Determinants of Personal Wellbeing across Ethnic Groups in the UK : accounting for demographic, socioeconomic, health and contextual factors

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Determinants of Personal Wellbeing across Ethnic Groups in the UK

Accounting for demographic, socioeconomic, health and contextual factors

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Personal well-being data user event: Showcasing data and research, ONS and UK Data Service: London.

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Abstract

Measures of wellbeing and happiness of people across nations and globally have been criticised due to their perceived inadequacy in explaining better quality of life and reduction in inequalities as economic output and income have grown. In the UK, to measure national wellbeing four questions about personal wellbeing (PWB) added to the ONS Annual Population Survey. The four dimensions covered were: happiness, satisfaction with life, worthwhileness of their activity, and anxiety. Respondents were asked to answer these questions using a scale of 0 to 10.

The paper, based on first three years of wellbeing data for 2011-12, 2012-13 and 2013-14, examines the relationships between the four PWB scores and other measures of economic activity and health across people from different ethnic and cultural groups. Using the Secure Data Service versions of these datasets, the paper explores relationships between these wellbeing variables and neighbourhood deprivation, taking into account the geographical concentration of individual ethnic groups. The paper presents a series of multivariate models which adjust for the effects of demographic (age, gender), social (marital status, education completion age), health (chronic condition, disability, limits activity, health status, smoking), SES (highest education, employment type, occupation, job type, public/private, weekly pay, home ownership, benefits), and contextual (deprivation, years of residence, geographical region) characteristics of respondents. The findings will improve our understanding of how people from different socioeconomic and cultural backgrounds perceive and report their well-being and happiness.

Overview

- *Background*
- *ONS efforts on wellbeing measurement*
- *Wellbeing status*
- *Why this topic?*
- *Differentials in wellbeing by ethnic groups*
- *Differentials in wellbeing by deprivation & geography*
- *Determinants of wellbeing*
- *Research issues*

Societal Happiness

- The importance of happiness in society is acknowledged at least as far back as the ancient Greek philosophers e.g. Aristotle

- Conception of the good life for humans is one in which they function well; this involves attaining moral and intellectual virtues (Allmark 2005).

- Gross Domestic Product (GDP) has been generally accepted as a measure of national economic prosperity BUT lead to widespread social inequalities

- New concept of SWB emerged over the last four decades as an alternative measure of social welfare to GDP in informing public policy decisions (Layard 2005).

Theoretical approaches to measure PWB

- Measurement of PWB and happiness has its origin in psychology but has spread into the realms of economic decision theory and behavioural economics (Layard 2005; Dolan 2011; OECD 2013).

- According to various experts the happiness derived from positive psychology has been described as equivalent to life satisfaction, quality of people's lives (Helliwell, Layard and Sachs 2012) or experienced utility in microeconomics terms (Dolan 2009); whereas PWB connotes more how we feel (affective happiness) and think about life (evaluative happiness).

Approaches acknowledged by ONS to measure PWB

- <u>Evaluative</u> approach asks individuals to step back and reflect on their life and make a cognitive assessment of how their life is going overall, or on certain aspects of their life.

- <u>Eudemonic</u> approach refers to as the psychological or functioning/flourishing approach, which draws on self-determination theory and tends to measure such things as people's sense of meaning and purpose in life, connections with family and friends, a sense of control and whether they feel part of something bigger than themselves.

- <u>Experience</u> approach seeks to measure people's positive and negative experiences over a short timeframe to capture people's wellbeing on a day-to-day basis.

ONS personal wellbeing questions

- *Overall, how satisfied are you with your life nowadays? (Evaluative)*

- *Overall, to what extent do you feel the things you do in your life are worthwhile? (Eudemonic)*

- Overall, how happy did you feel yesterday? (*Experience*)

- *Overall, how anxious did you feel yesterday? (Experience)*

ONS Framework for Measuring National Wellbeing

National Well-being

Individual Well-being
People's own assessment of their own well-being (SWB)

Health (Physical and Mental)

Where we live

Our relationships

What we do

Personal Finance

Education and skills

Factors directly affecting individual well-being

Governance

Natural environment

The Economy

More contextual domains

Equality / Fairness

Sustainability issues over time

National Wellbeing Domains

- *Individual wellbeing (4)*
- *Our relationships (3)*
- *Health (5)*
- *What we do (5)*
- *Where we live (4)*
- *Personal finance (4)*
- *Education and skills (3)*
- *The economy (4)*
- *Governance*
  - *Involvement in democracy and trust in how the country is run (3)*
  - *The natural environment (4)*

- *In All 41 Indicators included*
- *For details see:*
  http://www.neighbourhood.statistics.gov.uk/HTMLDocs/dvc146/wrapper.html

Why this topic?

- UK is becoming increasingly ethnically diverse <u>(BME share increased from 8% in 1991 to 12% in 2001 and 20% in 2011)</u>

- ONS reported PWB levels lower in <u>unemployed</u>, those without a life partner, <u>certain</u> BME groups (ONS 2012).

- Also revealed wide variations in PWB/happiness levels across geographical regions.

- Depressingly <u>all</u> BME groups reported <u>higher levels of anxiety</u> than the White ethnic group.

- ONS states "the differences observed across ethnic groups in SWB may in part be caused by the way that different people with different ethnic backgrounds respond to the SWB questions, but also the varied responses reflect the <u>different circumstances that people find themselves in</u>" (Hicks 2013:p1).

Objectives

1. To examine the state of PWB/happiness across ethnic and cultural groups during 2011-12 to 2013-14.

2. To identify <u>key variants</u> (socioeconomic status, employment status, housing, deprivation level and other geographical factors, ageing and life-cycle attributes) overall and by ethnic groups

3. To determine the <u>adjusted PWB/happiness </u>levels by ethnic groups after controlling for demographic, socioeconomic, contextual and life-cycle factors.

PWB Questions in Annual Population Surveys

<u>APS Coverage</u>: 155,000 households/360,000 people in UK

Items of information: their own circumstances and experiences regarding housing, employment, education, health and wellbeing; etc.
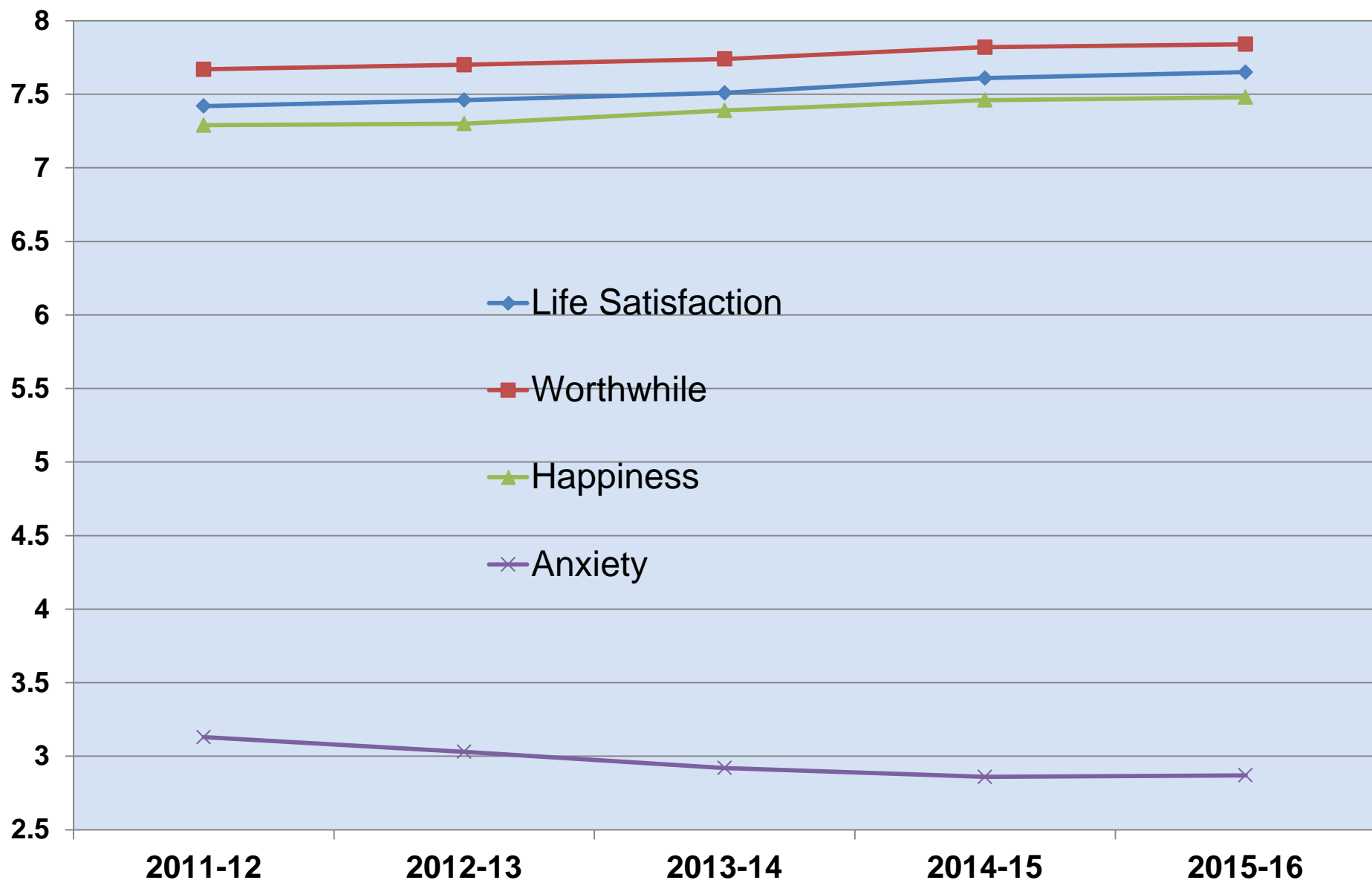
<u>PWB</u>

- *Overall, how satisfied are you with your life nowadays?*
- *Overall, to what extent do you feel the things you do in your life are worthwhile?*
- Overall, how happy did you feel yesterday?
- *Overall, how anxious did you feel yesterday?*

- ❑ Rating: 0 to 10 scale, where 0 = 'not at all' and 10 = 'completely'
- ❑ No proxy response, uses both face-to-face and telephone interviews
- ❑ **Coverage: People aged 16 and over**
- ❑ Time period: Apr 2011-Mar 2012, Apr 2012-Mar 2013, Apr 2013-Mar 2014
- ❑ Respondents: 128,000 (2011-12); 90,000 (2012-13); 89,000 (2013-14)

Personal wellbeing: percentage of adults reporting very low, low, medium and high ratings, 2011–12

	Very low (0–4)	Low (5–6)	Medium (7–8)	High (9–10)	Average (mean)
Life satisfaction	6 .6	17.5	49.8	26.1	7.4
Worthwhile	4.9	15.1	48.6	31.4	7.7
Happy yesterday	10.9	18.0	39.3	31.8	7.3
	Very high (6–10)	High (4–5)	Medium (2–3)	Low (0–1)	Average (mean)
Anxious yesterday	21.8	18.1	23.5	36.6	3.1

Personal wellbeing ratings (mean), 2011 to 2016

Mean Anxious & Happy Ratings by Gender

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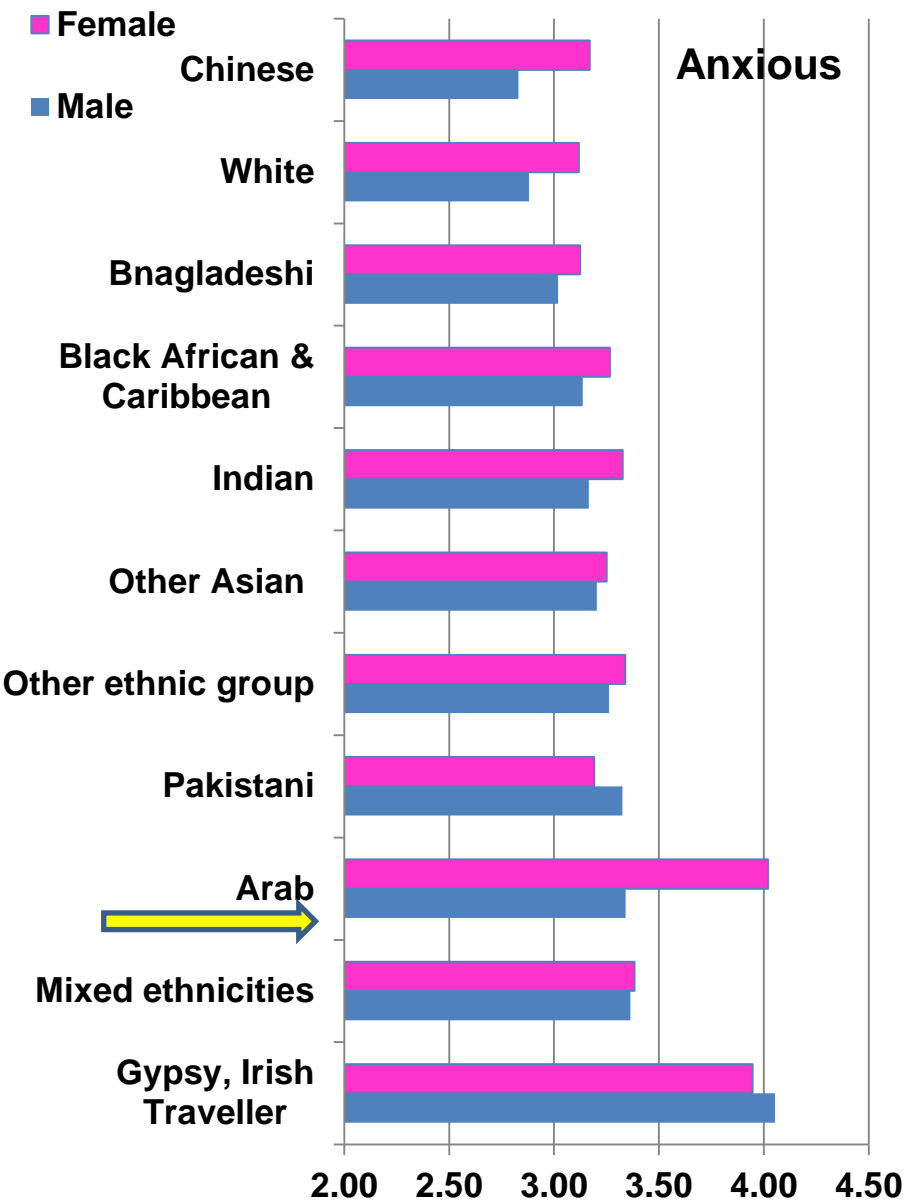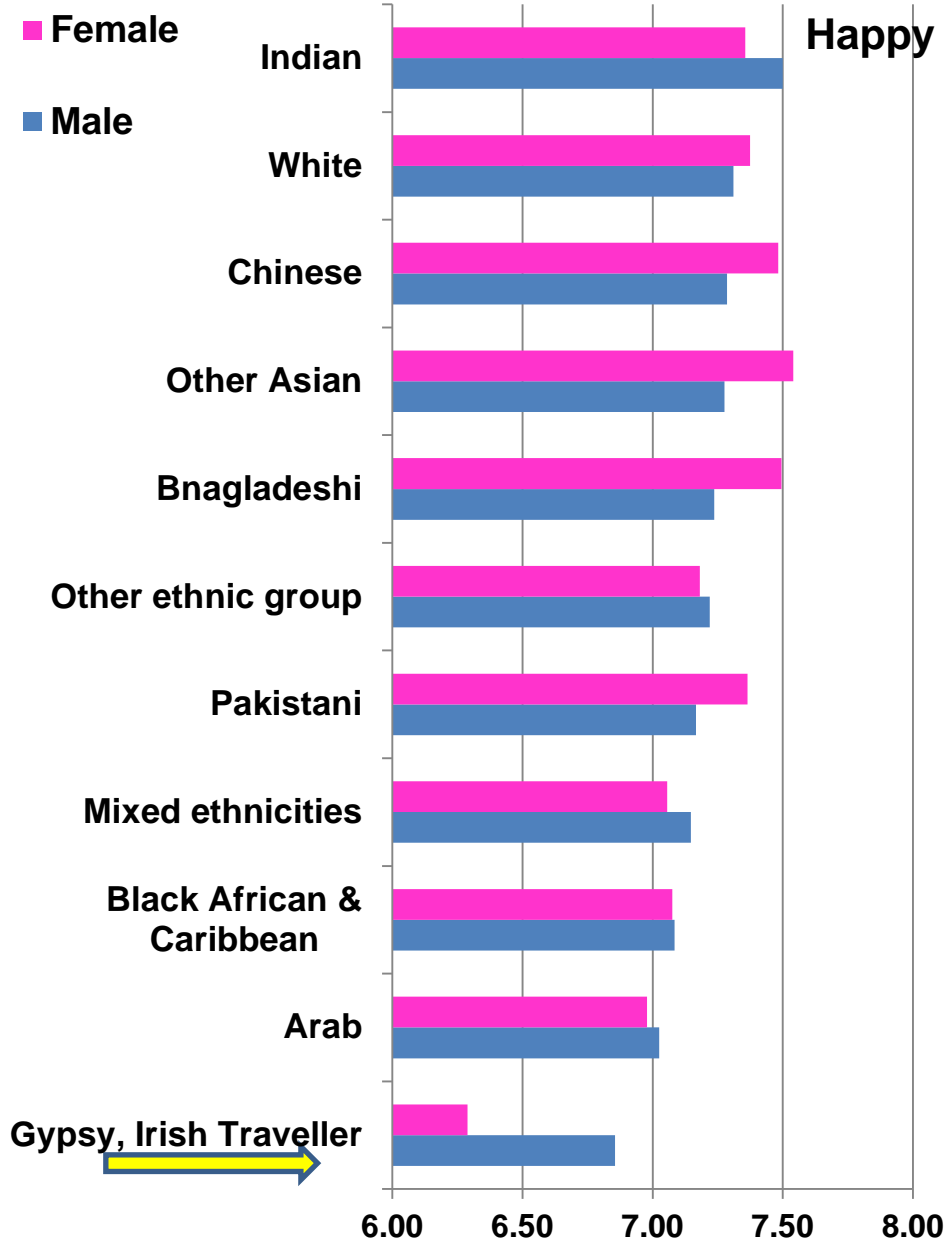
Mean Life Satisfaction & Worthwhile Ratings by Gender
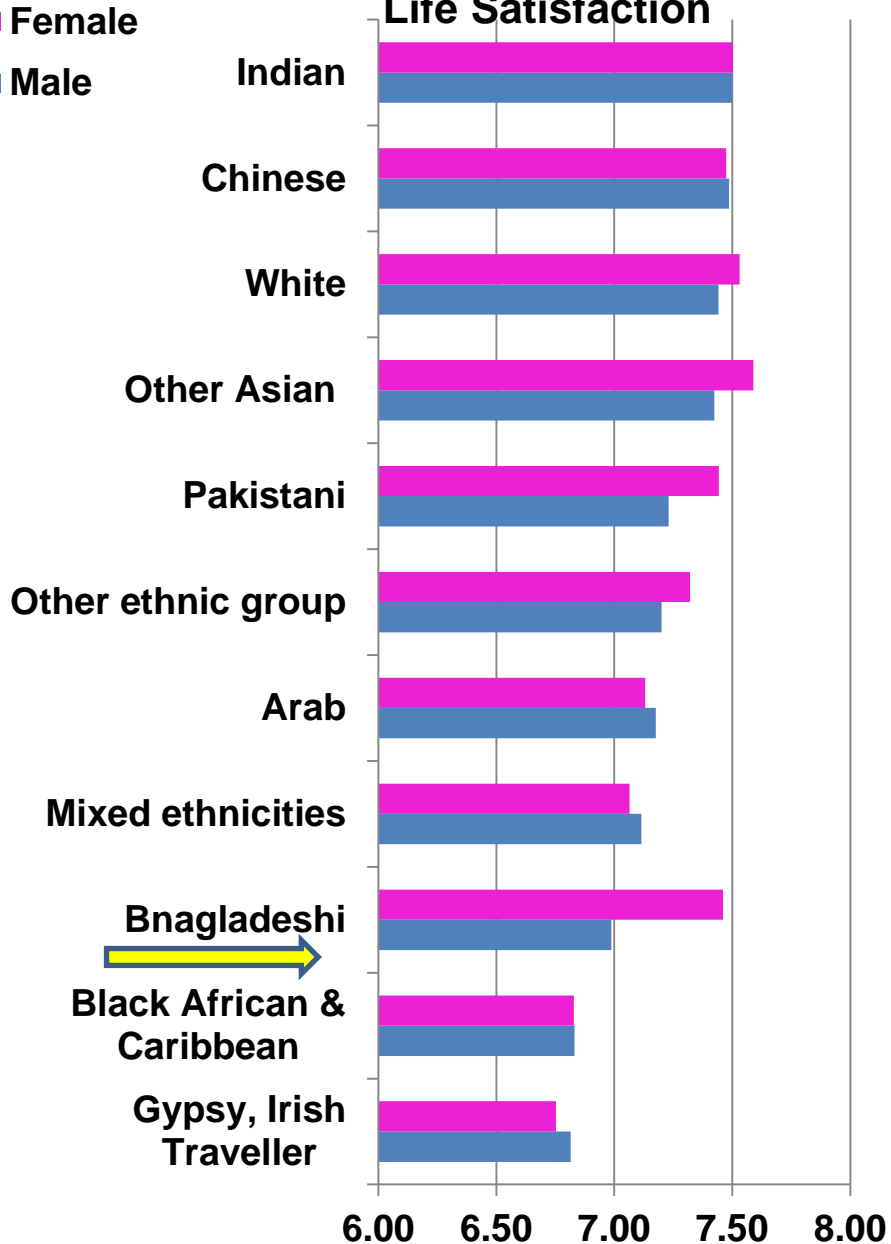
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Mean Anxious & Happy Ratings by Age

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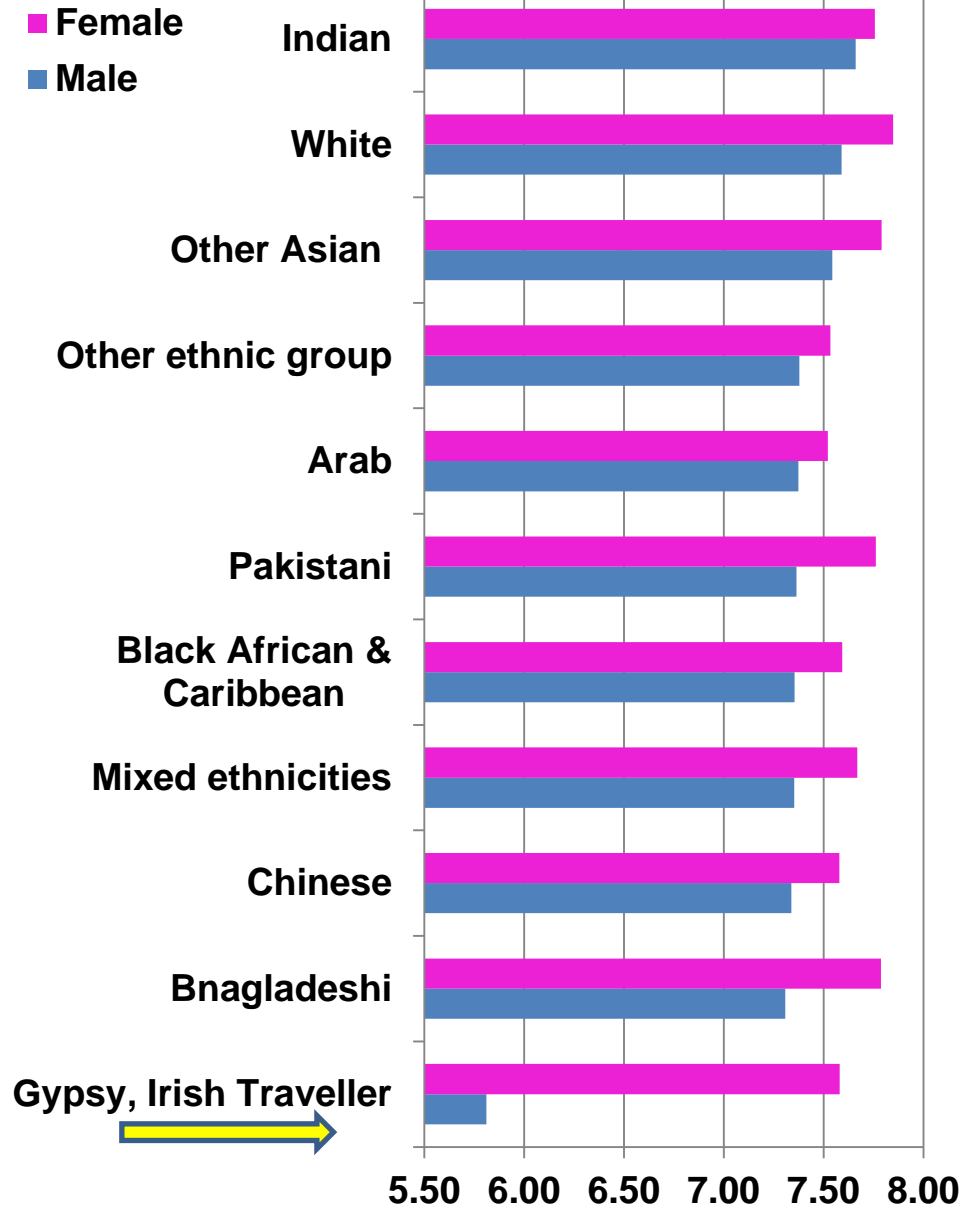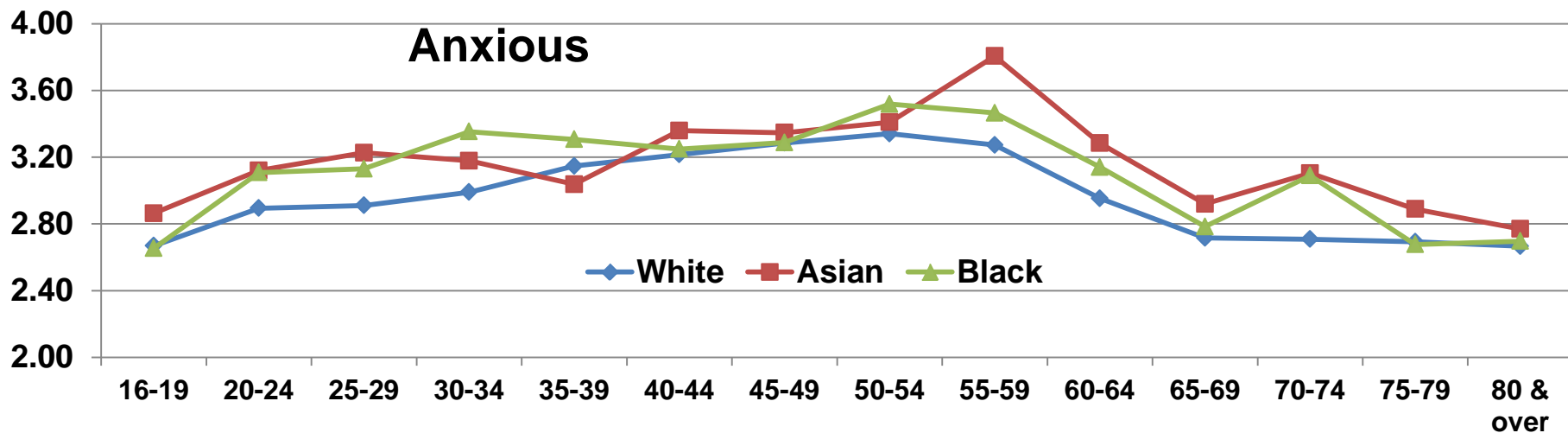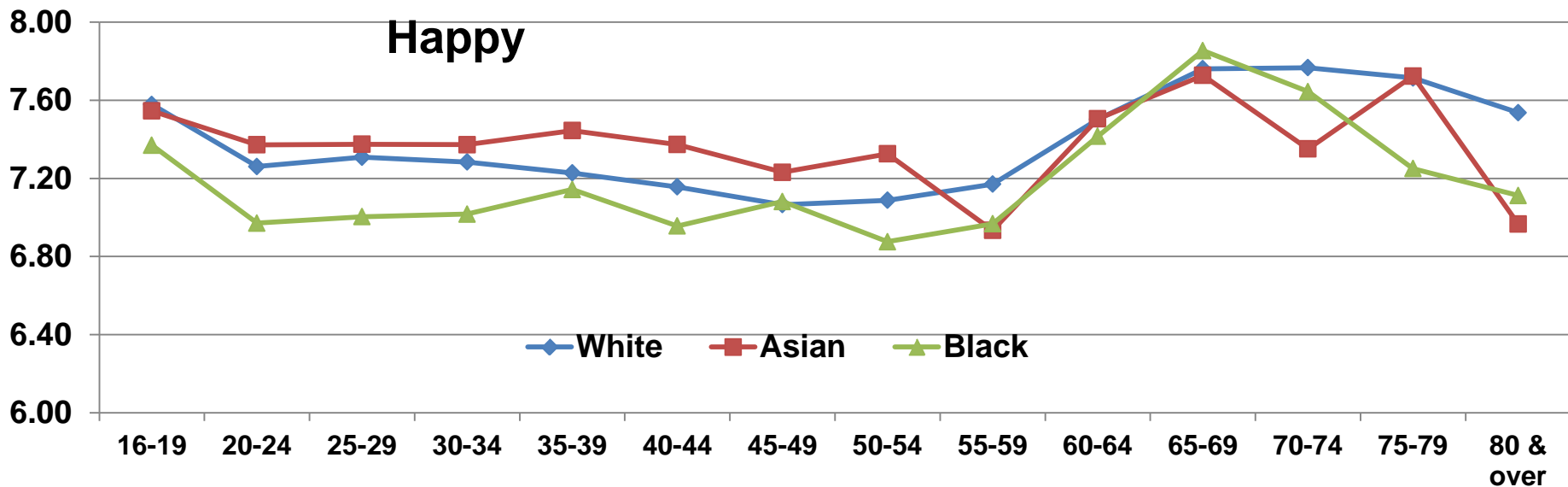
Mean Life Satisfaction and Worthwhile Ratings by Age
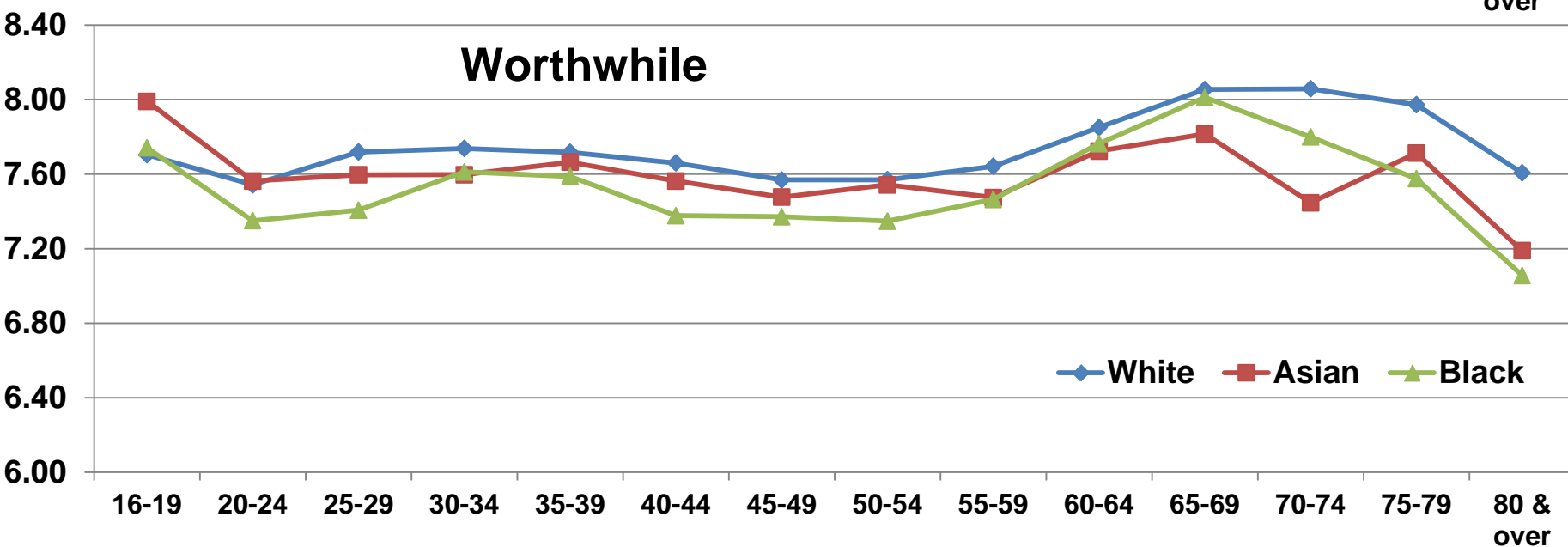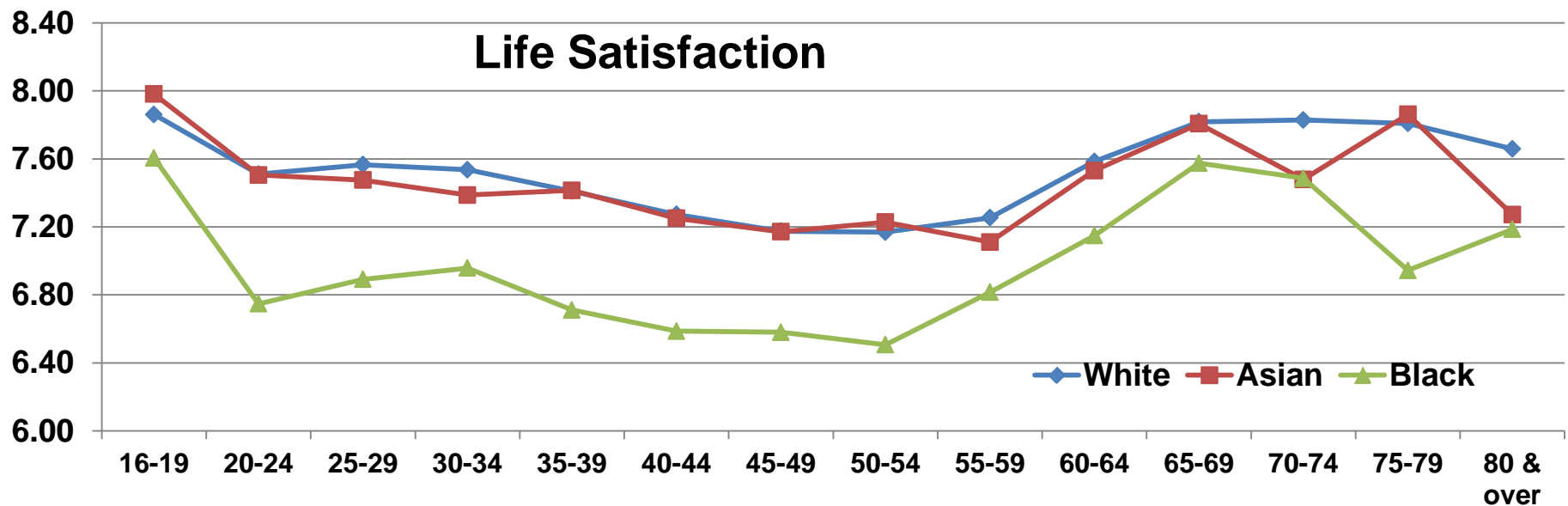
Measuring deprivation : The Carstairs index

- The aim of this paper was to investigate the relationship between happiness, deprivation and ethnicity across the whole UK. However, there is no official current indicator of deprivation which covers the whole of the UK – all are country-specific.

- Therefore, the Carstairs index, a simple and commonly-used deprivation indicator which can be calculated using Census data for all four countries was used instead.

- This combines four Census measures: The male unemployment rate, the percentage of households overcrowded, the percentage of households with no car and the percentage of workers in semi-routine and routine occupations.

- The four percentages are converted to standard scores and then summed to form the index. The index was calculated for the smallest neighbourhoods available in the APS data: Lower Super Output Areas (for England, Wales and Northern Ireland) and 2011 Data Zones in Scotland.

- Since all four components are negative phenomena, the value of the Carstairs index is lowest (negative) in prosperous areas and the highest positive scores occur in the most deprived areas.

Deprivation within Great Britain, 2011
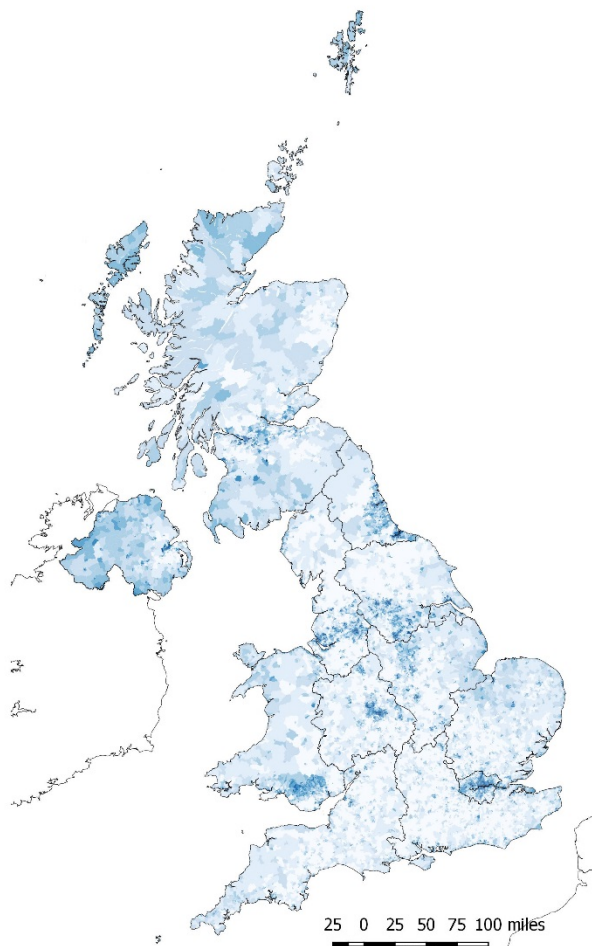
- 2011 Carstairs Index calculated for all 34,753 Lower Super Output Areas in England and Wales, 6,976 Data Zones in Scotland and 890 LSOAs in Northern Ireland.

- Unfortunately, Northern Ireland QoL APS data does not have a LSOA identifier, hence analysis is restricted to Great Britain.

- Greatest deprivation (darkest areas) is found in inner areas of large cities (notably London).

- However, smaller towns also contain pockets of deprivation.

- Suburbs and commuter fringes are relatively prosperous.

- But deprivation also occurs in remoter (e.g. N. Scotland) and coastal rural areas (especially declining resorts).

- Former coalfields, e.g. South Wales, South Yorkshire and central Scotland also experience higher deprivation.

Geography of ethnic minorities
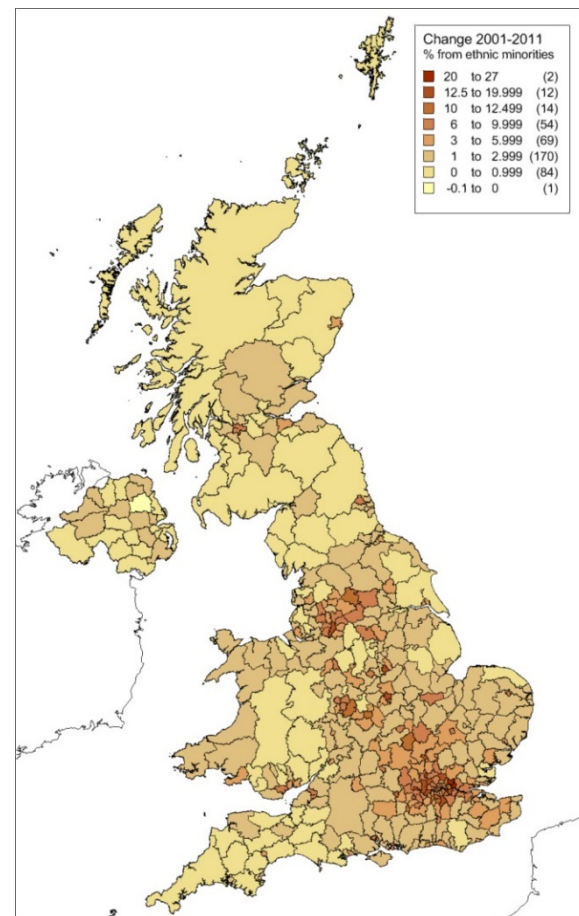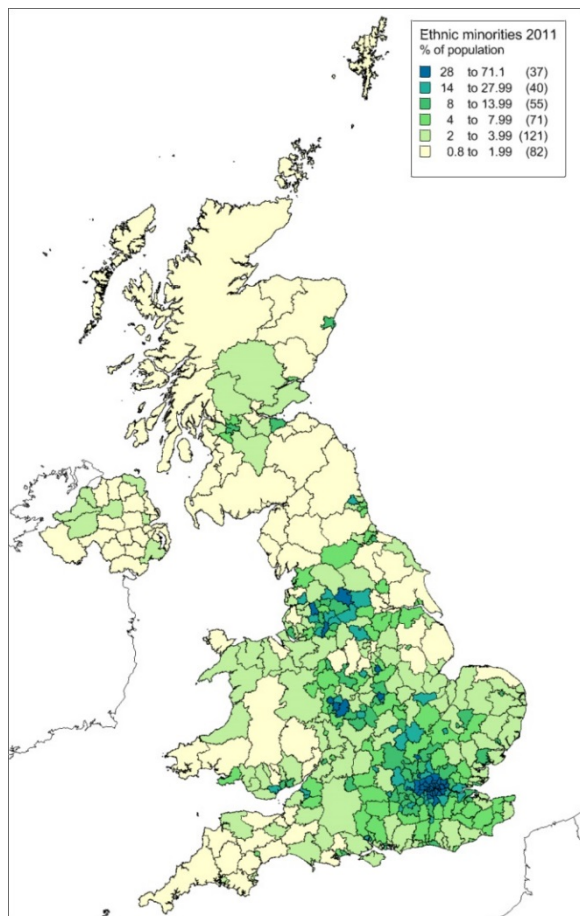
Minority population distribution

- The ethnic minority population in 2011 was still geographically concentrated into London and the larger cities of the English midlands and Pennine belt.

- There are significant populations in the commuter hinterlands of these cities and more accessible rural areas, but the ethnic minority share of the population is smallest in Northern Ireland, Wales, Scotland, eastern England, and the more rural periphery of England.

- The UK ethnic minority population increased by 75% between 2001 and 2011. Black and Asian ethnic groups grew slightly more slowly and the number of mixed parentage more quickly.

- The ethnic minority population grew in all parts of the UK between 2001 and 2011. It is spreading outwards from the traditional areas of concentration, mostly in the larger cities.

- Even so, the larger cities still experienced both the fastest minority population growth and the greatest minority population gain between 2001 and 2011.

Ethnicity and deprivation

Distribution of minority ethnic groups by decile of Carstairs score, 2011
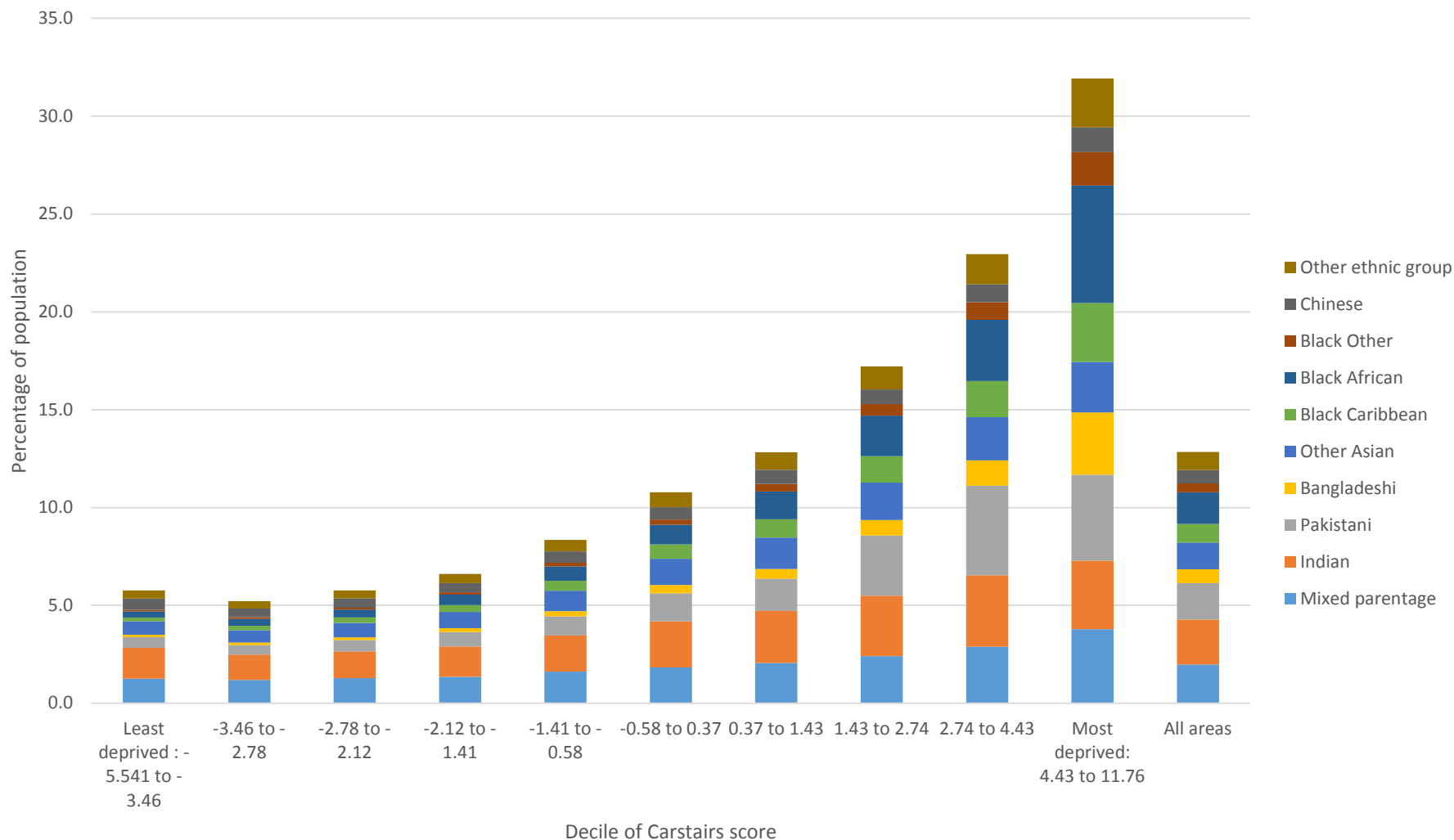
Over-representation by Carstairs decile

Difference between percentage of decile population and percentage of UK population

Decile of Carstairs score

x-axis labels: Least deprived : -5.541 to -3.46 | -3.46 to -2.78 | -2.78 to -2.12 | -2.12 to -1.41 | -1.41 to -0.58 | -0.58 to 0.37 | 0.37 to 1.43 | 1.43 to 2.74 | 2.74 to 4.43 | Most deprived: 4.43 to 11.76

Legend:
- Mixed parentage
- Indian
- Pakistani
- Bangladeshi
- Other Asian
- Black Caribbean
- Black African
- Black Other
- Chinese
- Other ethnic group

Ethnicity and disadvantage

- The preceding charts present a clear pattern of geographical concentration of people from ethnic minorities in areas of relative deprivation, though there are variations between individual ethnic groups.

- Minority ethnic groups represented 12.8% of the UK's population in 2011. However, they formed more than a quarter of the population in each of the two most deprived deciles (31.9% in the most deprived decile and 23% in the next most deprived), but only 5.8% of the population of the least deprived decile (and 5.2% of the population of the next most prosperous decile). The white population is more evenly distributed across the deciles, but with 10.5% in the most prosperous and 8.1% in the most deprived deciles, indicating a lesser tendency to live in deprived areas.

- Overall, 43.6% of all people from minority ethnic groups and 64.1% of Bangladeshi, 57.8% of Black-African, 52.1%of Black-Caribbean and 49.0% of Pakistani people lived in the most deprived quintile of LSOAs. 45.8% of Bangladeshi people and 38.4% of Black-African people lived in the most deprived decile.

- Indian and Chinese people were the least likely minority ethnic groups to live in the most deprived 20% of LSOAs.

- 14.5% of Chinese, 12.3% of Indian and 12.1% of people of mixed parentage lived in the least deprived 20% of LSOAs.

- The boxplot indicates that high minority shares of the population occurred in neighbourhoods across the range of deprivation experiences. The median percentage of the population from minority ethnic groups increased with deprivation, but the variation in this percentage also increased with deprivation.

- Neighbourhoods in which the population is almost exclusively from minority ethnic groups are much more likely to experience high levels of deprivation.
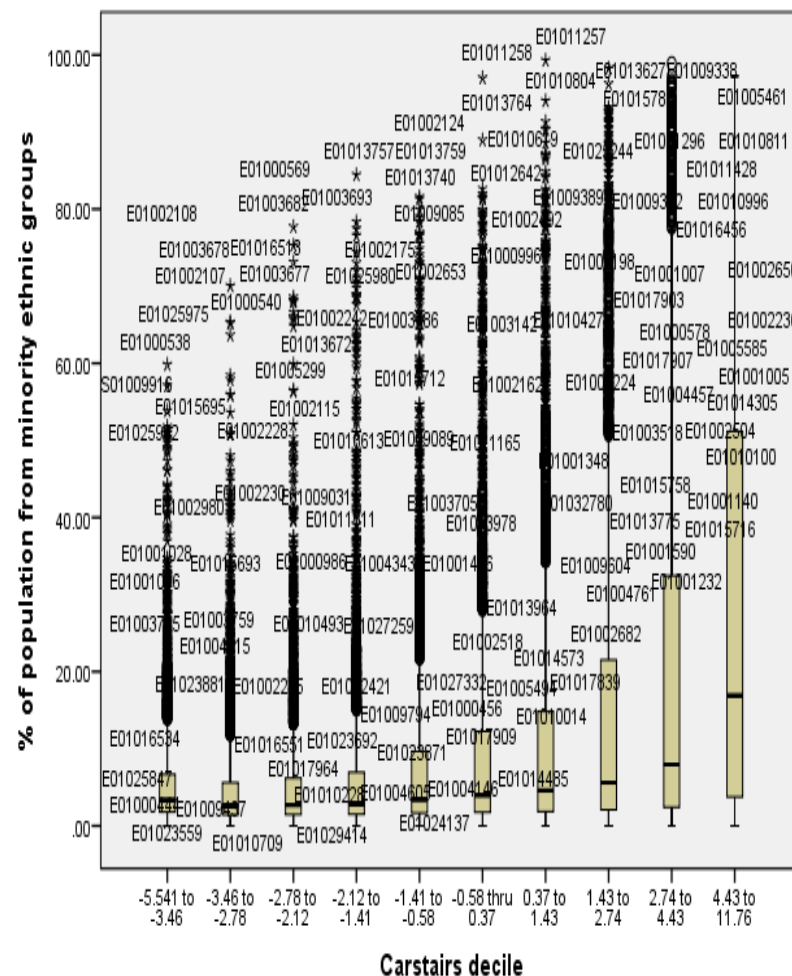
Geographical variations in Wellbeing

- Scores on each indicator are most favourable in the most prosperous Deprivation quintiles and least favourable in the most deprived quintiles.

- This pattern is similar for White, Black and Asian ethnic groups.

- Wellbeing scores are least favourable in London and the West Midlands, in which the percentage of the population from ethnic minorities is largest.

- This suggests that ethnic minorities tend to live in areas of higher deprivation and lower wellbeing.

% Reported high(8-10) ratings of life satisfaction, worthwhile & happy, Very high(6-10) ratings of anxious by deprivation quintiles, (excluding N Ireland)

Multivariate Analyses
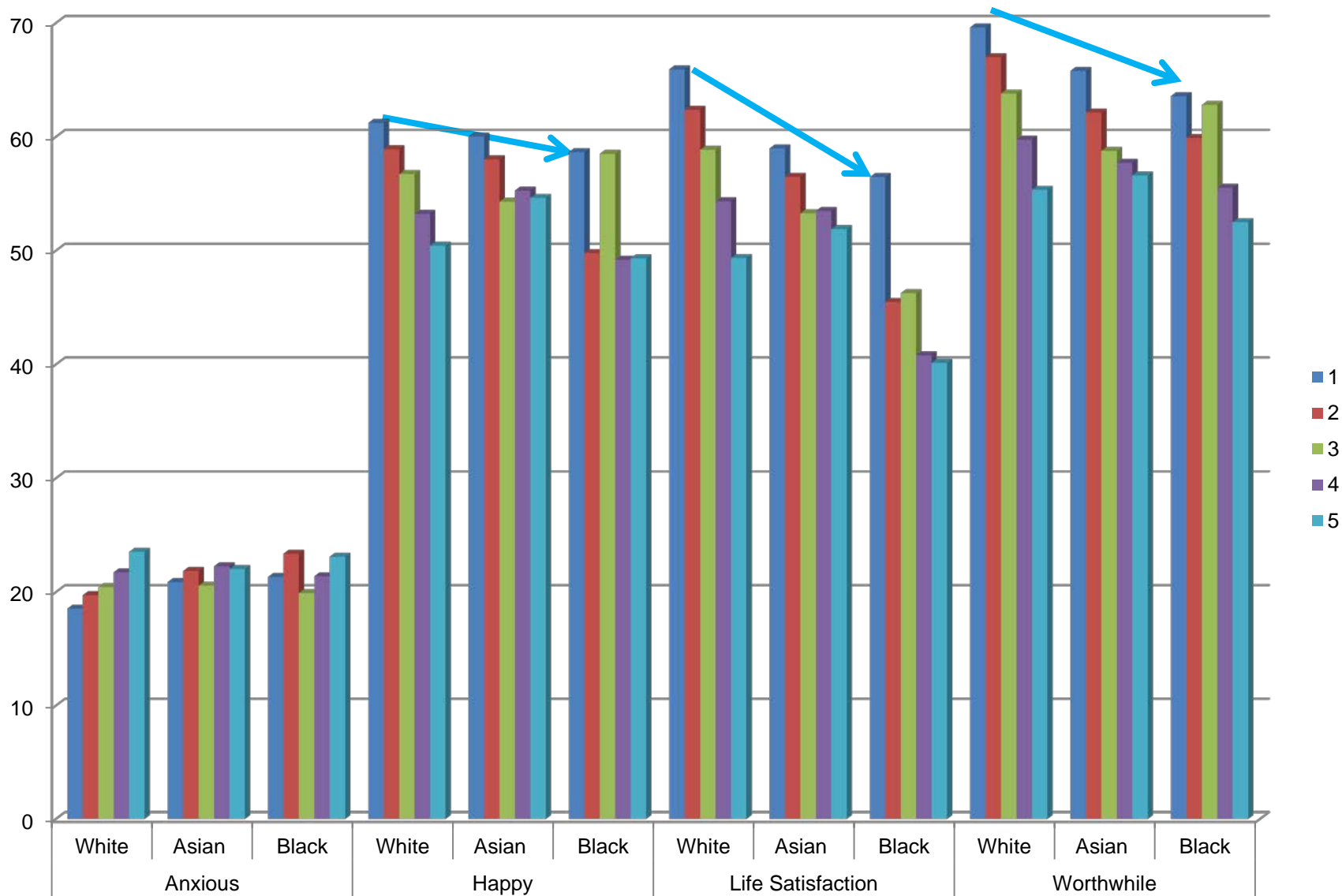
<u>Dependent</u>: High Life satisfaction, Worthwhile and Happy yesterday ratings and Very High Anxious yesterday rating

<u>Logistic Regression Models</u>

Model 1 (1 variable): Ethnic groups

Model 2 (3 variables): + Demographic (age, gender)

Model 3 (5 variables): + Social (marital status, education completion age, religion)

Model 4 (10 variables): +   + Health Status (chronic condition, disability, limits activity, health status, smoking)

Model 5 (18 variables): +   +   + SES (highest education, employment type, occupation, job type, public/private, weekly pay, home ownership, benefits)

Model 6 (21 variables): +   +   + + Contextual (deprivation, years of residence, year of in-migration, geographical region)

Stepwise selection	Anxious	Happy	Life Satisfaction	Worthwhile
1	Health status	Health status	Health status	Health status
2	Age group	Age group	Age group	Marital status
3	Gender	Marital status	Marital status	Age group
4	Limits activity	Employment type	Employment type	Gender
5	Edu compl age	Gender	House ownership	Employment type
6	Smoking	House ownership	**Ethnicity**	Public/private
7	Employment type	Smoking	Smoking	Occupation
8	Region	Region	Weekly pay	Region
9	Marital status	Highest edu	Gender	Smoking
10	Disable	Deprivation quintile	Region	House ownership
11	Weekly pay	Year of residence	Edu compl age	Edu compl age
12	**Ethnicity**	Occupation	Disable	Highest edu
13	Job type	**Ethnicity**	Occupation	**Ethnicity**
14	House ownership	Limits activity	Deprivation quintile	Weekly pay
15	Chronic condition	Job type	Job type	Benefits
16	Occupation	Weekly pay	Highest edu	Deprivation quintile
17	Year of residence	Edu compl age	Benefits	Limits activity
18	Public/private	Public/private	Limits activity	Job type
19	Highest Edu	Benefits	Year of residence	Year of residence
20	Benefits	Chronic condition	Public/private	Chronic condition
21	Deprivation quintile	Disable	Chronic condition	Disable

Rejected Variables

	Determinants	Base(Total)category	Anxious
1. Culture	Ethnicity	White (11)	**Lowest in Gypsy, then Arab; 5BME**
2. Demographic	Age group	Adolescent (14)	**Non-linear rises with peak at ages 45-59 and then decline and become insignificant from age 70 onwards**
	Gender	Female (2)	**Lower in male**
3. Social	Marital status	Single (6)	**Lower in married, higher in separated**
	Edu. completion age	up to 15 (6)	**lowest in 17-19 age**
4. Health	Health status	Very Good (5)	**Rises as health deteriorates**
	Chronic condition	None (2)	**Higher**
	Disability	None (2)	**Higher**
	Limits activity	None (2)	**Higher**
	Smoking	Never (3)	**Highest in Smoker**
5. Economic	Employment type	Inactive (5)	**Highest in Unemployed**
	Occupation	Inactive (8)	**Lower in middle level occupations**
	Job type	Temporary (2)	**Lower in Permanent**
	Public/private sector	Private (2)	**NS**
	Weekly pay	£750 + (6)	**Lowest in non-working; NS**
	Benefits	None (2)	**NS**
	Home ownership	Owned outright (5)	**Lowest for owning house outright**
	Highest education	No education (7)	**NS**
6. Contextual	Geographical region	N. Ireland (13)	**Lower in North-West, East Midlands**
	Years of residence	< 12 months (6)	**Higher in <1 year residency**

	Determinants	Anxious (Forward Stepwise Entry by Importance)			
		All	White	Asian	Black
1. Culture	Ethnicity	12	NA	7	NA
2. Demographics	Age group	2	2	6	2
	Gender	3	3	9	Rejected
3. Social	Marital status	9	10	13	Rejected
	Edu. compl age	5	5	8	Rejected
4. Health	Health status	1	1	1	1
	Chronic condition	15	15	Rejected	Rejected
	Disability	10	9	Rejected	Rejected
	Limits activity	4	4	10	Rejected
	Smoking	6	6	4	Rejected
5. Economic	Employment type	7	7	5	Rejected
	Occupation	16	13	Rejected	Rejected
	Job type	13	14	Rejected	4
	Public/private sector	18	16	11	Rejected
	Weekly pay	11	11	Rejected	5
	Benefits	Rejected	17	Rejected	Rejected
	Home ownership	14	12	12	6
	Highest education	Rejected	18	3	Rejected
6. Contextual	Region	8	8	2	Rejected
	Year of residence	17	19	14	3
	Deprivation (IMD)	Rejected	Rejected	Rejected	Rejected
Number of Accepted Variables		**18**	**19**	**14**	**6**

	Determinants	Base(Total)category	Happy
1. Culture	Ethnicity	White (11)	**Lowest in Gypsy, then Arab, 4BME**
2. Demographic	Age group	Adolescent (14)	**Non-linear Lower in younger & middle ages & then rises from age 60 onwards**
	Gender	Female (2)	**Lower in male**
3. Social	Marital status	Single (6)	**Higher in Married, Lower in widowed**
	Edu. completion age	up to 15 (6)	**Highest in 17-19 age**
4. Health	Health status	Very Good (5)	**Decreases as health deteriorates**
	Chronic condition	None (2)	**NS**
	Disability	None (2)	**NS**
	Limits activity	None (2)	**NS**
	Smoking	Never (3)	**Lowest in Smoker**
5. Economic	Employment type	Inactive (5)	**Lowest in Unemployed, FT Employee**
	Occupation	Inactive (8)	**Highest in Lower Supervisory & technical**
	Job type	Temporary (2)	**Higher in Permanent**
	Public/private sector	Private (2)	**NS**
	Weekly pay	£750 + (6)	**Higher in middle income; -ve**
	Benefits	None (2)	**NS**
	Home ownership	Owned outright (5)	**Lower for having mortgage, rented**
	Highest education	No education (7)	**Lowest in highest Qualification, Higher in Other qualification**
6. Contextual	Geographical region	N. Ireland (13)	**Lowest in Merseyside, West Midlands**
	Year of residence	< 12 months (6)	**Highest in <1 and 2-3 year residency; -ve**
	Deprivation (IMD)	Highest (5)	**Lowest in Q5 then Q4; -ve**

	Determinants	Happy (Forward Stepwise Entry by Importance)			
		All	White	Asian	Black
1. Culture	Ethnicity	13	NA	9	NA
2. Demographics	Age group	2	2	3	2
	Gender	5	5	4	5
3. Social	Marital status	3	3	2	3
	Edu. compl age	17	15	Rejected	Rejected
4. Health	Health status	1	1	1	1
	Chronic condition	Rejected	Rejected	Rejected	Rejected
	Disability	Rejected	17	10	Rejected
	Limits activity	14	11	Rejected	Rejected
	Smoking	7	7	7	Rejected
5. Economic	Employment type	4	4	6	8
	Occupation	12	13	11	6
	Job type	15	16	8	Rejected
	Public/private sector	Rejected	Rejected	Rejected	Rejected
	Weekly pay	16	14	Rejected	Rejected
	Benefits	Rejected	Rejected	Rejected	Rejected
	Home ownership	6	6	9	4
	Highest education	9	9	Rejected	9
6. Contextual	Region	7	8	5	Rejected
	Year of residence	11	12	Rejected	7
	Deprivation (IMD)	10	10	Rejected	4
Number of Accepted Variables		**17**	**17**	**11**	**9**

	Determinants	Base(Total)category	Life Satisfaction
1. Culture	Ethnicity	White (11)	Lowest in Black, then Arab; 9BME
2. Demographic	Age group	Adolescent (14)	Non-linear declines with dip in middle ages and rises from age 65 onwards
	Gender	Female (2)	Lower in male
3. Social	Marital status	Single (6)	Higher in Married, Lower in Separated
	Edu. completion age	up to 15 (6)	Declines with edu-age
4. Health	Health status	Very Good (5)	Decreases sharply as health deteriorates
	Chronic condition	None (2)	NS
	Disability	None (2)	Lower
	Limits activity	None (2)	Lower
	Smoking	Never (3)	Lowest in Smoker
5. Economic	Employment type	Inactive (5)	Lowest in Unemployed, Higher in SE
	Occupation	Inactive (8)	Higher in top, Lower in lower occupations
	Job type	Temporary (2)	Higher in Permanent
	Public/private sector	Private (2)	NS
	Weekly pay	£750 + (6)	low in lower income; +ve
	Benefits	None (2)	Lower
	Home ownership	Owned outright (5)	Lowest for rented, then having mortgage
	Highest education	No education (7)	Lower in higher qualification
6. Contextual	Geographical region	N. Ireland (13)	Lowest in London, then West Midlands
	Year of residence	< 12 months (6)	Highest in <1, then in 1-2 year residency
	Deprivation (IMD)	Highest (5)	Highest in Q5; +ve

	Determinants	Life Satisfaction (Forward Stepwise Entry) All	White	Asian	Black
1. Culture	Ethnicity	6	NA	11	NA
2. Demographics	Age group	2	3	2	2
	Gender	9	8	5	10
3. Social	Marital status	3	2	3	3
	Edu. compl age	11	11	6	8
4. Health	Health status	1	1	1	1
	Chronic condition	Rejected	Rejected	Rejected	Rejected
	Disability	12	10	10	Rejected
	Limits activity	18	17	Rejected	Rejected
	Smoking	7	5	8	12
5. Economic	Employment type	4	4	4	4
	Occupation	13	12	Rejected	6
	Job type	15	16	Rejected	7
	Public/private sector	Rejected	19	Rejected	Rejected
	Weekly pay	8	7	9	11
	Benefits	17	14	Rejected	Rejected
	Home ownership	5	6	Rejected	9
	Highest education	16	15	13	Rejected
6. Contextual	Region	10	9	7	Rejected
	Year of residence	19	18	12	5
	Deprivation (IMD)	14	13	Rejected	13
Number of Accepted Variables		19	19	13	13

	Determinants	Base(Total)category	Worthwhile
1. Culture	Ethnicity	White (18)	**Lowest in Chinese, then Arab; 4BME**
2. Demographic	Age group	Adolescent (14)	**Non-linear declines with dip in middle ages** and **rises from age 60 onwards**
	Gender	Female (2)	**Lower in male**
3. Social	Marital status	Single (6)	**Higher in Married, Lower in Divorced**
	Edu. completion age	up to 15 (6)	**Declines with edu-age**
4. Health	Health status	Very Good (5)	**Decreases sharply as health deteriorates**
	Chronic condition	None (2)	**Higher**
	Disability	None (2)	**Lower**
	Limits activity	None (2)	**Lower**
	Smoking	Never (3)	**Lowest in Smoker**
5. Economic	Employment type	Inactive (5)	**Lowest in Unemployed, Highest in SE**
	Occupation	Inactive (8)	**Higher in top, Lower in lower occupations**
	Job type	Temporary (2)	**Higher in Permanent**
	Public/private sector	Private (2)	**Lower in private**
	Weekly pay	£750 + (6)	**low in lower income; +ve**
	Benefits	None (2)	**Higher**
	Home ownership	Owned outright (5)	**Lowest for rented**
	Highest education	No education (7)	**Higher and rises with qualification >GCSE**
6. Contextual	Geographical region	N. Ireland (13)	**Lowest in London, then West Midlands**
	Year of residence	< 12 months (6)	**Higher in 1-2 and 2-3 years residency**
	Deprivation (IMD)	Highest (5)	**Higher in Q4 and Q5; +ve**

	Determinants	Worthwhile (Forward Stepwise Entry)			
		All	White	Asian	Black
1. Culture	Ethnicity	13	NA	8	NA
2. Demographics	Age group	3	3	3	4
	Gender	4	4	4	3
3. Social	Marital status	2	2	2	2
	Edu. compl age	11	12	10	12
4. Health	Health status	1	1	1	1
	Chronic condition	20	19	Rejected	Rejected
	Disability	21	18	13	Rejected
	Limits activity	17	16	Rejected	Rejected
	Smoking	9	7	14	Rejected
5. Economic	Employment type	5	5	5	9
	Occupation	7	8	7	8
	Job type	18	17	Rejected	11
	Public/private sector	6	6	11	10
	Weekly pay	14	14	15	6
	Benefits	15	11	Rejected	Rejected
	Home ownership	10	10	Rejected	7
	Highest education	12	13	12	5
6. Contextual	Region	8	9	6	Rejected
	Year of residence	19	20	9	Rejected
	Deprivation (IMD)	16	15	Rejected	Rejected
Number of Accepted Variables		**21**	**19**	**15**	**12**

Adjusted Very High Anxious Rating Odds Ratio for Ethnic Minority Groups

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Anxious	Unadjusted (1)	Demographic (3)	Social (5)	Health (10)	Economic (18)	Contextual (21)	Inferences
White	1	1	1	1	1	1	
1. Gypsy/Irish traveller	2.90*	2.81*	2.48*	1.94*	1.88*	1.88*	1st Highest
2. Mixed ethnicities	1.25*	1.26*	1.25*	1.20*	1.18*	1.16*	3rd Highest
3. Indian	1.10*	1.11*	1.17*	1.15*	1.15*	1.13*	4th Highest
4. Pakistani	1.13*	1.17*	1.21*	1.10*	1.09*	1.10*	5th Highest
5. Bangladeshi	0.99	1.06	1.07	0.99	0.97	0.94	NS
6. Chinese	0.87*	0.90*	0.87*	0.91	0.91	0.90	Disappear
7. Other Asian	1.08	1.09	1.12*	1.09	1.08	1.05	NS
8. Black African & Caribbean	1.10*	1.08*	1.04	1.06*	1.03	1.00	Disappear
9. Arab	1.30*	1.38*	1.36*	1.25*	1.21*	1.19*	2nd Highest
10. Others	1.13*	1.15*	1.14*	1.10*	1.09	1.06	Disappear
No. of groups significantly different from White	8	8	8	7	5	5	

Adjusted High Happy Rating Odds Ratio for Ethnic Minority Groups

Happy	Unadjusted (1)	Demographic (3)	Social (5)	Health (10)	Economic (18)	Contextual (21)	Inferences
White	**1**	**1**	**1**	**1**	**1**	**1**	
1. Gypsy/Irish traveller	**0.40***	**0.41***	**0.45***	**0.57***	**0.57***	**0.57***	**1st Lowest**
2. Mixed ethnicities	0.80*	0.87*	0.89*	0.93	0.94	0.96	Disappear
3. Indian	1.00	1.08*	0.96	1.01	1.01	1.05	NS
4. Pakistani	0.88*	0.96	0.86*	0.97	0.95	0.99	Disappear
5. Bangladeshi	0.96	1.06	0.96	1.06	1.09	1.15*	Contrast
6. Chinese	0.93	1.01	0.98	0.97	0.96	0.98	NS
7. Other Asian	1.01	1.10*	1.00	1.04	1.05	1.08*	Contrast
8. Black African & Caribbean	0.79*	0.85*	0.89*	0.88*	0.91*	0.96	Disappear
9. Arab	**0.65***	**0.72***	**0.69***	**0.74***	**0.75***	**0.77***	**2nd Lowest**
10. Others	0.86*	0.93*	0.90*	0.94*	0.95	0.98	Disappear
No. of groups significantly different from White	6	7	6	4	3	4	

Adjusted High Life Satisfaction Rating Odds Ratio for Ethnic Minority Groups

Life Satisfaction	Unadjusted (1)	Demographic (3)	Social (5)	Health (10)	Economic (18)	Contextual (21)	Inferences
White	**1**	**1**	**1**	**1**	**1**	**1**	
1. Gypsy/Irish traveller	0.47*	0.48*	0.55*	0.78	0.79	0.79	**Disappear**
2. Mixed ethnicities	0.64*	0.68*	0.70*	0.72*	0.75*	0.78*	**3rd Lowest**
3. Indian	0.87*	0.93*	0.74*	0.76*	0.78*	0.84*	**7th Lowest**
4. Pakistani	0.72*	0.77*	0.63*	0.70*	0.74*	0.79*	**6th Lowest**
5. Bangladeshi	0.65*	0.68*	0.57*	0.62*	0.69*	0.78*	**4th Lowest**
6. Chinese	0.90*	0.94	0.80*	0.76*	0.77*	0.80*	**5th Lowest**
7. Other Asian	0.87*	0.93*	0.76*	0.78*	0.85*	0.91*	**9th Lowest**
8. Black African & Caribbean	**0.51***	**0.54***	**0.55***	**0.52***	**0.60***	**0.66***	**1st Lowest**
9. Arab	**0.62***	**0.67***	**0.58***	**0.63***	**0.69***	**0.74***	**2nd Lowest**
10. Others	0.74*	0.78*	0.70*	0.72*	0.79*	0.85*	**8th Lowest**
No. of groups significantly different from White	10	10	10	9	9	9	

Adjusted High Worthwhile Rating Odds Ratio for Ethnic Minority Groups

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Worthwhile	Unadjusted (1)	Demographic (3)	Social (5)	Health (10)	Economic (18)	Contextual (21)	Inferences
White	**1**	**1**	**1**	**1**	**1**	**1**	
1. Gypsy/Irish traveller	0.73	0.74	0.83	1.15	1.19	1.19	**NS**
2. Mixed ethnicities	0.74*	0.81*	0.84*	0.87*	0.89*	0.93	Disappear
3. Indian	0.90*	0.98	0.82*	0.84*	0.88*	0.95	Disappear
4. Pakistani	0.75*	0.82*	0.70*	0.77*	0.81*	0.86*	**3rd Lowest**
5. Bangladeshi	0.74*	0.83*	0.72*	0.78*	0.86*	0.96	Disappear
6. Chinese	**0.67***	**0.76***	**0.69***	**0.66***	**0.68***	**0.71***	**1st Lowest**
7. Other Asian	0.86*	0.94	0.80*	0.82*	0.89*	0.96	Disappear
8. Black African & Caribbean	0.70*	0.74*	0.77*	0.74*	0.81*	0.90*	**4th Lowest**
9. Arab	0.70*	0.80*	0.72*	0.78*	0.84*	0.92	Disappear
10. Others	**0.67***	**0.72***	**0.66***	**0.68***	**0.73***	**0.80***	**2nd Lowest**
No. of groups significantly different from White	9	7	9	9	9	4	

Life-cycle effects on wellbeing
(Odds Ratio after adjusting for All Variables)

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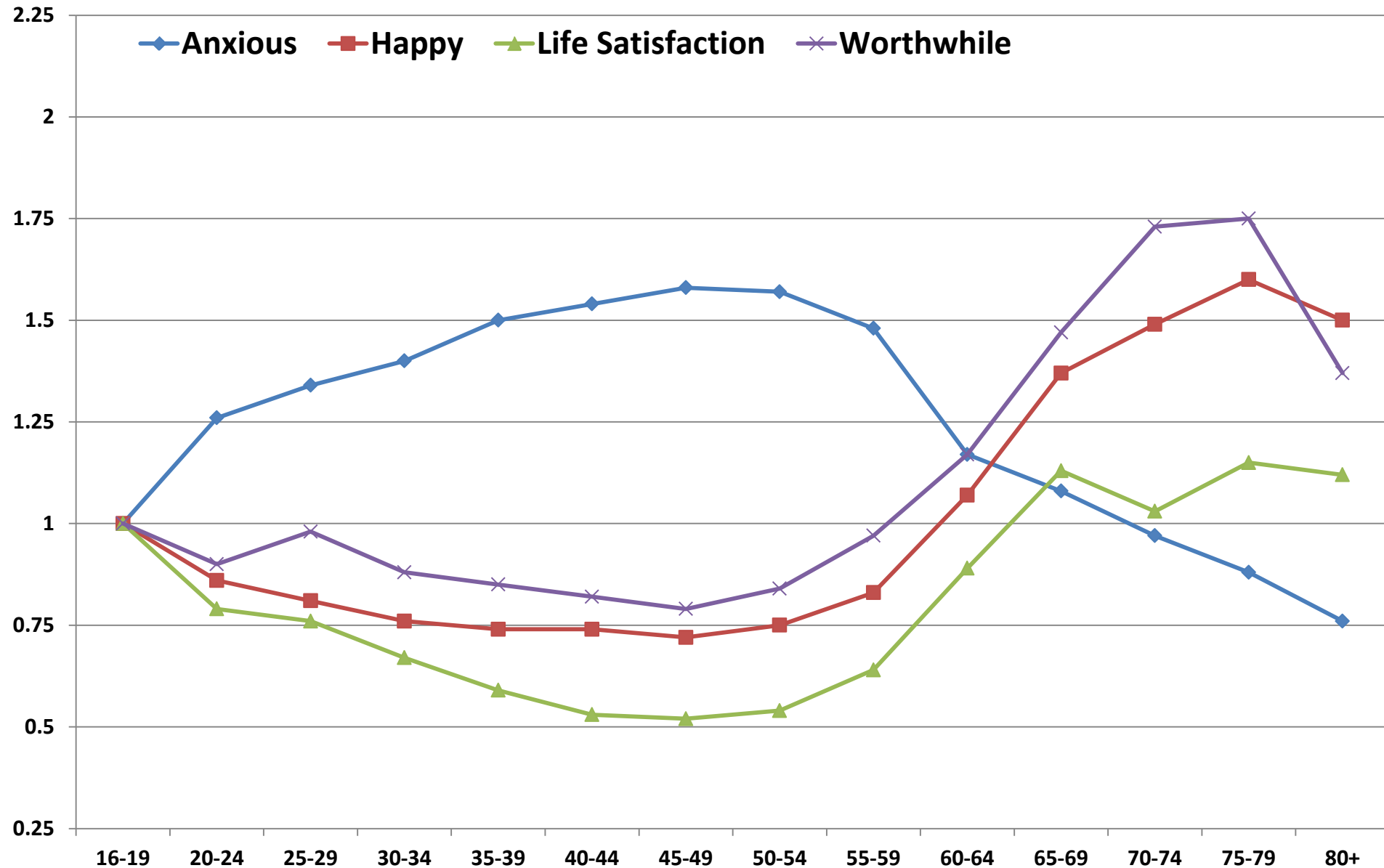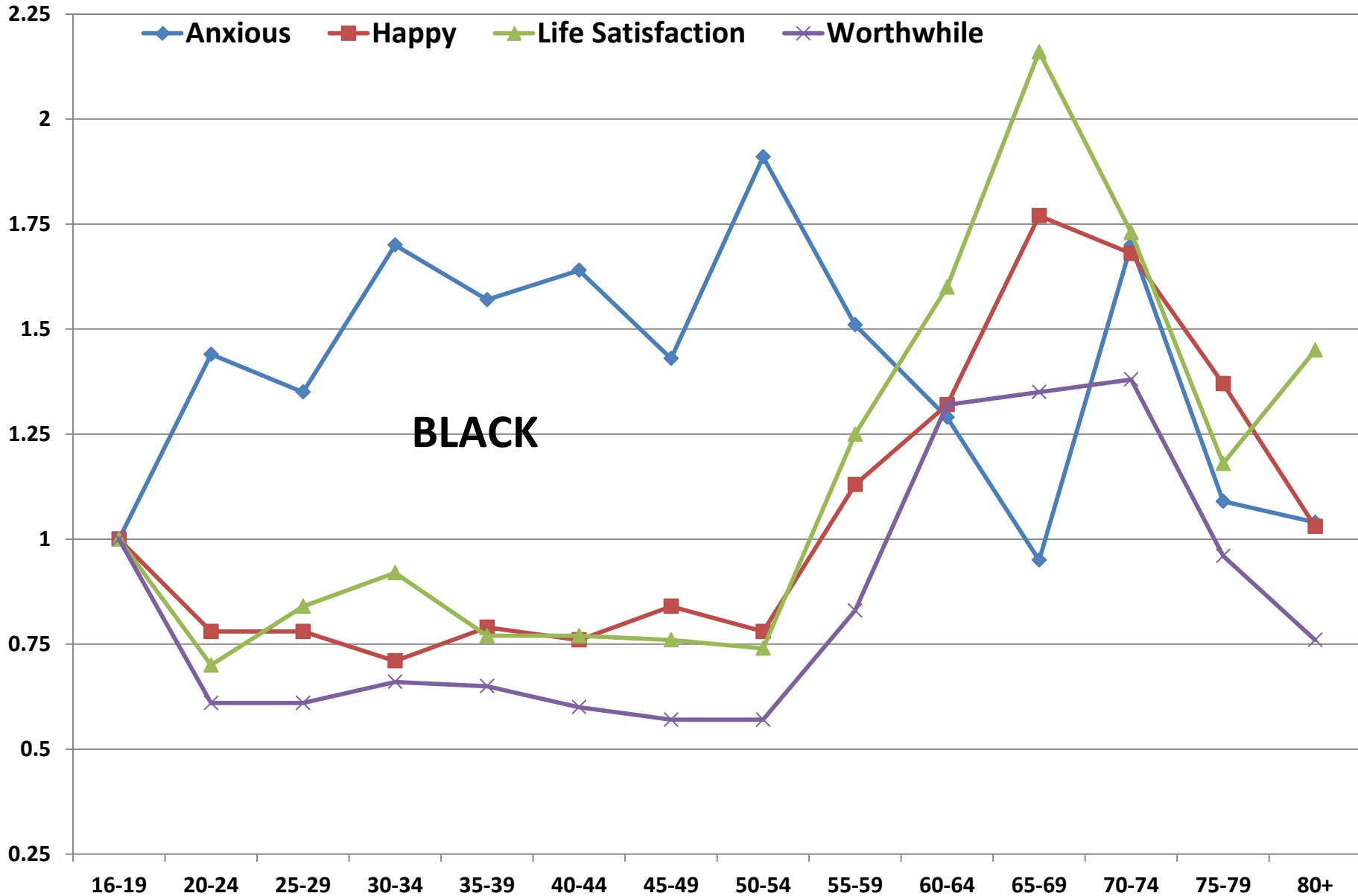
Life-cycle effects on wellbeing of Asian
(Odds Ratio after adjusting for All Variables)
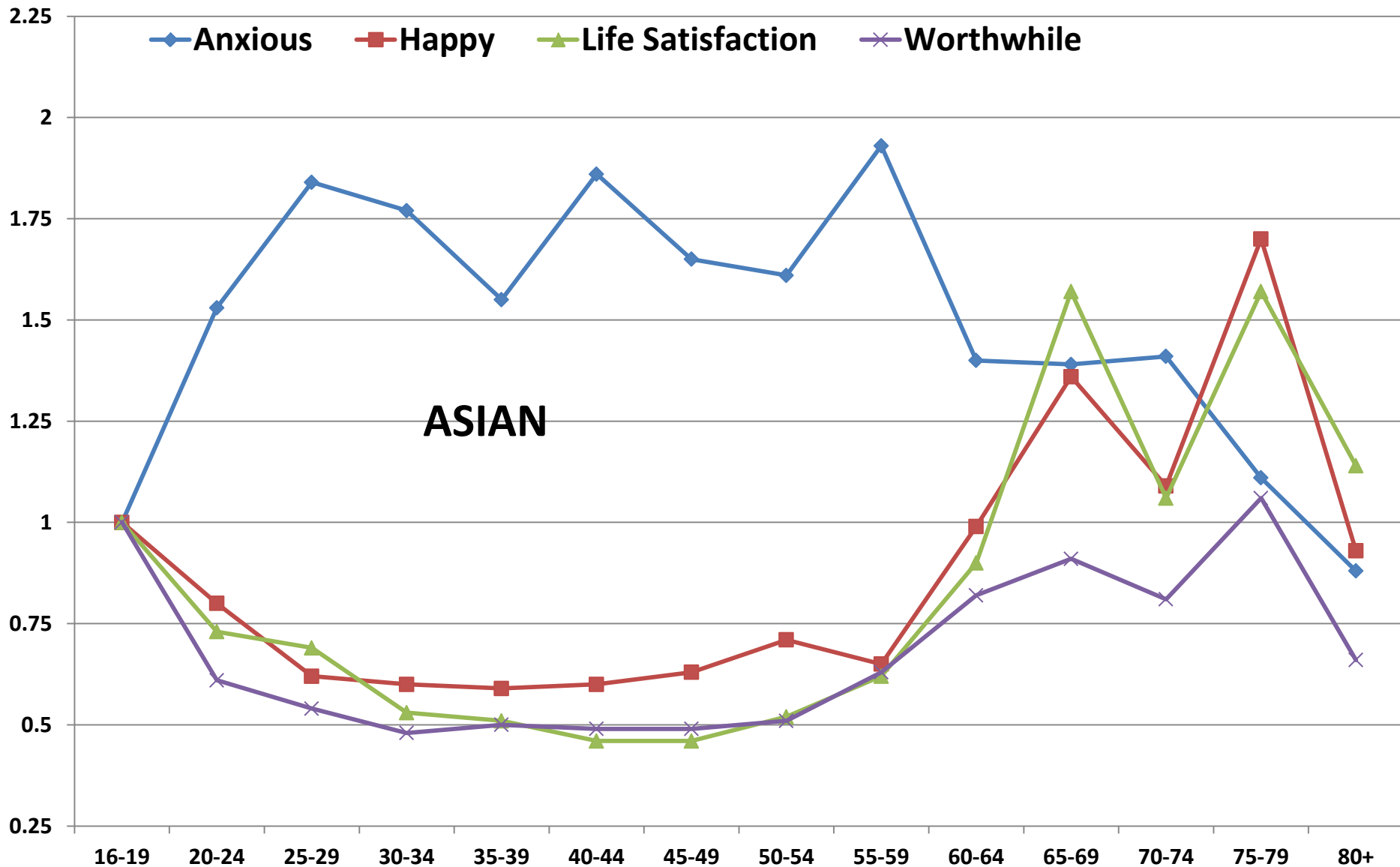
Life-cycle effects on wellbeing of Black
(Odds Ratio after adjusting for All Variables)

Conclusion (1)

- Most BME have reported lower wellbeing than White people.

- After adjustment for demographic, social, health, economic and contextual factors, wellbeing among BME continued to remain lower than White majority.

- Health is the key determinant of wellbeing for all ethnic groups. Smokers have most negative experience. Wellbeing in People with chronic conditions didn't differ much.

- Stage in life cycle is important – older people feel life has been worthwhile

- Economic conditions influence wellbeing. Less economically successful groups (mainly BME) have lower scores on wellbeing.

- Income turned out to be a weak predictor of Happiness and Wellbeing

- After health status and demographics, Ethnicity is key determinant of Life Satisfaction and Worthwhile whereas Deprivation is the least

Conclusion (2)

- Fewer determinants of wellbeing in Black and Asian ethnicity compared to White (their rankings also differs)

- Residents of London (followed by West Midlands) have lower worthwhile and lower life satisfaction scores than other regions/countries (after controlling for other variables in regressions).

- Northern Ireland residents display the highest scores on wellbeing.

- Black-African people have low satisfaction. Perhaps because many arrived as asylum-seekers and other have not had work consistent with qualifications?

- Chinese people have low scores on worthwhile, even though their scores on other measures are more positive.

Limitations

- SOA codes for Northern Ireland were not provided … not linked with deprivation level (covering <2% of cases)

- ONS wellbeing variables do not measure at household or family level which is more appropriate for BME groups.

- ONS Survey is conducted in English Language thus restrict participation of people Who don't know English language.

- Ethnic group classification does not distinguish the 3 Black groups at the UK level so does other White minorities (As a result we have not seen wide disparities between 11 vs. 18 ethnic groups for England).

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