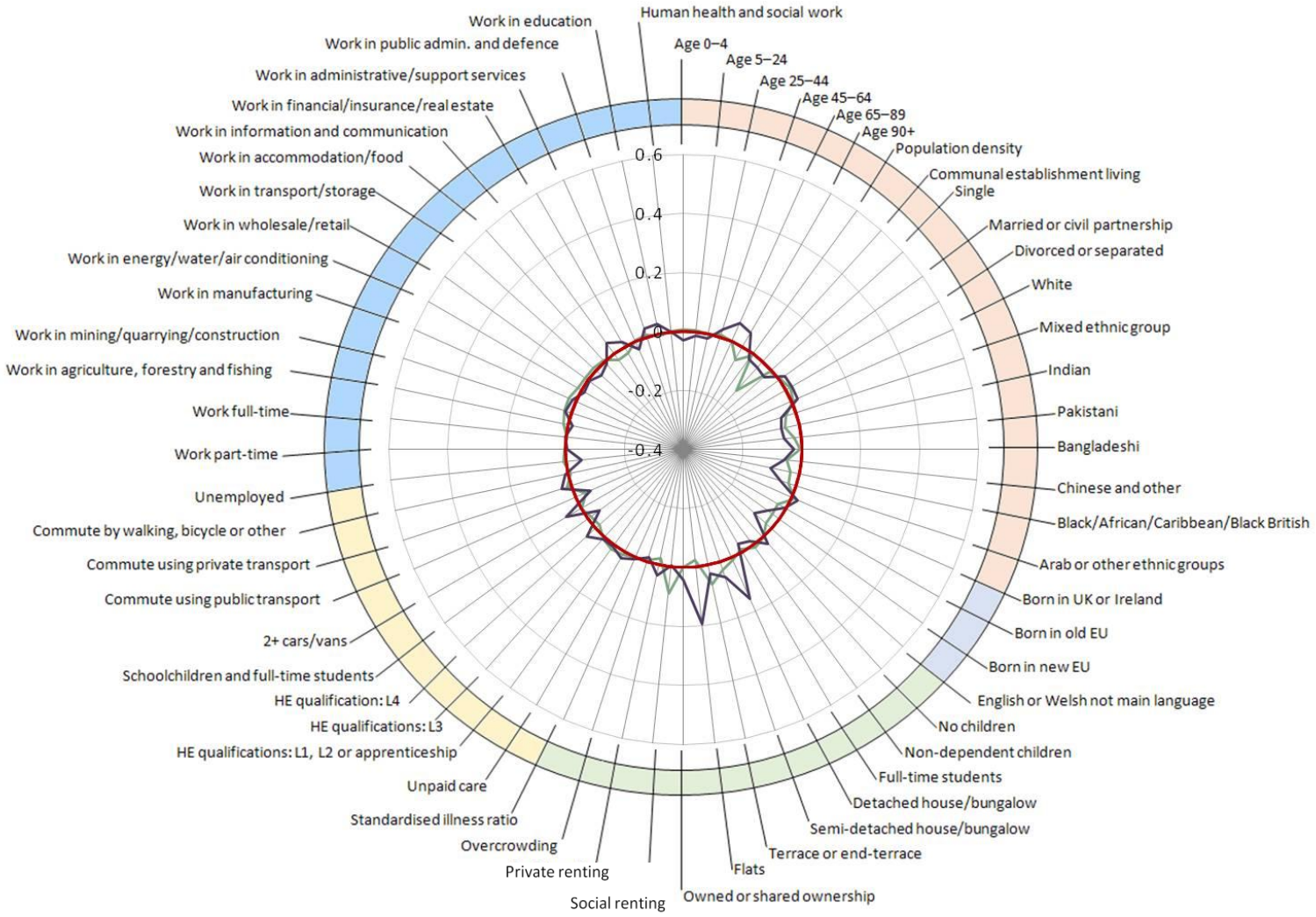
5 Urbanites
5b Ageing urban living
5b1 Delayed retirement



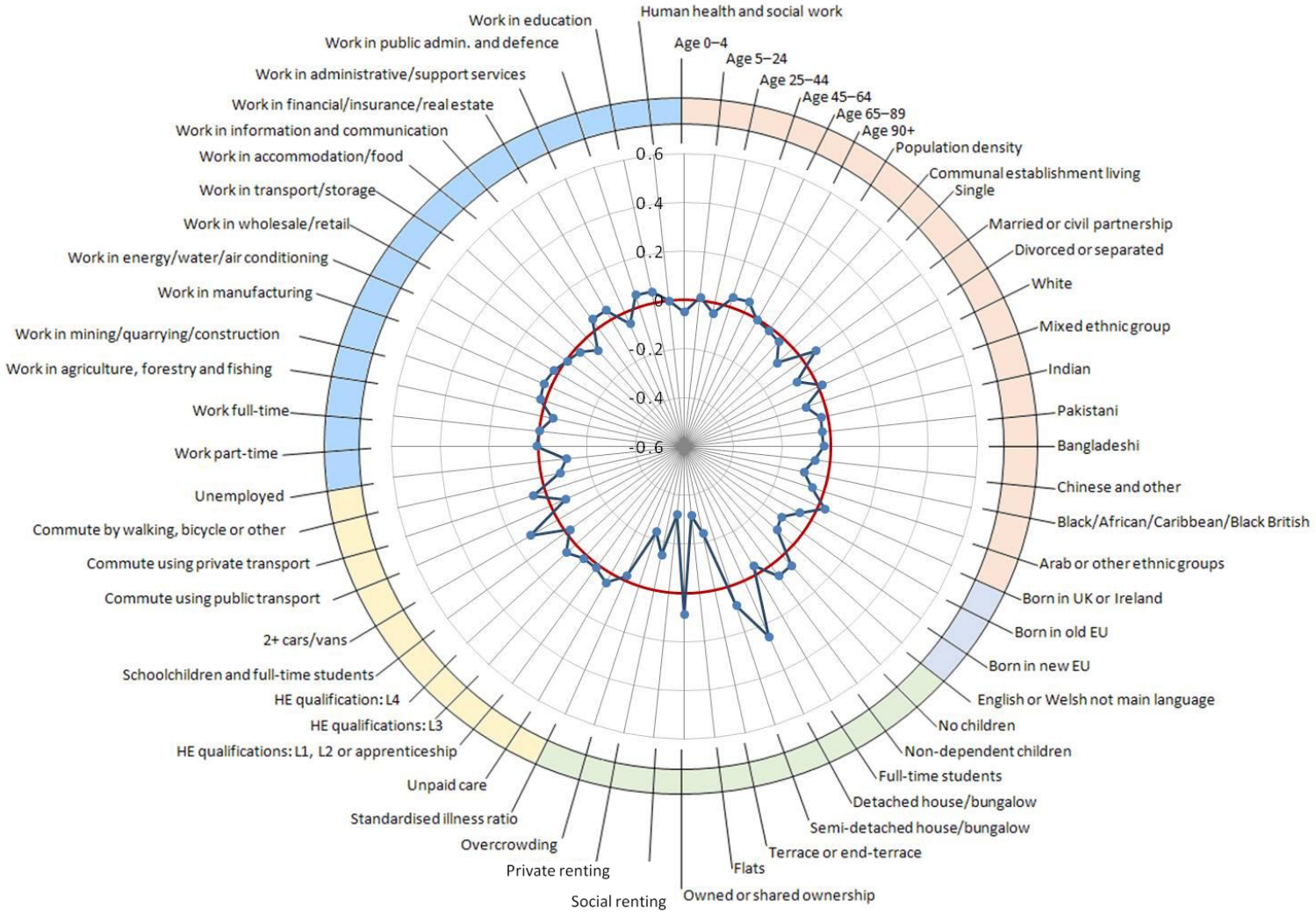
5 Urbanites
5b Ageing urban living
5b2 Communal retirement



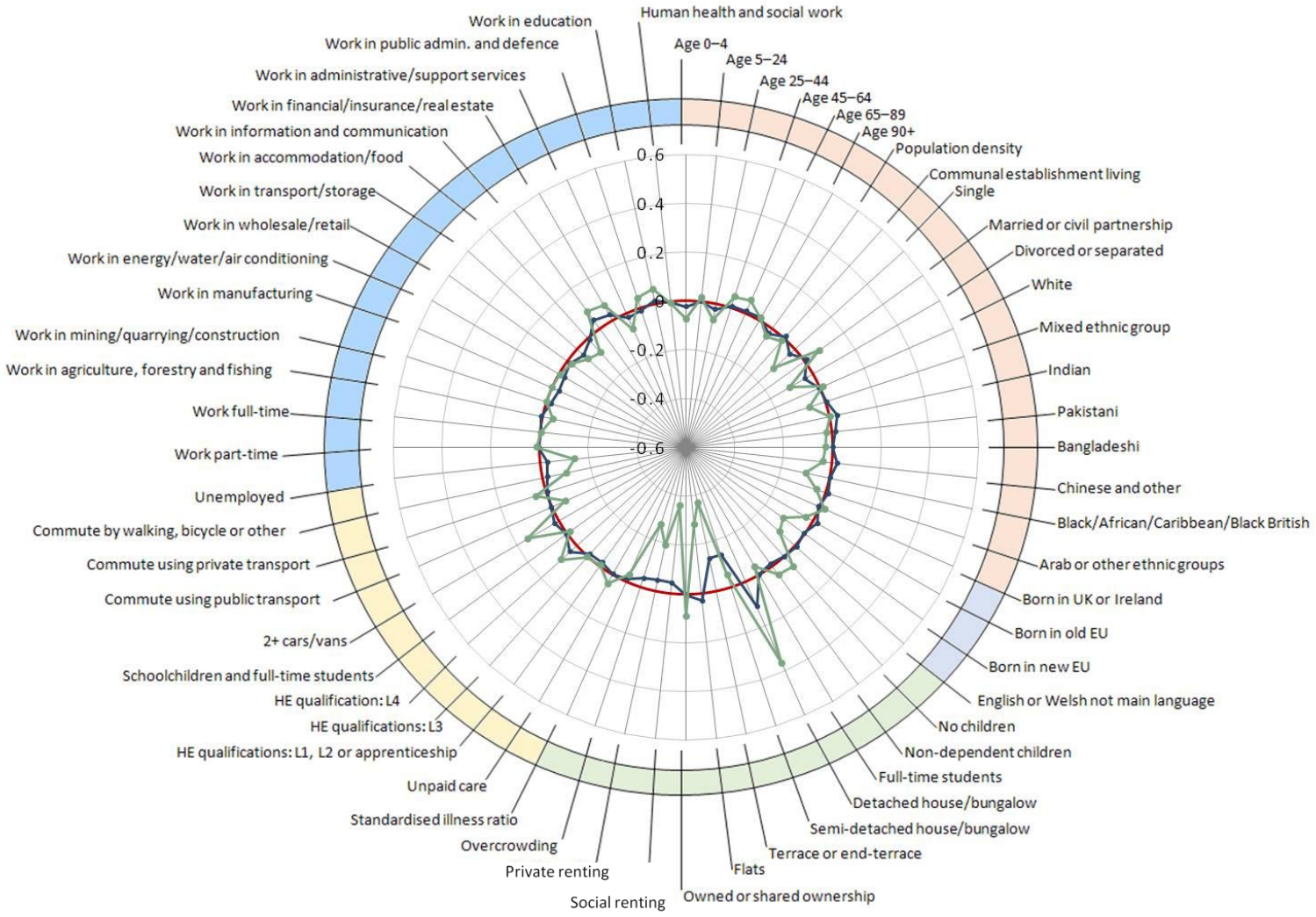
5 Urbanites
5b Ageing urban living
5b3 Self-sufficient retirement



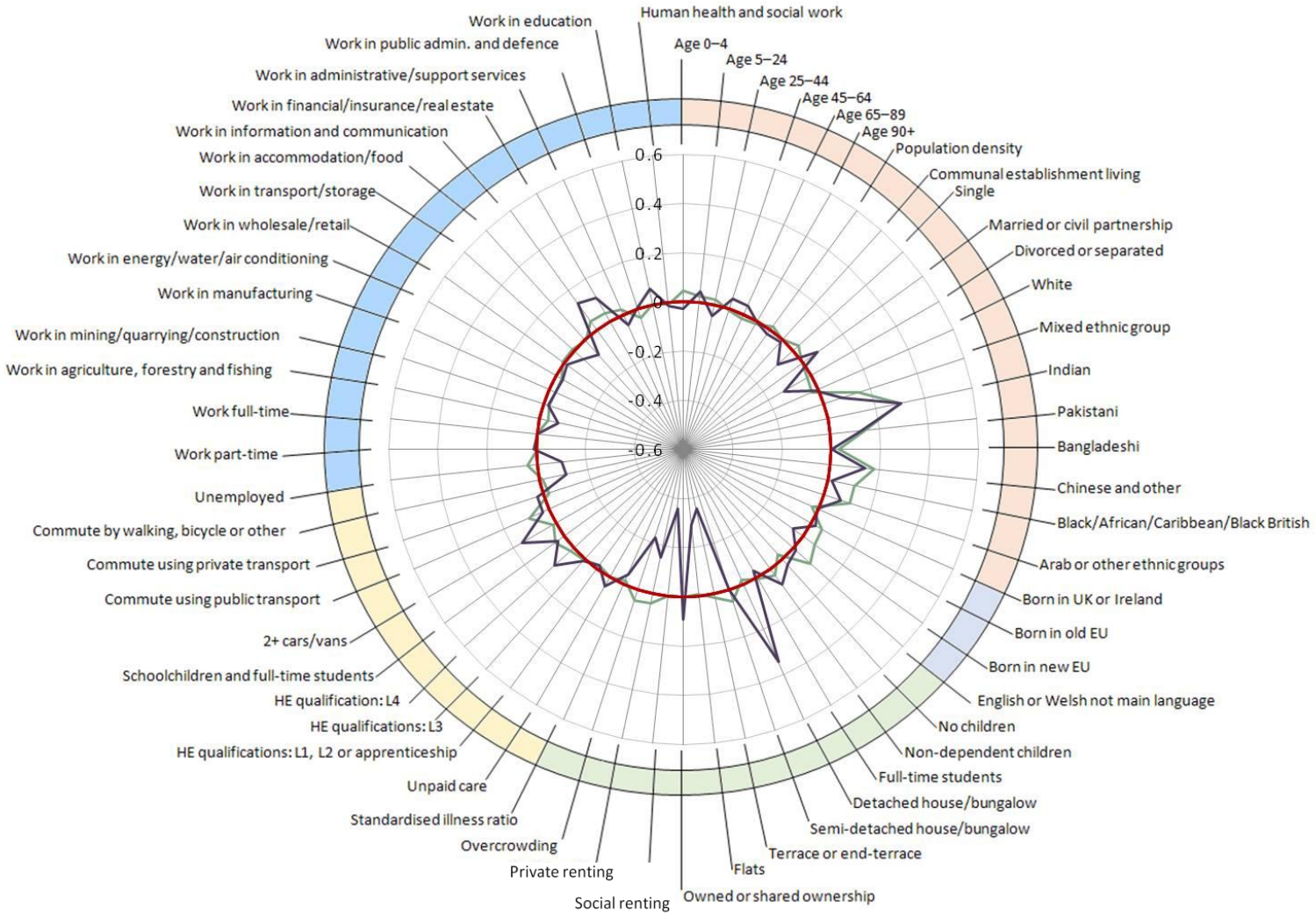
6 Suburbanites



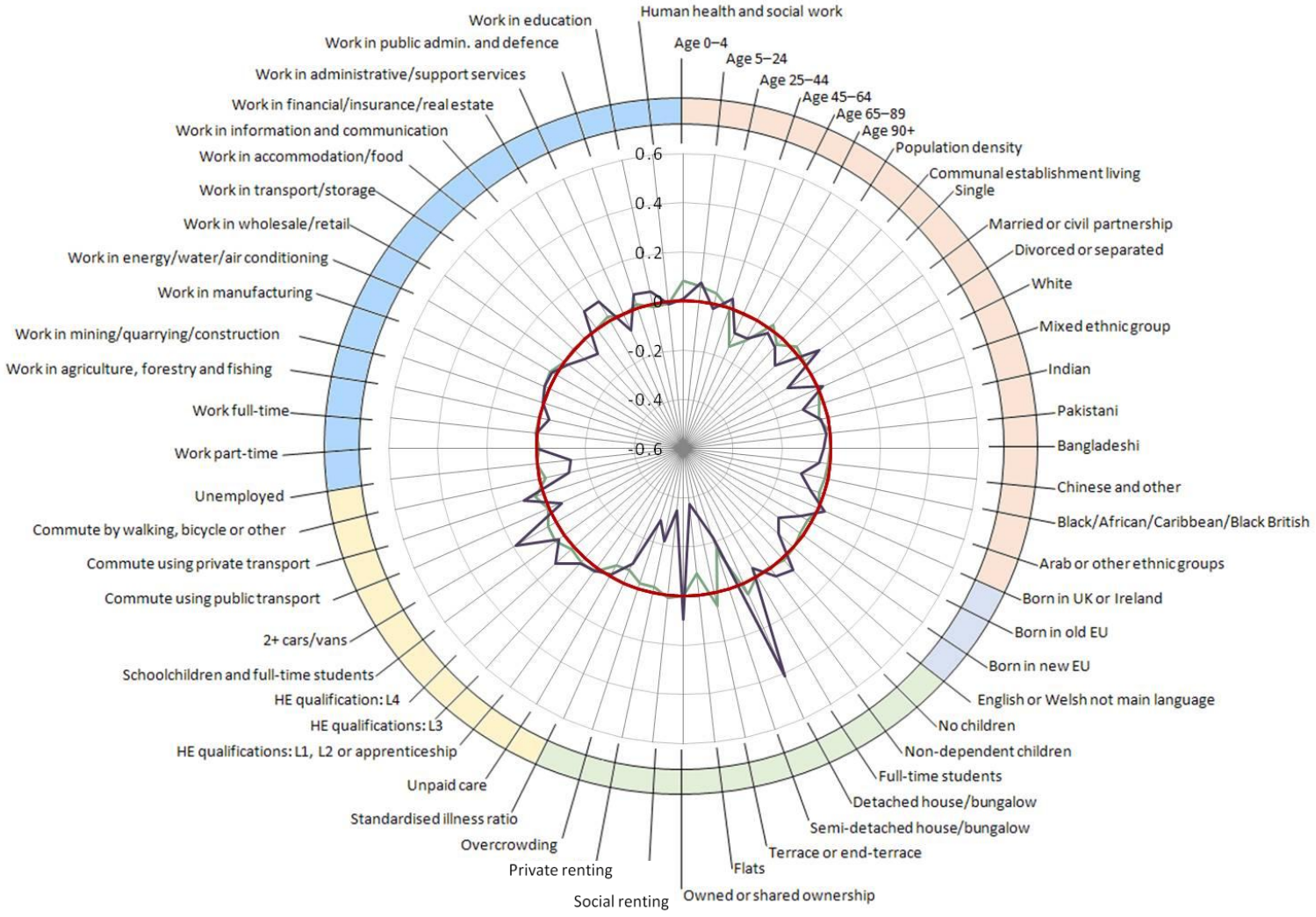
6 Suburbanites
6a Suburban achievers



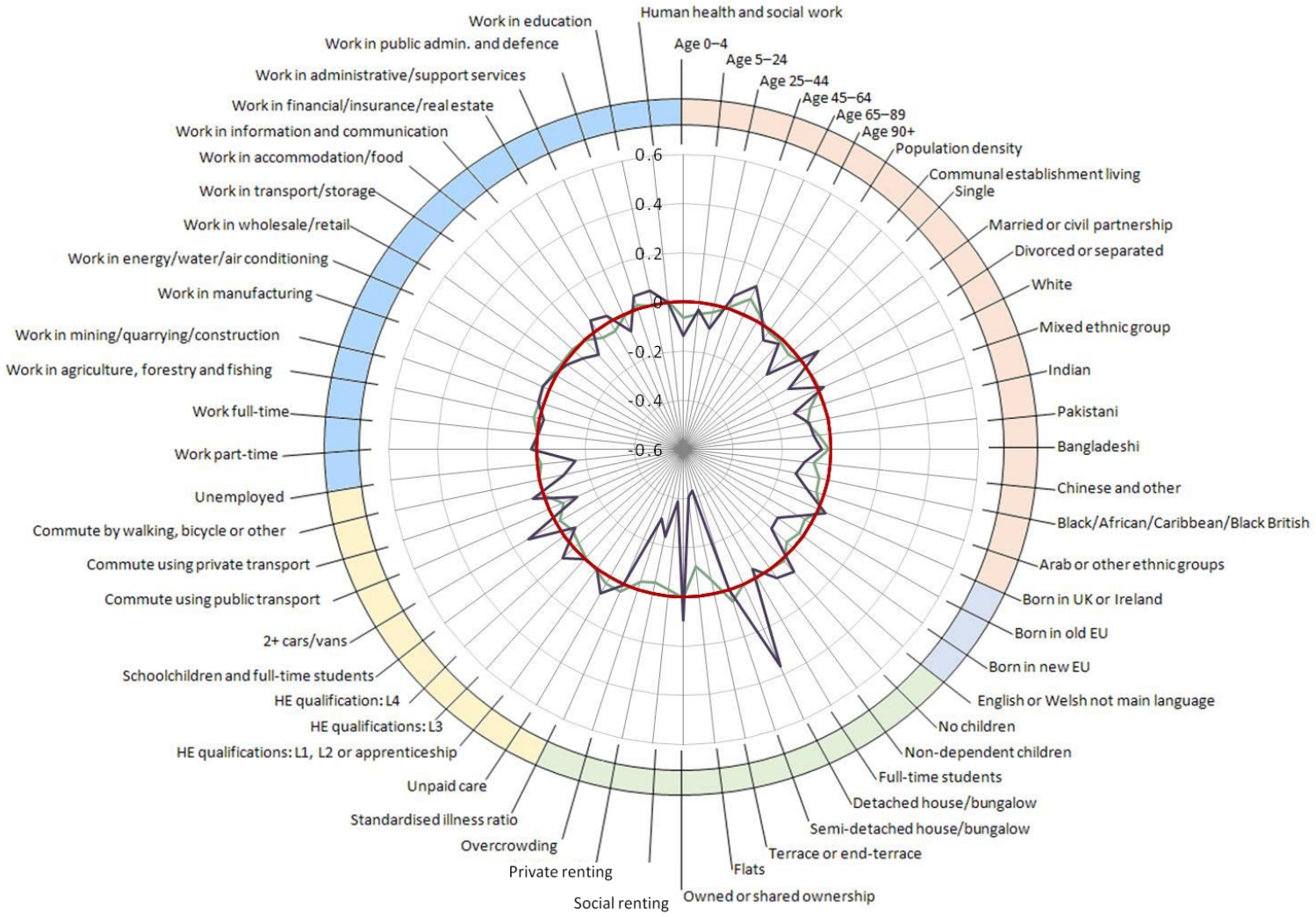
6 Suburbanites
6a Suburban achievers
6a1 Indian tech achievers



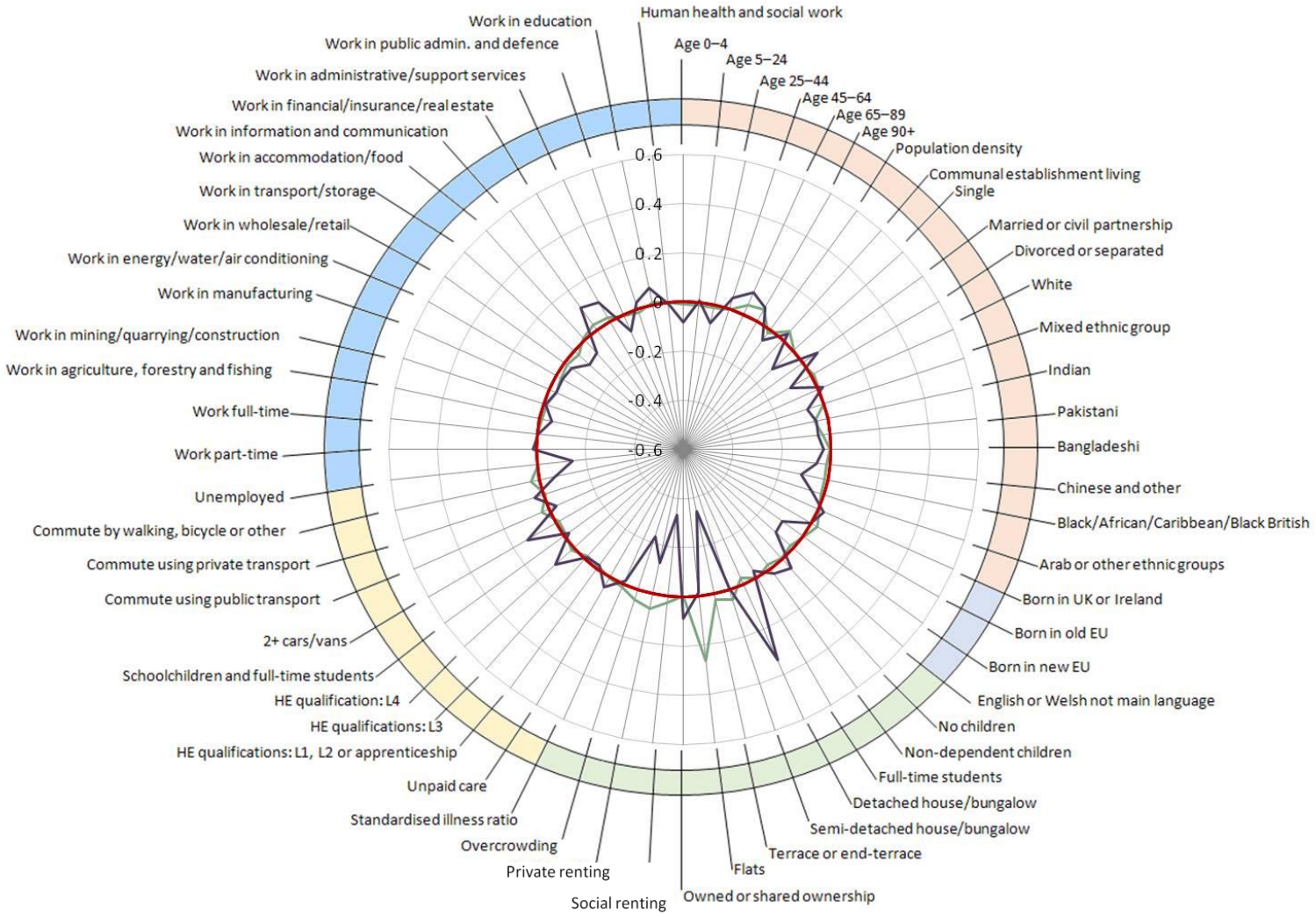
6 Suburbanites
6a Suburban achievers
6a2 Comfortable suburbia



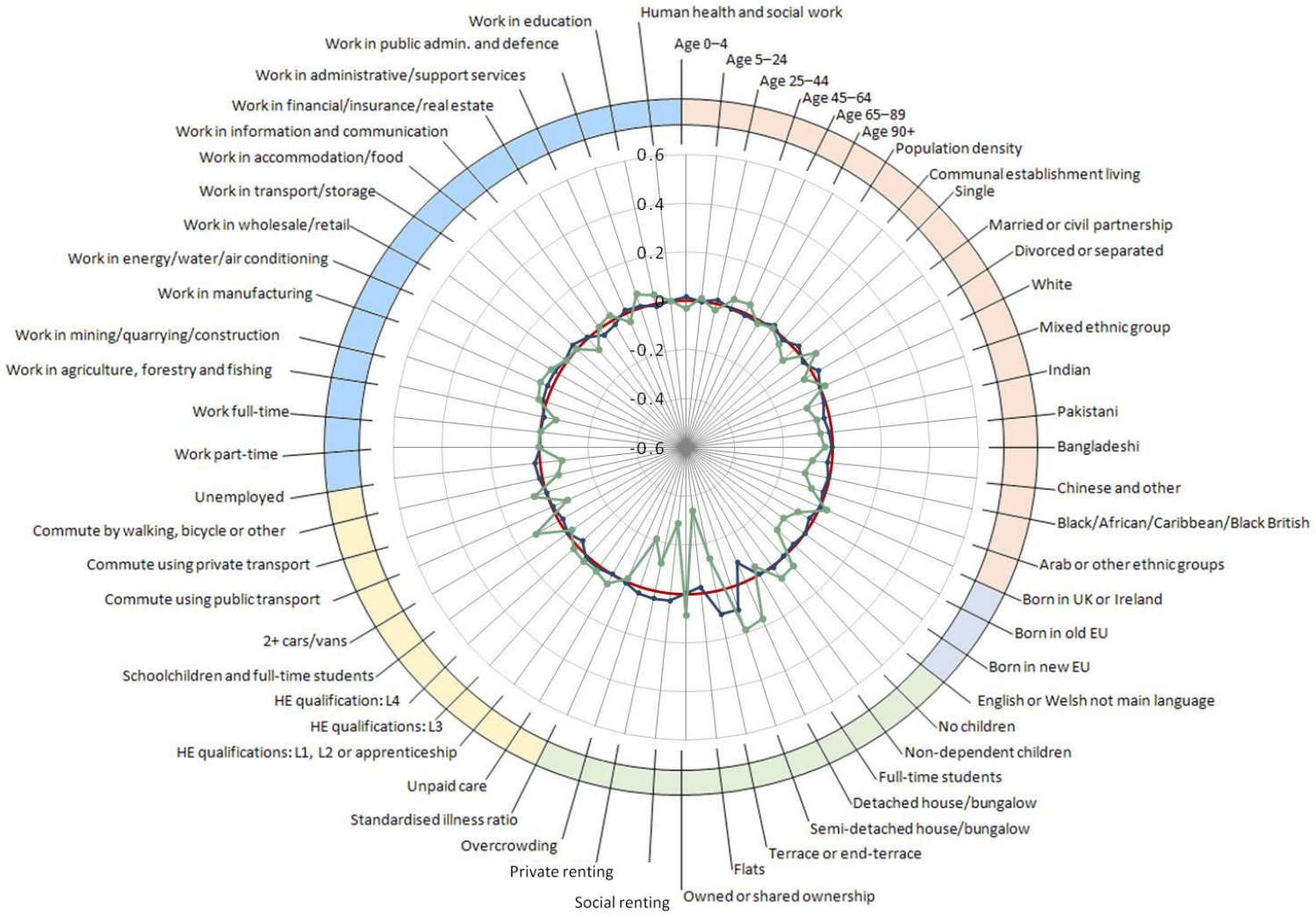
6 Suburbanites
6a Suburban achievers
6a3 Detached retirement living



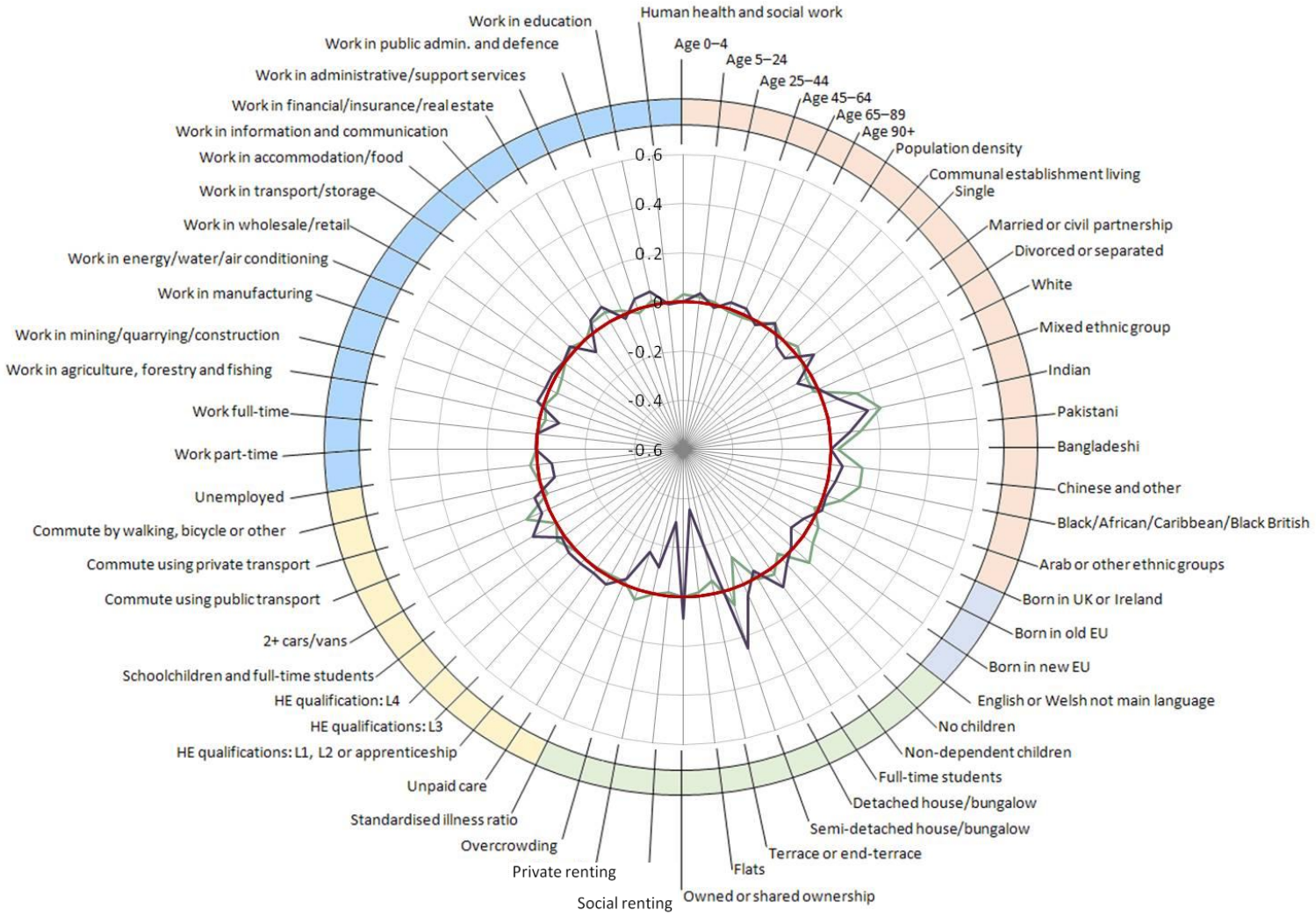
6 Suburbanites
6a Suburban achievers
6a4 Ageing in suburbia



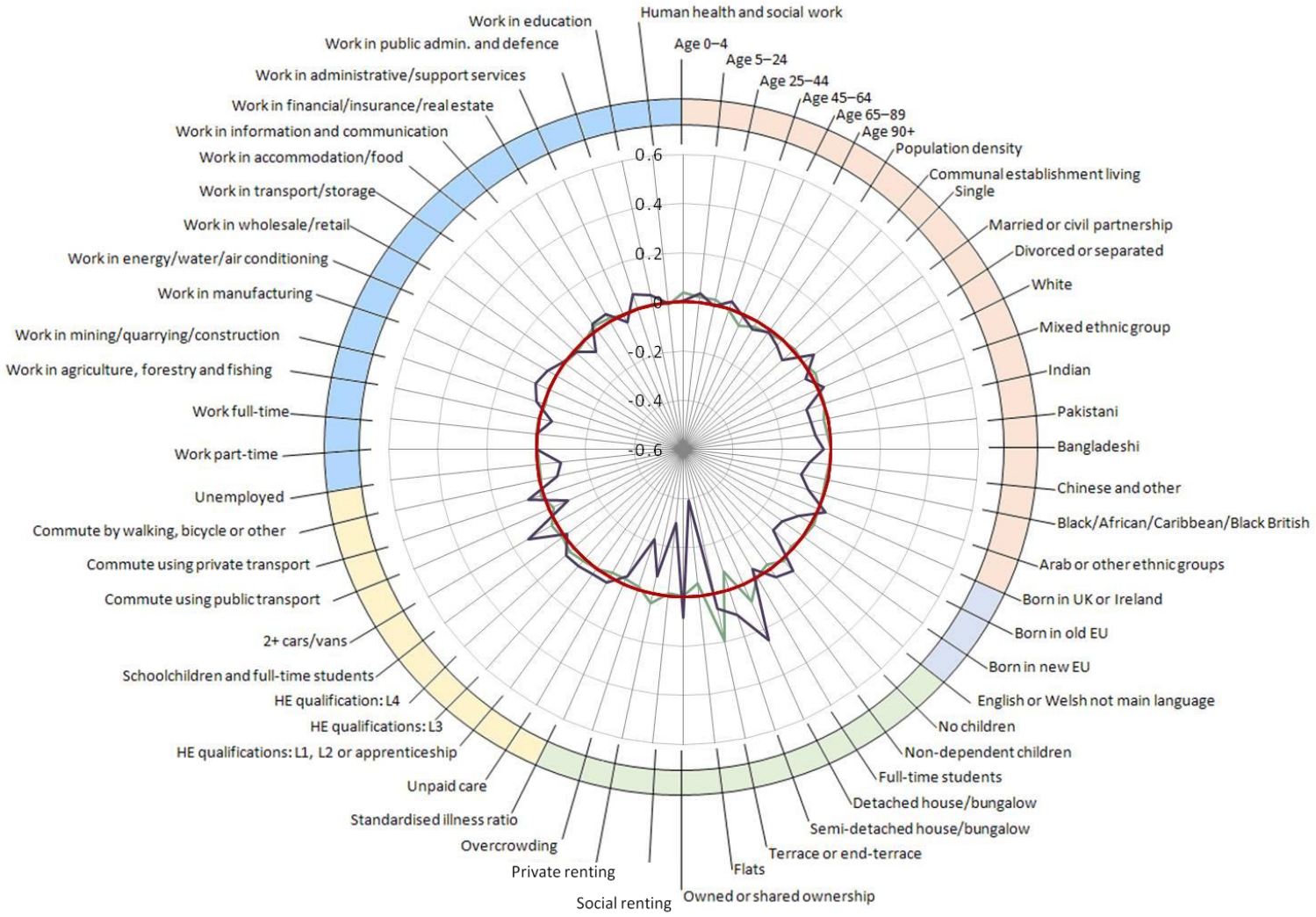
6 Suburbanites
6b Semi-detached suburbia



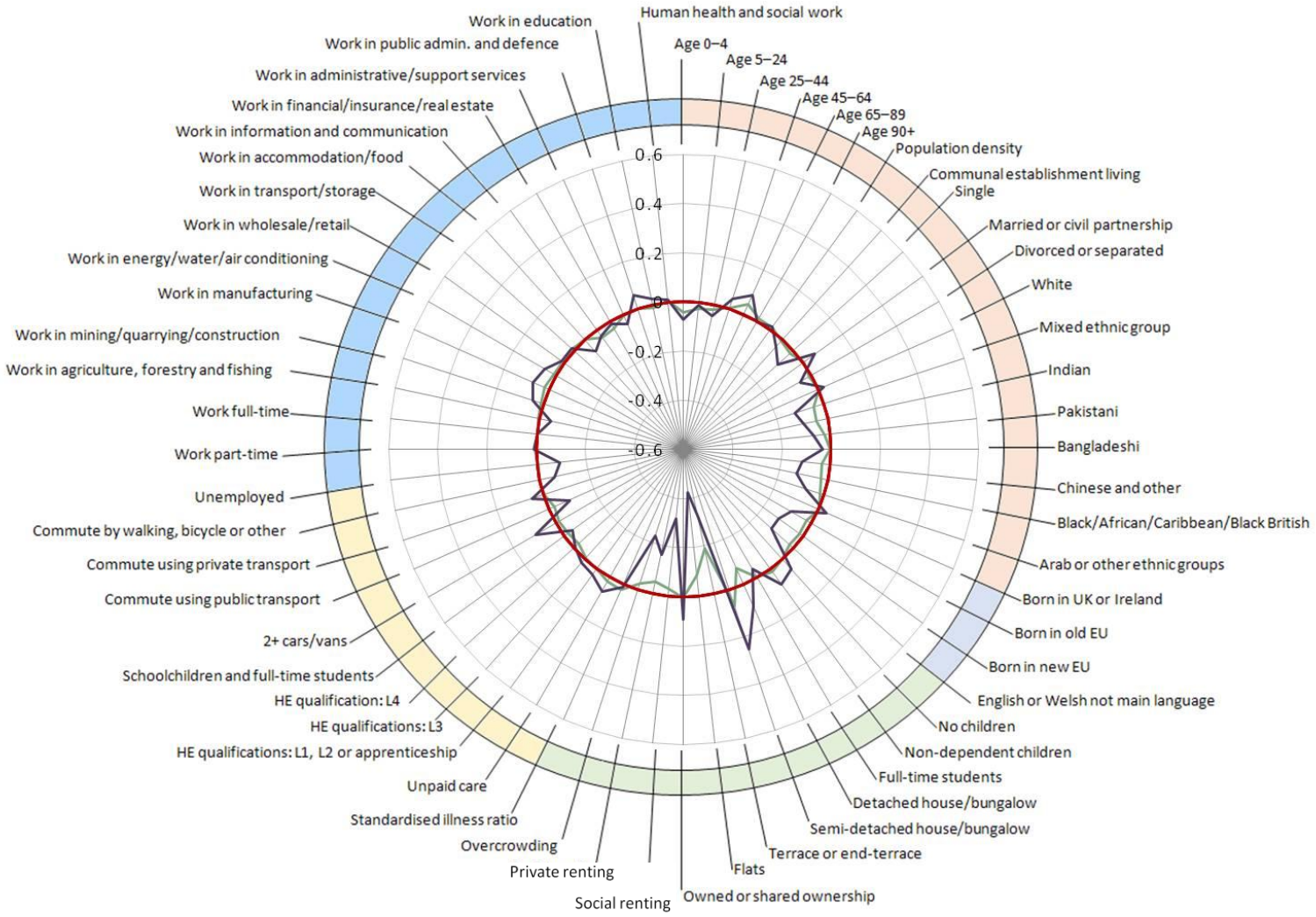
6 Suburbanites
6b Semi-detached suburbia
6b1 Multi-ethnic suburbia



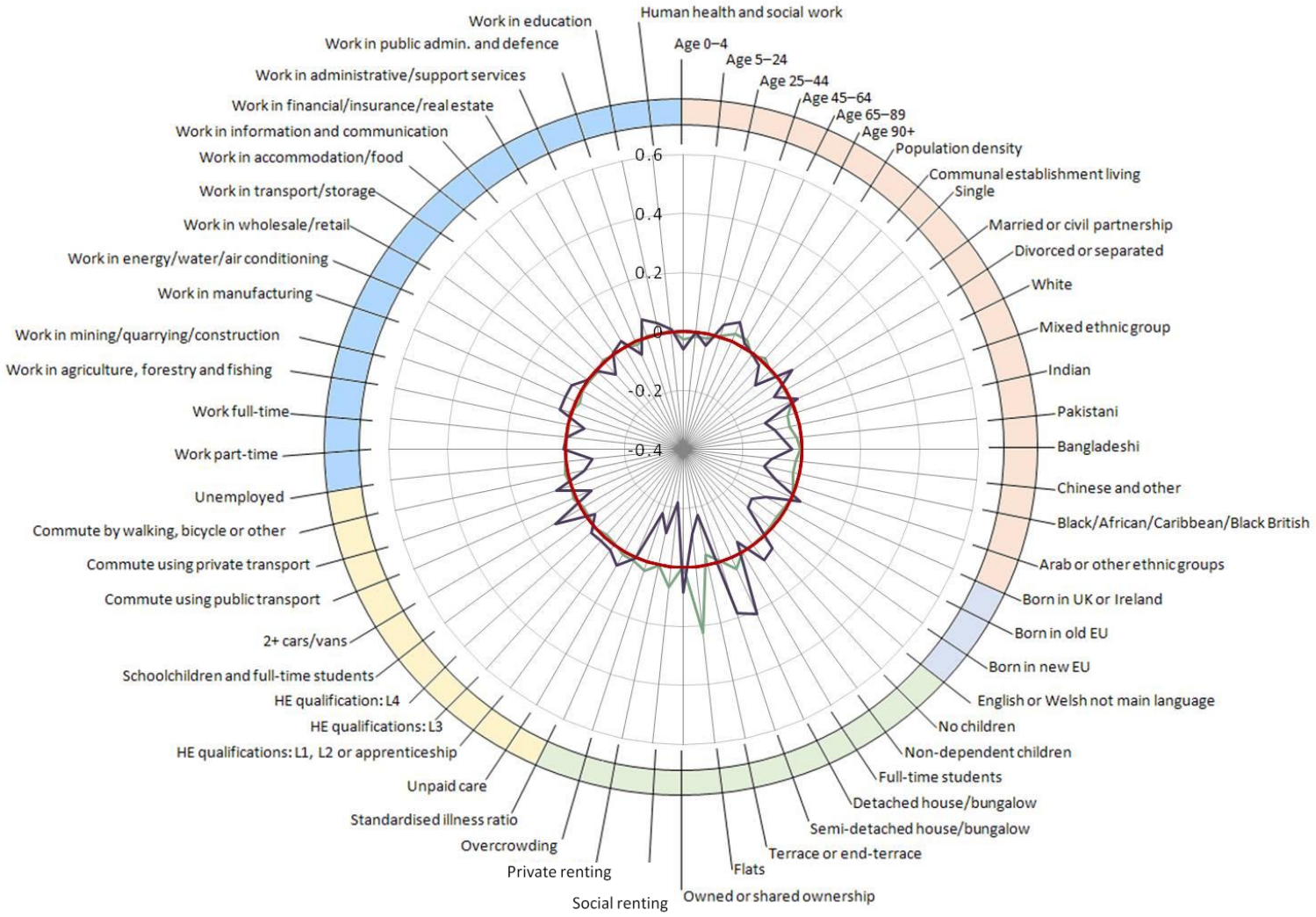
6 Suburbanites
6b Semi-detached suburbia
6b2 White suburban communities



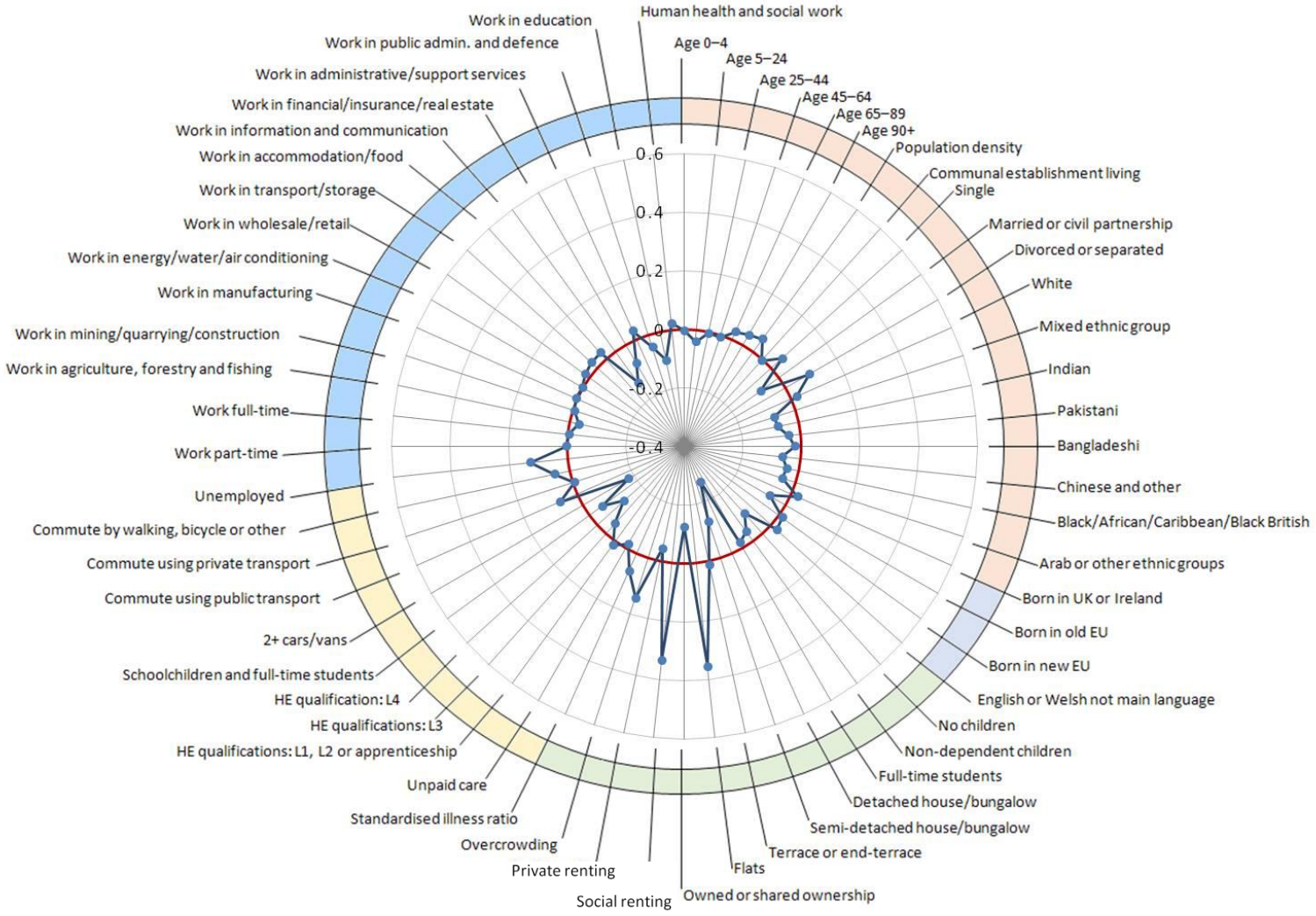
6 Suburbanites
6b Semi-detached suburbia
6b3 Semi-detached ageing



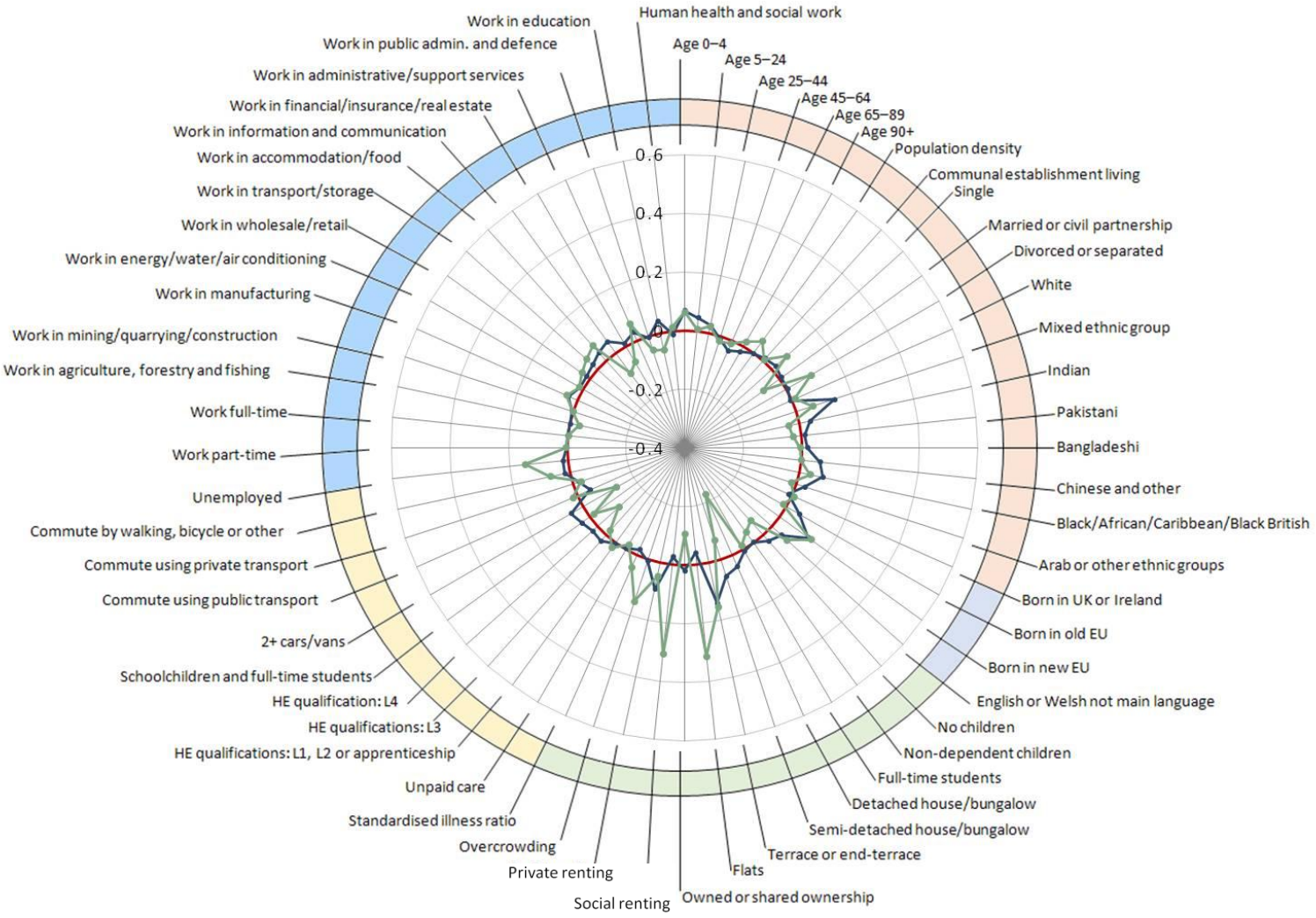
6 Suburbanites
6b Semi-detached suburbia
6b4 Older workers and retirement



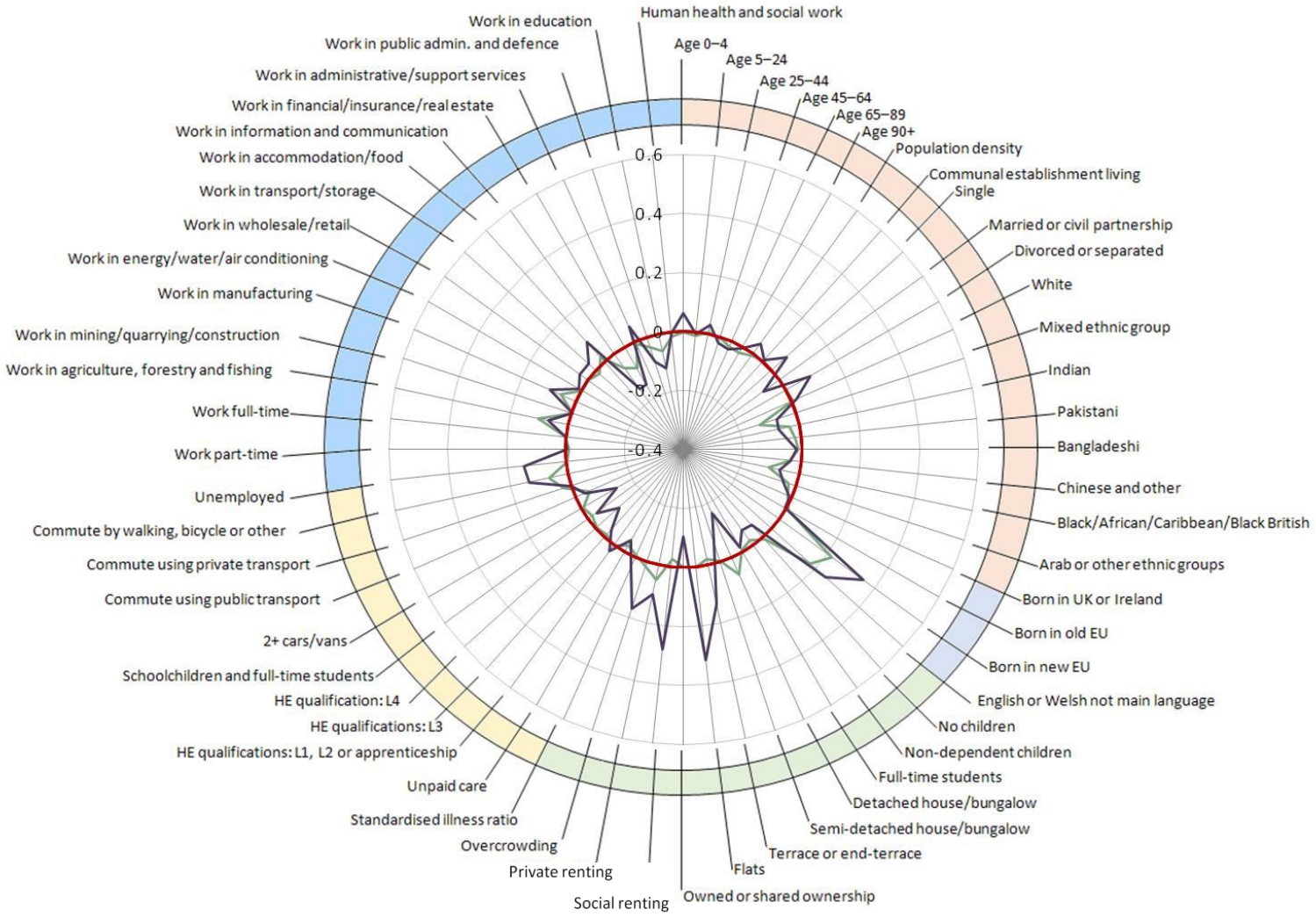
7 Constrained city dwellers



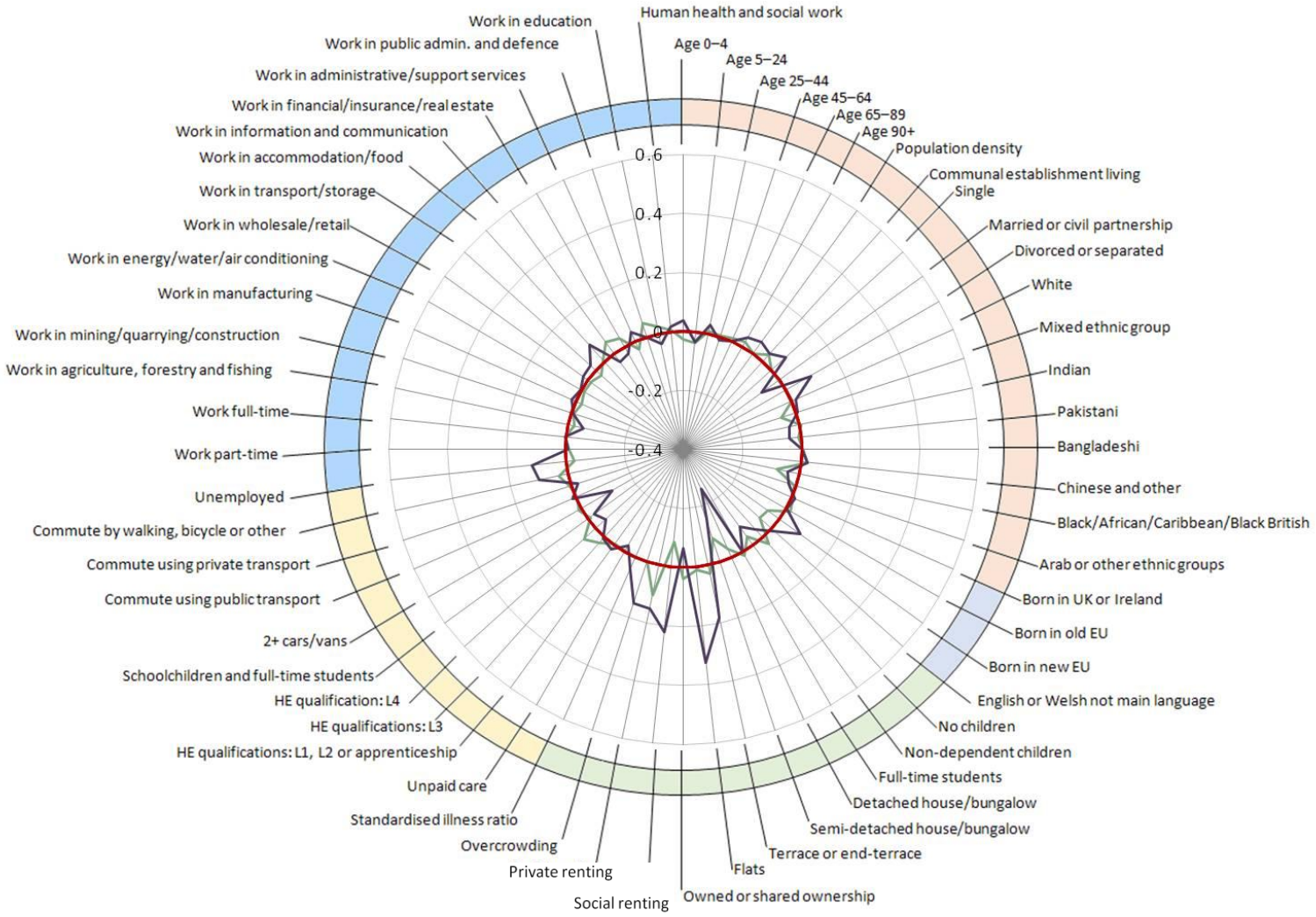
7 Constrained city dwellers
7a Challenged diversity



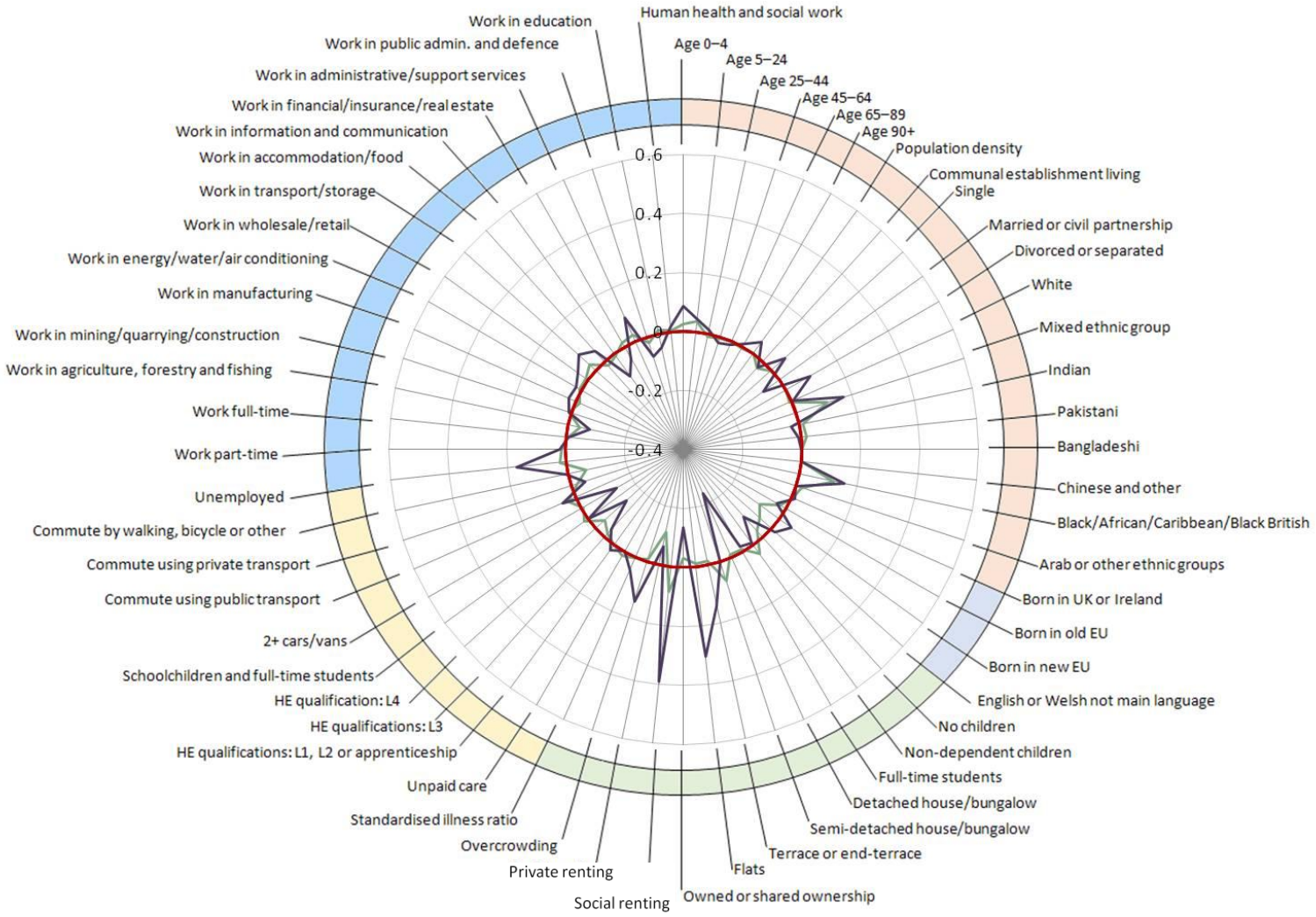
7 Constrained city dwellers
7a Challenged diversity
7a1 Transitional Eastern European neighbourhoods



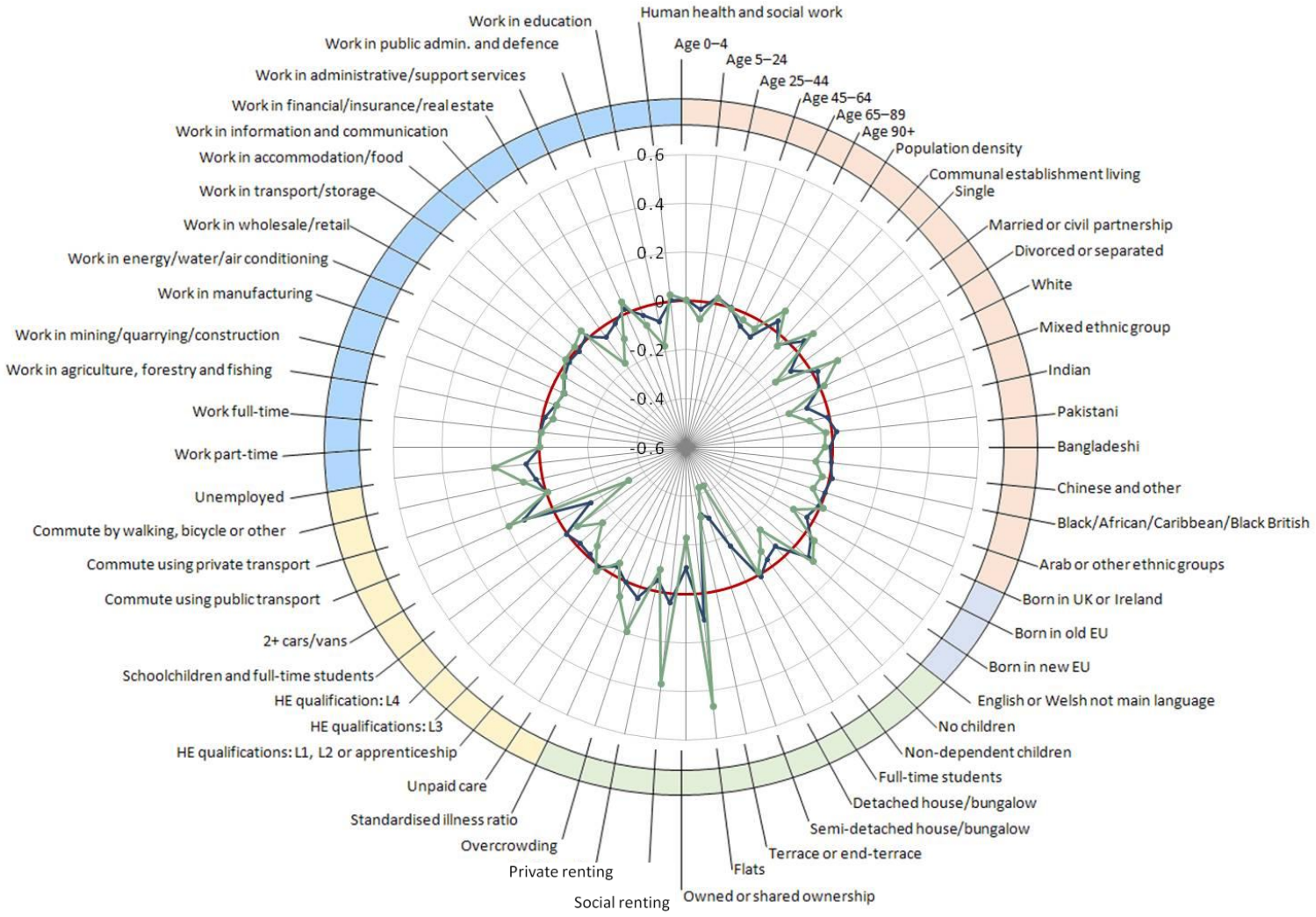
7 Constrained city dwellers
7a Challenged diversity
7a2 Hampered aspiration



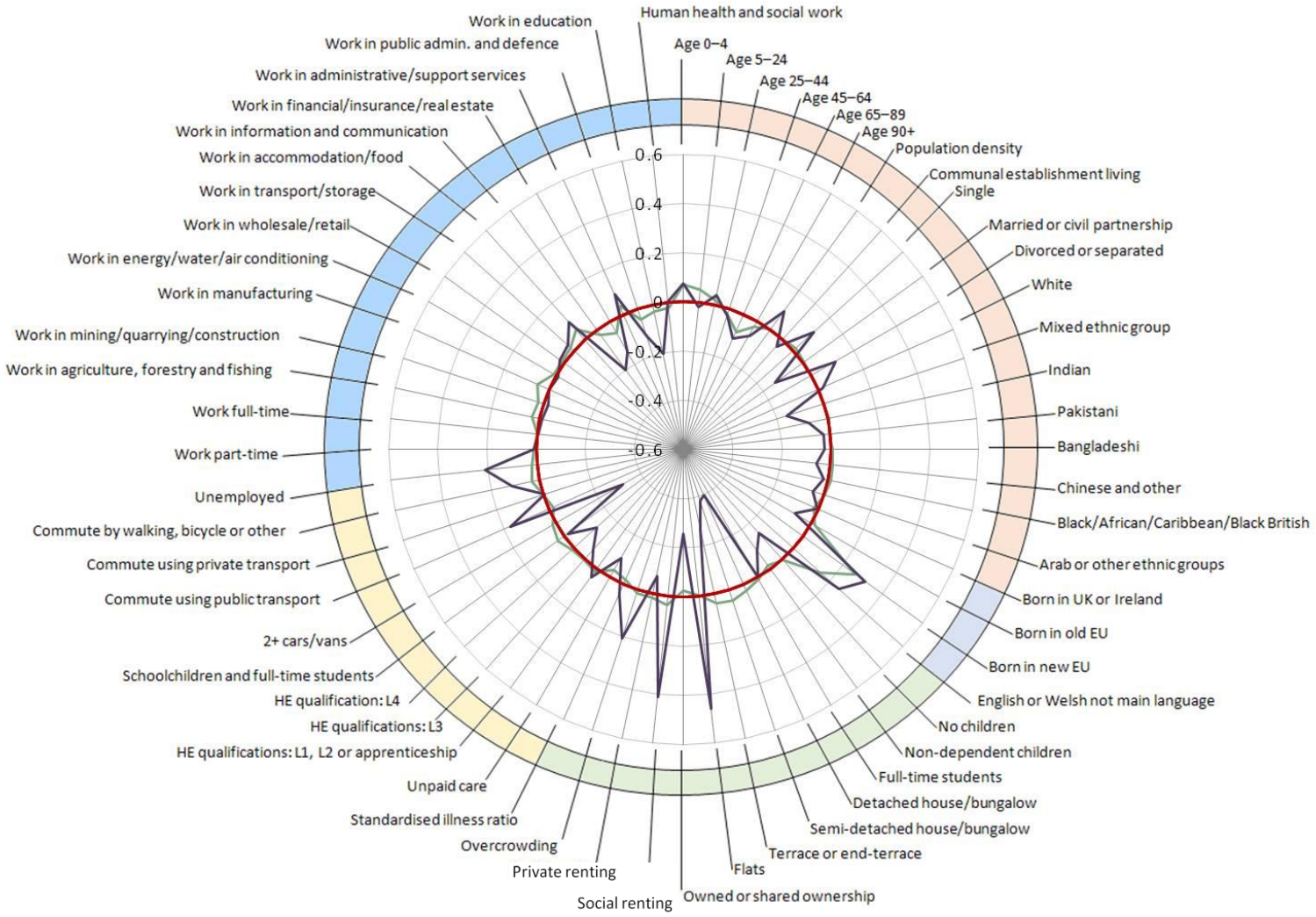
7 Constrained city dwellers
7a Challenged diversity
7a3 Multi-ethnic hardship



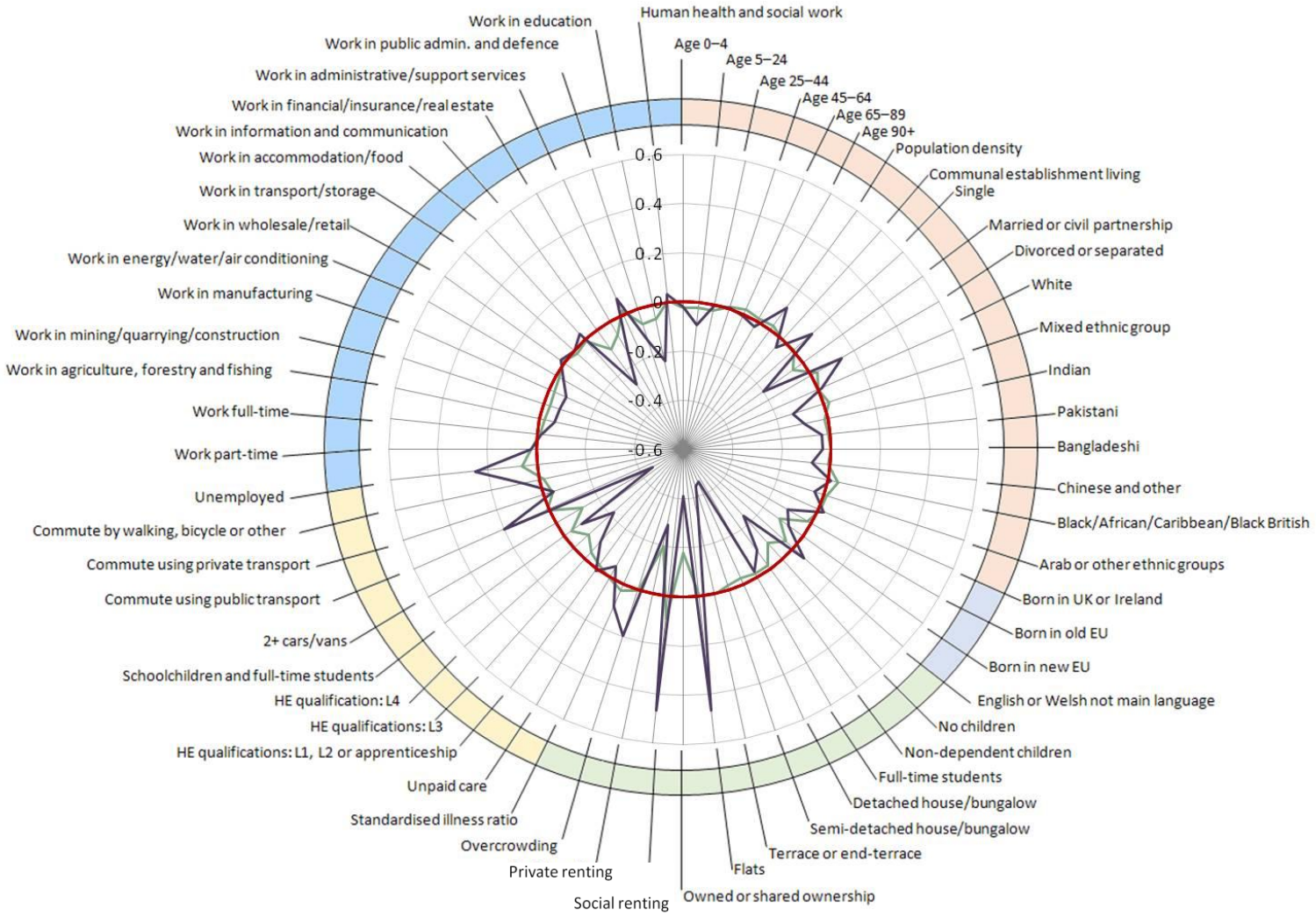
7 Constrained city dwellers
7b Constrained flat dwellers



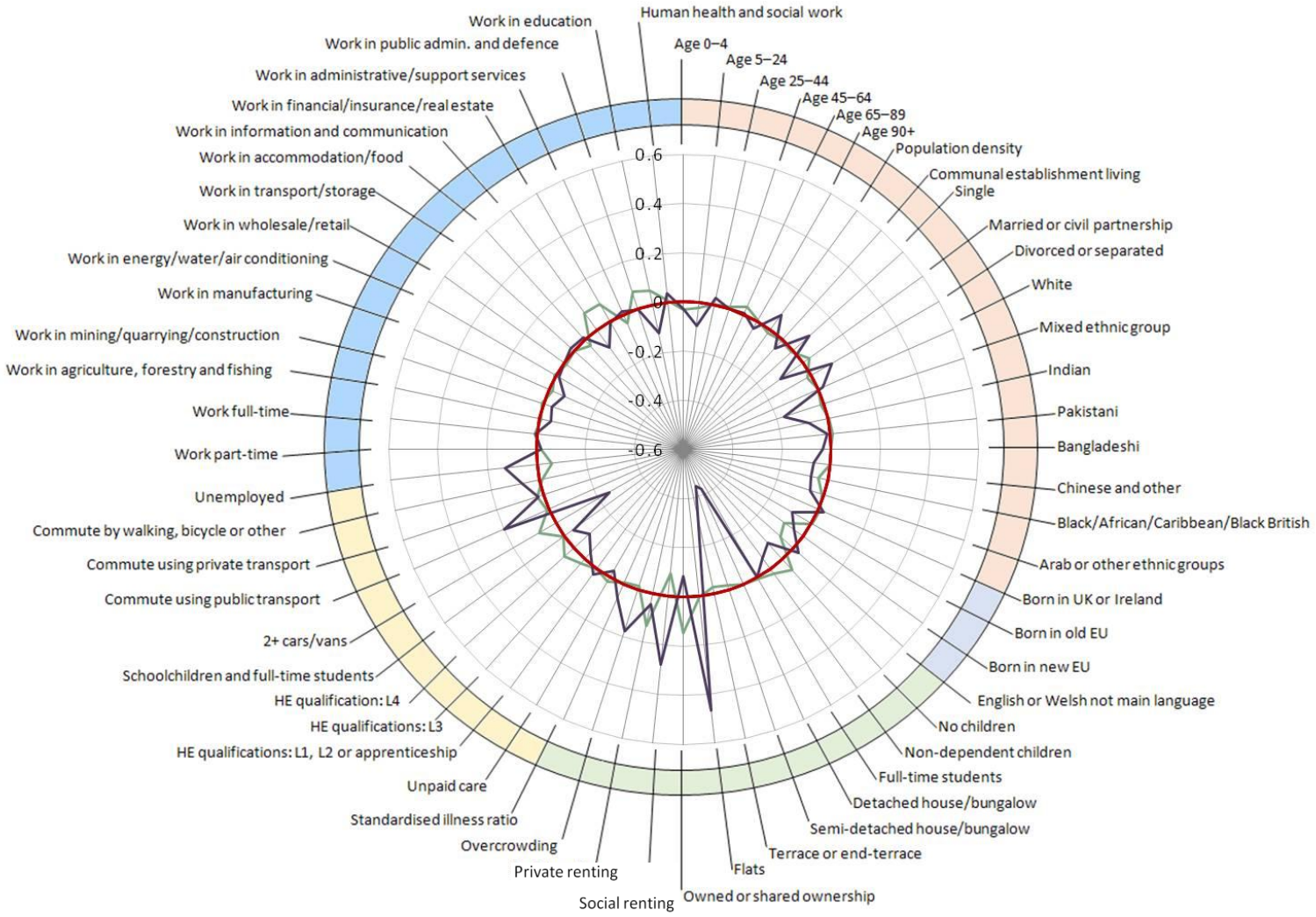
7 Constrained city dwellers
7b Constrained flat dwellers
7b1 Eastern European communities



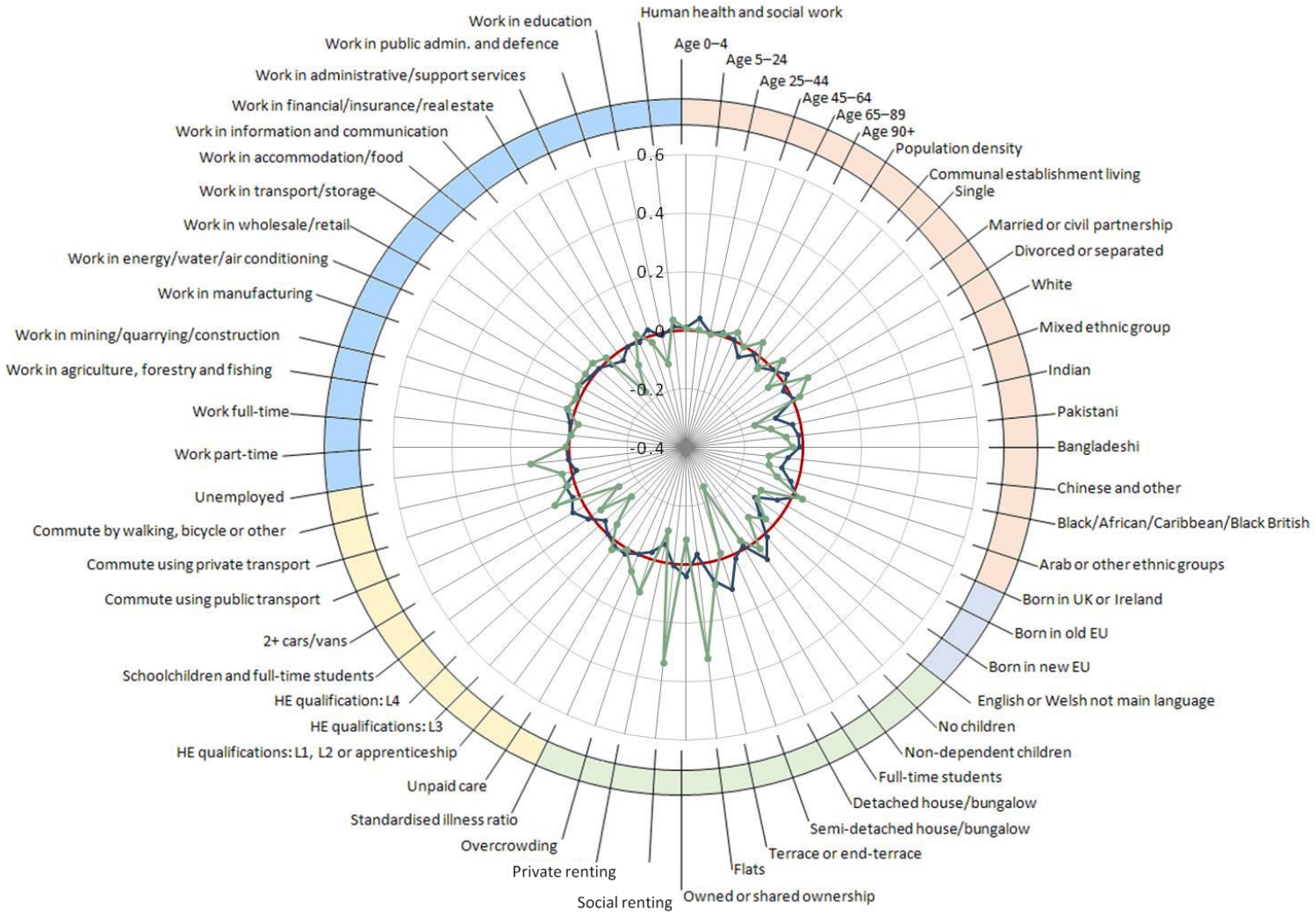
7 Constrained city dwellers
7b Constrained flat dwellers
7b2 Deprived neighbourhoods



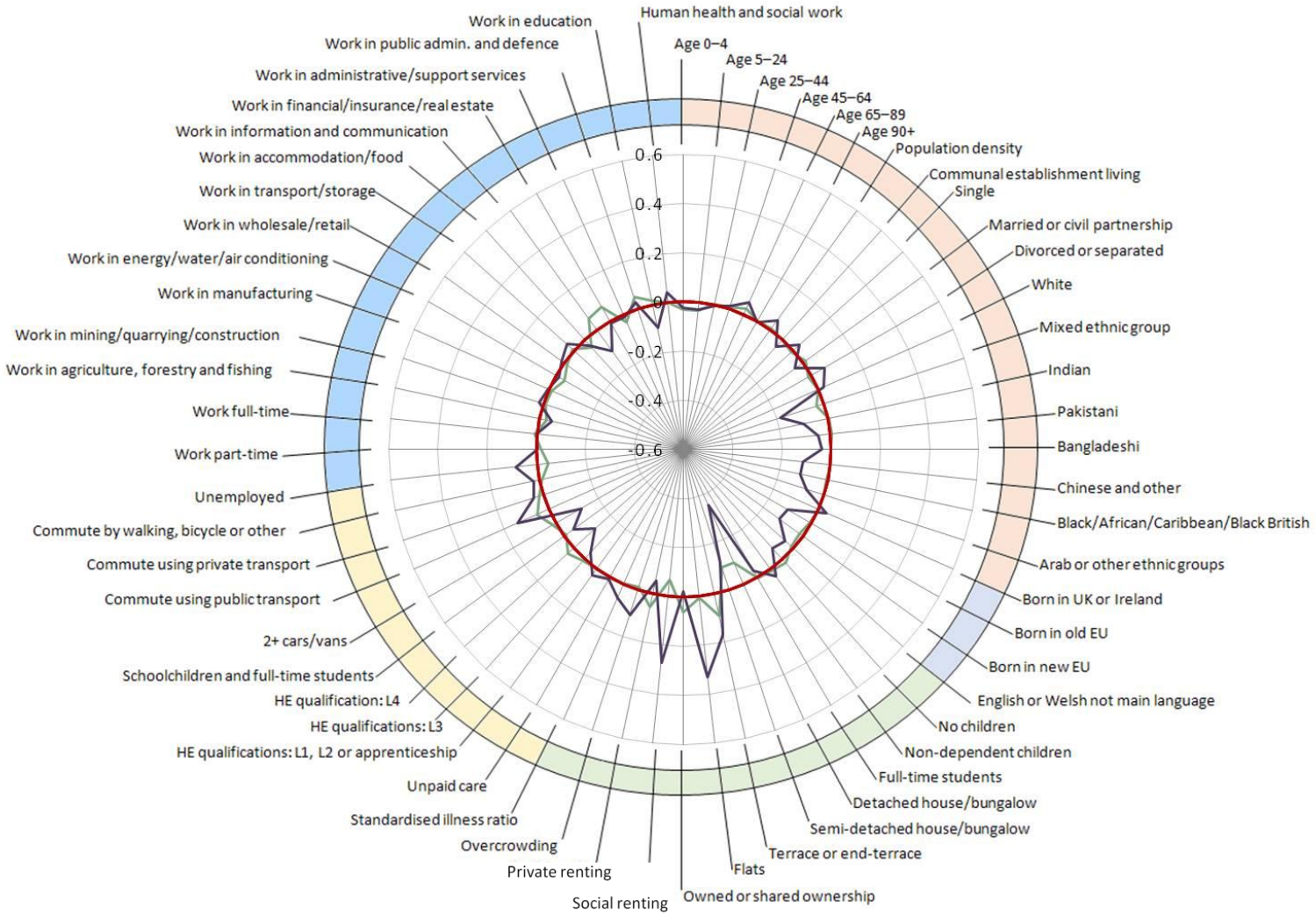
7 Constrained city dwellers
7b Constrained flat dwellers
7b3 Endeavouring flat dwellers



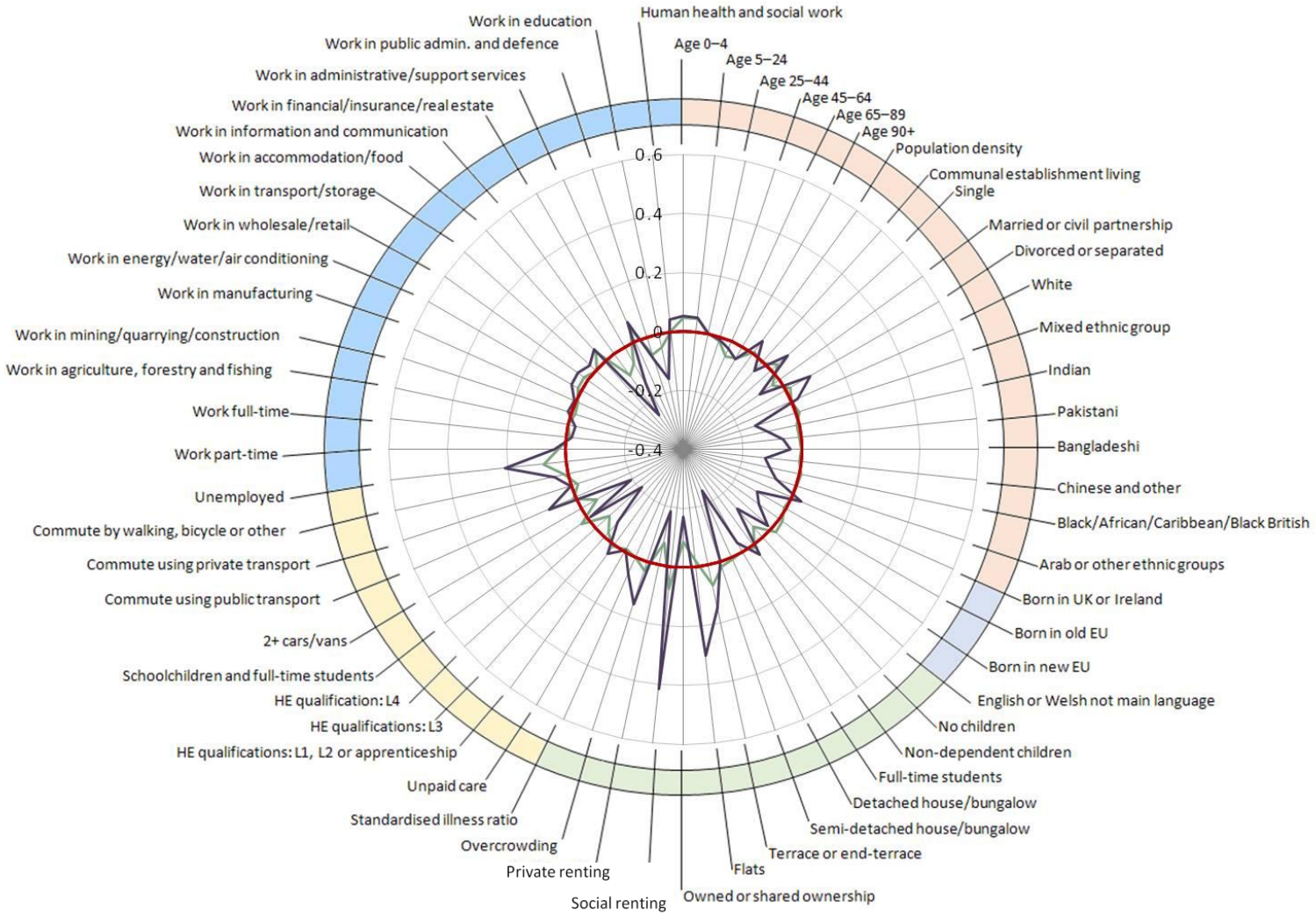
7 Constrained city dwellers
7c White communities



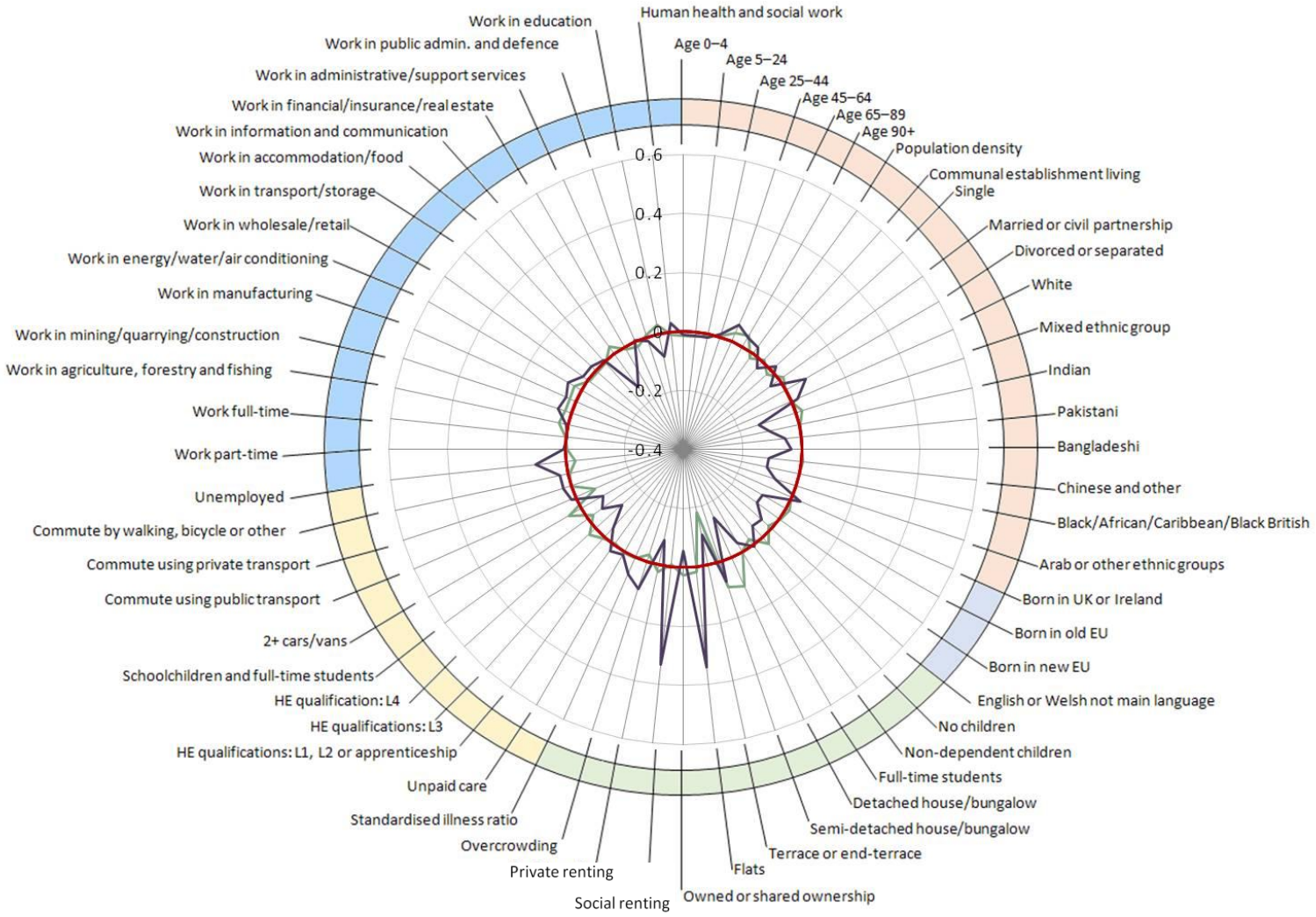
7 Constrained city dwellers
7c White communities
7c1 Challenged transitionaries



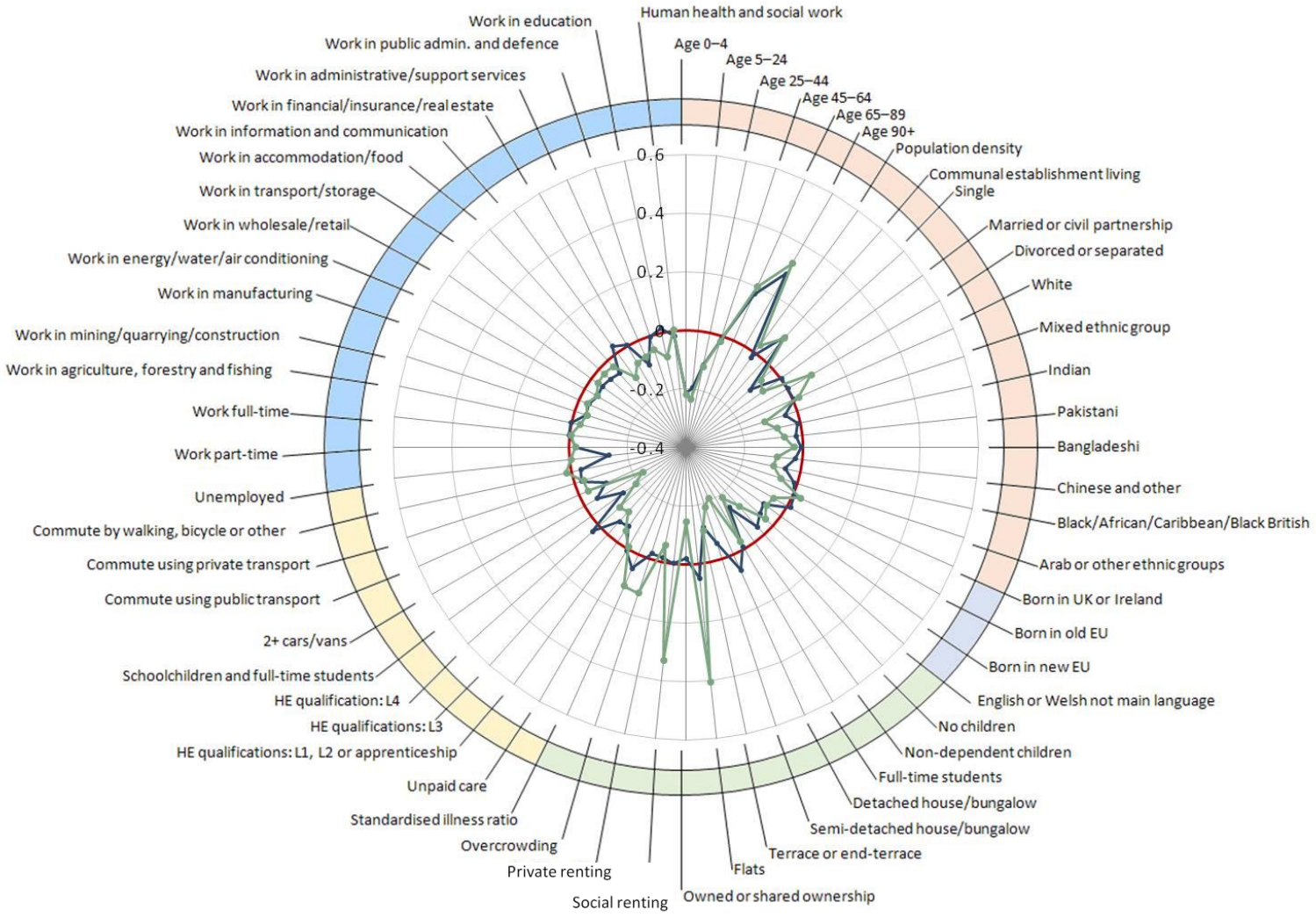
7 Constrained city dwellers
7c White communities
7c2 Constrained young families



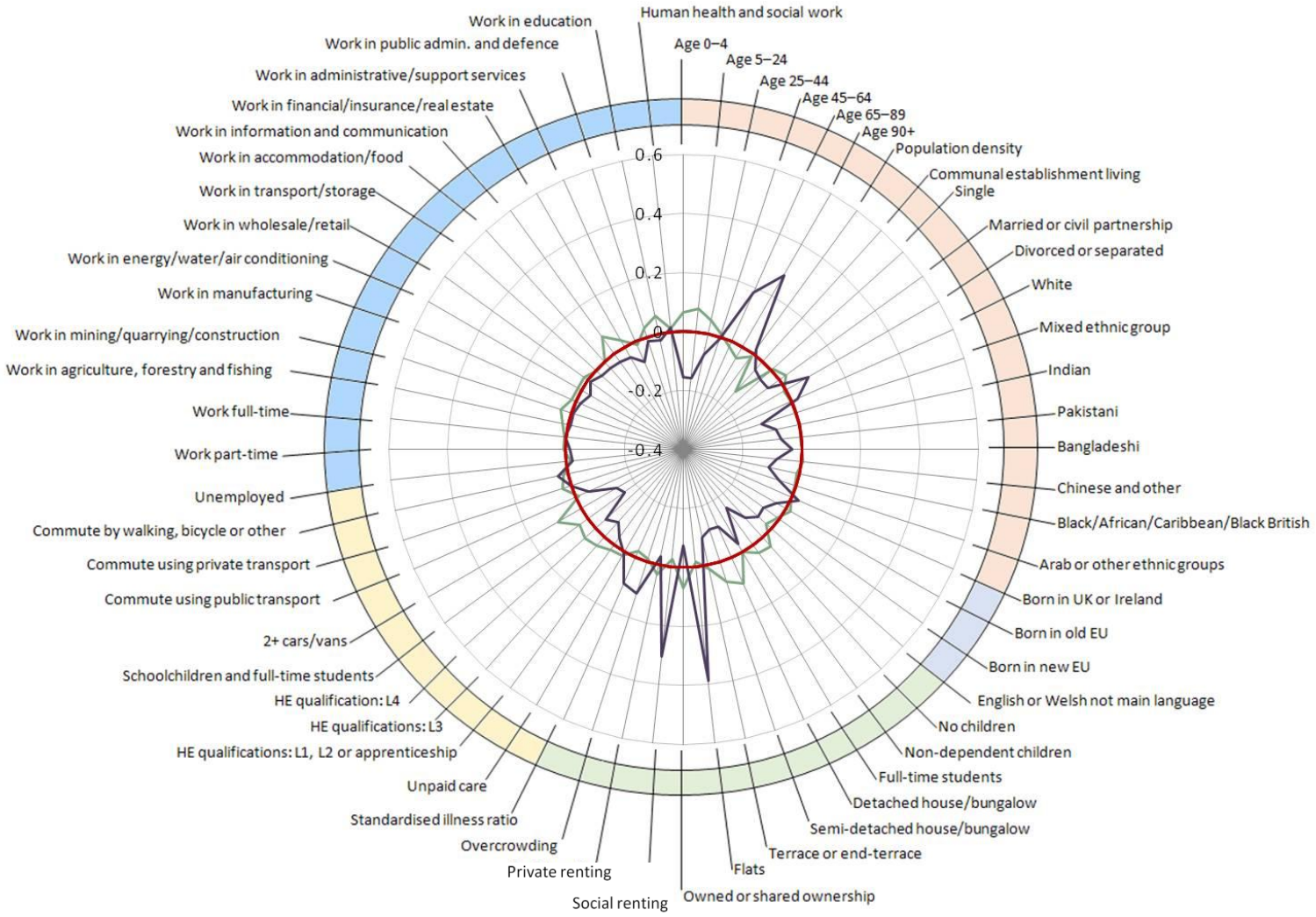
7 Constrained city dwellers
7c White communities
7c3 Outer city hardship



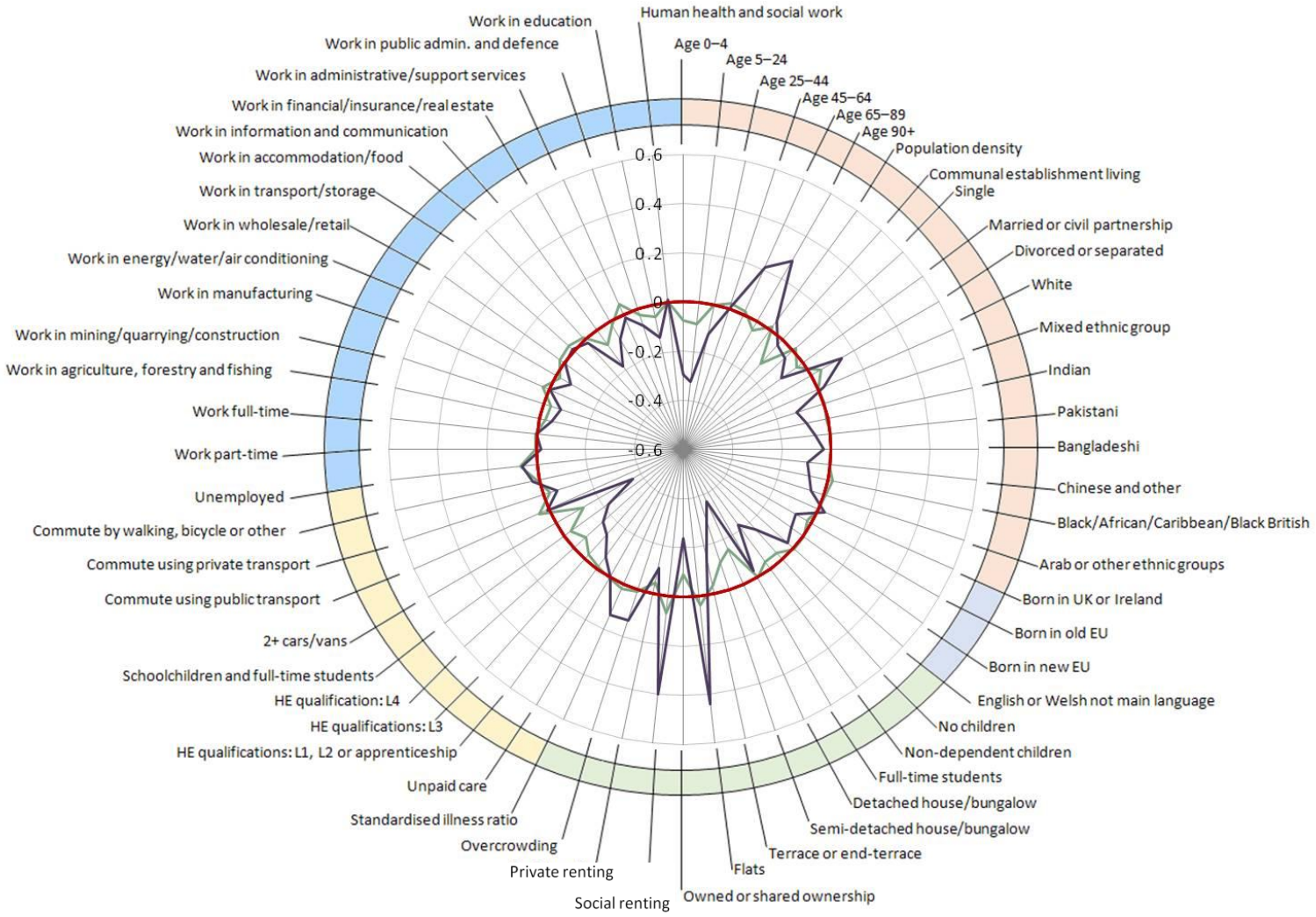
7 Constrained city dwellers
7d Ageing city dwellers



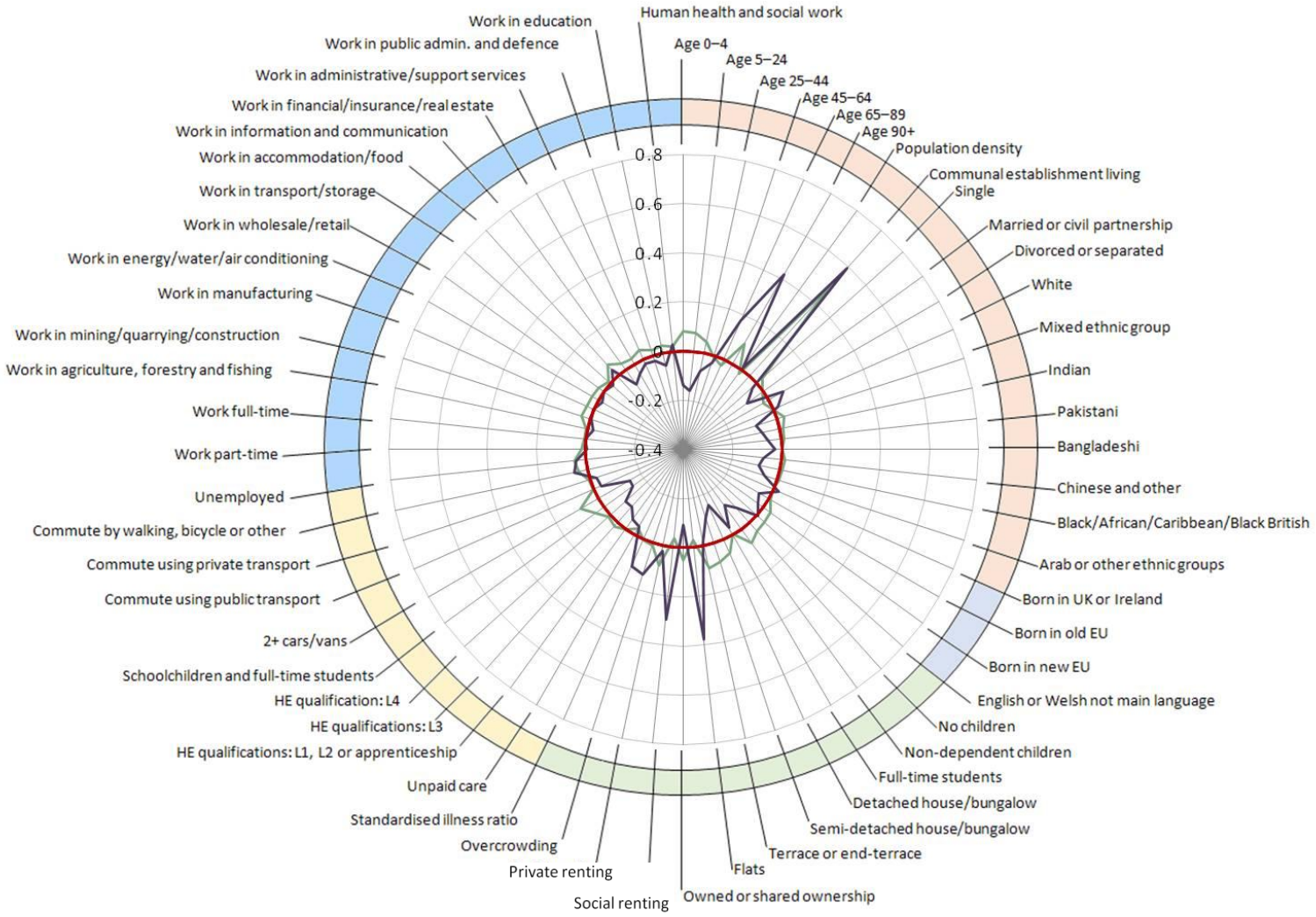
7 Constrained city dwellers
7d Ageing city dwellers
7d1 Ageing communities and families



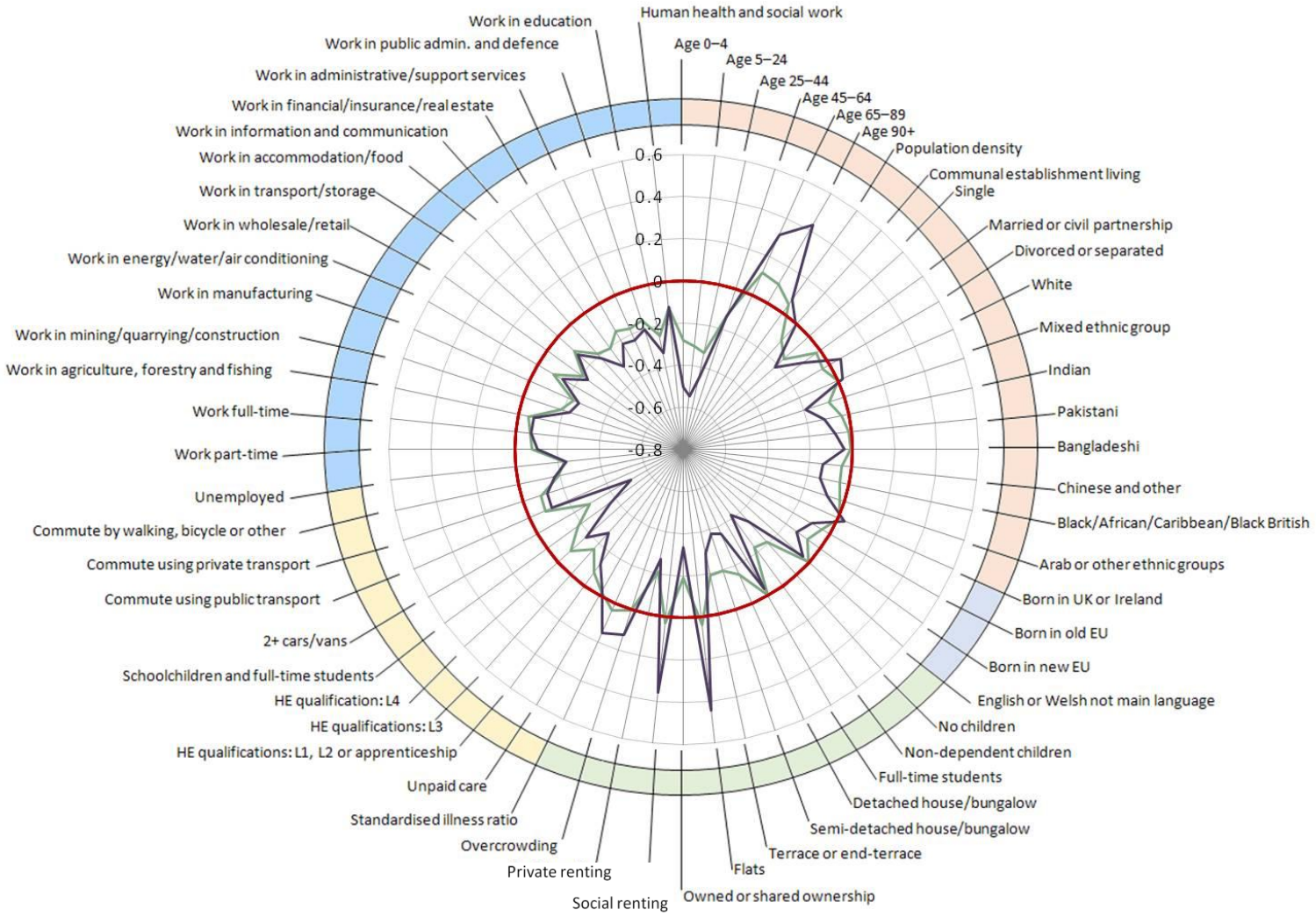
7 Constrained city dwellers
7d Ageing city dwellers
7d2 Retired independent city dwellers



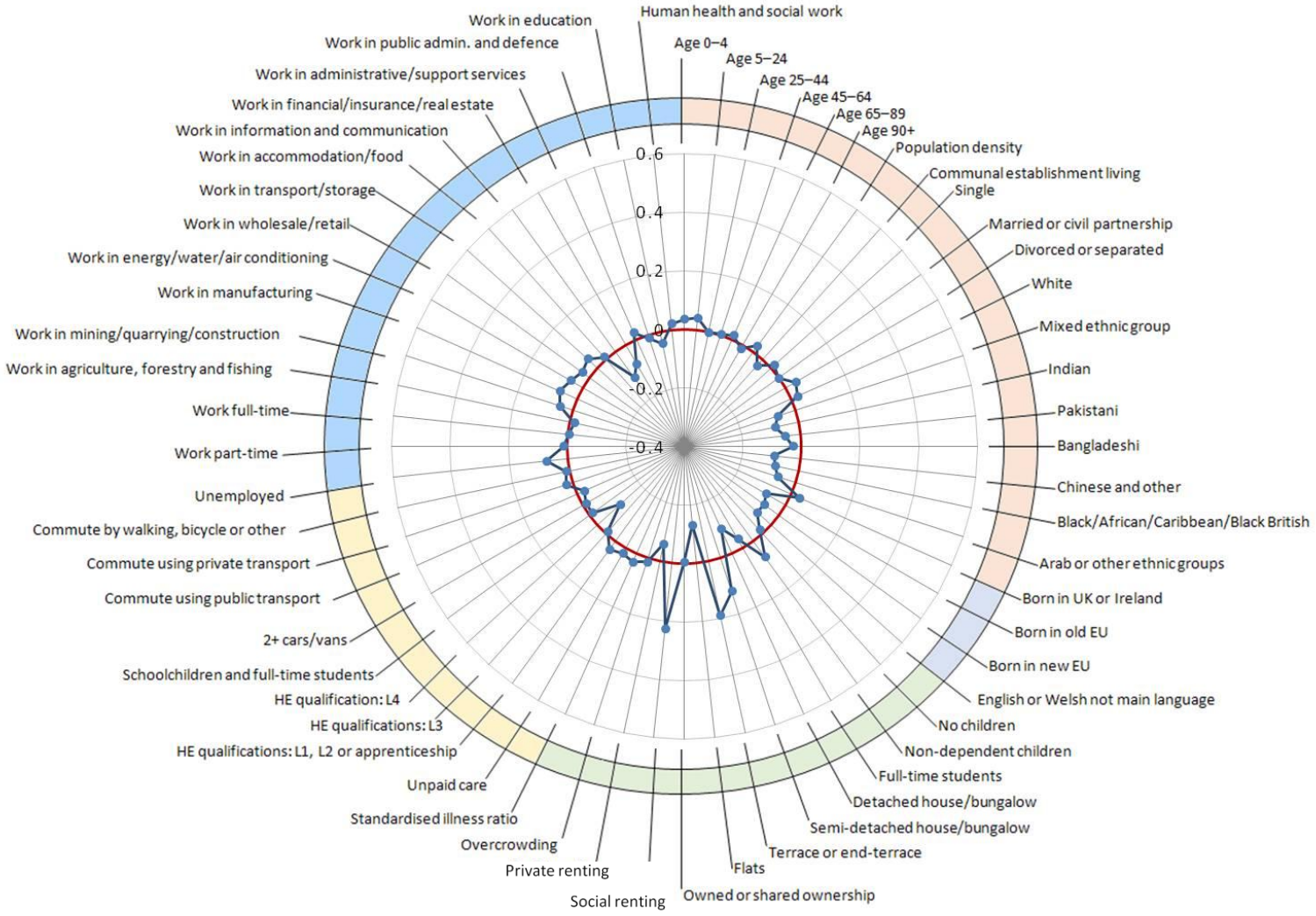
7 Constrained city dwellers
7d Ageing city dwellers
7d3 Retired communal city dwellers



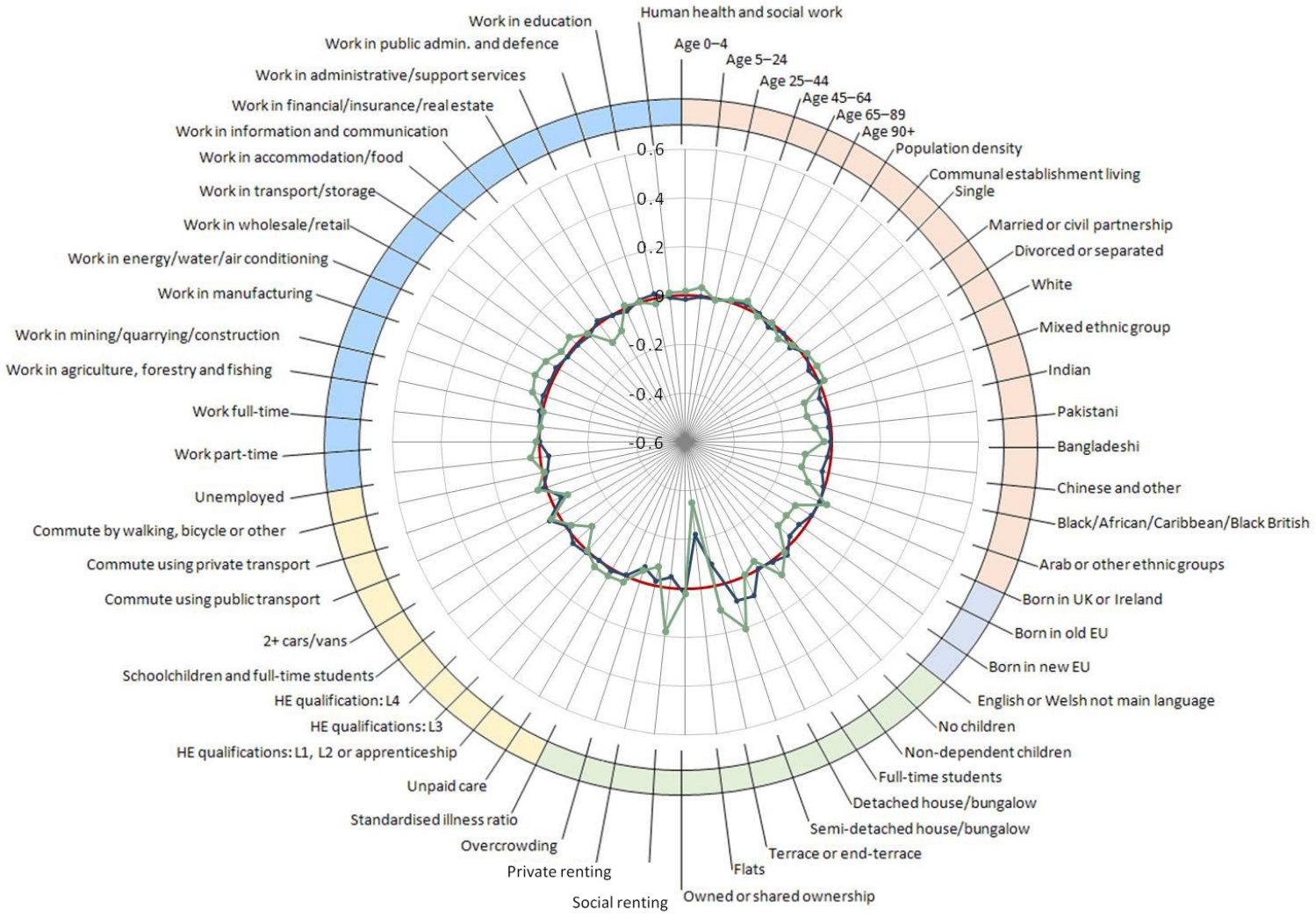
7 Constrained city dwellers
7d Ageing city dwellers
7d4 Retired city hardship



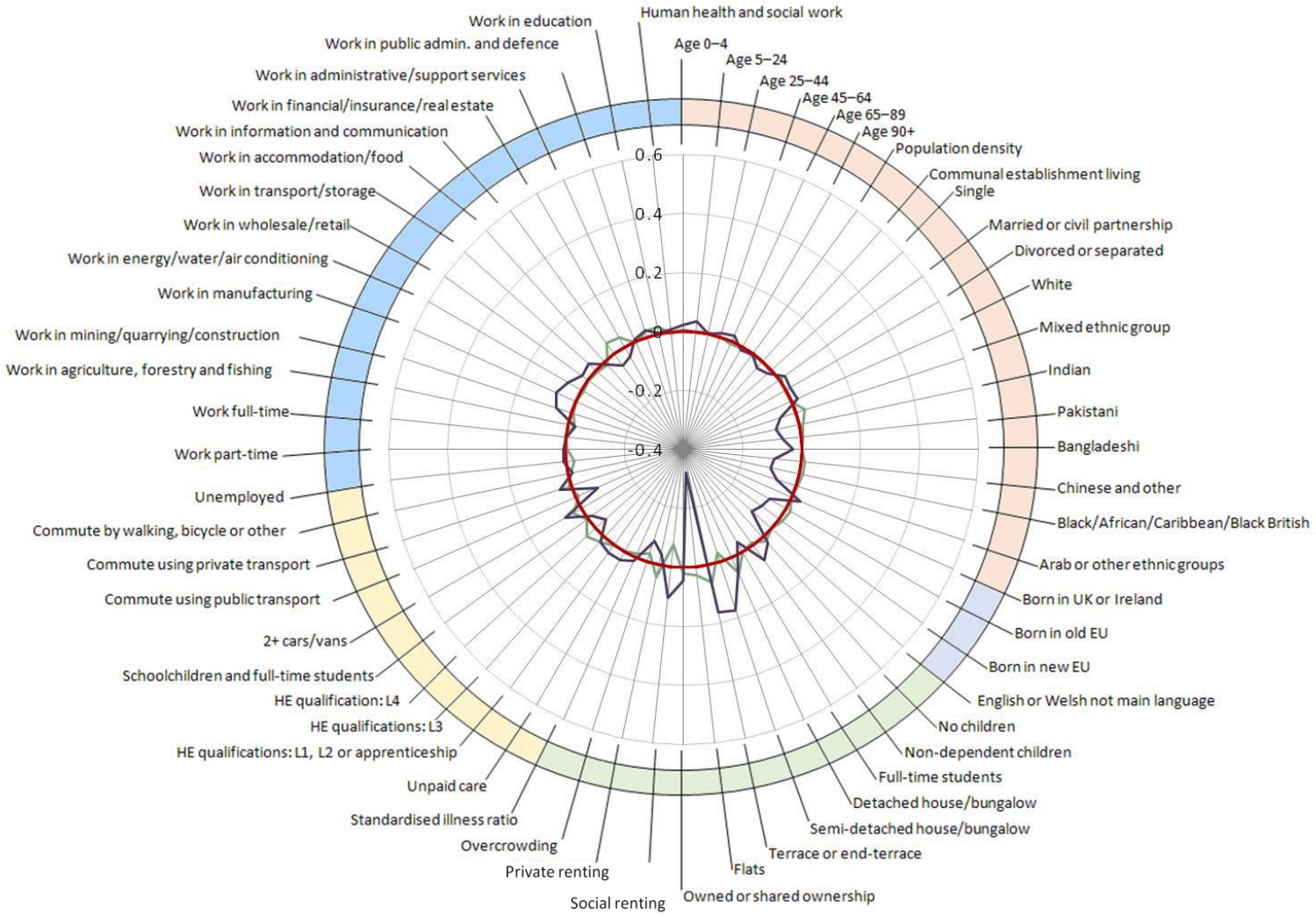
8 Hard-pressed living



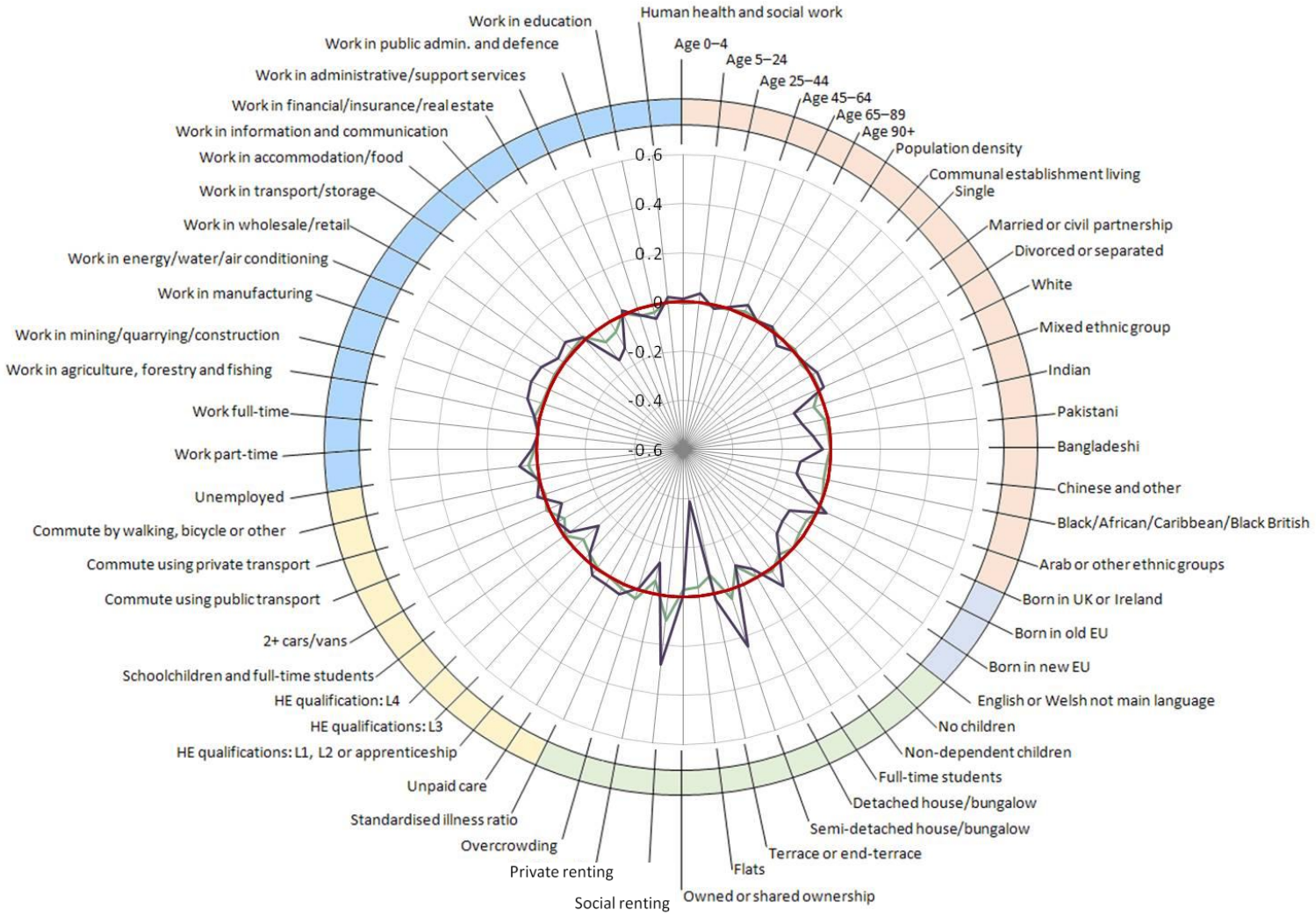
8 Hard-pressed living
8a Industrious communities



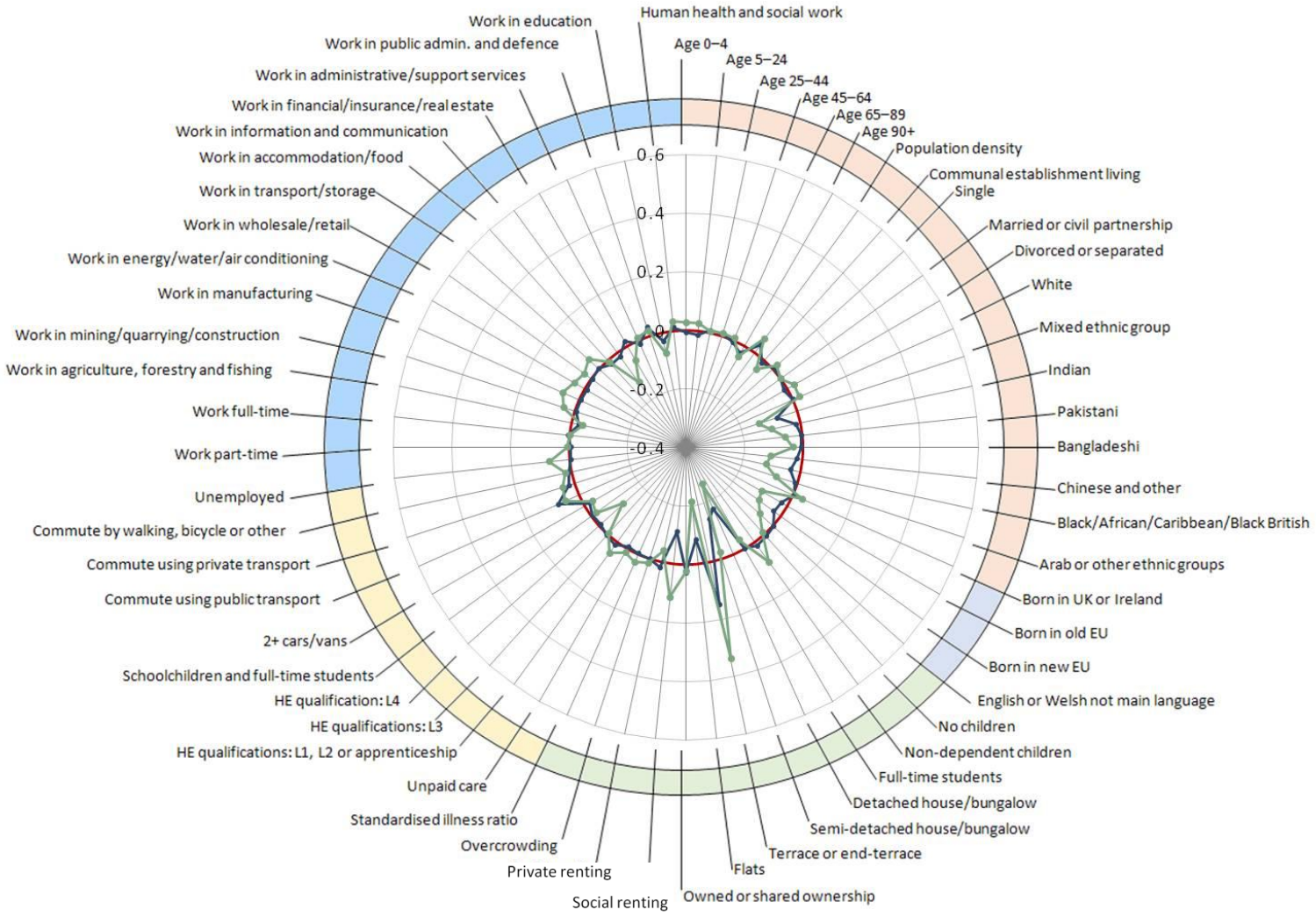
8 Hard-pressed living
8a Industrious communities
8a1 Industrious transitions



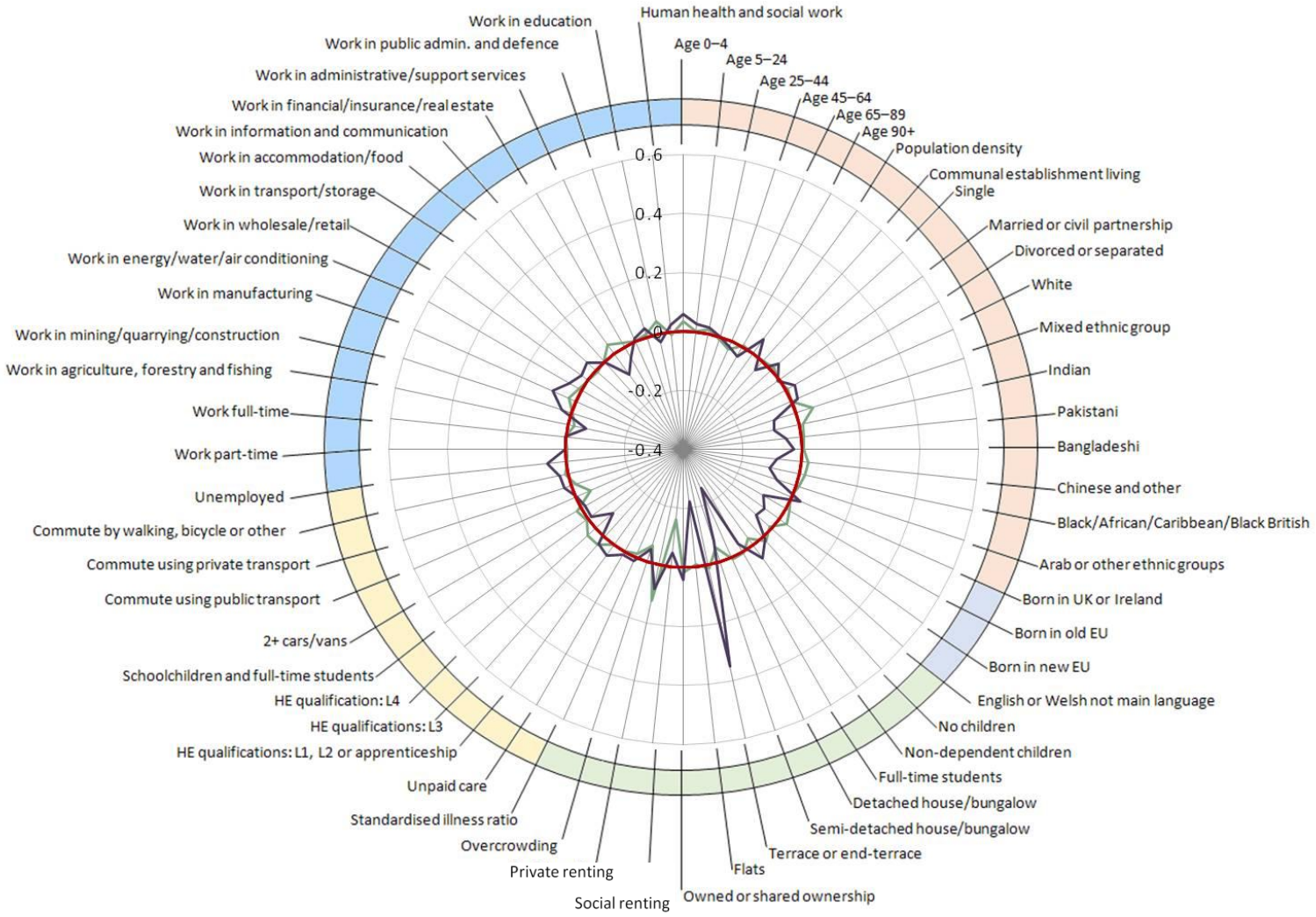
8 Hard-pressed living
8a Industrious communities
8a2 Industrious hardship



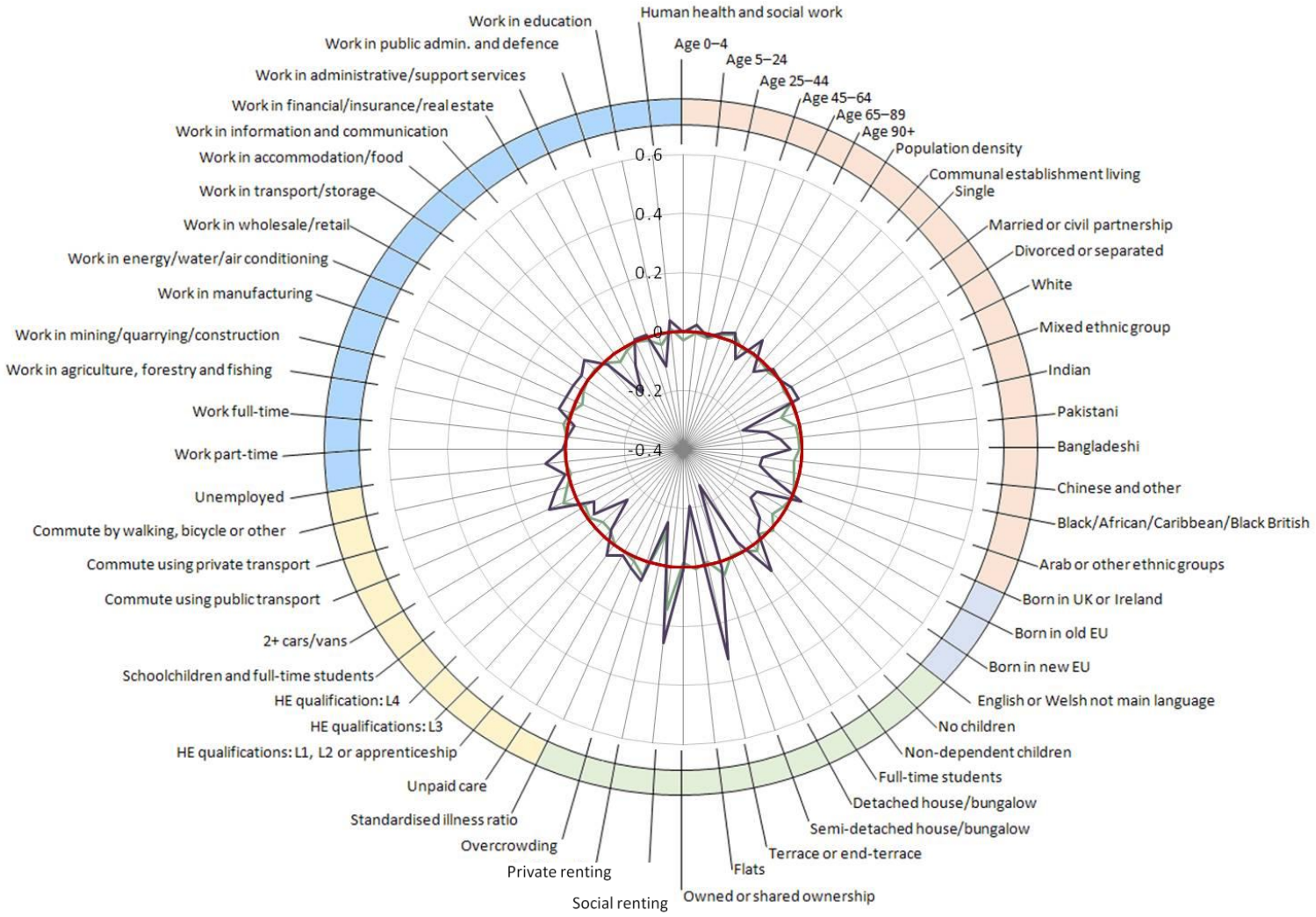
8 Hard-pressed living
8b Challenged terraced workers



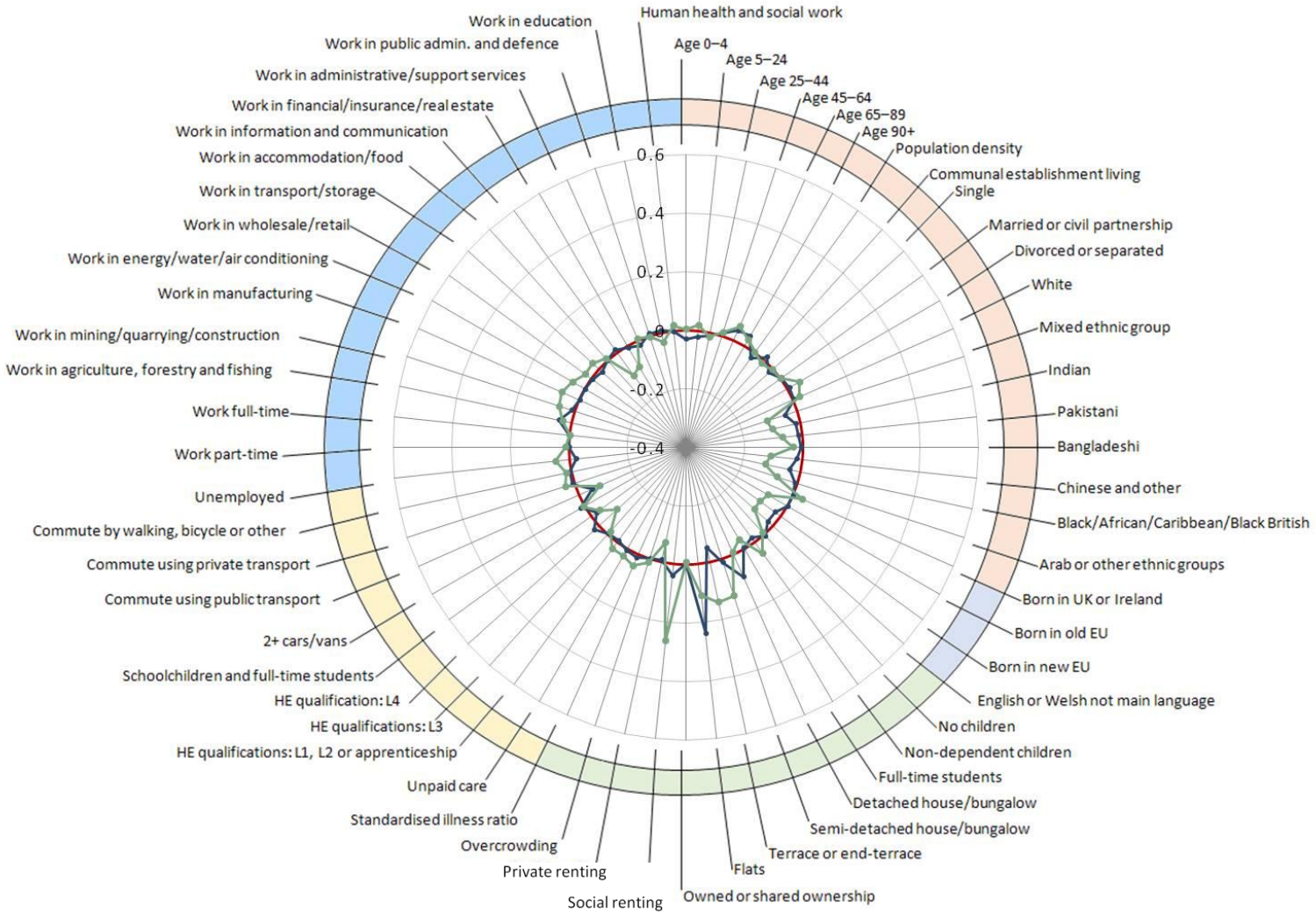
8 Hard-pressed living
8b Challenged terraced workers
8b1 Deprived blue-collar terraces



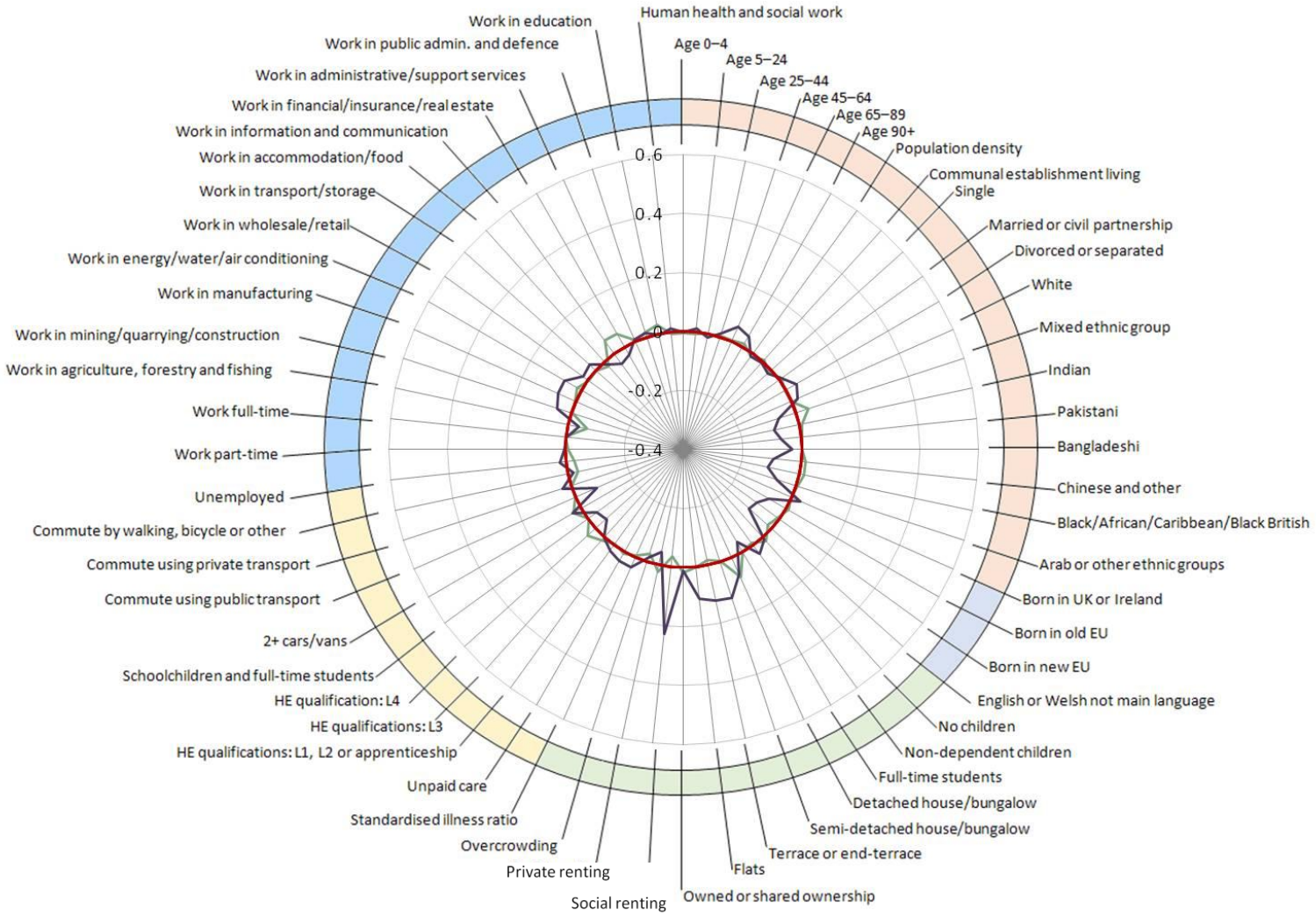
8 Hard-pressed living
8b Challenged terraced workers
8b2 Hard-pressed rented terraces



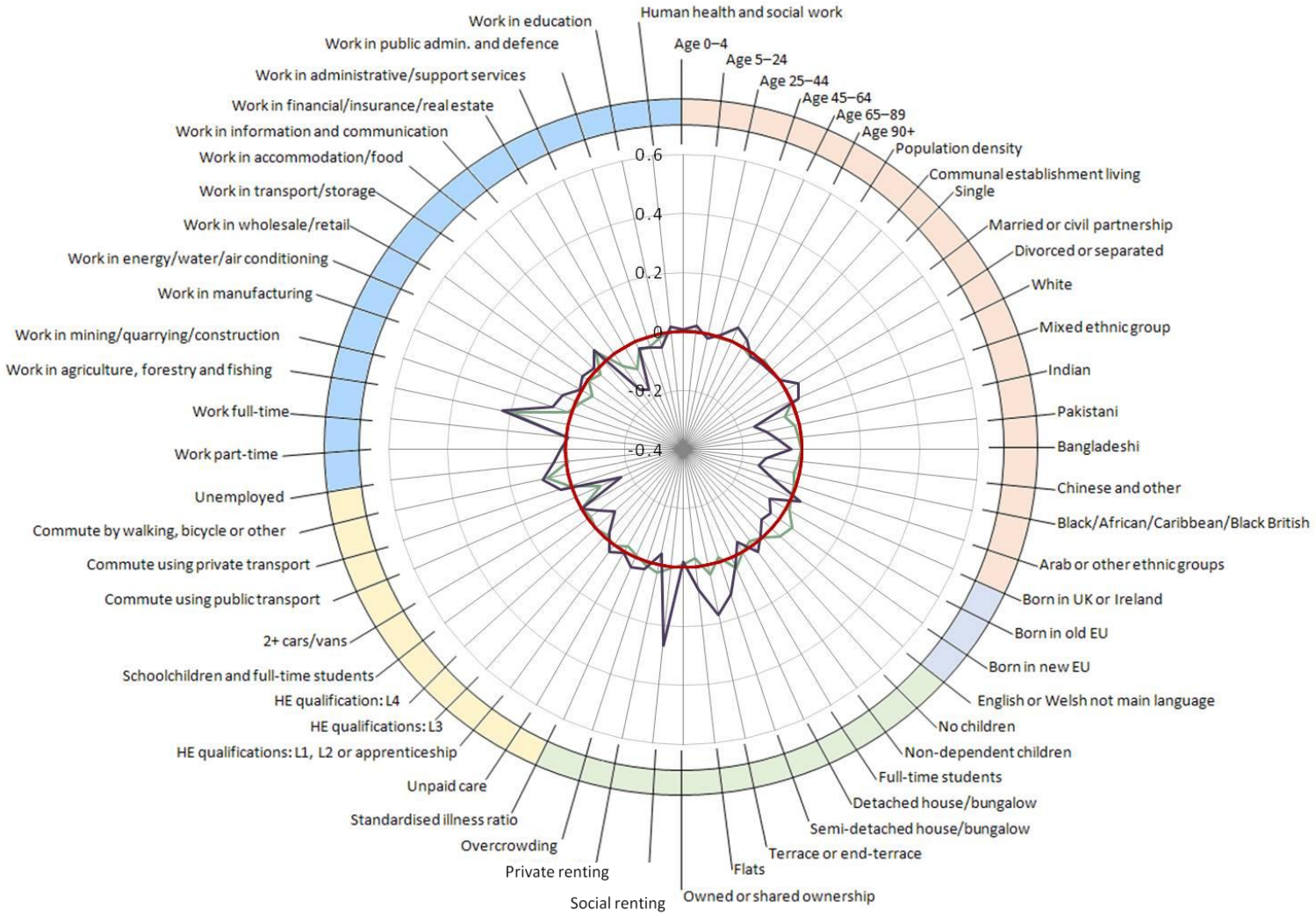
8 Hard-pressed living
8c Hard-pressed ageing workers



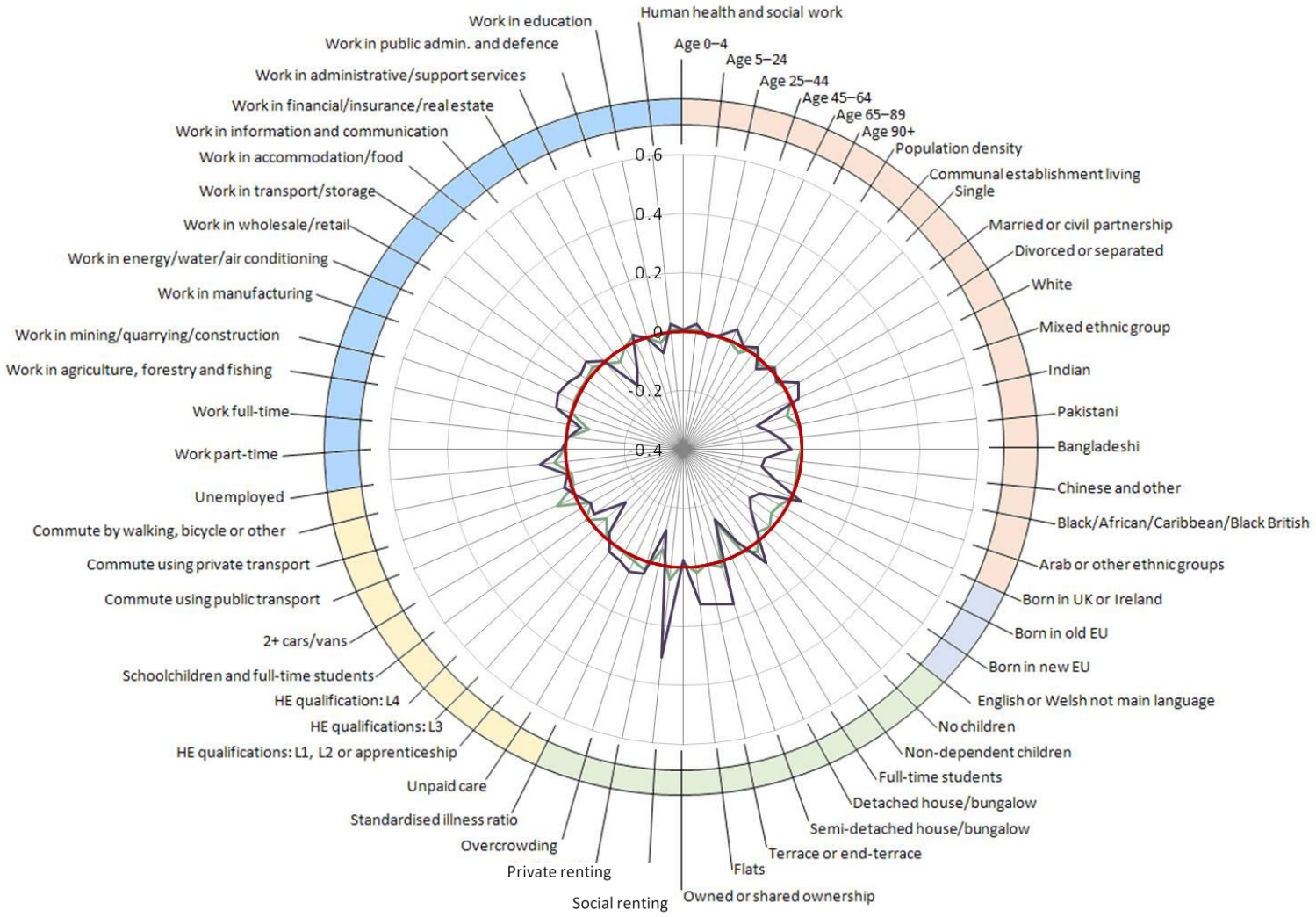
8 Hard-pressed living
8c Hard-pressed ageing workers
8c1 Ageing industrious workers



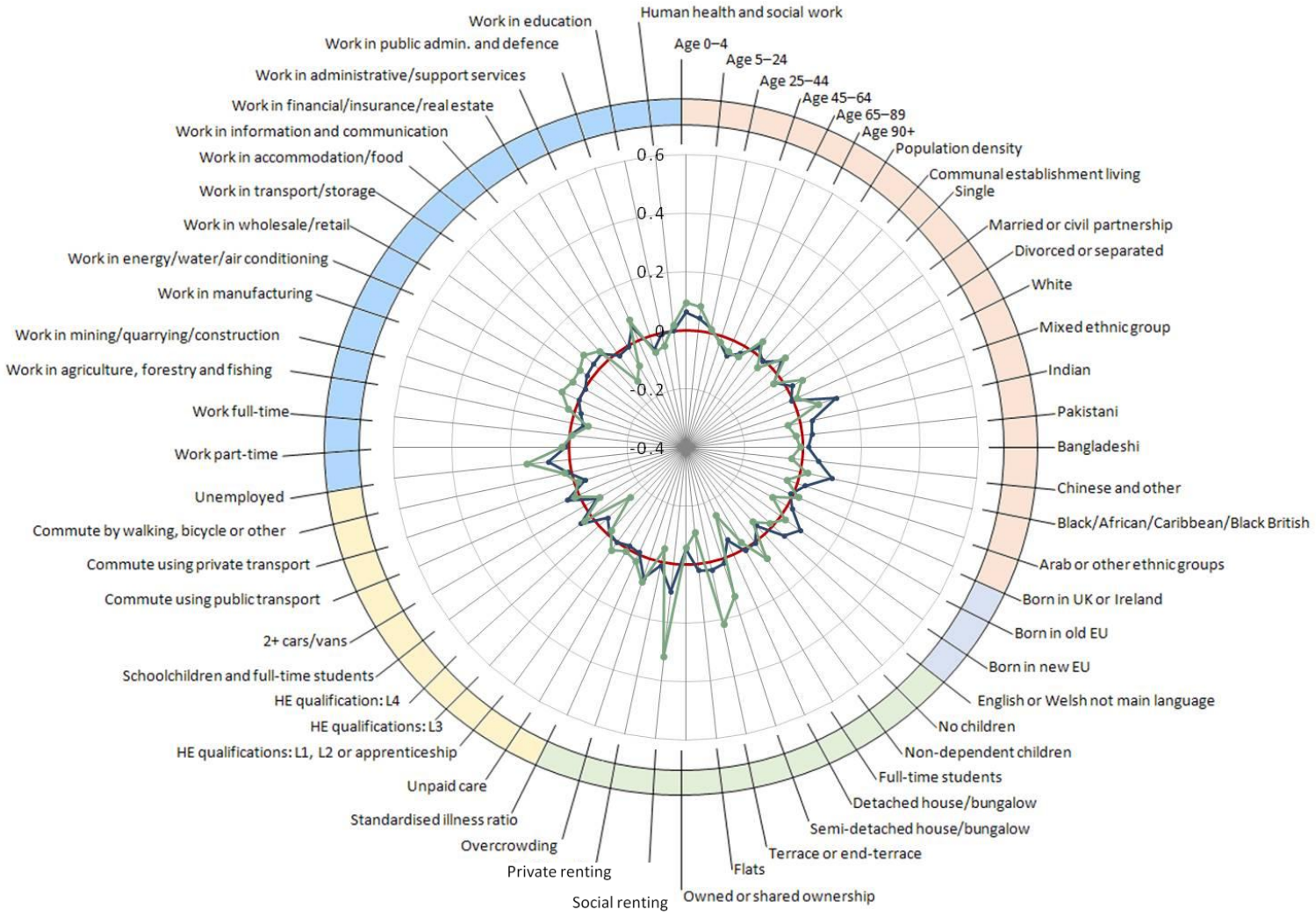
8 Hard-pressed living
8c Hard-pressed ageing workers
8c2 Ageing rural industry workers



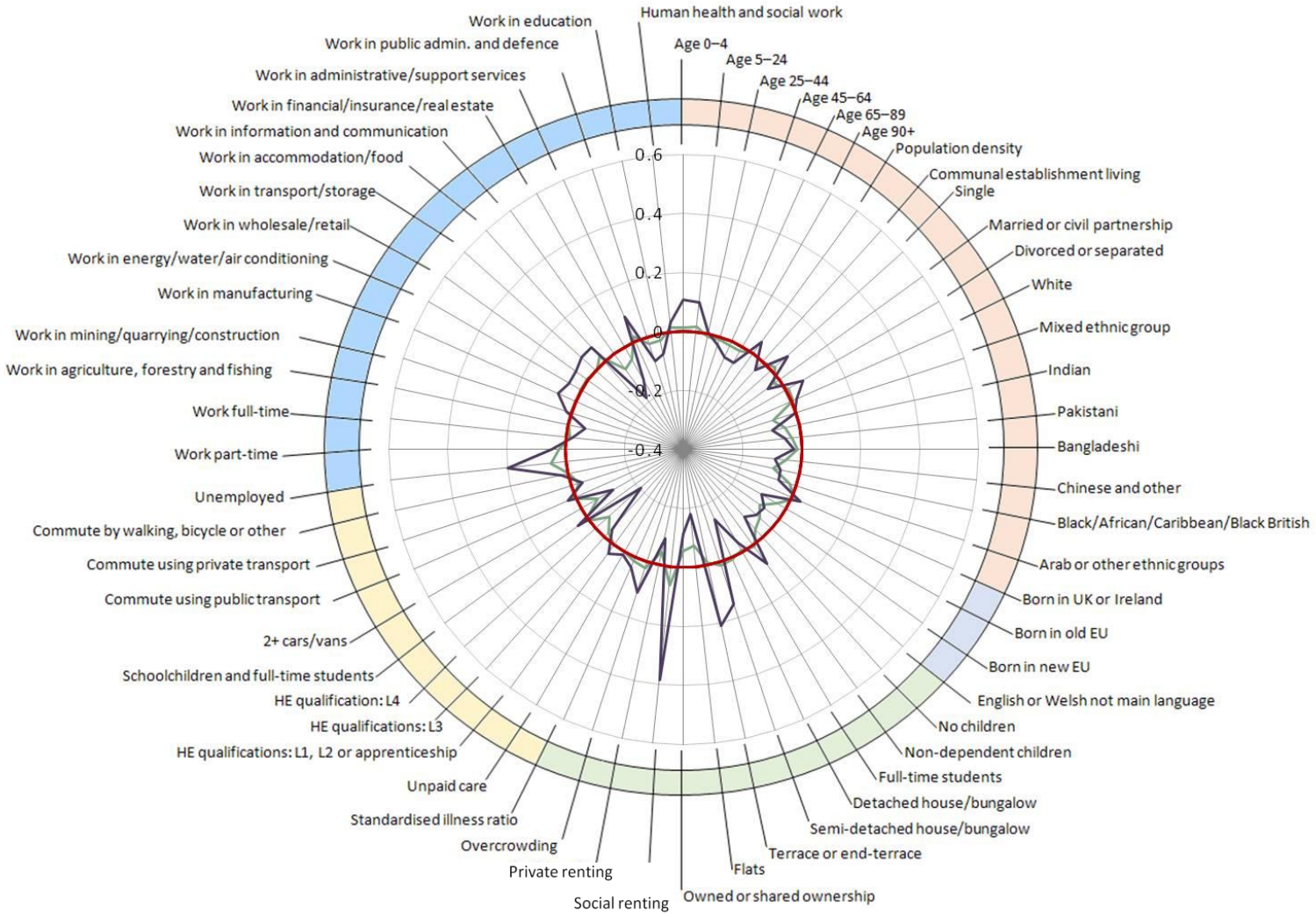
8 Hard-pressed living
8c Hard-pressed ageing workers
8c3 Renting hard-pressed workers



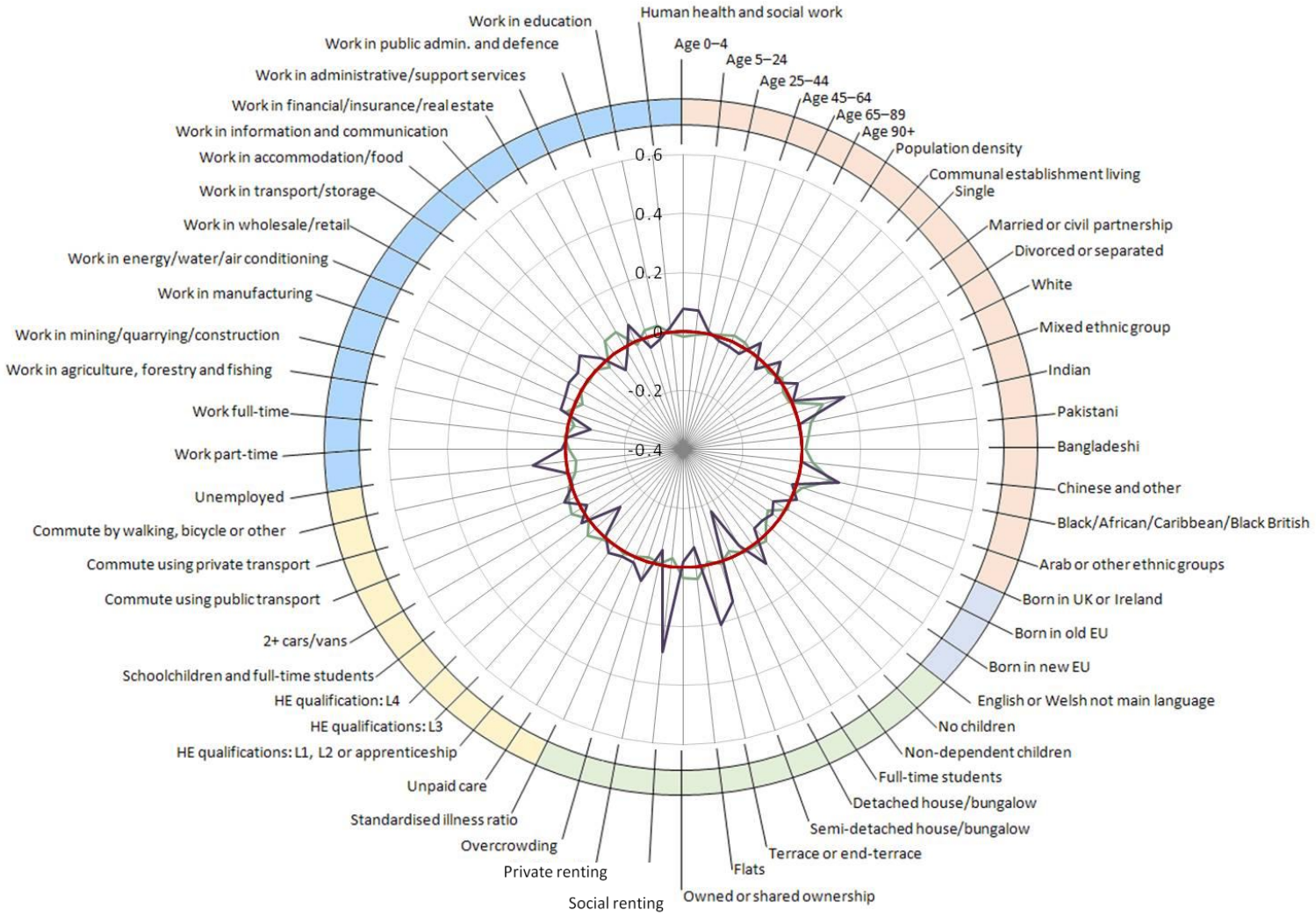
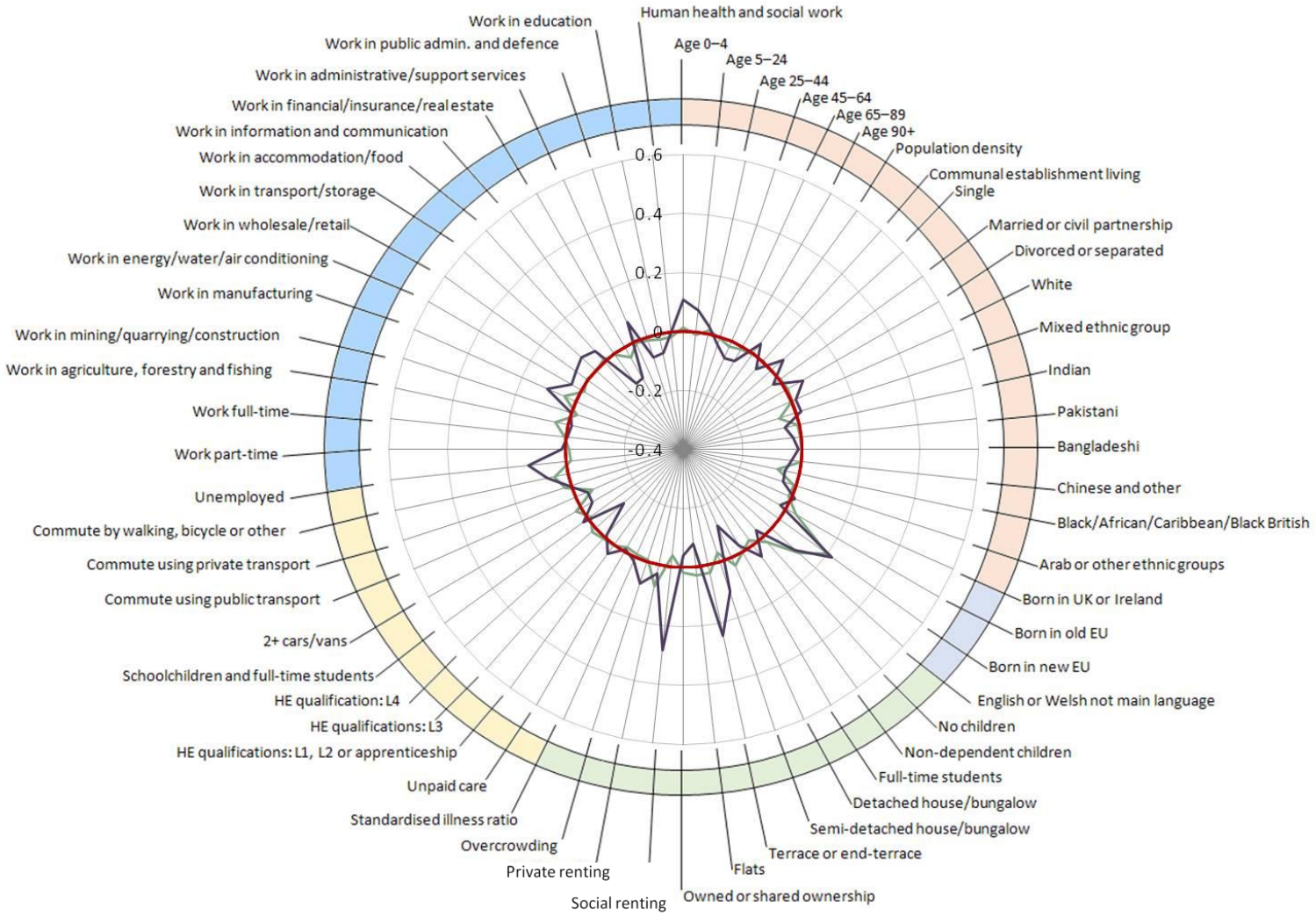
8 Hard-pressed living
8d Migration and churn



8 Hard-pressed living
8d Migration and churn
8d1 Young hard-pressed families



8 Hard-pressed living
8d Migration and churn
8d2 Hard-pressed ethnic mix



8 Hard-pressed living
8d Migration and churn
8d3 Hard-pressed European settlers