

# Explaining differences in health between Scotland and key post- industrial European regions

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Glasgow Centre for Population Health/  
NHS Health Scotland

# A presentation in 3 parts

1. Introduction & background (DW)
2. Presentation of data (MT)
3. Relevance/importance of work, and links to other programmes of work (DW)

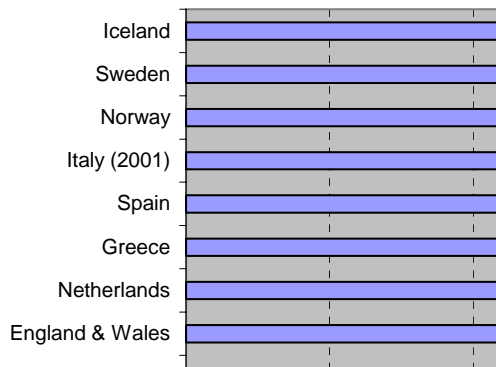
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WEDNESDAY 11 MAY 2005



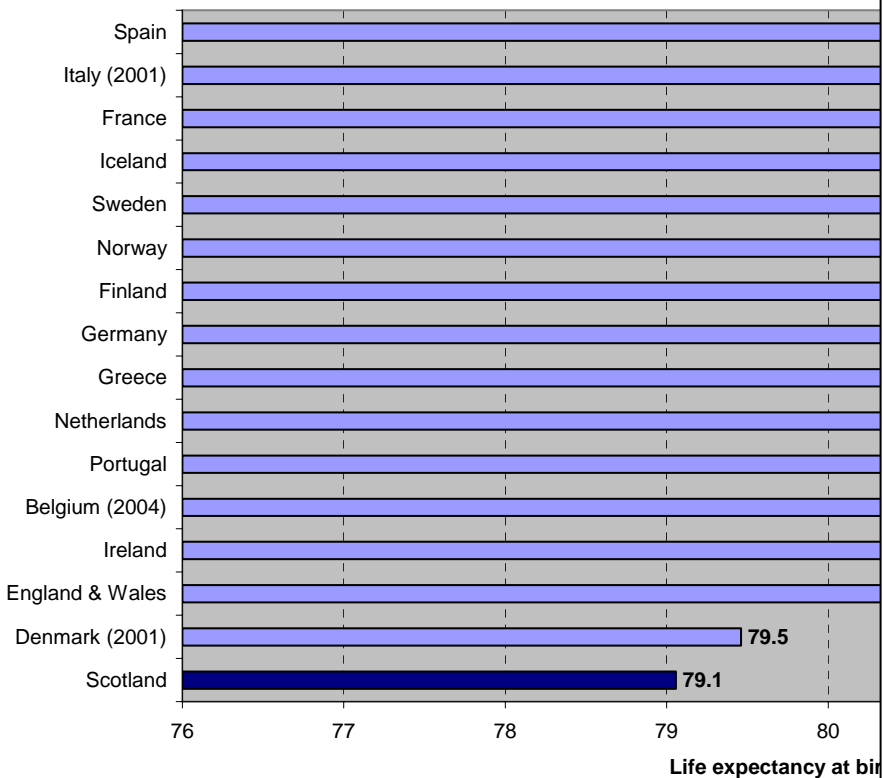
# Scotland

## Male life exp

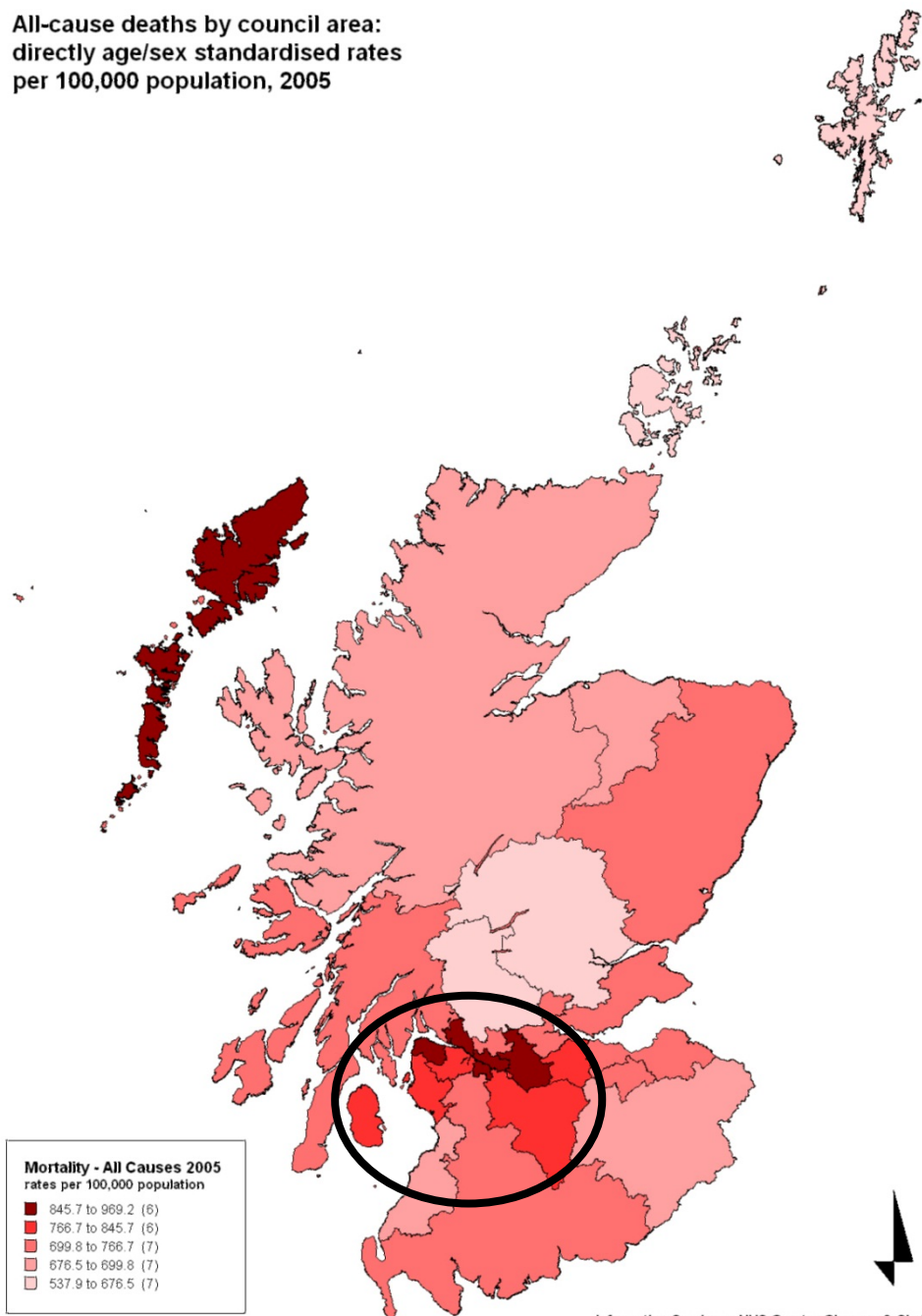


## Female life expectancy, 2002-2004, Western

Source: WHO;ONS



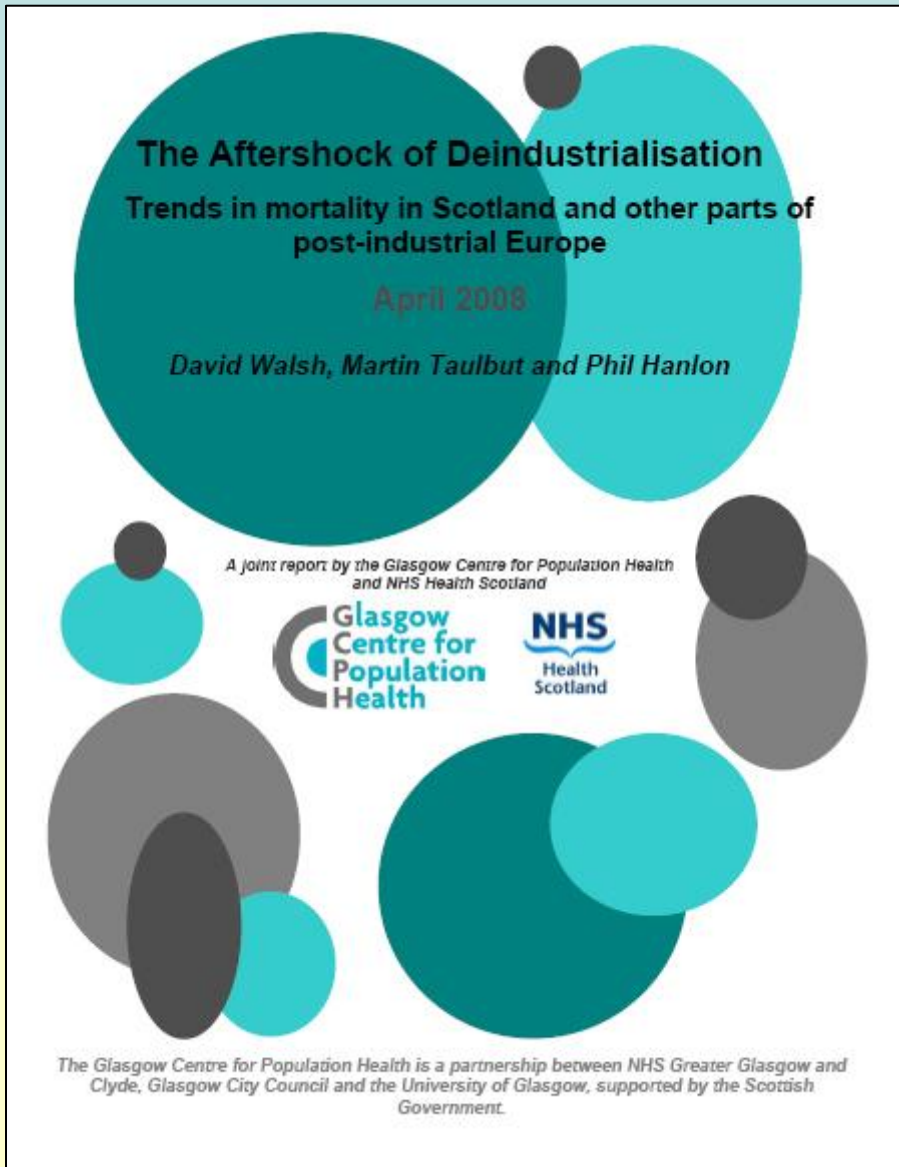
## All-cause deaths by council area: directly age/sex standardised rates per 100,000 population, 2005



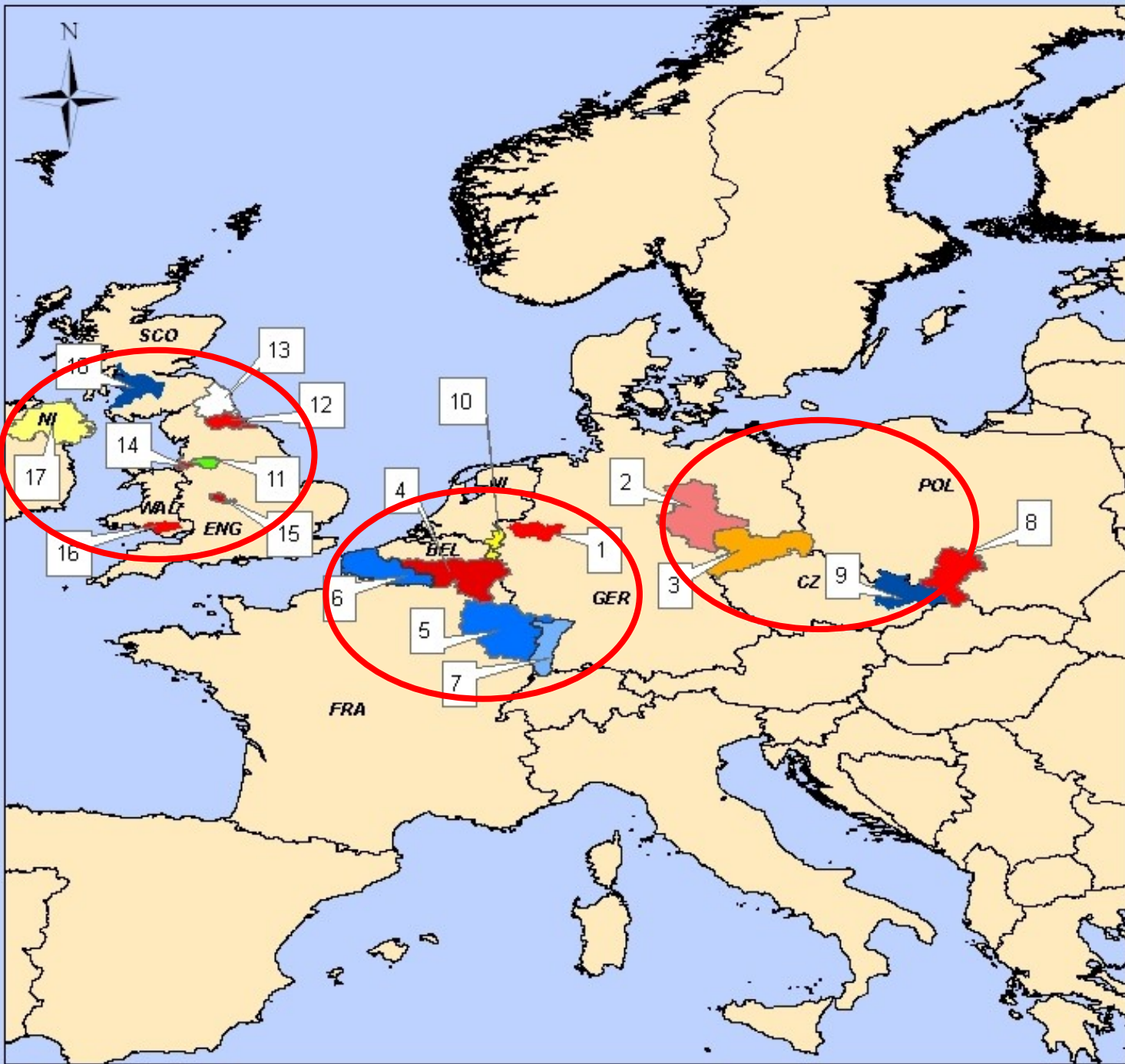
# Background

- Post-industrial decline (and associated factors) promoted as one of major reasons behind Scotland/WoS's poor health profile
- Begs question: how have other similarly deindustrialised regions fared?

# Project - Phase 1



- Identified 20 comparably deindustrialised regions in Europe
- Specific focus on 10 key regions
- Detailed analyses of long-term (20-25 years) mortality trends
- (Results published 2008)



1. Ruhr (D)
2. Saxony-Anhalt (D)
3. Saxony (incl. Chemnitz and Leipzig regions) (D)
4. Wallonia (B)
5. Lorraine (incl. Moselle) (F)
6. Nord-Pas-de-Calais (F)
7. Alsace (F)
8. Silesia (incl. Katowice) (P)
9. N. Moravia (Cz)
10. Limburg (NL)
11. Greater Manchester
12. Tees Valley & Durham
13. Northumb'd, Tyne & Wear
14. Merseyside
15. West Midlands
16. Swansea & S. Wales coalfields
17. N. Ireland
18. West of Scotland

# Phase 1 results

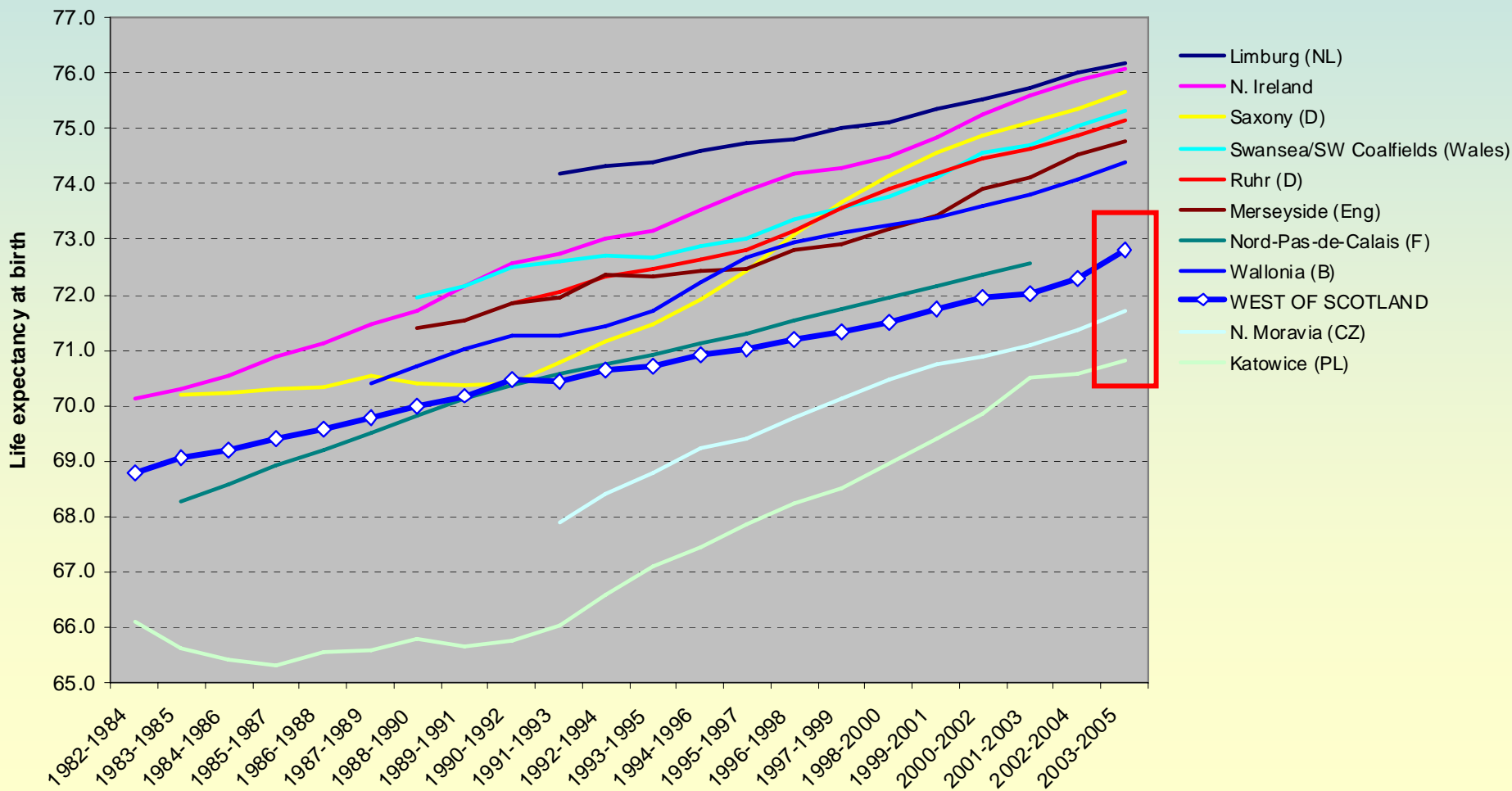
- Health of virtually all comparable European post-industrial regions was better and (NB) improving faster than Scotland/West of Scotland



# Phase 1 results

## Male life expectancy at birth, West of Scotland and ten post-industrial regions

Calculated from original source mortality and population data

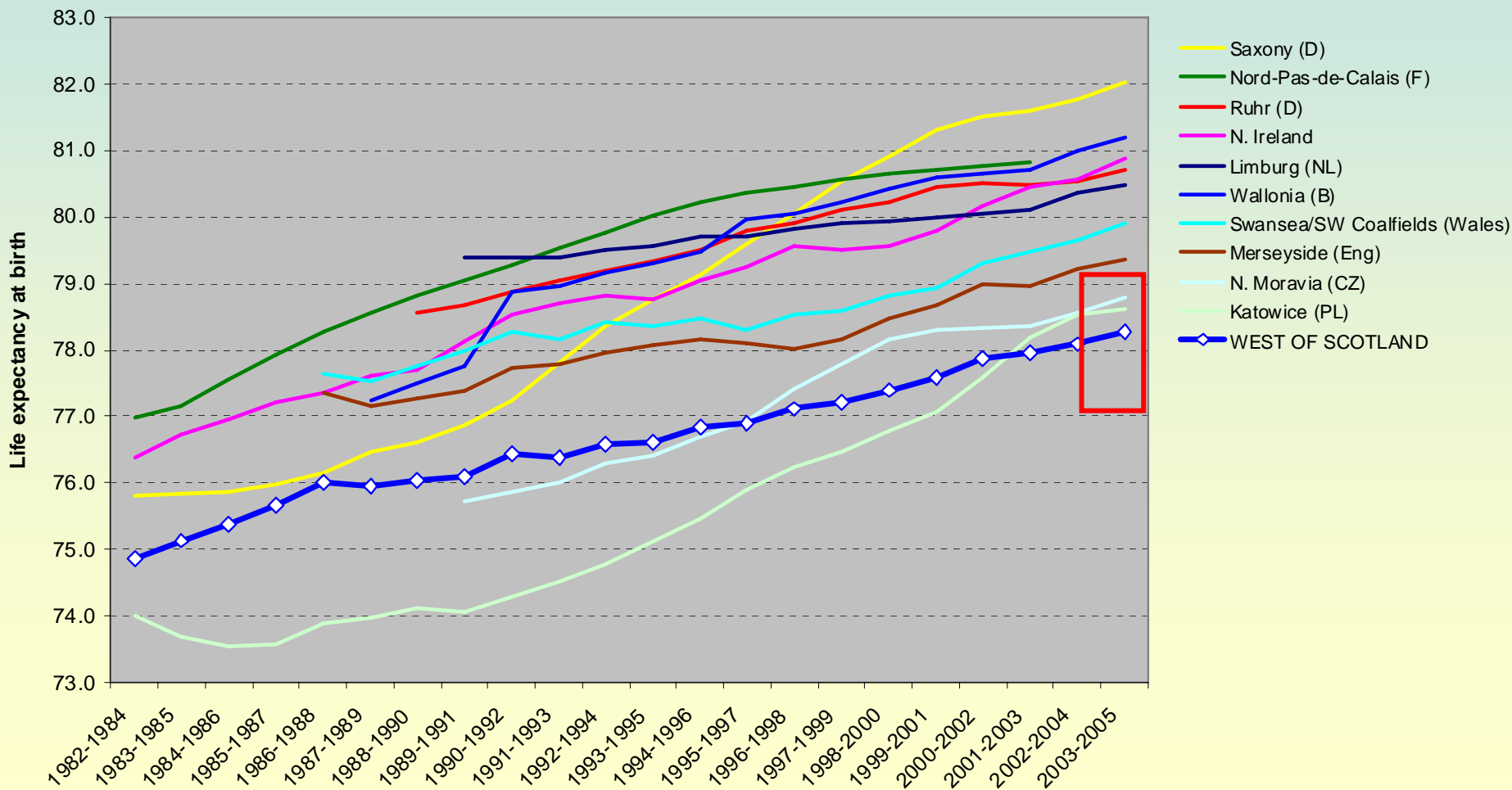




# Phase 1 results

## Female life expectancy at birth, West of Scotland and ten post-industrial regions

Calculated from original source mortality and population data - see Appendix 4 of report for details



# Phase 1 results

- Health of virtually all comparable European post-industrial regions was better and (NB) improving faster than Scotland/West of Scotland
- Trends driven especially by higher mortality in younger age groups (especially male) and middle-aged females
- Available data suggested most regions had worse socio-economic profiles than WoS
  - ‘though difficult to be sure because of limitations in data etc

# Phase 2

- To investigate differences in key health determinants...
- ...across 10 regions where possible
- But with specific focus on:
  - Ruhr (Germany)\*
  - Nord-Pas-de-Calais (France)\*
  - Northern Moravia (Czech Republic)\*
  - Katowice/Silesia (Poland)
  - And also Merseyside (England)

\* 'partner' regions

# Difficult comparisons...

... for two reasons:

1. We are comparing WoS (an area with economic and social problems) with areas which have...economic and social problems
2. (Less interestingly) real problems in comparability of data sets (including cultural differences)

# Difficult comparisons...

RE: Answers to your questions - Message (HTML)

File Edit View Insert Format Tools Actions Help

Reply Reply to All Forward

You replied on 27/07/2009 11:17.

From: [redacted] Sent: Thu 25/06/2009 09:40

To: [redacted]

Cc:

Subject: RE: Answers to your questions

Dear David,

in the attached file there are some data about registered job applicants and ascertained offences from Mrs. Benešová from CSU.

Data about ascertained offences are available only from 1991 and until 1990 there were no job applicants because of the cummunism in the Czech Republic. Do you know anything about it? Everyone has to be employed. If anybody had not work, he was considered to be an enemy of the republic and had to go to the prison :-)

# Today's presentation

- A very, very, very, very, very, very, very small amount of the data collected and analysed...
- ..to show an overview for all 10 regions (comparable data)...
- ..plus a few illustrative examples from 'case studies' (Ruhr, Nord-Pas-de-Calais etc)

# Key questions

- Is the answer ‘just deprivation’?
- Do any other ‘themes’ emerge strongly from the data?



# Overview

## 10-Region comparisons

- Income & life expectancy
- Subjective health
- Prosperity
- Social environment
- Physical environment
- Maternal & child health
- Health behaviours
- Social capital

..... v West of Scotland/Greater  
Glasgow (& Clyde)

# Overview

## 10-Region comparisons

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## Case study insights

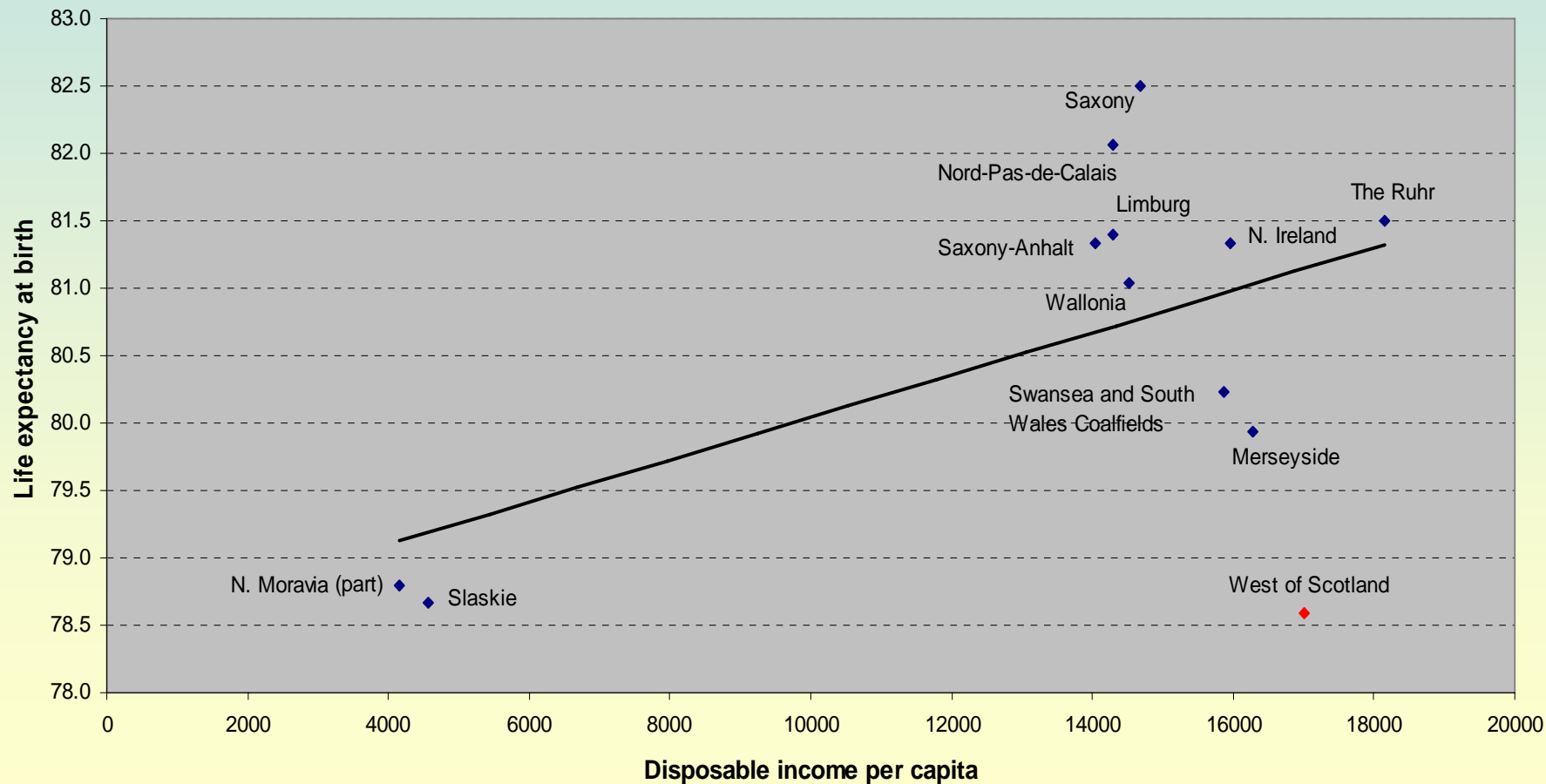
- Katowice/Slaskie (Polish Silesia)
- Nord-Pas-de-Calais
- The Ruhr
- Northern Moravia

....using West of Scotland  
CHP/appropriate sub-regions

# Income & life expectancy - women

Disposable income per capita (in Euros) and female life expectancy, selected European post-industrial regions: 2004-06

Sources: Eurostat; ONS; GROS



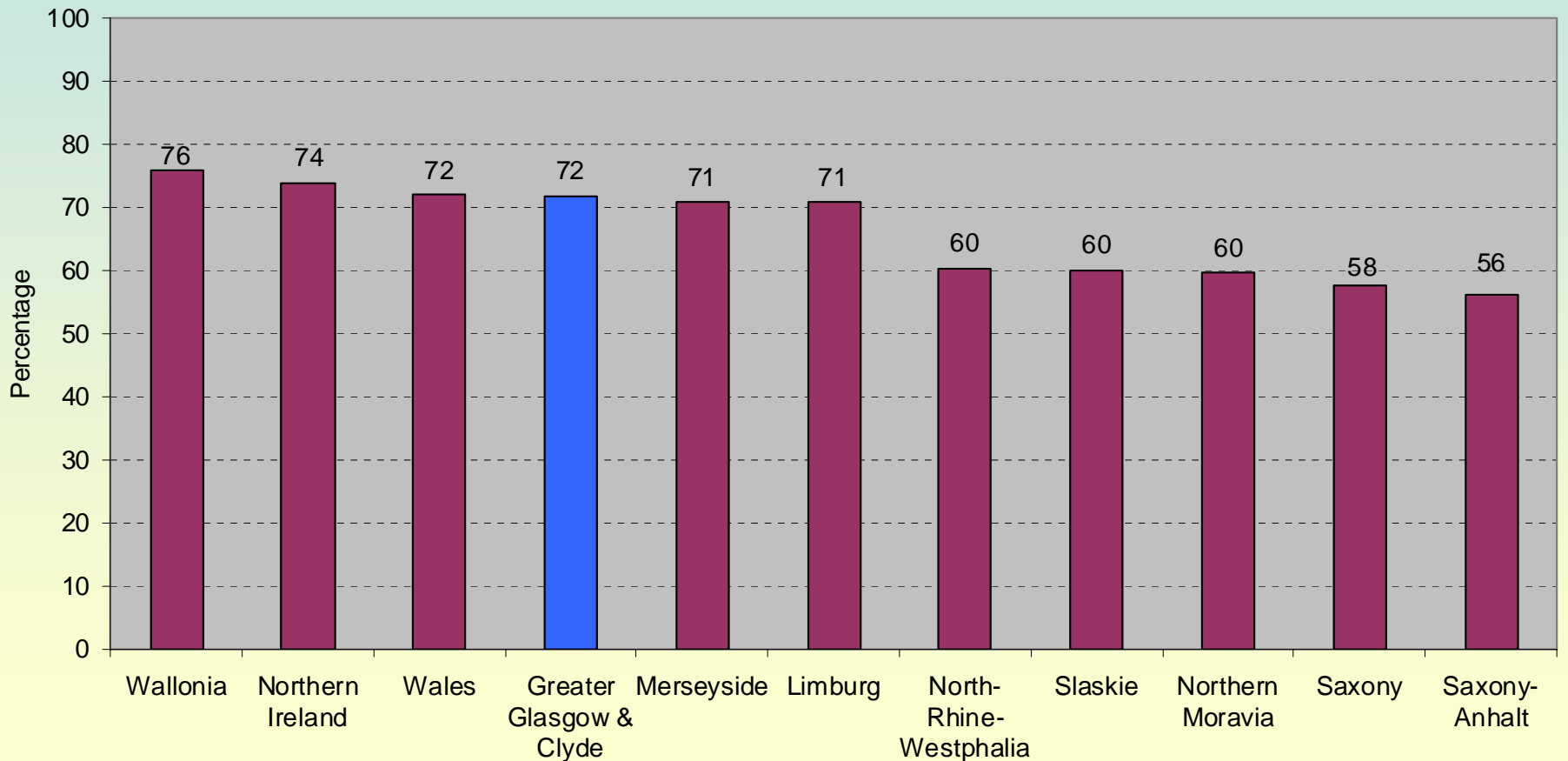
# Subjective health

- Self-reported general health (very good/good)
- Life satisfaction (0-10)

# Subjective health – self-reported health

## Percentage of adults rating their general health as very good/good

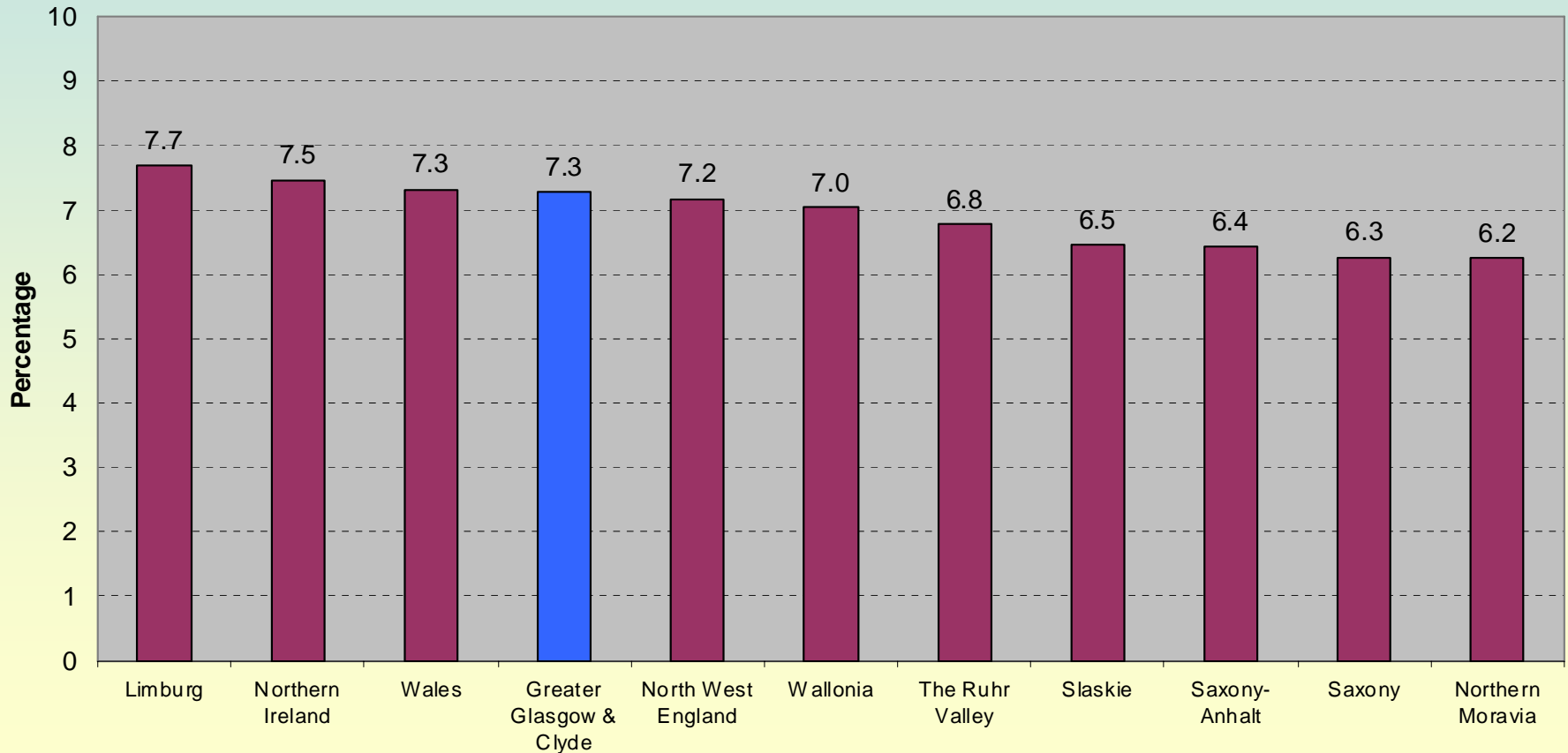
Sources: European Social Survey Rounds 1-4; SHeS 2008; NI Health and Social Wellbeing Survey 2005-06; Health Surveys for England - National Centre for Social Research 2005-07



# Subjective health – life satisfaction

Mean life satisfaction score (0-10), c. 2002-2009

Sources: European Social Survey Rounds 1-4; Scottish Health Survey 2008; German Socio-Economic Panel



# Prosperity

- Unemployment trends
- Employment rates (men/women)
- Perceived adequacy of h'hold income
- Case Study: Polish Silesia

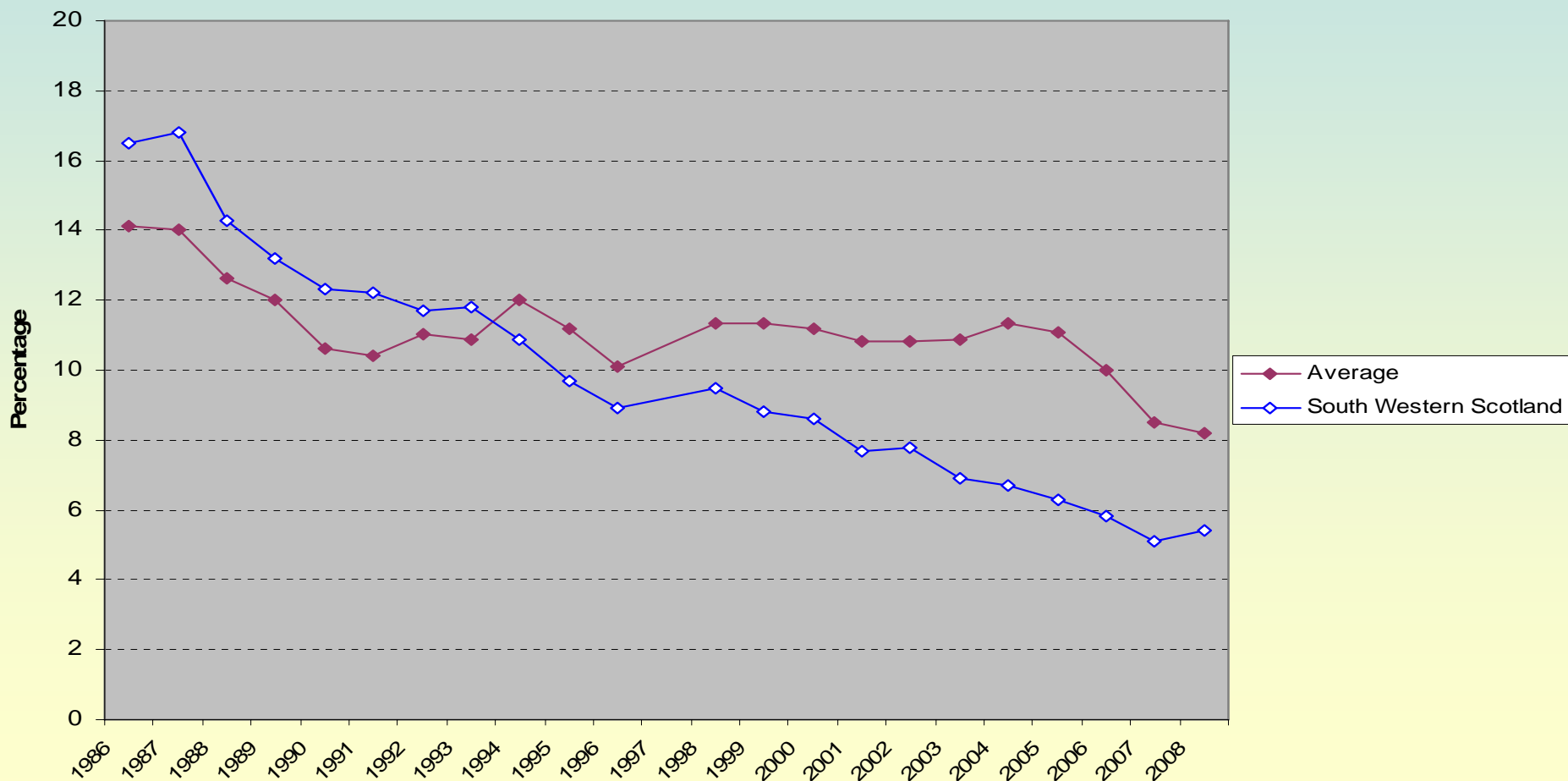


# Prosperity - unemployment

**Adult unemployment rates, 1986-2008 (\*)**

Sources: Overman and Puga (2002); Eurostat; Czech Statistical Office; Central Statistical Office of Poland

(\*) As % of economically active population

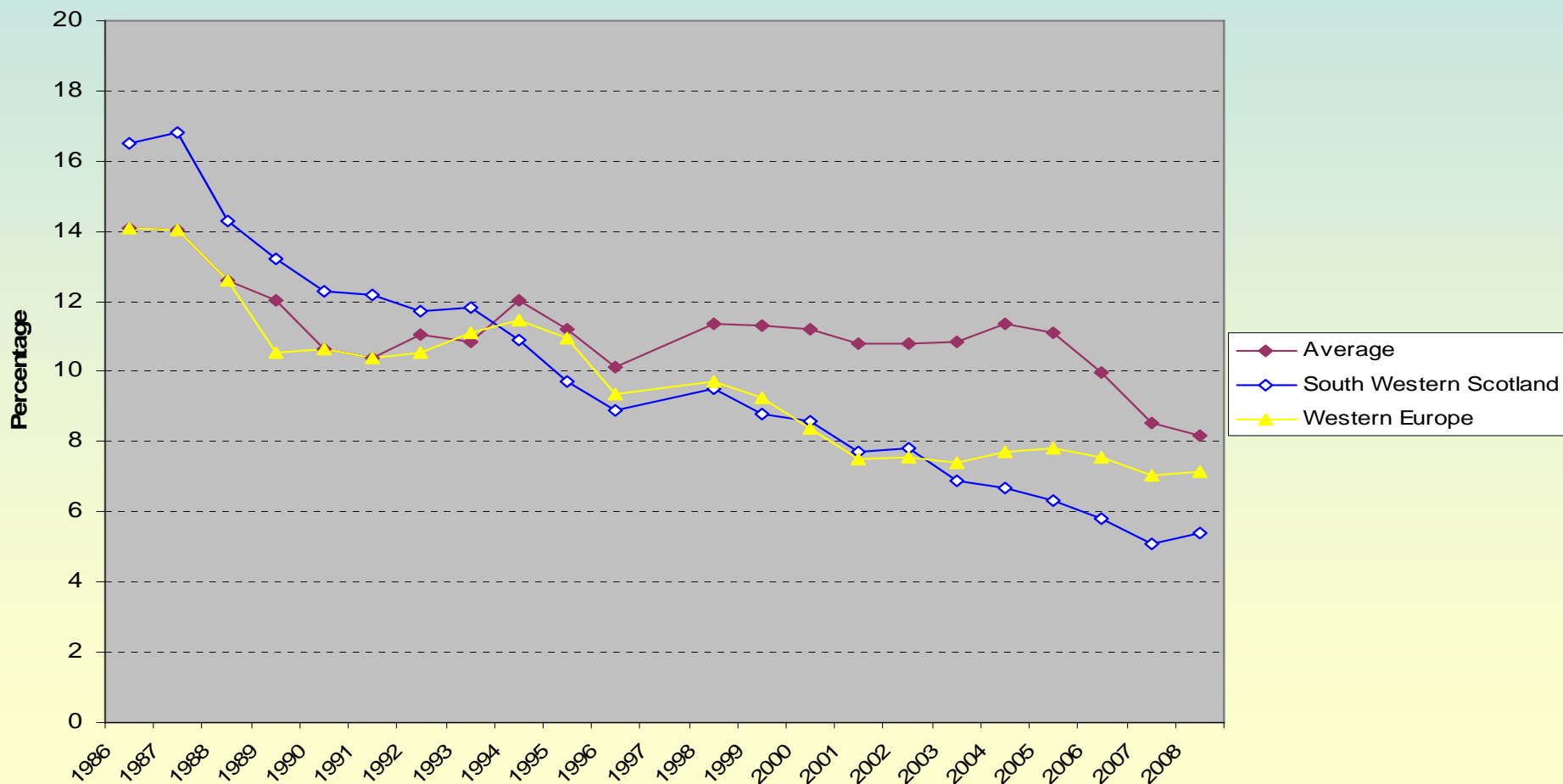


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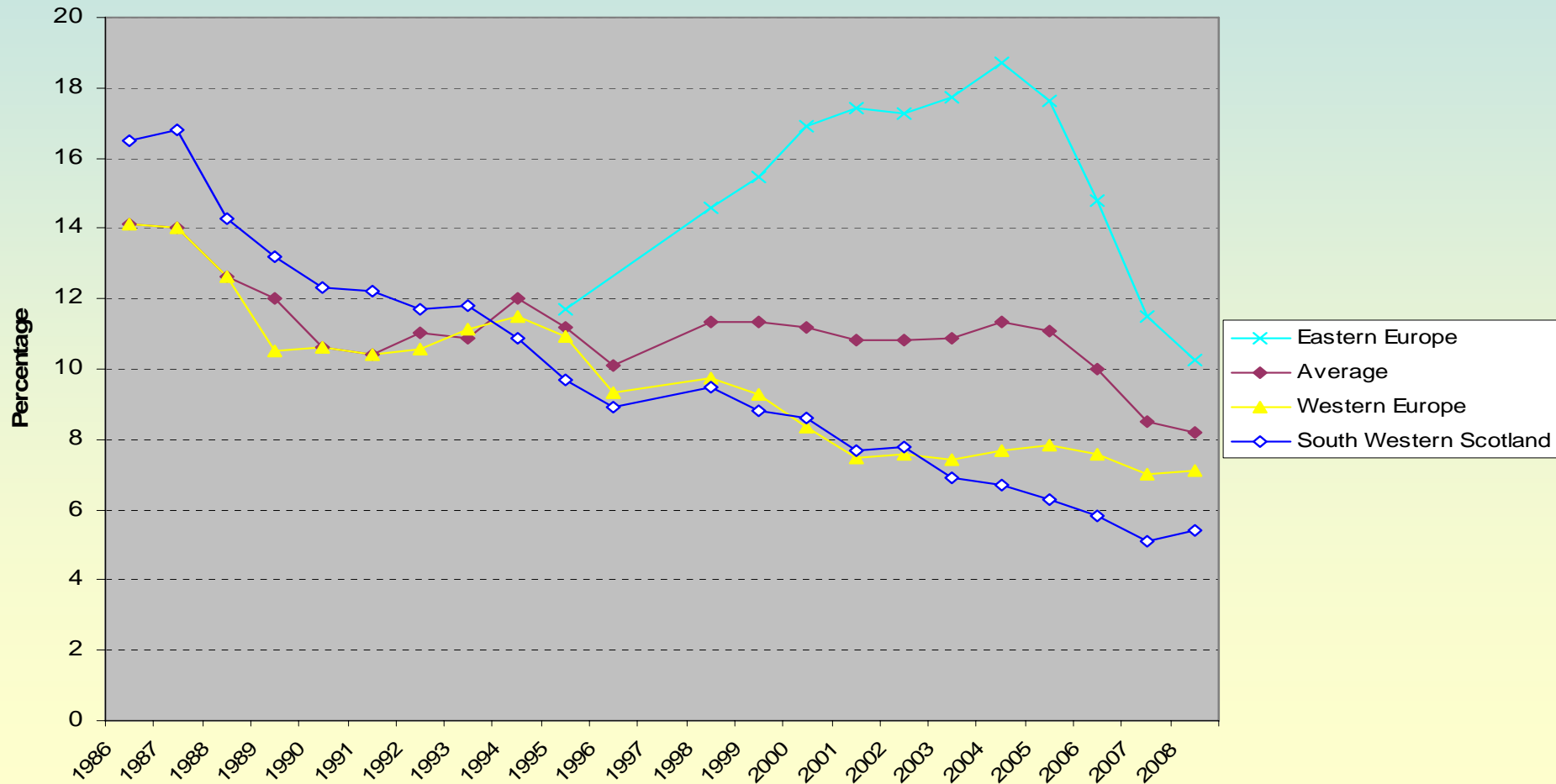


# Prosperity - unemployment

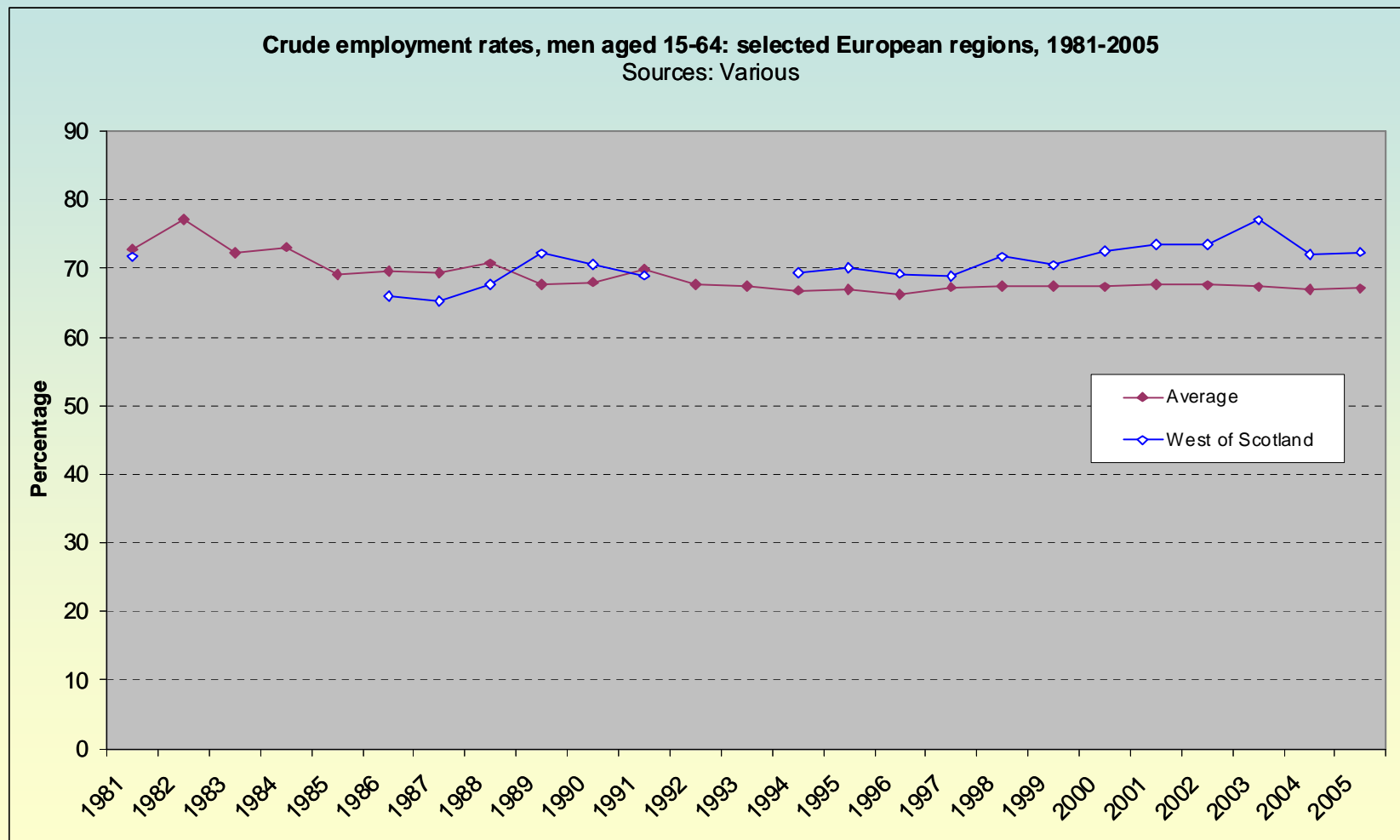
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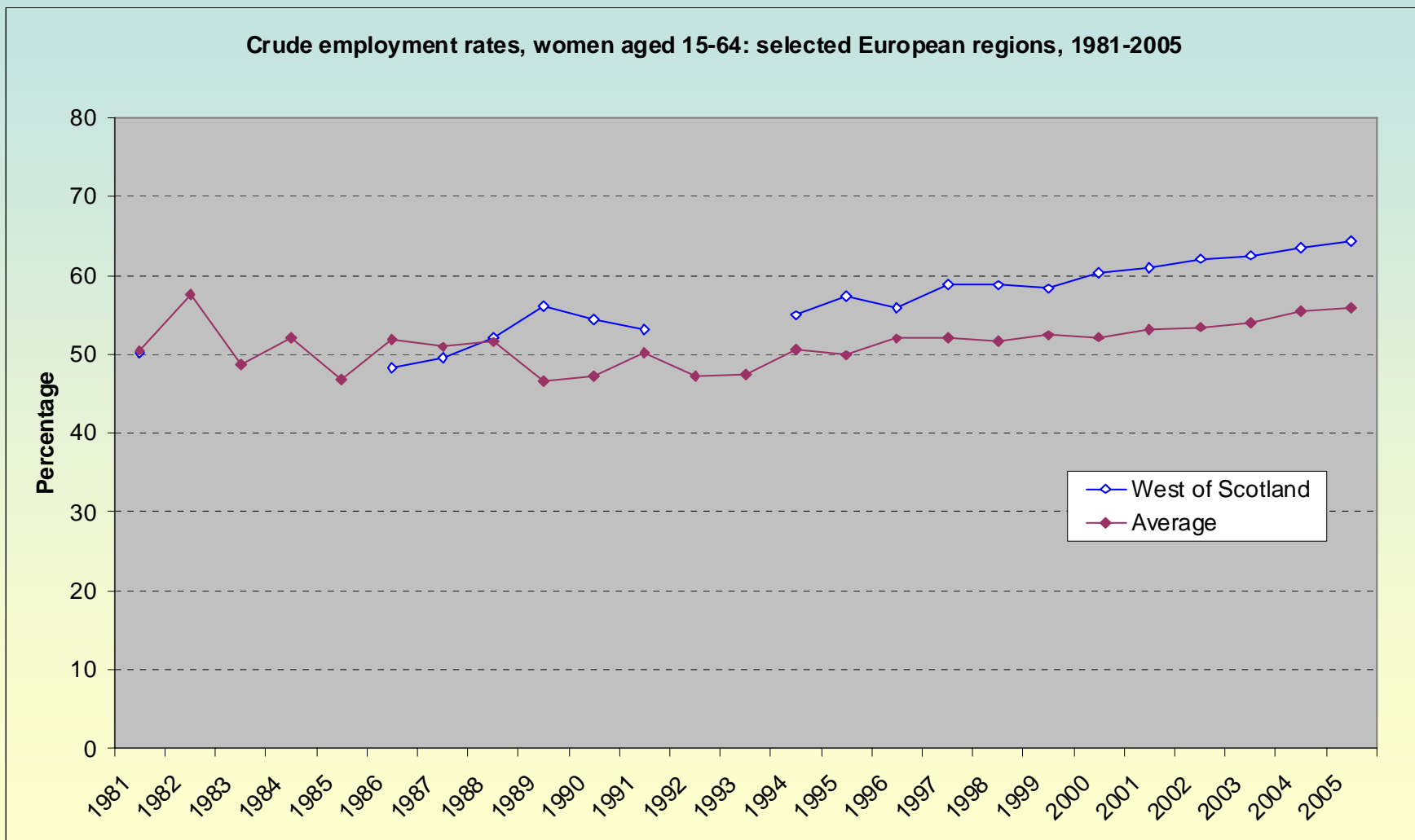
(\*) As % of economically active population



# Prosperity – male employment



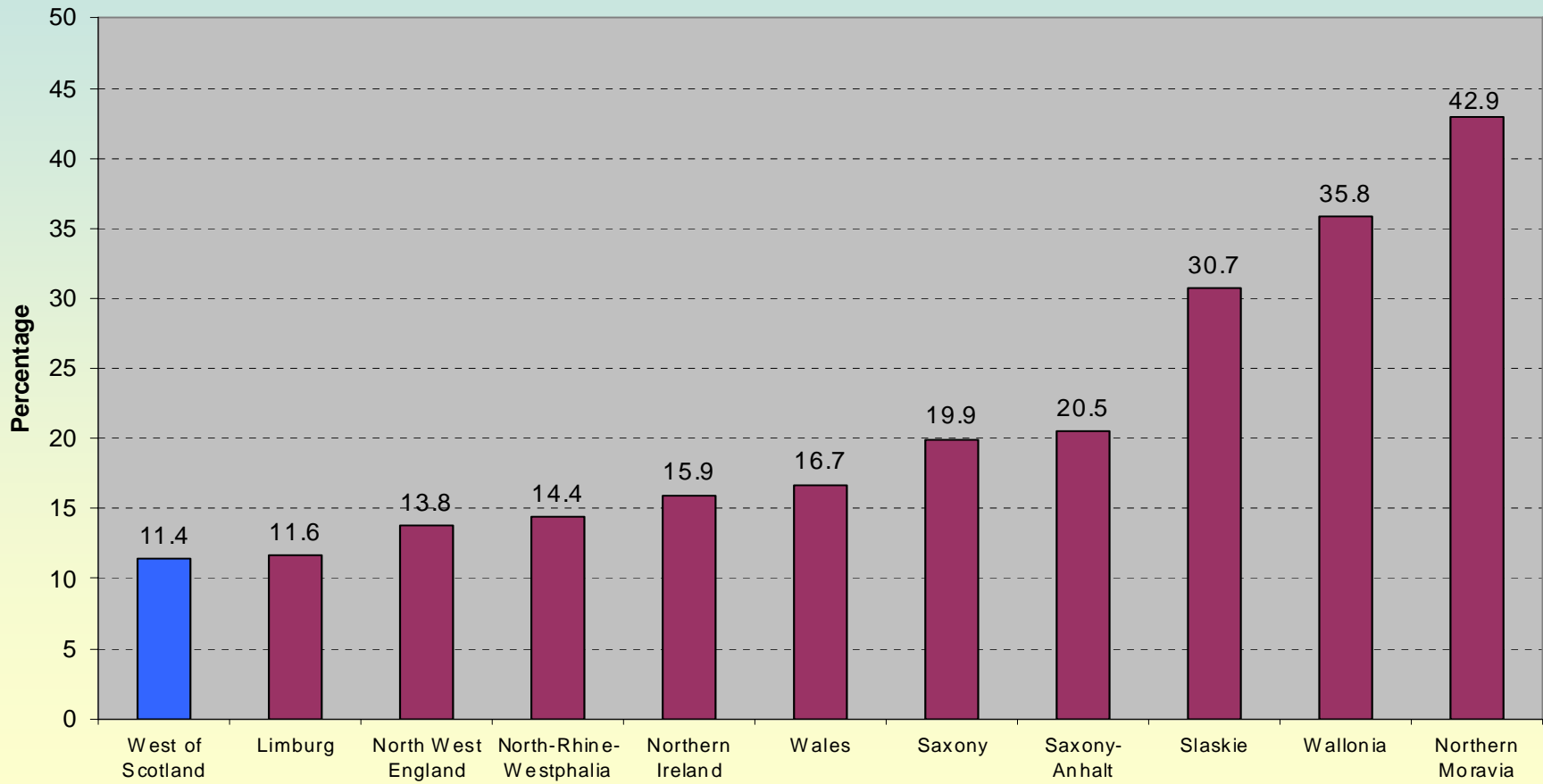
# Prosperity – female employment



# Prosperity – perceived income

Percentage of adults who find it difficult to manage on household income nowadays

Sources: European Social Survey Rounds 1-4; Scottish Social Attitudes Survey 2007



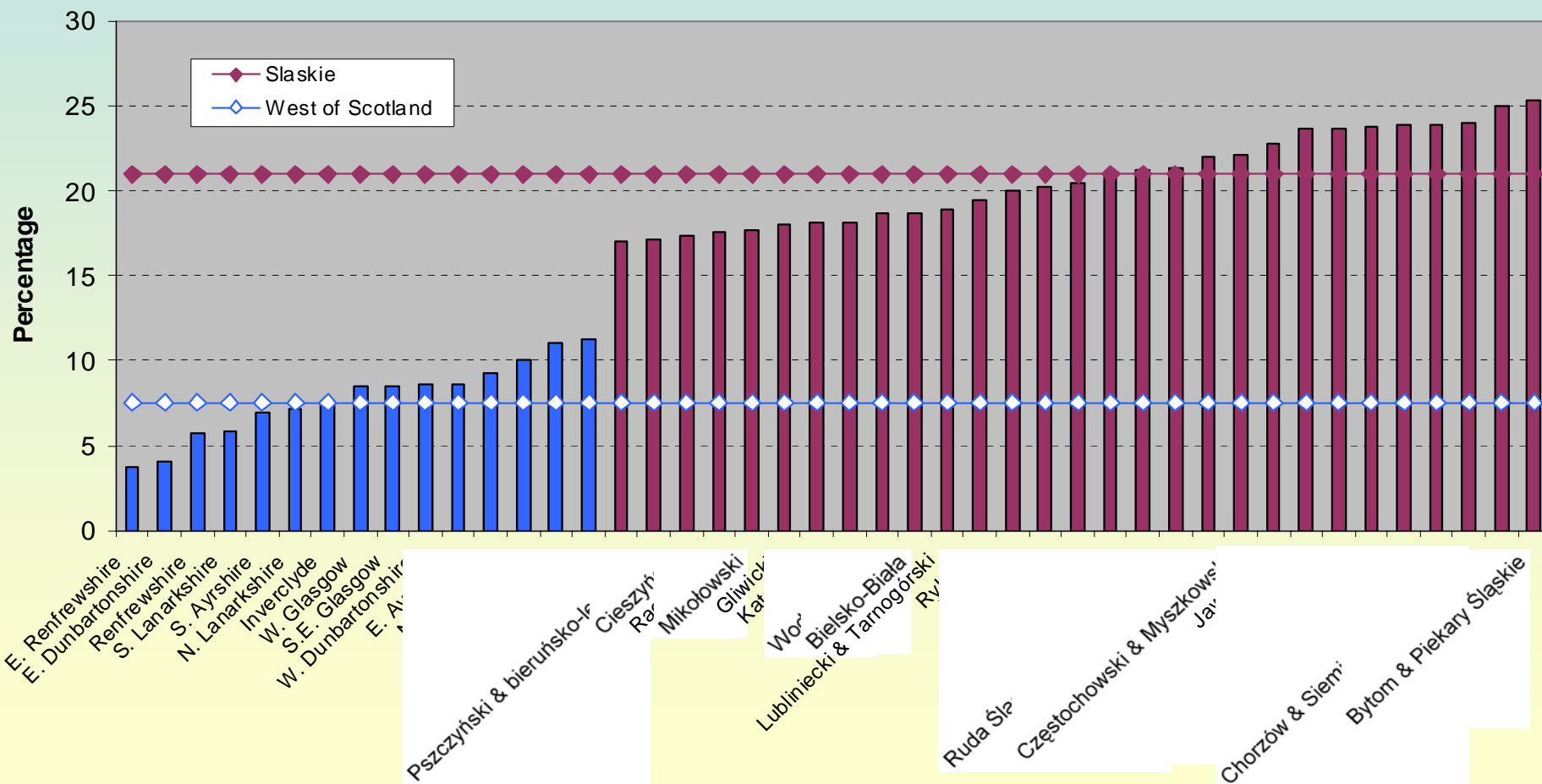
# Case study: Polish Silesia

- Unemployment standard measure of labour market participation
  - Both UK & Poland have high % of population aged 20-64 in receipt of disability benefits



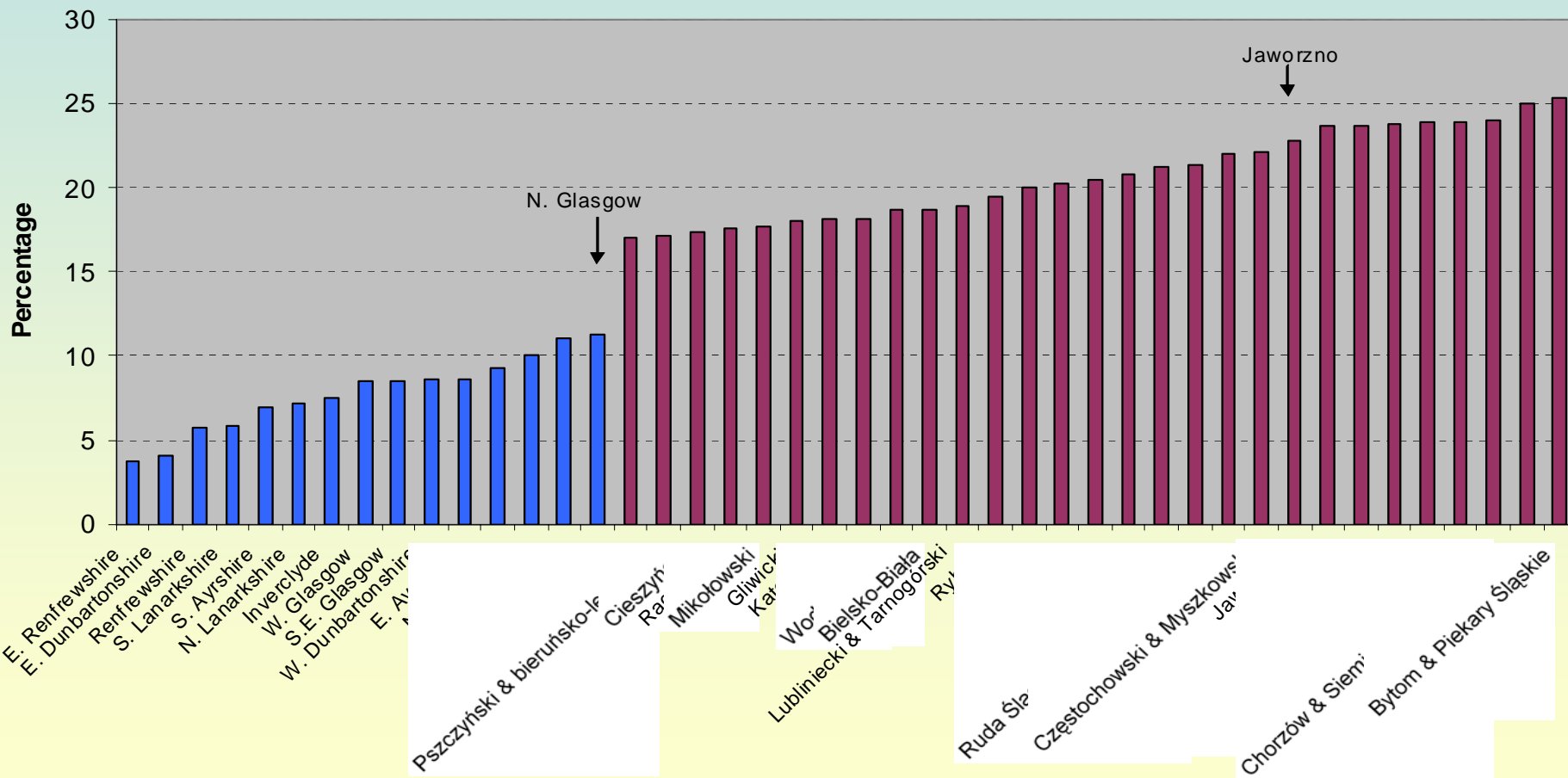
# Polish Silesia v West of Scotland - unemployment

**Unemployed as % of economically active population: 2001/02**  
**West of Scotland CH(C)Ps and Slaskie powiats/merged powiats**  
 Sources: 2001 Census of Population; Population and Housing Census 2002



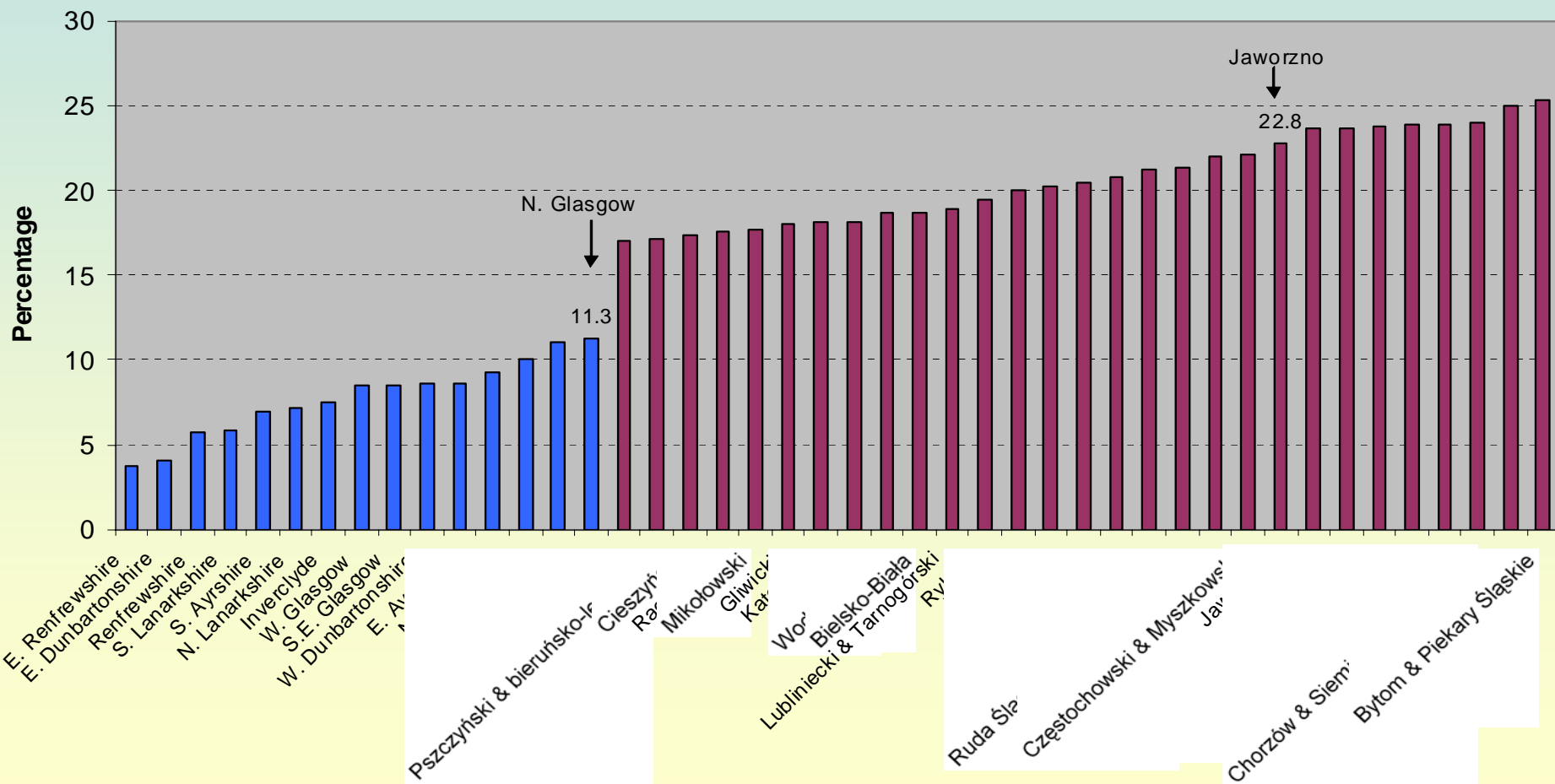
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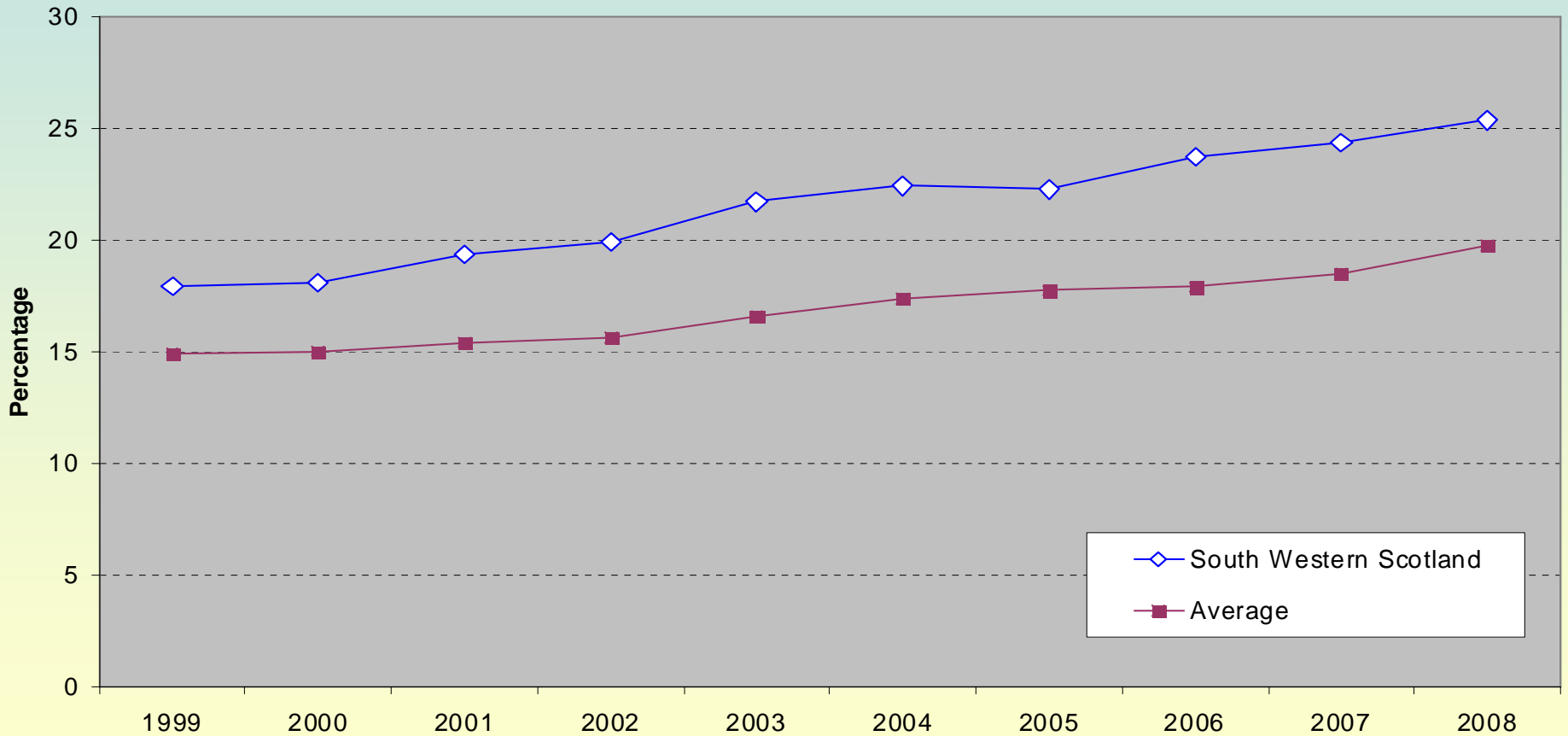
# Social environment

- Educational attainment
  - % adults with tertiary level qualifications
  - % adults with low/no qualifications (< ISCED Level 3)
- Single person h'holds

# Social env. – educational attainment

Percentage of adults with tertiary level qualifications, selected European regions

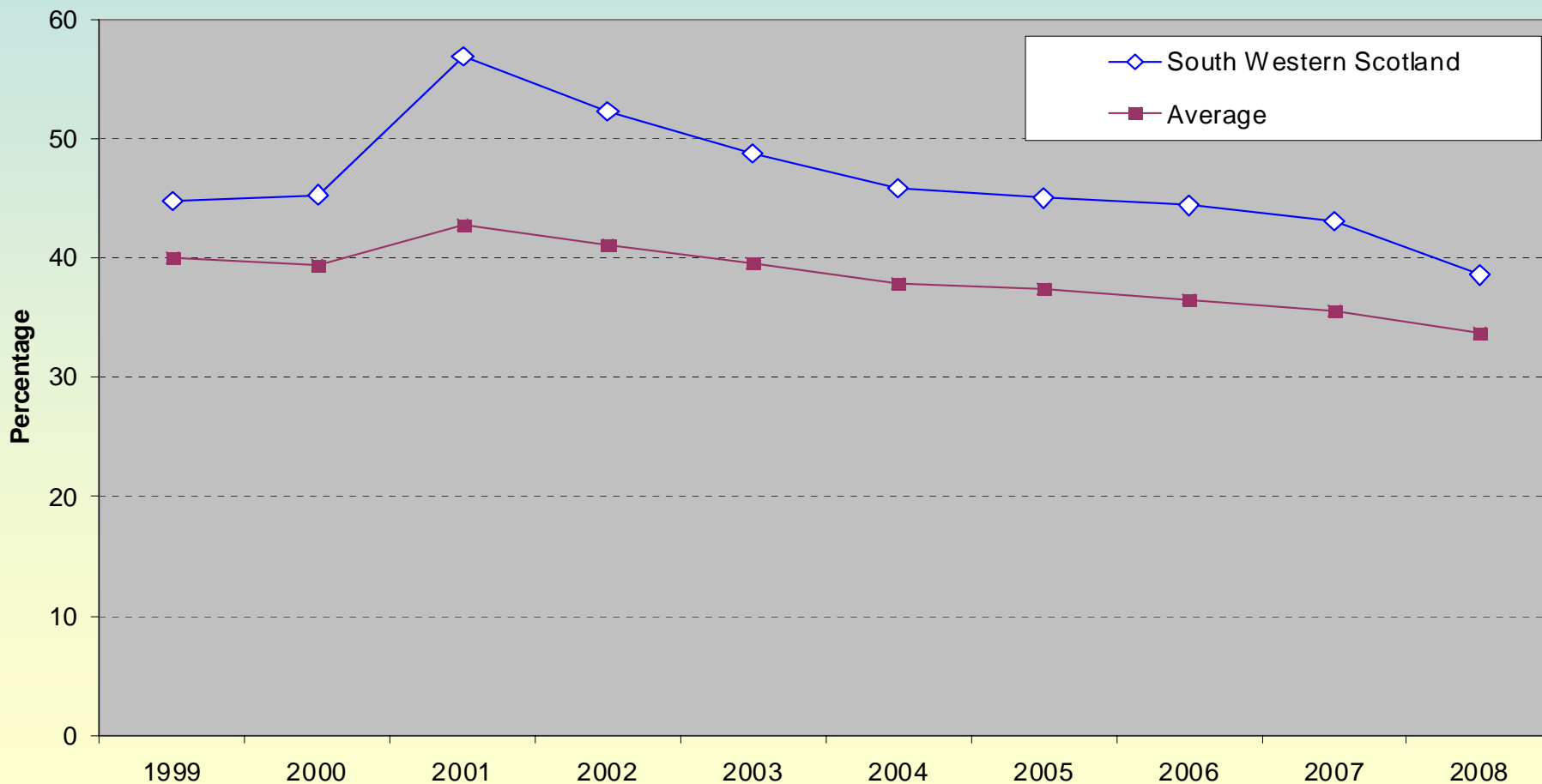
Sources: Eurostat



# Social env. – educational attainment

Percentage of adults aged 15+ with <ISCED Level 3 qualifications, selected European regions

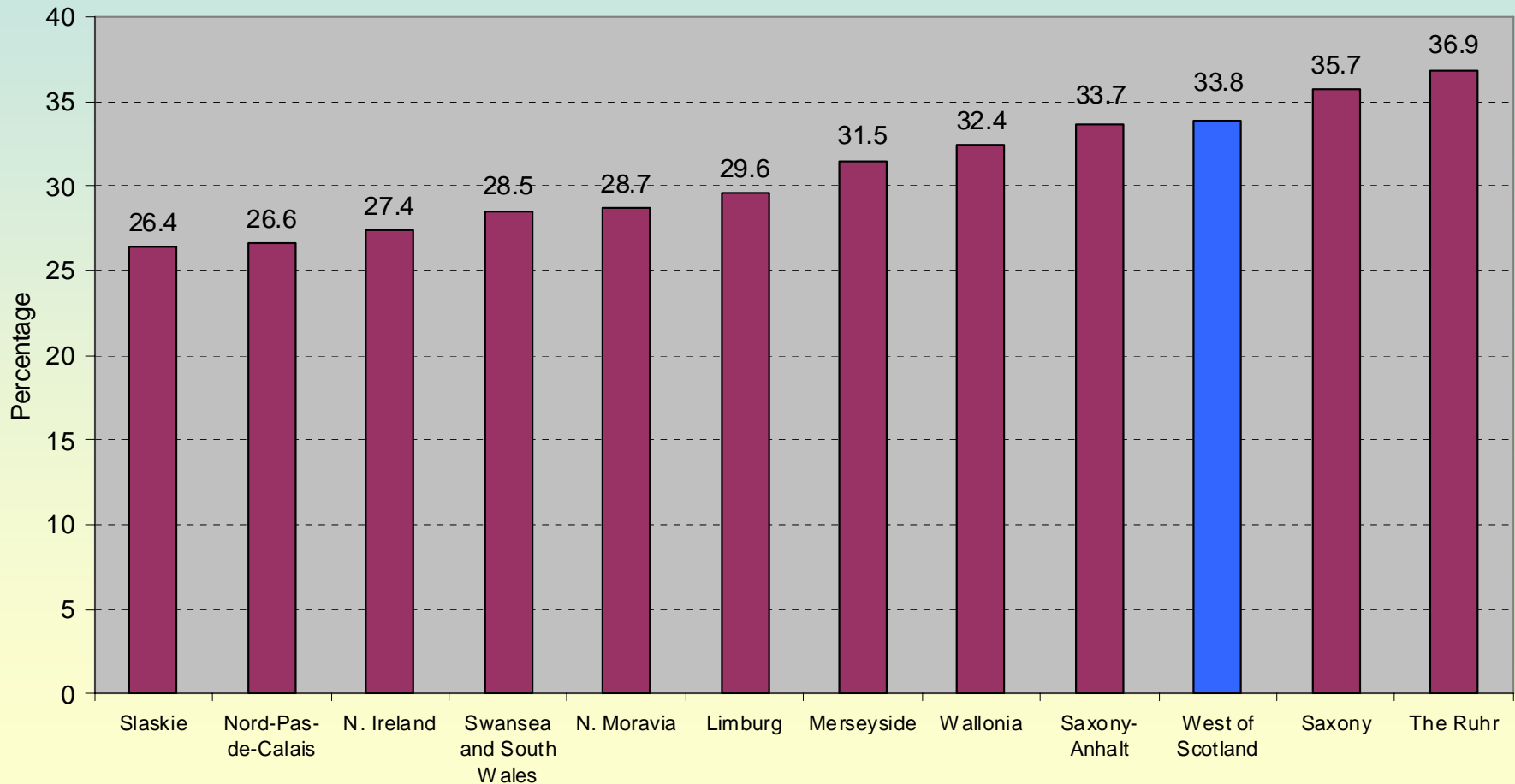
Source: Eurostat



# Social env. – single person h'holds

**Percentage of households that are single person households, 1999-2002**

Sources: Population Censuses; Urban Audit; Belgium Socio-economic Survey; German Microcensus

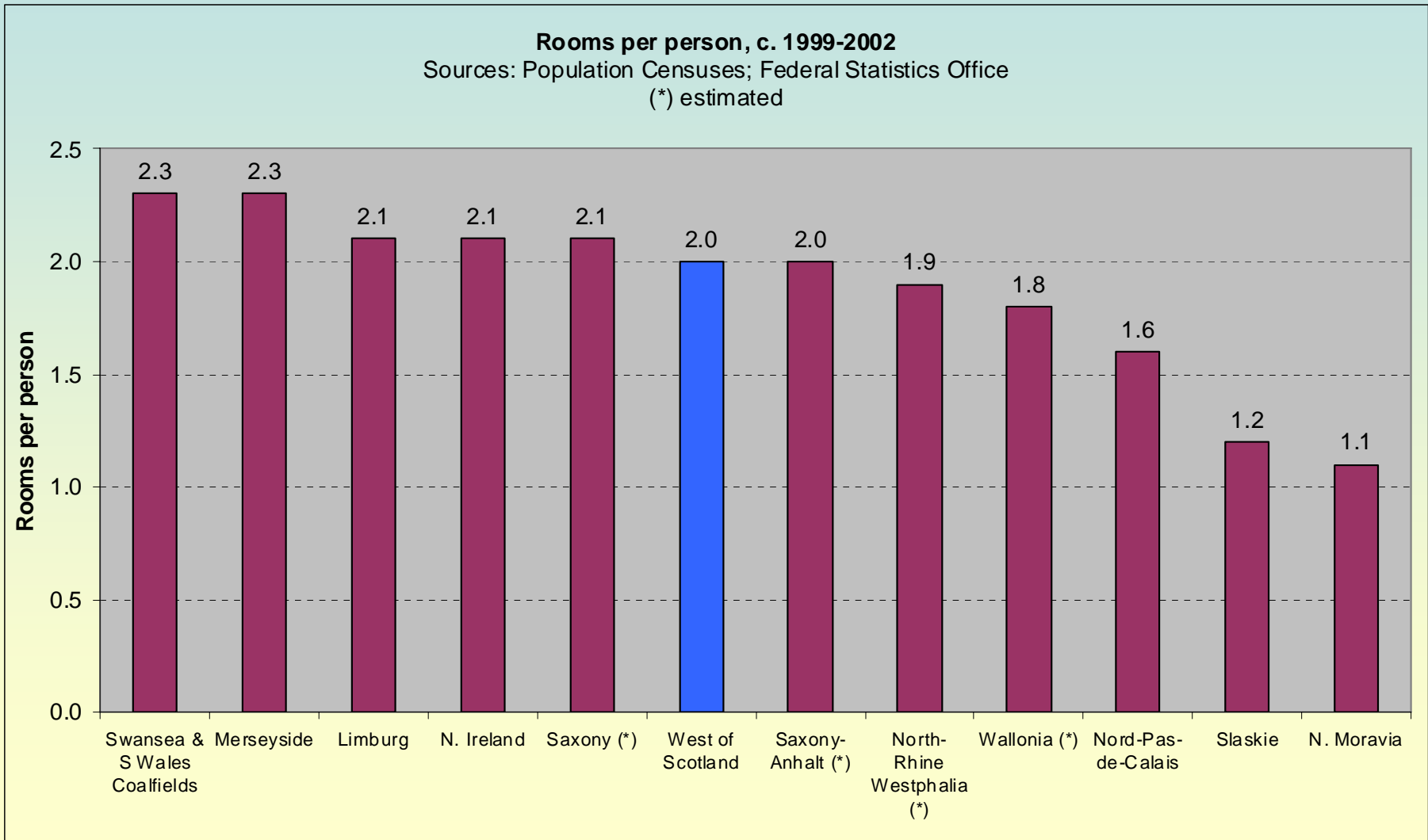




# Physical environment

- Rooms per person (overcrowding)
- Not owning home (renters)

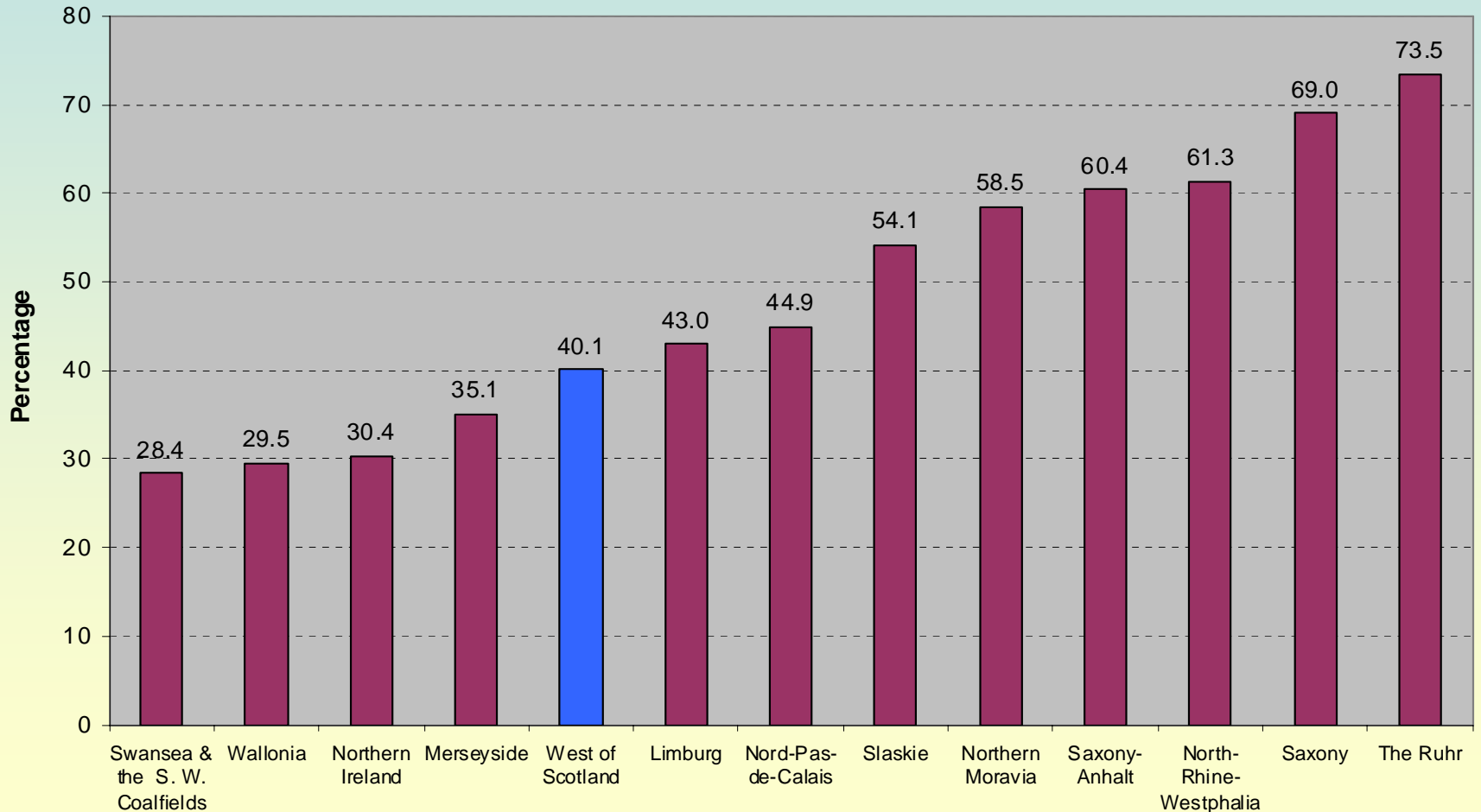
# Physical env. – rooms per person



# Physical env. – not owning own home

**Percentage of households not owning their own home, c. 1999-2002**

Sources: Urban Audit 2001; Population Censuses; German Micro-Census

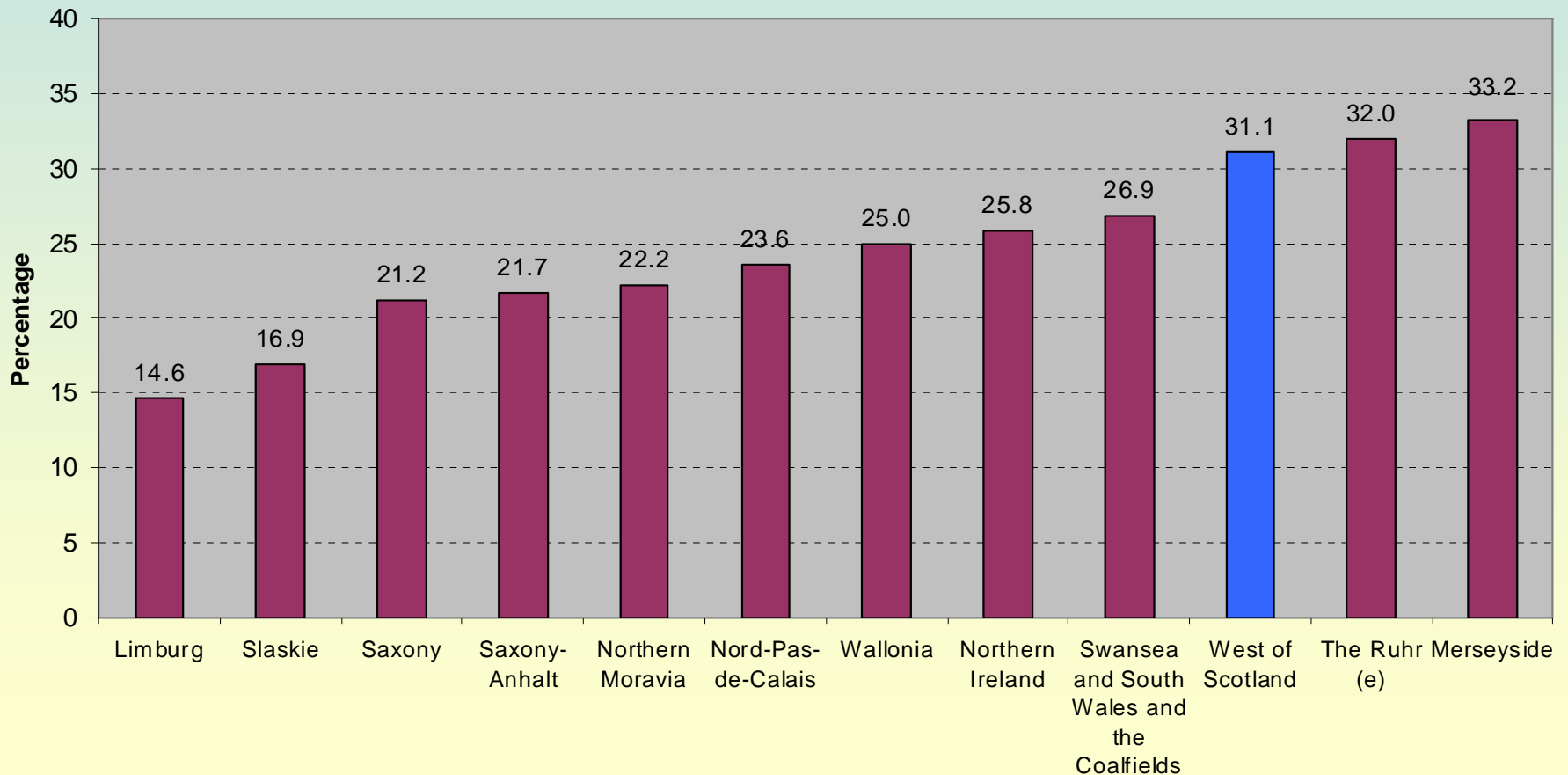


# Maternal & child

- Lone parent households
- Births to mothers < 20
- Case Study: the Ruhr

# Maternal & child – lone parent h'holds

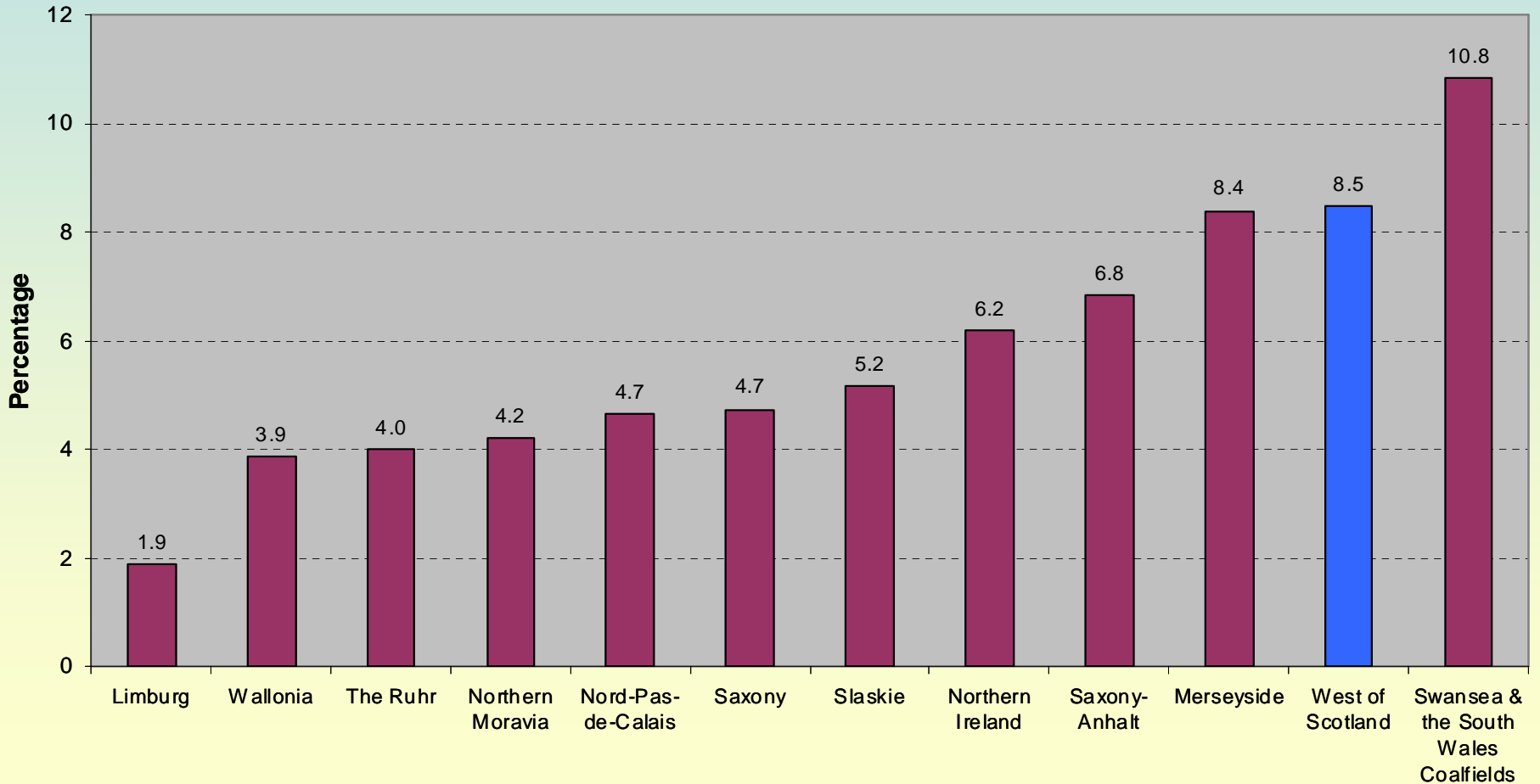
**Lone parent households, c. 1999-2002**  
 (Households with children headed by a lone parent as % of all households with children)  
 Sources: Population Censuses c. 2001; Adjusted Urban Audit data



# Maternal & child – births to mother <20

Percentage of births to mothers aged < 20: 2005-06

Sources: Eurostat; SMR02 ISD Scotland; Czech Statistical Office Regional Yearbooks

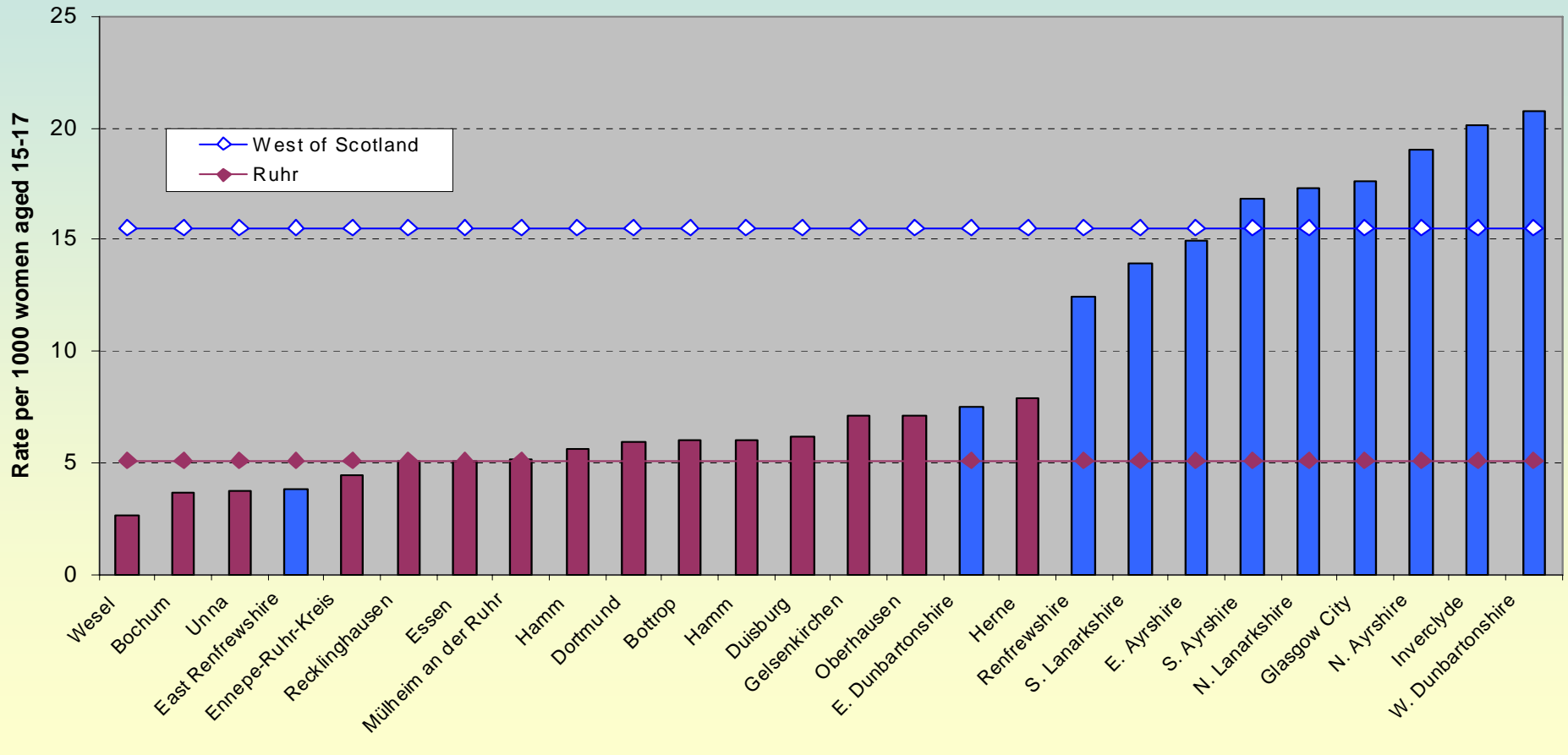


# Case Study: the Ruhr

- Can compare mothers  $< 18$  in the Ruhr and West of Scotland

# Ruhr v West of Scotland – mothers aged 15-17 (per 1000)

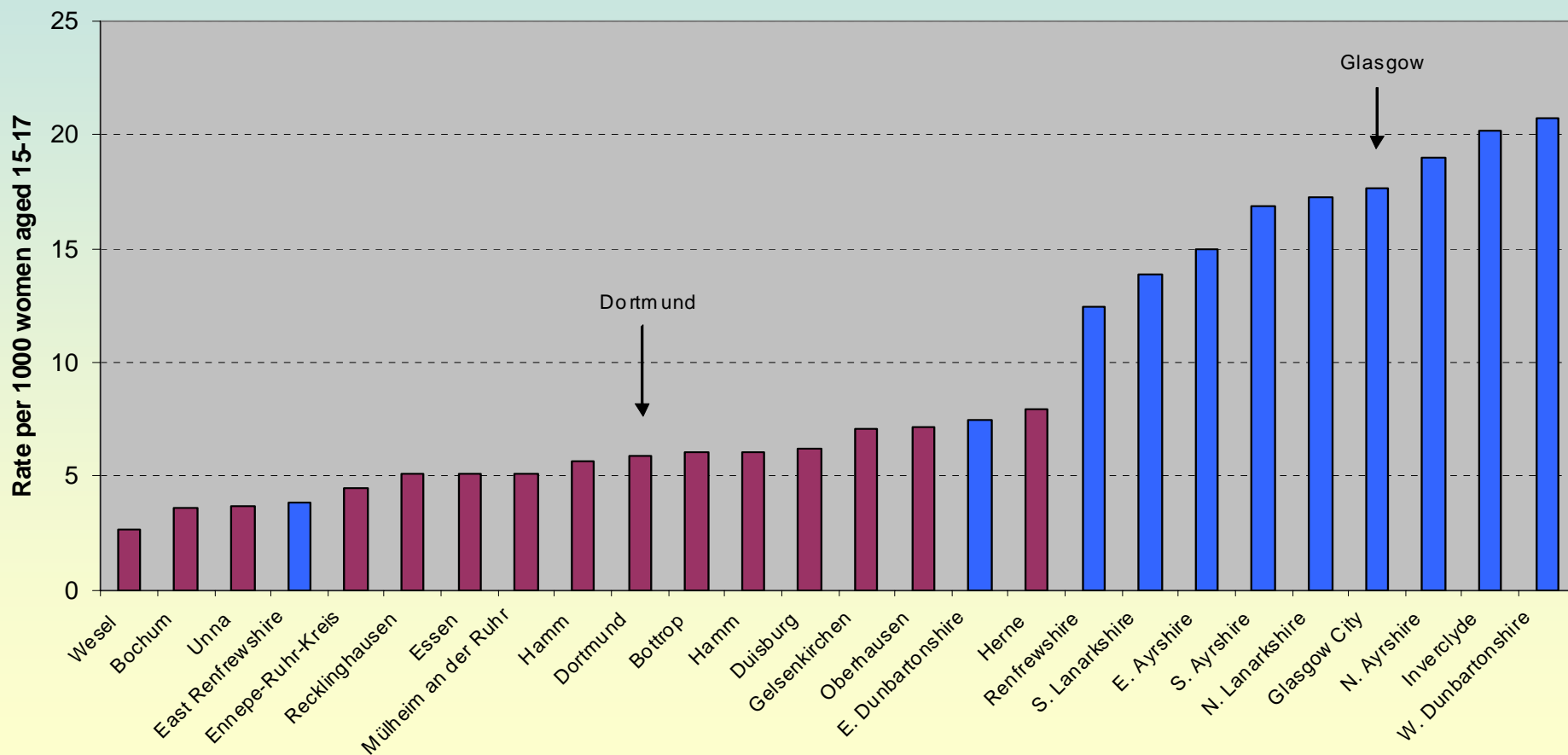
Teenage mothers - rate per 1000 women aged 15-17: 2008  
West of Scotland local authority and Ruhr kreise  
Sources: GRO (S); IT NRW





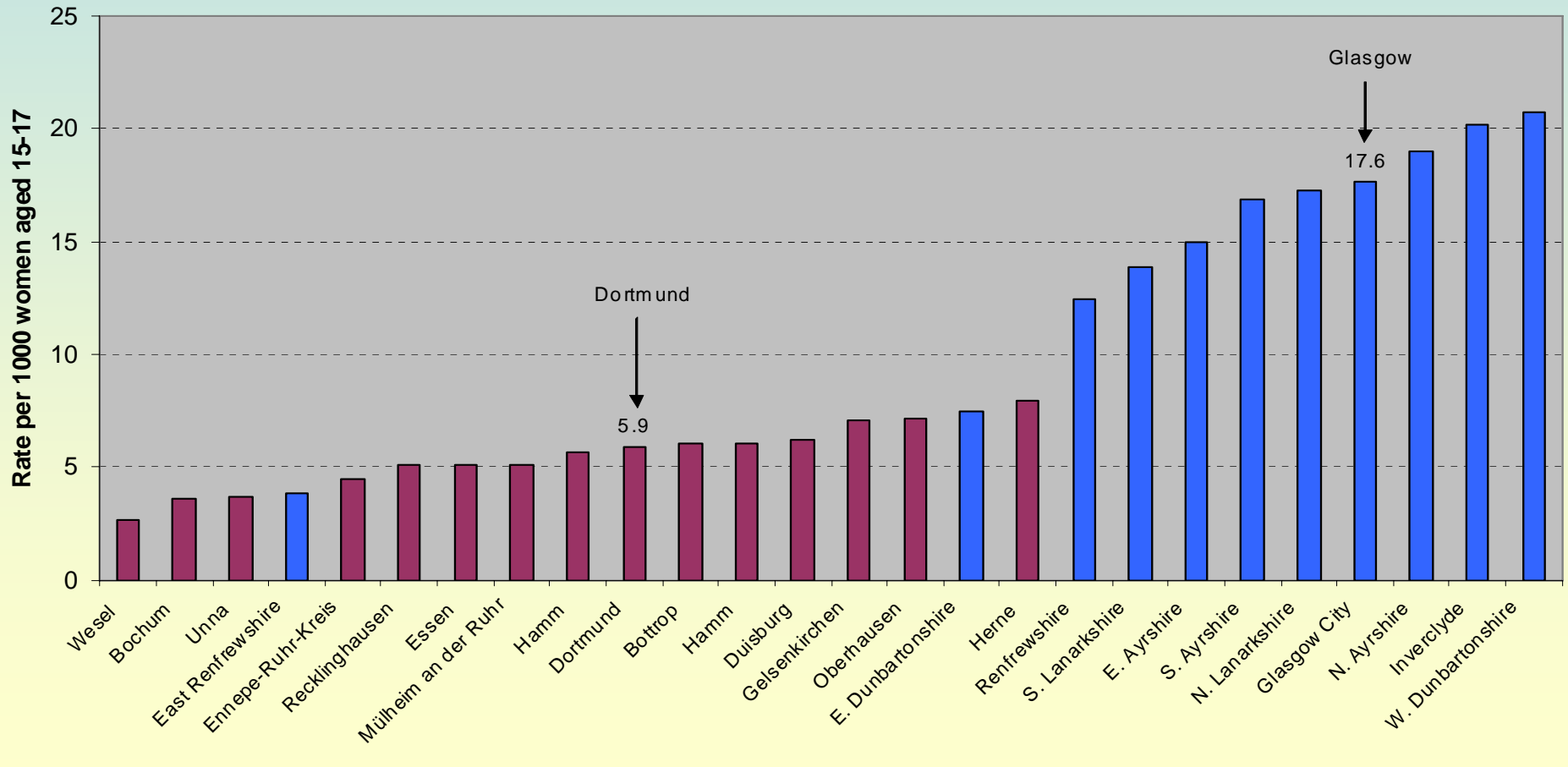
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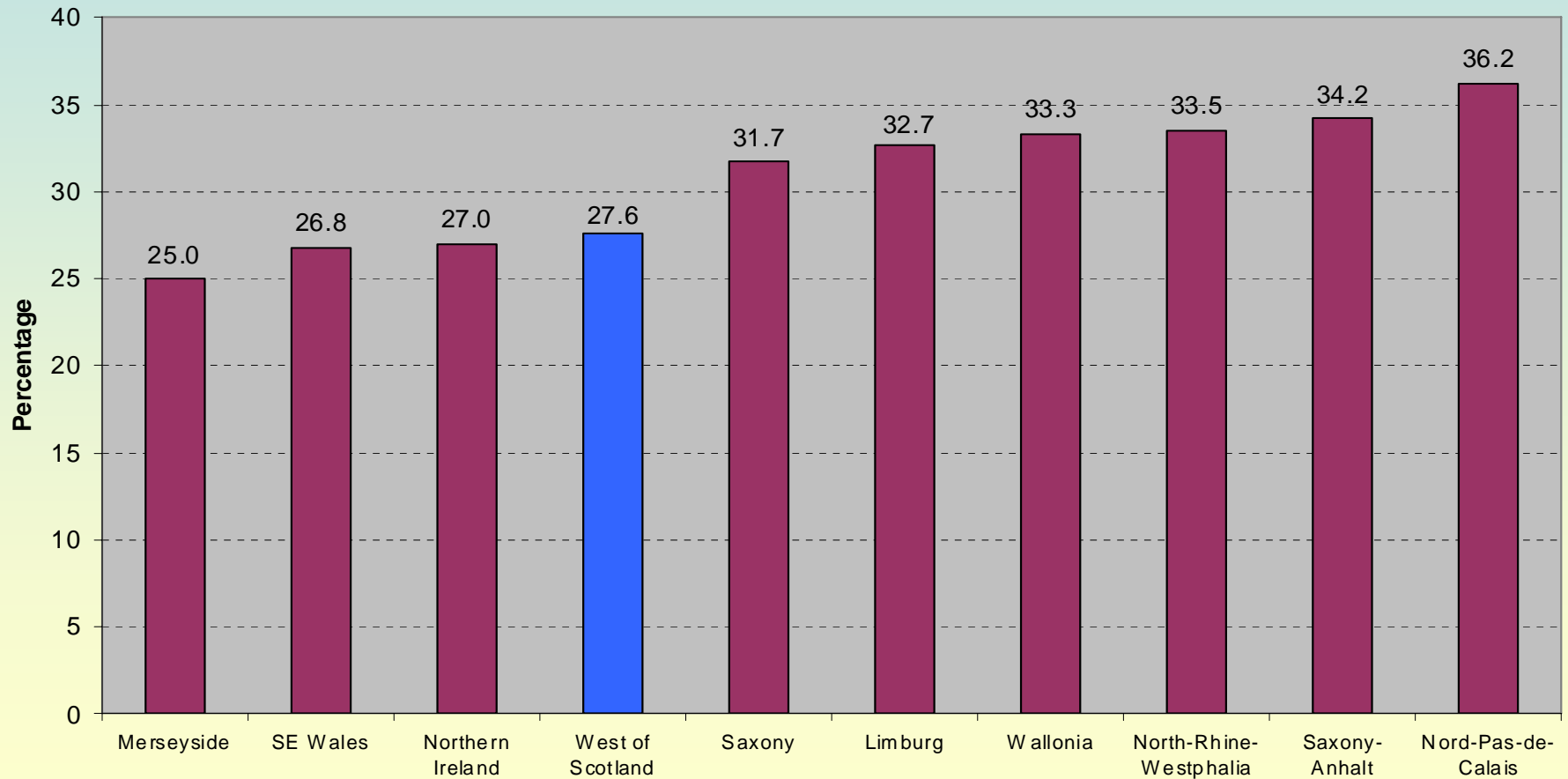
# Health behaviours

- Male smoking prevalence
- Female smoking prevalence
- Case Study: Nord-Pas-de-Calais

# Health behaviours – male smoking rates

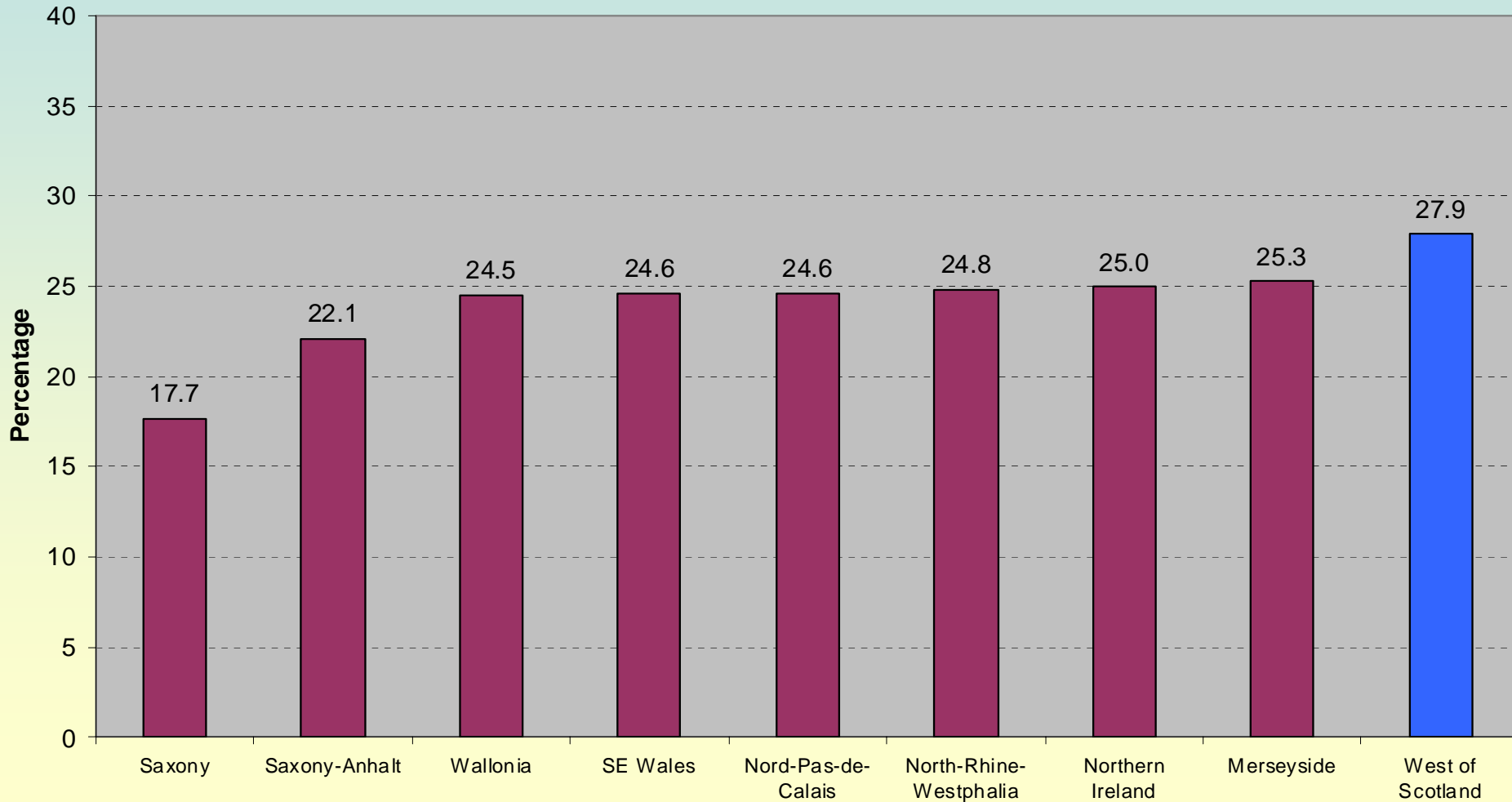
Percentage of adult males who are current smokers, c. 2004-06

Sources: Various (NPdC data from 2002-03)



# Health behaviours – female smoking rates

Percentage of adult females who are current smokers, , c. 2004-06  
Sources: Various (NPdC data from 2002-03)



# Case study: Nord-Pas-de-Calais

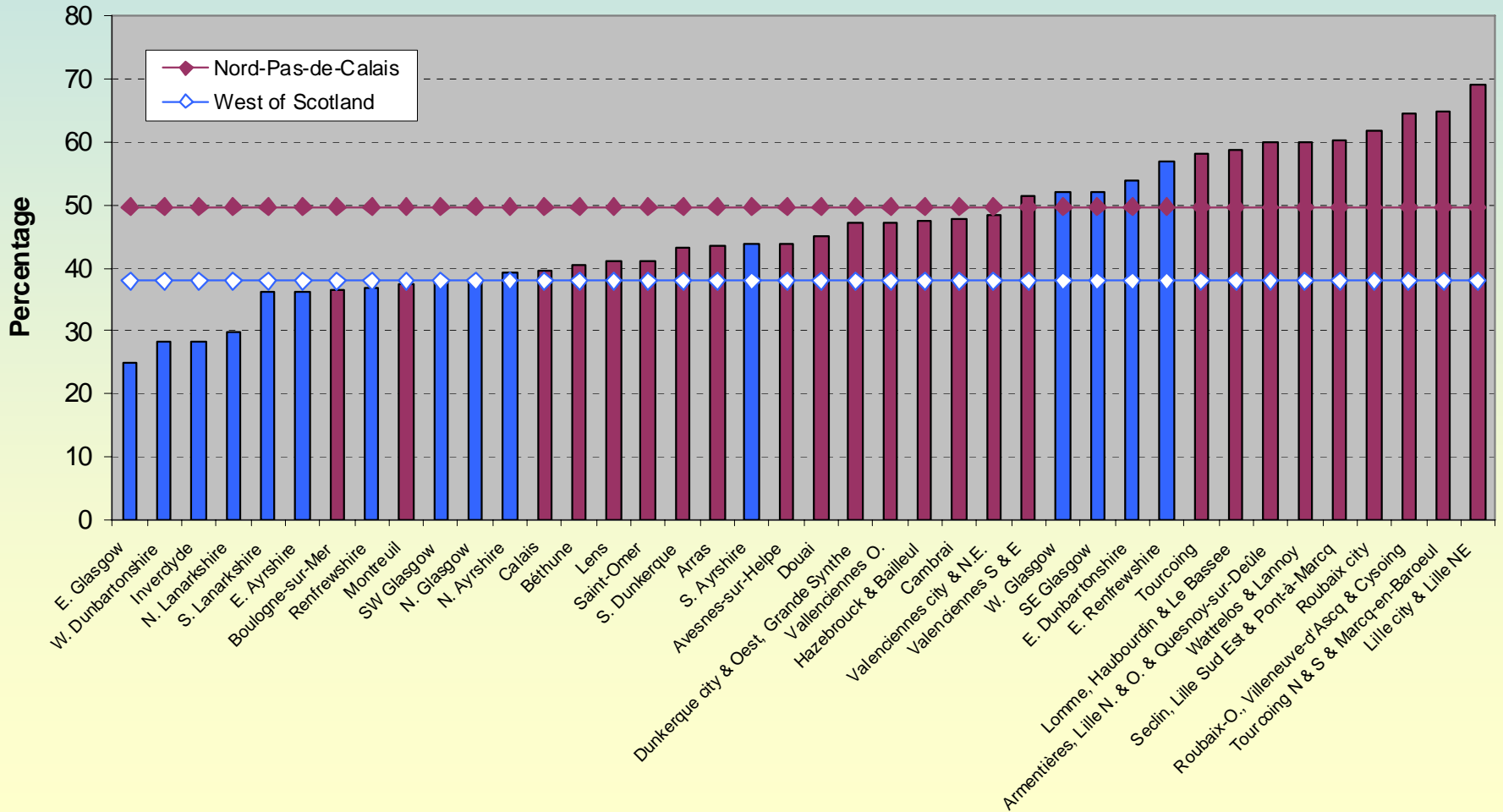
- Evidence of poor diet & nutrition in West of Scotland compared to NPdC
- This extends to infant nutrition

# Nord-Pas-de-Calais v West of Scotland - breastfeeding

Percentage of babies breastfed at 8-10 days: 2005-06

West of Scotland CH(C)Ps and Nord-Pas-de-Calais arrondissements/part-arrondissements

Sources: ISD Scotland; certificat de santé du 8ème jour transmis aux services de PMI Nord et du P-de-C

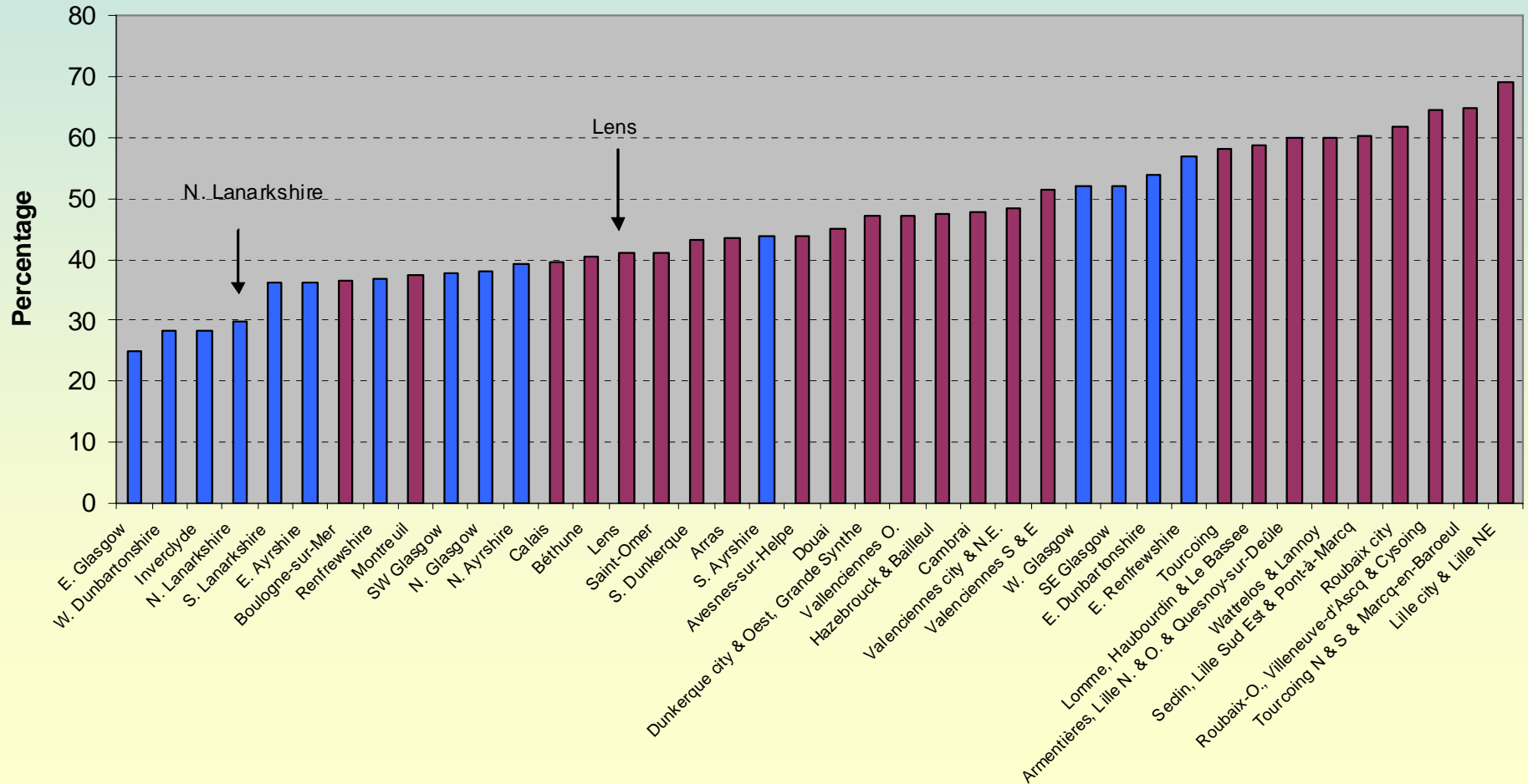


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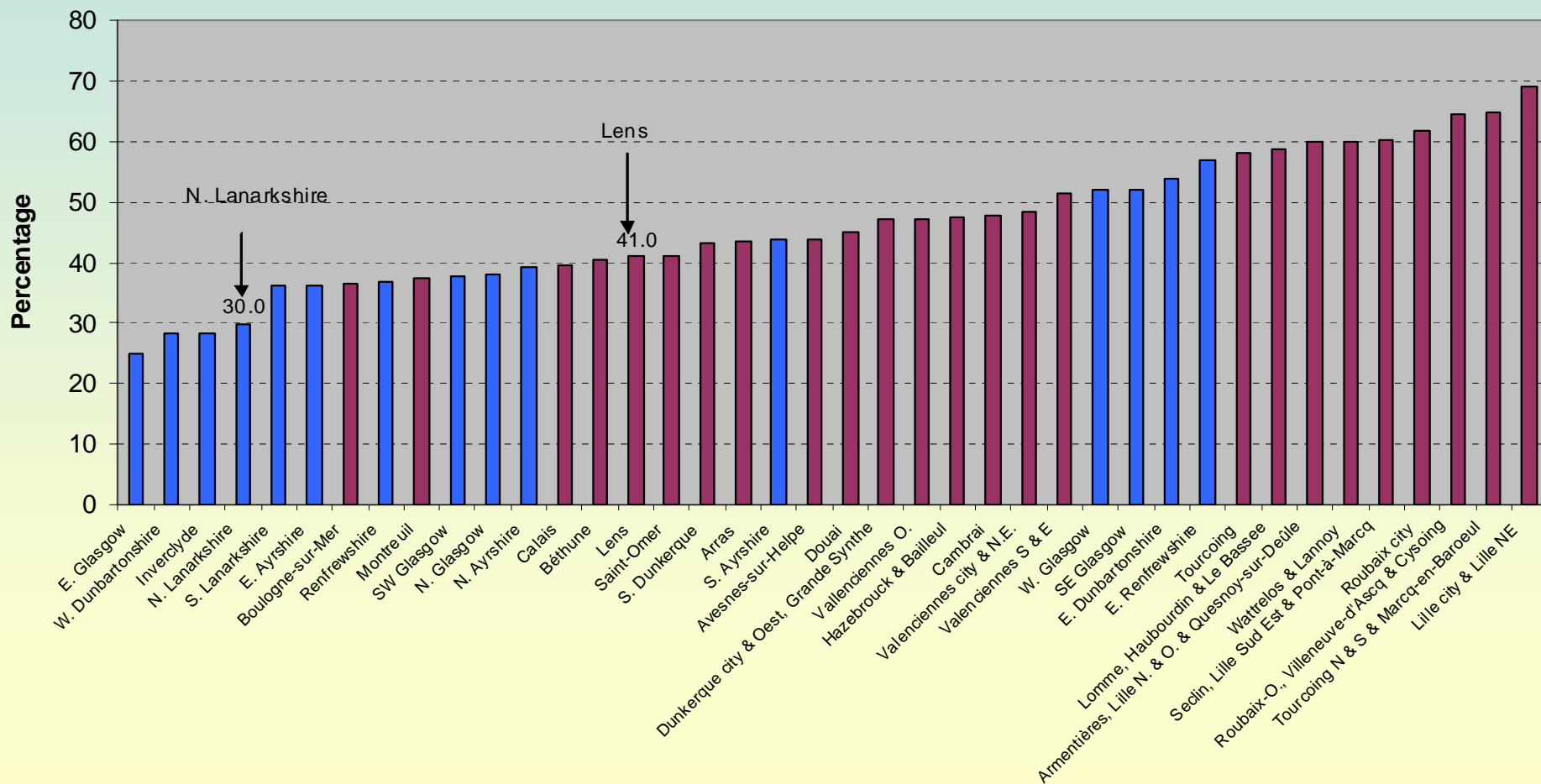


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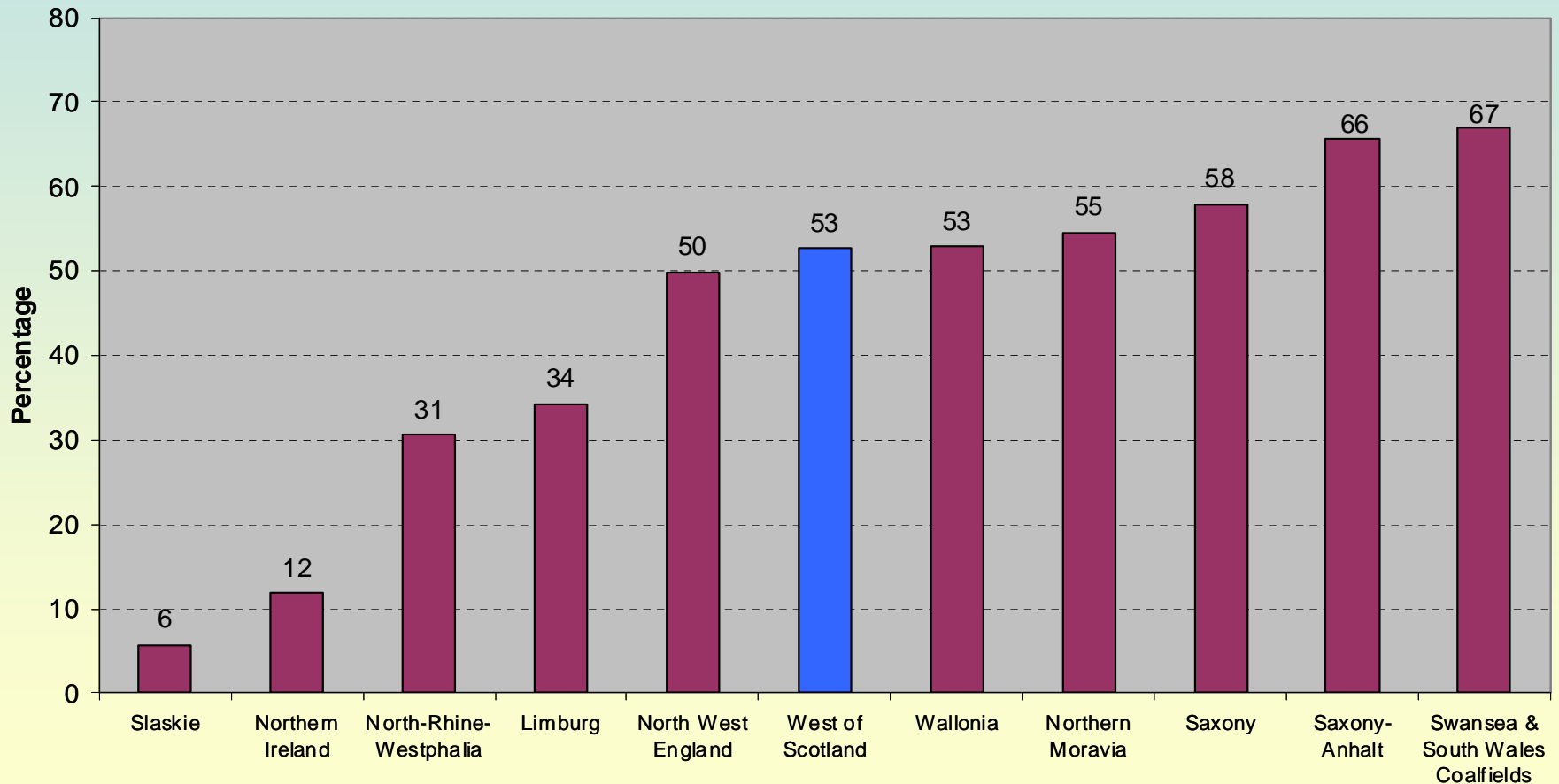
# Social capital

- % of adults who never attend religious ceremonies except for special occasions
- % of adults not at all interested in politics
- Case Study: Northern Moravia

# Social capital – religious observance

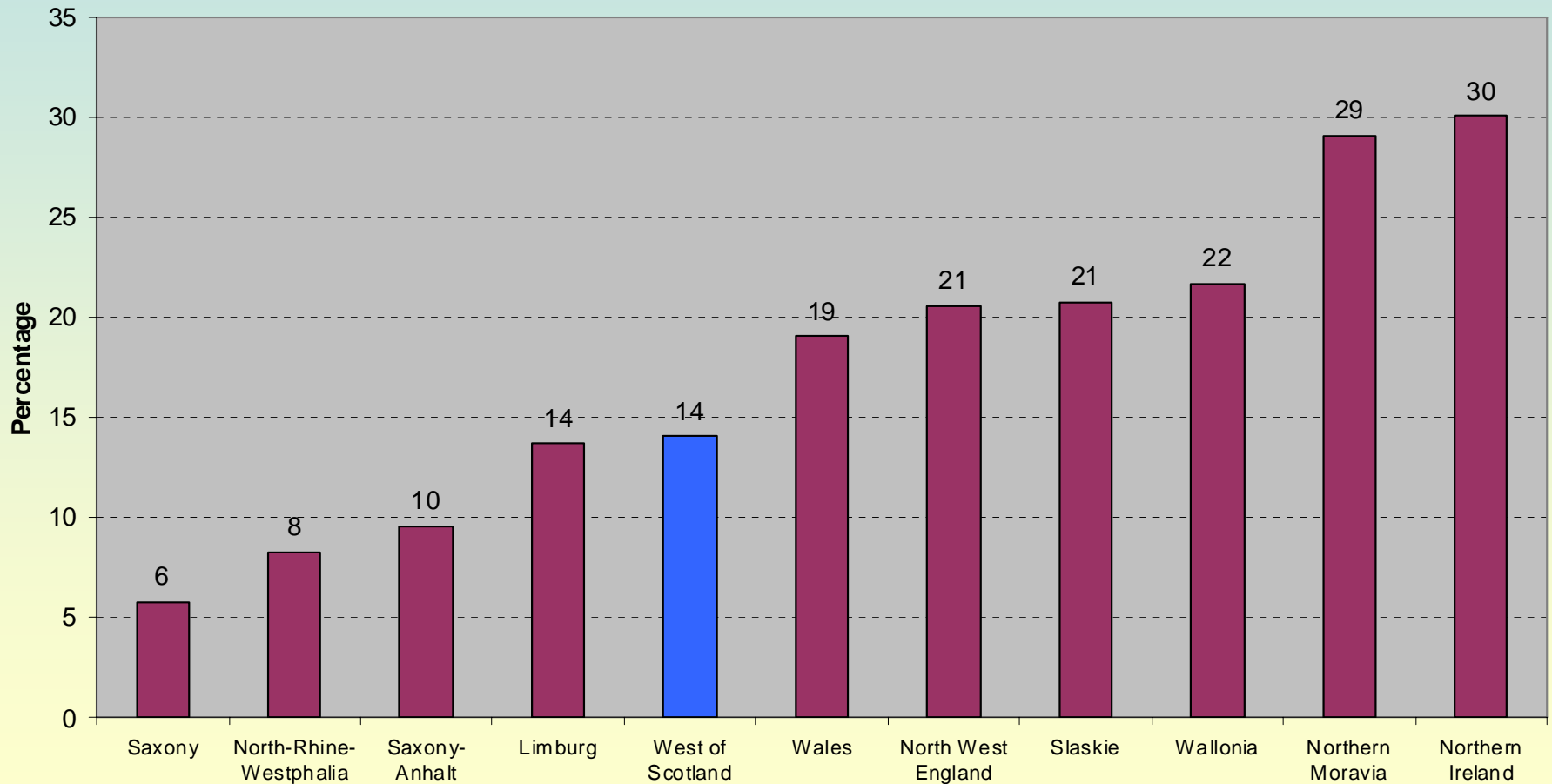
Percentage of adults who never attend religious ceremonies except on special occasions, c, 2002-08

Sources: European Social Survey Rounds 1-4; Continuous Household Survey 2007/08; Welsh Life and Times Survey 2003; Scottish Social Attitudes Survey 2007



# Social capital – no interest in politics

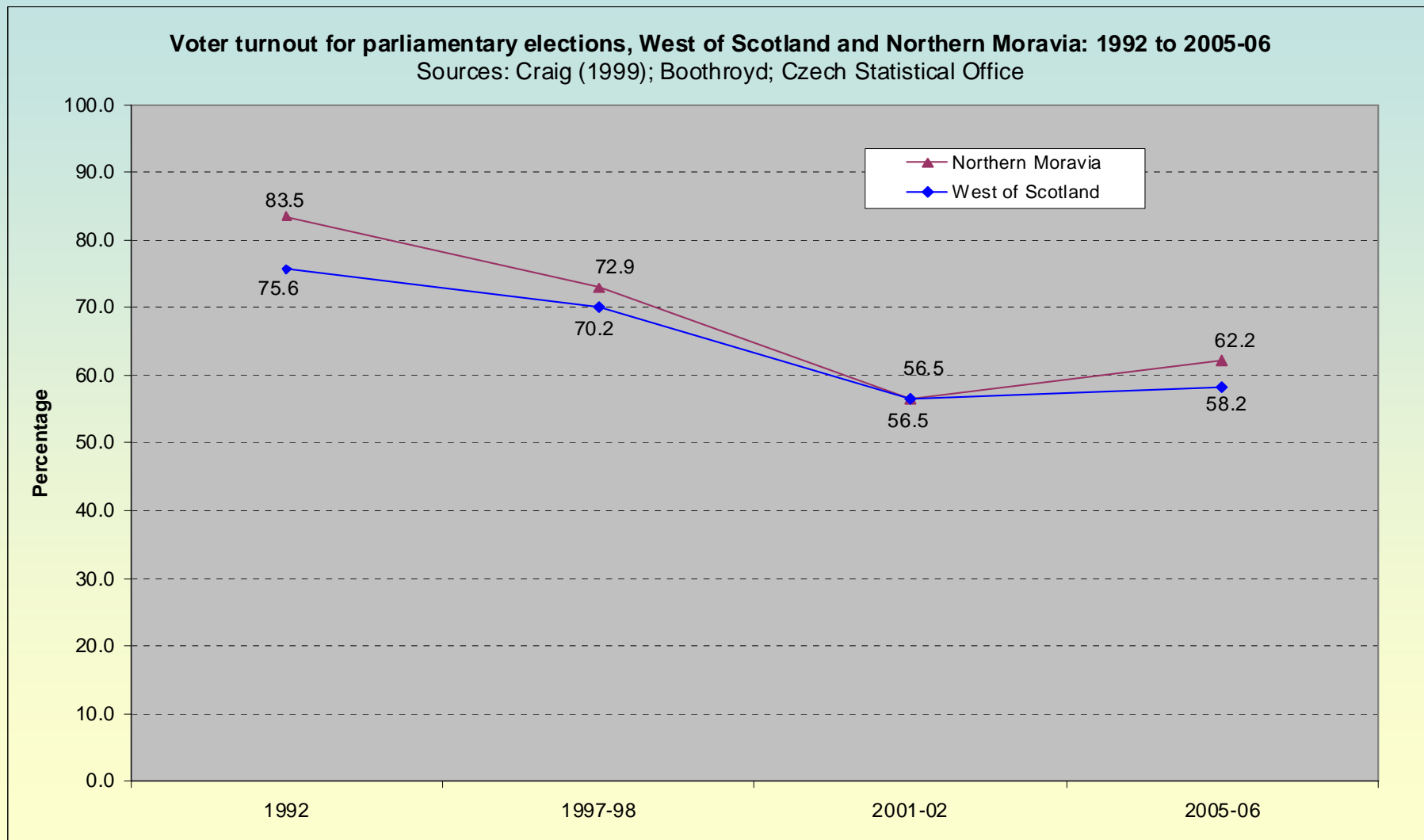
Percentage of adults not at all interested in politics, c. 2002-2008  
Sources: European Social Survey Rounds 1-4; Scottish Social Attitudes Survey 2007



# Case study – Northern Moravia

- Voter turnout over time and space a possible indicator of social capital
- West of Scotland picture not unique

# N. Moravia v West of Scotland – voter turnout 1990-92 to 2005-06



# Preliminary thoughts

- Compared to other post-industrial regions:
  - West of Scotland's position not readily explained by lack of prosperity, poor physical environment or consistently weaker social capital
  - Mixed picture on social environment
  - A disconnect between poor objective health (mortality) and subjective health?
  - Maternal/child health less favourable
  - Limited health behaviour data but scope for improvement on female smoking & diet and nutrition
  - *“More research is needed....”*

# Key questions

- Is the answer ‘just deprivation’? **No**
- Do any other ‘themes’ emerge strongly from the data?
  - Child and maternal health issues
  - But no other clear differences



# Links to other work....

- Glasgow-Liverpool-Manchester project (so-called ‘Glasgow Effect’)
- Three cities with almost identical levels of deprivation
- Three cities with almost identical patterning of/inequalities in deprivation
- Little change in city-levels of poverty in 50 years
- But premature mortality >30% higher in Glasgow compared to other two cities
- Little difference in health determinants (routine data)
- Suggests it’s not “just deprivation”

# Everyone has a theory....

- Culture
- Genetics
- Migration
- Greater 'vulnerability' in Glasgow
- Psychological outlook
- Substance misuse cultures
- Social capital
- Spatial patterning of deprivation
- Family/parenting
- Gender
- Political attack
- Social mobility
- The weather...

# Theories being investigated

- Culture
- Genetics
- Migration
- Greater 'vulnerability' in Glasgow
- Psychological outlook
- Substance misuse cultures
- Social capital
- Spatial patterning of deprivation
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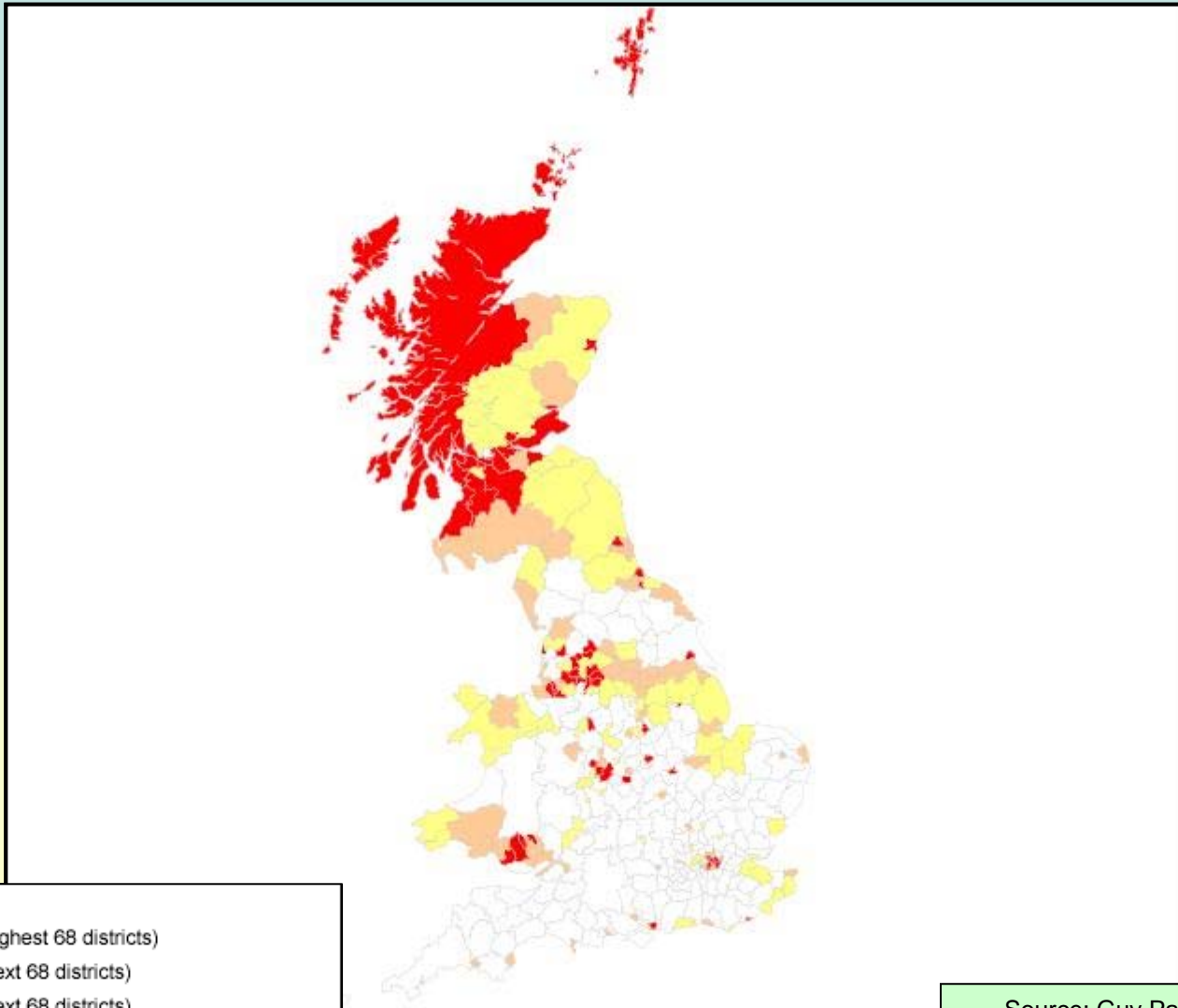
# Relevant questions

- Why the continual focus on Glasgow/West of Scotland?
- Why does all this matter?





# Focus on West of Scotland

- ‘Scottish Effect’ seen everywhere...

# 'Scottish Effect'



## Premature deaths

	more than 0.218% (highest 68 districts)
	0.195% to 0.218% (next 68 districts)
	0.175% to 0.195% (next 68 districts)
	less than 0.175% (below average - remaining 204 districts)

Source: Guy Palmer: 'The Poverty Site'  
([www.poverty.org.uk](http://www.poverty.org.uk))

# Focus on West of Scotland

- ‘Scottish Effect’ seen everywhere...
- But more pronounced in WoS
- Our definition of WoS also comprises >40% of total population of Scotland
- (So also relevant to the next question....)

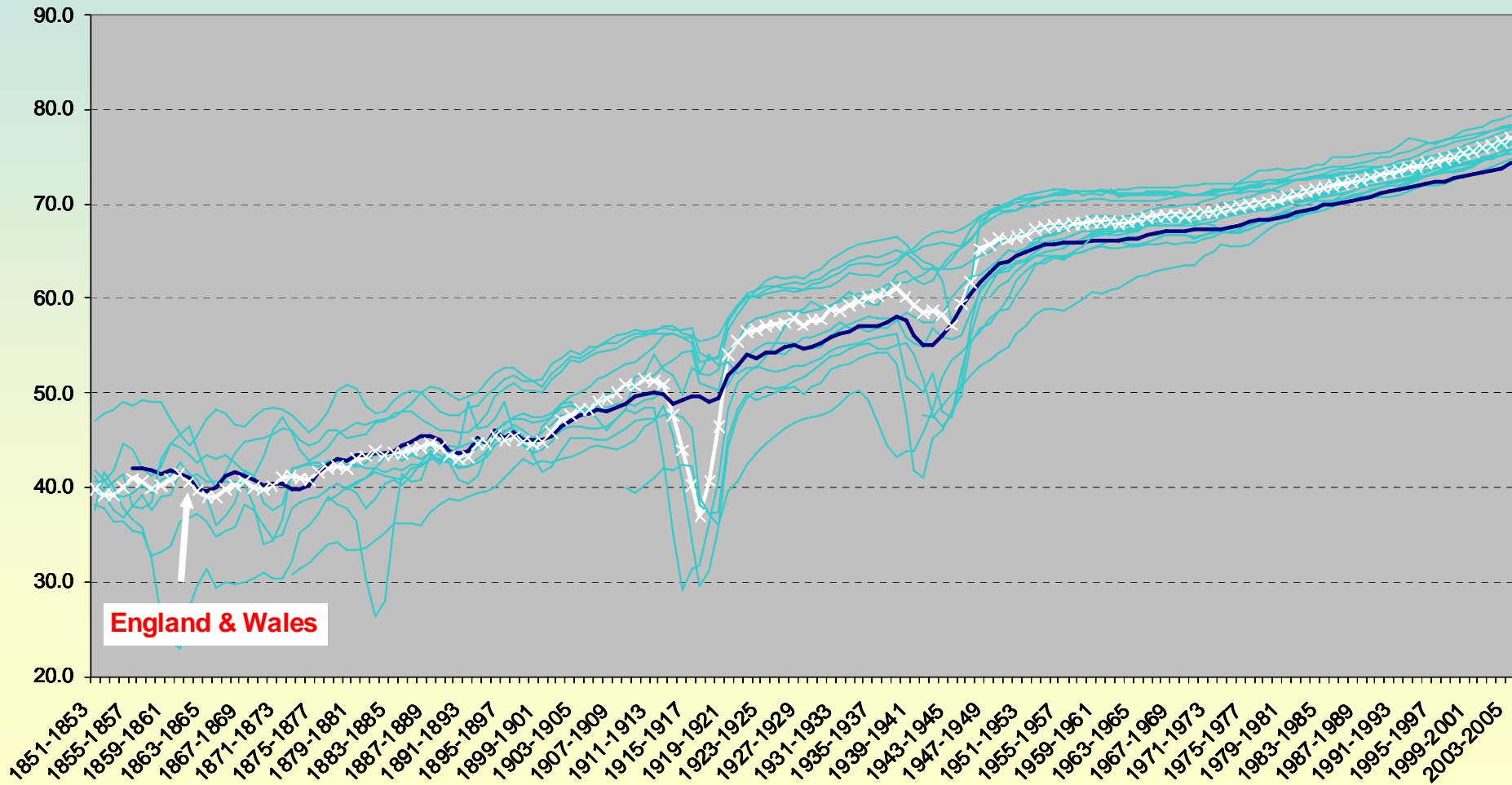
# Why does this matter?

- If it's not “just about deprivation” then what has been going on in Scotland since the 1950s...?



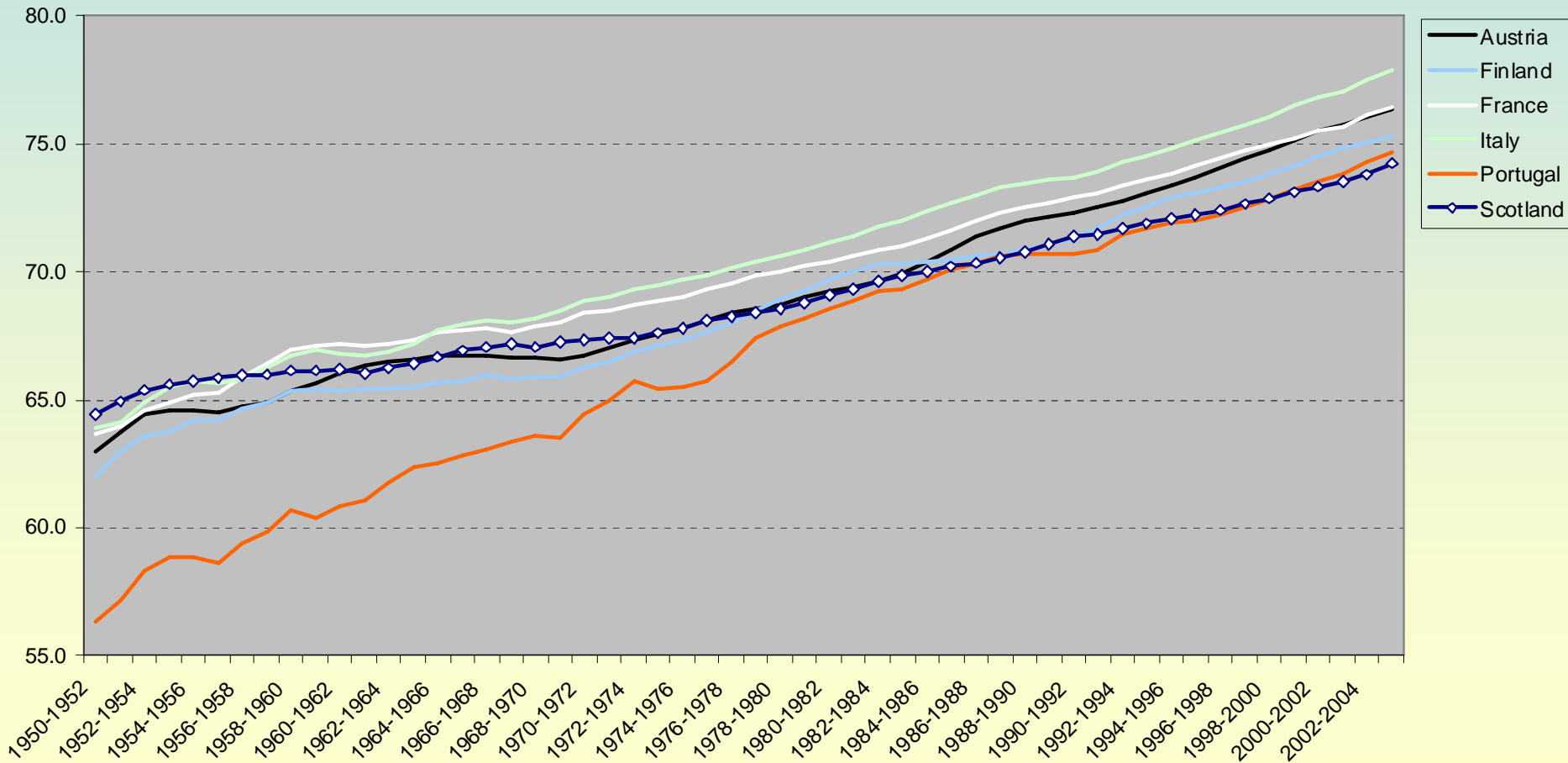
# Not always the 'Sick Man of Europe'

Male life expectancy: Scotland & other Western European Countries, 1851-2005  
Source: Human Mortality Database



# Life expectancy trends

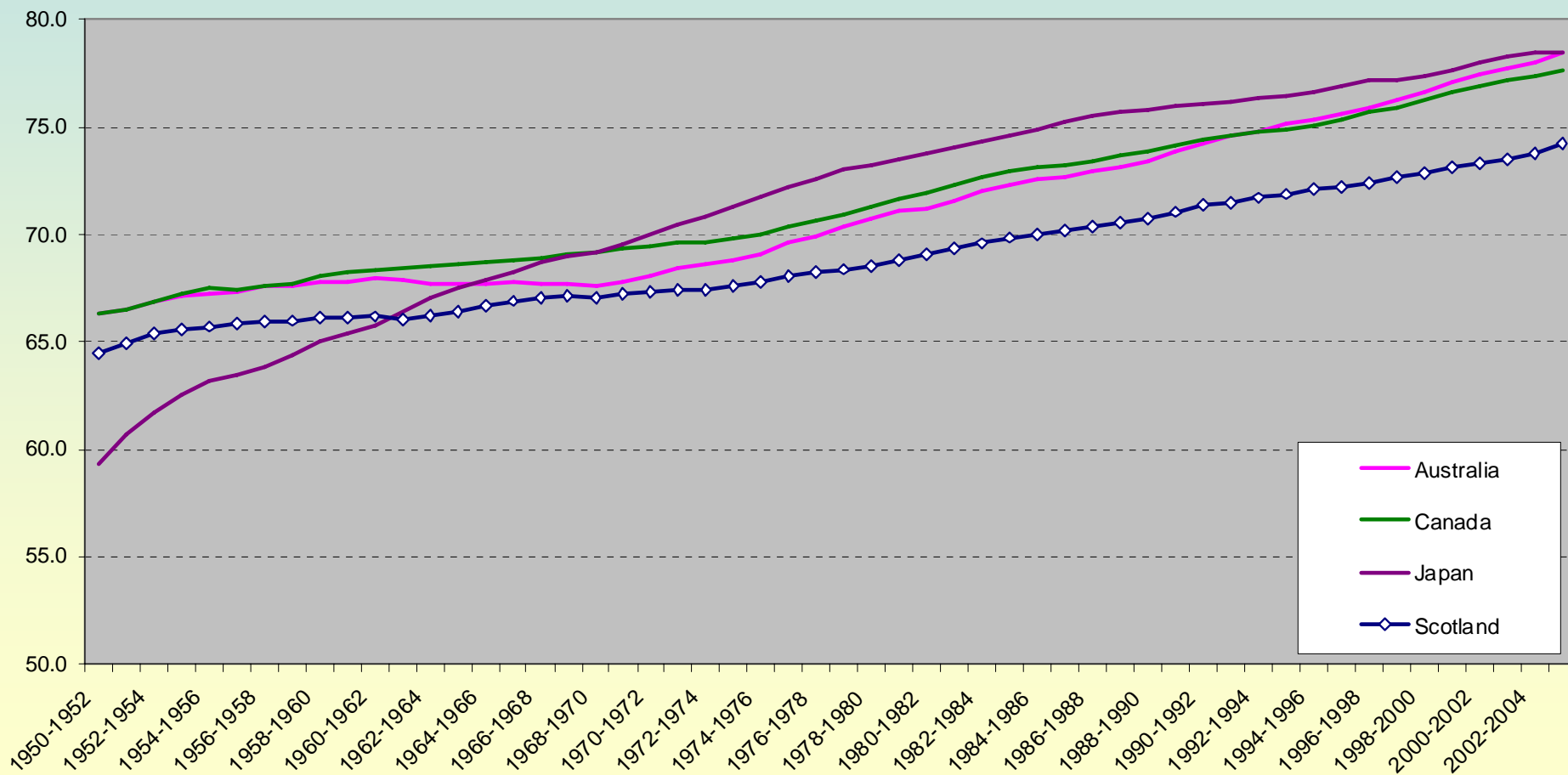
Male life expectancy: Scotland & selected European countries, 1950-2005  
Source: Human Mortality Database



# Life expectancy trends

Male life expectancy: Scotland & selected OECD countries, 1950-2005

Source: Human Mortality Database



# Summary

- Comparisons of WoS with other post-industrial regions:
  - reinforce the message that it's not “just deprivation”
  - highlight maternal and child health issues..
  - ..and a whole range of other deeply interesting facts that we've not had to summarise for today
- Programme of work underway to investigate reasons behind ‘Scottish’ or ‘Glasgow Effect’

# Explaining differences in health between Scotland and key post-industrial European regions

David Walsh & Martin Taulbut

Glasgow Centre for Population Health/  
NHS Health Scotland