

The Impact of Pay Regulation in Health and Education

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OUTLINE

1. What is The Problem?

2. Consequences of national pay setting

3. What to do?

WHAT IS THE PROBLEM?

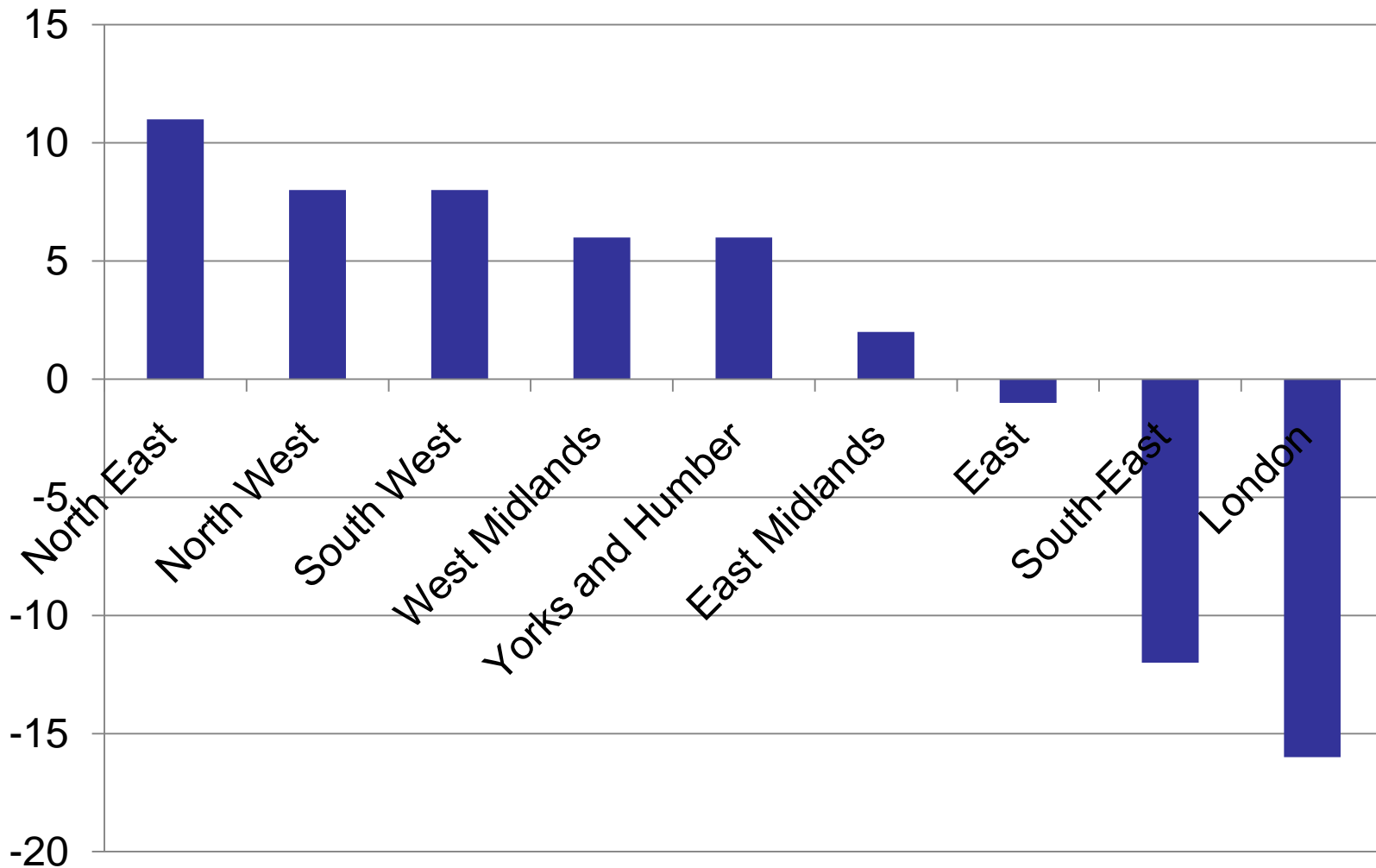
- The **cost of living** (e.g. housing prices) differ a lot across different areas of the UK and have done over many years
- (Quality adjusted) **Private sector wages** also differ a lot across different areas of the UK
- **BUT Public sector wages** do not differ nearly so much
 - This is because of centralized pay-setting arrangements which allow for little cross-regional variation

PUBLIC SECTOR WAGE PREMIUM OVER PRIVATE SECTOR DIFFERS HUGELY ACROSS REGIONS

	(1)	(2)	(3)
	Public sector premium for high skilled (80th percentile)	Public sector premium for median	Ratio of average house price to NHS speciality registrar's 2008 basic salary
North East	1.11	1.16	3.8
North West	1.08	1.16	4.1
South West	1.08	1.09	5.9
West Midlands	1.06	1.09	4.5
Yorks and Humber	1.06	1.1	4.2
East Midlands	1.02	1.03	4.3
East	0.99	1.02	6
South-East	0.88	0.95	7
London	0.84	1.04	9.6

Notes: Adapted from Wolf (2010) Tables 2 & 3. ASHE 2008 data. Column (1) is the difference at 80th percentiles of the distribution of public and private respectively. Column (2) is the same at the median. Column (3) uses a salary of £38,336 for registrar.

% SKILL PAY PREMIUM IN THE PUBLIC SECTOR VARIES HUGELY ACROSS REGIONS



Notes: % difference between public and private sector pay at 80th percentile of each distribution

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WHAT ARE THE CONSEQUENCES OF NATIONAL PAY-SETTING FOR HIGH COST AREAS?

- Lower **quantity** of staff: hard to attract people to work in public sector in areas like London and South East
 - High levels of vacancies & turnover
- Lower staff **quality**:
 - reliance on young, inexperienced, & foreign workers.
 - Lower motivation
 - Agency staff
- **Lower quality of public services**
- In the low-cost areas, public sector may be better but private sector suffers

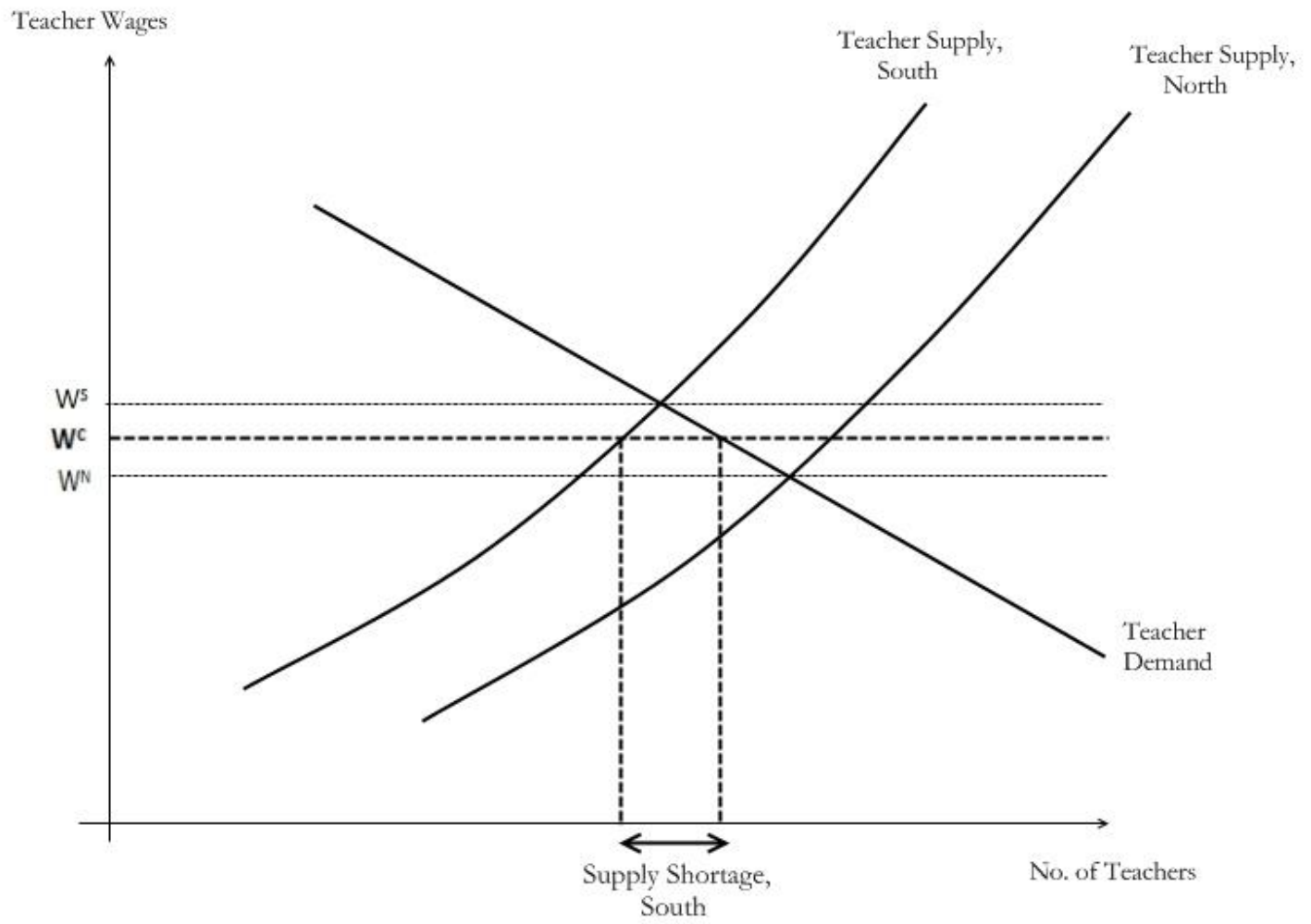
EVIDENCE

- **Cross sectional data**

- turnover rates, vacancies and service quality much higher in high cost areas even after controlling for other factors e.g. Elliot et al, 2007 (NHS), 2010 (Teachers), 2012 (Hospitals – France)

- **Time Series data**

- As public sector pay falls behind private sector pay quality of public sector workers seems to decline (e.g. Nickell and Quintini, 2002, teachers)



EVIDENCE

- **Panel data**

- Does public service quality fall over time in areas where private sector pay rises faster than public pay?
- Looking at **growth** rates controls for the differences in areas that don't change much from year to year (poverty, community structure, ill-health, etc.)
- Using many areas means we can include time dummies for nation-wide changes (e.g. recession)

PROPPER AND VAN REENEN (2010, JPE) “DOES PAY REGULATION KILL?”

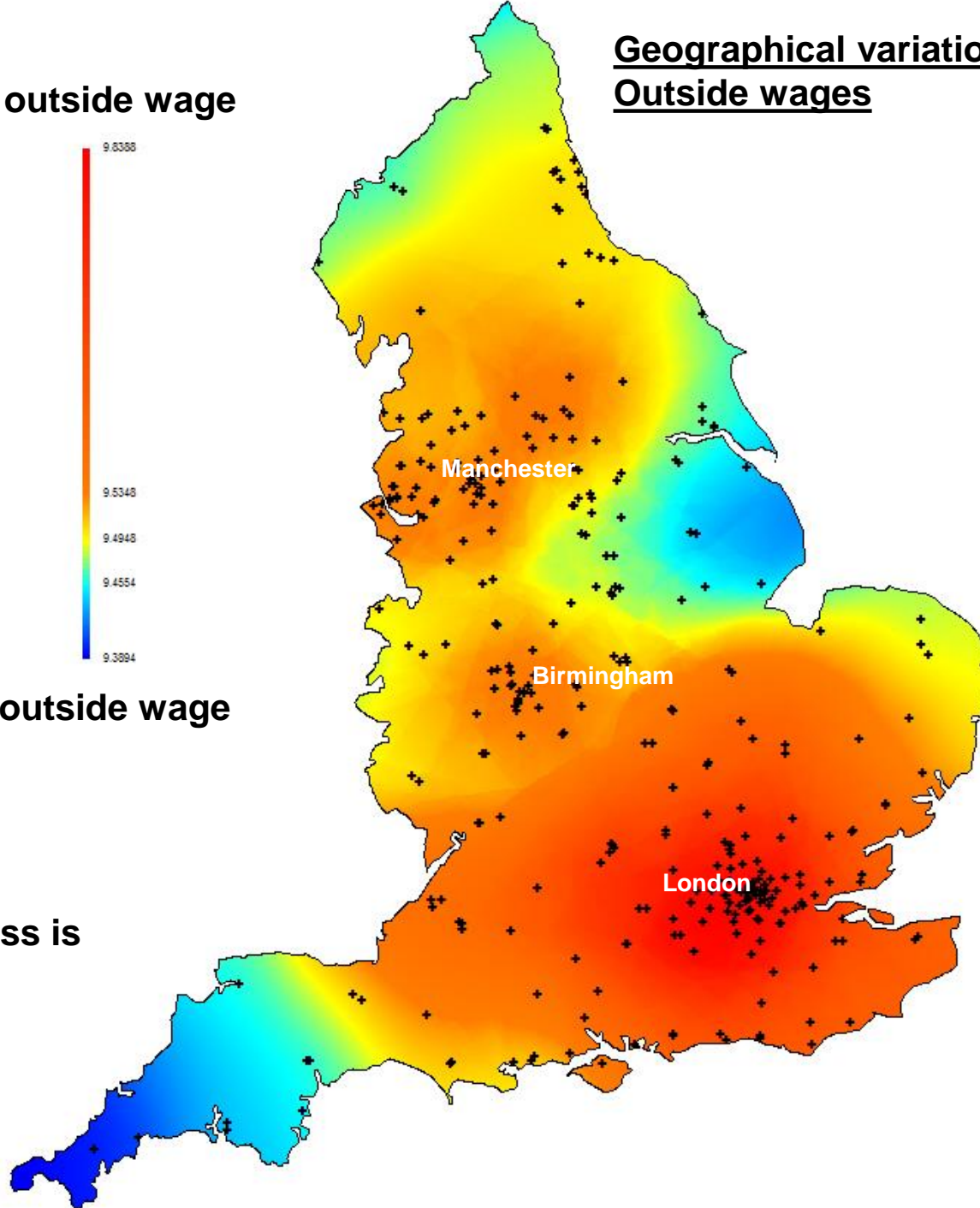
- Examination of impact of public-private wage gap on the performance of NHS hospitals 1997-2005

Geographical variation in Outside wages

Highest outside wage

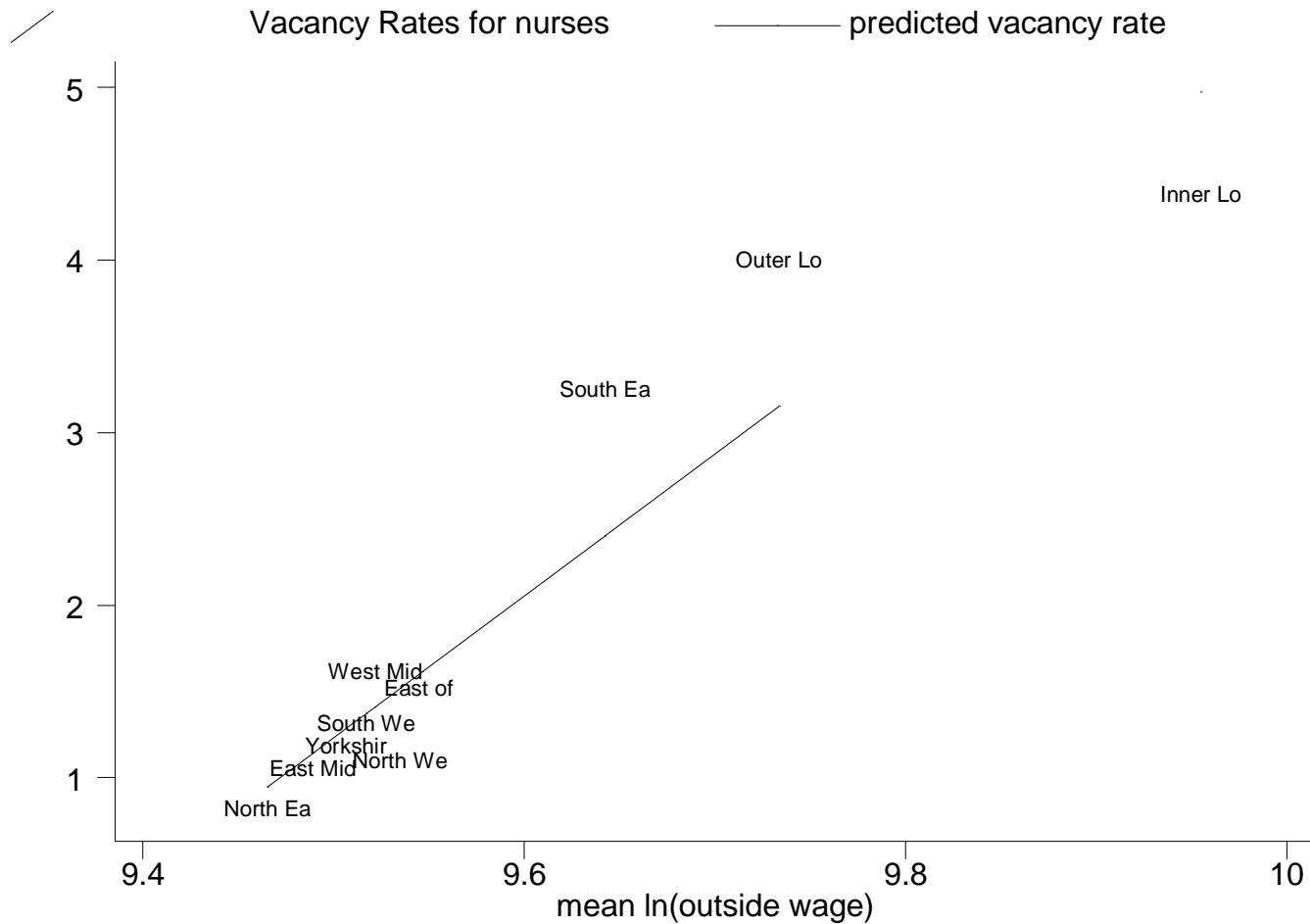


Lowest outside wage



Note: Each cross is
A hospital

Higher nurse vacancy rates in stronger labor markets



Vacancy Rate = Percentage of nurse posts that have been vacant for 3 months or more

PROPPER AND VAN REENEN (2010, JPE) “DOES PAY REGULATION KILL”

- **Panel data on all English NHS acute trusts 1997-2005**
 - Examine effect of outside wages on measures of performance of hospital
 - Main focus is death rates following emergency heart attacks
 - Heart attacks chosen because of lack of selection of hospitals
- **Panel design controls for large number of other influences**
 - Changing case mix (e.g. severity), area mortality
 - pollution, traffic, financial stress, alternative outside wage measures.

PROPPER AND VAN REENEN (2010, JPE) “DOES PAY REGULATION KILL”

- **Findings**

- In areas where private sector wages rose most quickly (compared to the public sector wage) hospital quality declined a lot
- An increase in the private-public wedge of 10% led to 7% more deaths in hospitals from emergency heart attacks (a widely used marker of hospital quality)
- Effect non linear across broad outside wage regions
 - An increase of 10% in wedge in high wage areas led to 14% more deaths
 - An increase of 10% in wedge in low wage areas led to no more deaths
- Effect may operate through use of agency nurses

PROPPER AND VAN REENEN (2010, JPE) “DOES PAY REGULATION KILL”

- **Implications**

- Simple cost benefit analysis suggests removal of wage regulation would result in £215 million saving when considering only AMI deaths

BRITTON AND PROPPER (2012) “DOES WAGE REGULATION HARM CHILDREN: EVIDENCE FROM ENGLISH SCHOOLS

- Panel design
- Focus is impact wage regulation on school performance
- Secondary schools (3000) in England 2002-2007
- 2010 - average teacher wage differential between the North East of England and Inner London is approximately 9%, while the equivalent private sector wage differential is larger than 30%.
- Main measure school value added - gain between KS4 and KS2 (so control for intake quality)

BRITTON AND PROPPER (2012) “DOES WAGE REGULATION HARM CHILDREN: EVIDENCE FROM ENGLISH SCHOOLS

- **Findings**

- 10% increase in wage gap decreases school performance by around 2% (one grade in one GCSE); 5% fall in number of pupils getting 5 or more A*-C
- Heterogeneity of effect across outside wage areas
 - Monotonic across 3 large areas: double average size in high wage areas, 0 in low wage areas
- Larger for schools with no control over wages (twice the mean size)
- Robust to gaming (exclusions of pupils from exams; exclusion of London schools; parental sorting (use 30km radius for outside wage area); to controls for local area youth unemployment (no association)

BRITTON AND PROPPER (2012) “DOES WAGE REGULATION HARM CHILDREN: EVIDENCE FROM ENGLISH SCHOOLS

- **Possible mechanisms**

- Direct measures of teacher quality 2003-2008 (OFSTED teacher rating)
- 10% increase in wage gap causes nearly 50% drop at the mean in teacher rating (and 20% drop in school rating)
- Cross sectional evidence that teacher tenure lower in schools subject to high wage shocks

COUNTER-ARGUMENTS

- Public sector workers “are not in it for the money”?
- Equity “same pay for the same job”. System leads to more real wage inequality in the public sector
- Redistribution to the poorer areas?
 - Better ways to redistribute
 - Do we really want degraded services in the South East? Wealthy opt out of public services
 - Poor in richer areas (e.g. London) suffer most
 - Studies find effect of private sector wages is strongest in the high cost areas. In low cost areas, public pay so high that outside private wages have little effect. Implies **large** social costs from national pay bargains

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WHAT TO DO?

- **Compensate** via extra resources to high cost areas? Already do (e.g. through MFF). This simply goes to waste on turnover and agency costs
- **More regional pay supplements via NPRB, etc.**
 - Inflexible as areas have to be determined nationally
 - Same problems now with single spine, pay for job rather than individual, “cliffs” etc.
- **Local pay bargaining through individual contracts**
 - Responds to market conditions
 - Historically local employers reluctant to take up freedoms (problem of weak local management and powerful central unions)
- **Sweden abolished national pay setting in early 1990s**
 - Response to crisis & austerity - popular today

CONCLUSIONS

- Evidence on costs of national pay setting strong in both health care and secondary education
- Current system of national pay setting both unfair and inefficient
- Need to move to a system which enables schools and hospitals to have flexibility without large transaction costs

Thank you