**Measuring the Defra Departmental DSO for rural areas**

**A note for the South West Rural Affairs Forum of March 23 2009**

**Nigel Curry and Malcolm Moseley, March 2009.**

## A BACKGROUND

### 1. The Defra Rural DSO

**The Department for the Environment, Food and Rural Affairs (Defra) has a Departmental Strategic Objective (DSO) of 'Strong Rural Communities', which was introduced in the wake of the 2007 Comprehensive Spending Review and became operative in 2008. This replaced Defra's Public Service Agreement (PSA4) which was to:**

***"reduce the gap in productivity between the least well performing quartile of rural areas and the English median by 2008, demonstrating progress by 2006, and improve the accessibility of services for people in rural areas".***

**DSOs are of lower order importance than PSAs and from this perspective, the 'rural communities' part of Defra's work has been relegated in importance. This note discusses the nature of the Defra DSO and considers how it might be practically measured.**

**The DSO itself has two elements - Intermediate Outcomes (IOs) - and these are as follows (http://www.defra.gov.uk/rural/dso/index.htm).**

- **The evidenced needs of rural people and communities are addressed through mainstream public policy and delivery. This is defined in annex A together with the parameters that Defra proposes to use in its measurement, which are as follows.**

    1. **Educational Attainment (GCSE Results, entrants to higher education)**
    2. **Social Capital/ Quality of Life (Trust, belonging, community cohesion)**
    3. **Health (Life expectancy, infant mortality and potential years of life lost for a range of disease)**
    4. **Housing Need (Affordability, homelessness, delivery)**
    5. **Crime (a range of standard offences)**
    6. **Poverty and unemployment (unemployment rates and poverty**

- **Economic growth is supported in rural areas with the lowest levels of performance (this is defined in annex B together with the parameters that Defra proposes to use in its measurement). These are based on measures if gross value added per worker and have been derived for different rural areas in annex C.**

### 2. The EFRA[1] View on the DSO

**The House of Commons Environment, Food and Rural Affairs Committee of October 2008, were sceptical of this approach to the development of strong rural communities:**

**(http://www.publications.parliament.uk/pa/cm200708/cmselect/cmenvfru/544/544i.pdf)**

**Their main concerns were:**

[1] **House of Commons Environment, Food and Rural Affairs Committee (2008)** ***The potential of England's rural economy*** **Eleventh Report of Session 2007–08, London: The Stationery Office Limited, 29 October.**

- **The IOs are difficult to measure in practice, particularly at the level of individual rural areas.**
- **There is a lack of readily available data by which to measure the DSO indicators properly.**
- **A number of important mainstreaming indicators appear to be missing from IO one (transport, planning, communications, further education).**
- **The Defra indicators do not fully take into account very diverse nature of rural areas.**
- **Defra should not just focus its efforts into rural areas with the lowest level of performance.**
- **The DSO will not be able readily to identify factors inhibiting rural economic growth.**
- **Defra does not have policy influence over the variables in the DSO and therefore cannot readily influence it.**
- **Defra should produce a delivery plan.**

**The EFRA committee recommended that Defra should consider a different title, at least for its DSO, to embrace sustainability.**

### 3. Purpose of Paper

**This paper reviews the nature of the Defra DSO and makes recommendations for the way in which 'strong rural communities' might be measured. We have used four guiding principles here, that derive from the EFRA report**

- **Rural policy is (and should be) increasingly area-based (territorial) rather than sector-based.**
- **Area-based approaches need to be differentiated to accommodate a wide range of different rural areas**
- **The two parts of the DSO need to be integrated ultimately so that policy sets 'connect'. Otherwise one set of policies might work against the other set.**
- **Any DSO for rural areas needs to embrace principles of sustainable development fully.**

**We deal with the two parts of the DSO separately in our analysis and then bring them together in some concluding comments, and we start with the IO on the economy first.**

## B. IO TWO: ECONOMY

### 4. Conflicting rural economic policies

**The development of rural economies has to take place within the context of four contradictory sets of rural economic policy. These are outlined in annex D. The EU (RDPE and LEADER) requires the pursuit of *endogenous development* goals (supported by a range of community policies promoting *localisation*). Rural local authorities are charged with pursuing goals of *well-being* under the Local Government Act, 2000. National government and the regions are charged by the Treasury with pursuing goals of *productivity* for rural areas (including the Defra DSO IO two). There is one sectoral policy, for agriculture, pursuing the goal of *income support*. The first two of these might be considered to conform to the EU's cohesion purposes and the third (and possibly, in a perverse way, the forth) to the EU's competitiveness ones. We would also contend that *localisation* is more closely aligned to the EU's third principal purpose: sustainability. The English Sub-national Review and other recent national policy shifts reinforced the difference between the productivity and well-being purposes outlined above with, perhaps, some difficult consequences for rural areas.**

## 5. Issues for measures of performance in the rural economy

***Endogenous* (localisation) development**

- **Has widespread support within communities.**
- **Is a well-established European model.**
- **Has clear policy objectives and criteria through the Carnegie and Transition Town approaches.**
- **Allows local differentiation**
- **Conforms to principles of sustainable development.**
- **Funding streams are diffuse and fragmented.**
- **Not part of the 'political will' of government.**

***Well-being***

- **Has the potential to integrate economic, social and environmental goals.**
- **Has the potential to pursue sustainable development goals**
- **Allows local differentiation**
- **It is not widely used or understood in local authorities**
- **Requires considerable data collection.**

***Productivity***

- **The natural features of rural areas always put them at a productuvuty disadvantage.**
- **It is *businesses* and not *areas* that are productive (or less productive). If business productivity is a goal this should be dealt with through targeted funding.**
- **It is not sustainable as it is based on economic growth.**
- **The logic of trying to equalise productivity between regions is not clear.**
- **GVA per worker is very difficult to measure meaningfully and require familiarity with the Office for National Statistics Annual Business Respondents Database (ABRD).**
- **Business productivity can be measured accurately through the ABRD only for businesses of greater than 250 employees. This excludes many rural businesses, distorting the analysis.**

***Income Support***

- **It is a huge consumer of public finds (largest public resources going into rural areas and yet not being used by rural areas *per se*)**
- **It works against productivity objectives (it stifles innovation)**
- **It leads to the value of agricultural output being smaller than the value of the subsidy.**
- **It is money that leaks out of the rural economy very quickly.**
- **It has a negative impact on the food economies of third countries.**

## 6. Recommendations on the economy IO

- **For rural areas, the *sub-regional* scale is probably the most appropriate by which to develop measures of economic performance. This has been argued for in the Sub-national review. The RDAs should be encouraged to identify rural sub regions (collections of local authorities) as the basis for economic planning and ensure that Local Strategic Partnerships are operational in these areas.**
- **In order to encourage area-based approaches and to recognise rural differences, sub-regions should develop, again with the encouragement of the RDAs, a set of *economic well-being* indicators that capture the nature of the sub-region most effectively, though Local Area Agreements (LAAs) and Multi Area Agreements (MAAs). These indicators should form the basis of rural economic performance and therefore be readily measurable. They should also form the basis of targeted economic support.**

- **These indicators can be drawn from the 198 indicators (see Annex E), but prior to their refinement, rural sub-regions should produce a development framework that considers the balance of economic objectives in relation to productivity, endogenous development, well-being and income support and the relative importance of each, through LAAs and MAAs**
- **Productivity indicators should be only one of a range of measures considered and where they are used should be work-based rather than residence based.**
- **The notion of trying to 'equalise' productivity across regions and sub regions should be abandoned.**
- **The nature of rural public economic support should be rationalised and simplified around *area* rather than sectoral needs. The SWRDA identified 133 discrete funding streams specifically for rural areas, not including the rural expenditure of individual local authorities in 2007. In Gloucestershire for 2008, the RCC, for example, identified over 370 funding allocations in the county for rural development projects.**

## C. IO ONE: COMMUNITY

### 7. Measuring the needs of rural people

**Unlike measures of rural economic performance, there are no clearly competing measures of the "needs of rural people". This IO, however, does appear to relate to processes rather than outcomes as the IO is about how these rural needs are to be met. The six means of measuring these (section 1 above) do appear to be outcome based, however, and they have been criticised (by EFRA, for example) for being partial. We would add to the list of things that EFRA considered to be missing from the list of six, access to rural services.**

**We do consider, however, that there is the potential for measuring the needs of rural people within the choice of *well-being indicators* offered at annex E. Important to the choice of these indicators, however, is the extent to which they can be measured and the extent to which data can be collected on a regular basis. Such data will need to be:**

- **available at suitable level of geographical disaggregation, probably at the ward or enumeration district level, and capable of being grouped an various ways (the sub region, Rural 50, Rural 80 and Significant Rural areas);**
- **collected sufficiently robustly and regularly to be susceptible to temporal comparison (annually, biennially);**
- **capable of serving genuinely as a reasonable proxy for some aspect of the 'needs of rural people';**
- **measuring something that is within the sphere of influence of government at local, regional or national level.**

**This would require an assessment, beyond the scope of this paper, of the 198 well being indicators in annex E that meet these criteria and then a distillation of the most critical ones for the measurement of the needs of rural people.**

**In filtering these well-being indicators, a distinction should be made between the well-being of *individual rural residents or households* on the one hand the *well-being of particular communities* on the other. They will each require a different set of indicators.**

## D. OVERALL RECOMMENDATIONS

**We suggest that the most appropriate way of understanding and measuring the Defra DSO of Strong Rural Communities is to use the Well-being indicators at Annex E as a basis for constructing a database as this has the potential to combine both economic and social considerations. We suggest that the following approach is adopted.**

- **A set of key indicators is agreed from the 198, that:**
  - **are complementary**
  - **capture both appropriate economic and social measures for rural areas;**
  - **can be tailored to suit local circumstances;**
  - **are capable of having robust data collected for them on a regular basis;**
  - **can have data collected at ward level;**
  - **can be aggregated to a range of other different levels;**
  - **embrace the principles of sustainable development fully.**

**It might also be appropriate to collapse a set for well being indicators into an overall indicator of Strong Rural Communities.**

**The data, and the assessment of Strong Rural Communities that is derived from them, should be used as a central input to a range of local area-based plans. It should also be used to inform public investment decisions for both economic and social objectives.**

**For this approach to be workable there would be a need:**

- **to be directive to local authorities about which of the indicators should have data collected for them;**
- **to make funding available for the collection of these data;**
- **to fund the ongoing analysis of these data to determine the 'strength of rural communities' over time.**

## Annex A - The evidenced needs of rural people and communities are addressed through mainstream public policy and delivery

**The social and economic outcomes sought by Government apply equally to all areas both urban and rural. When we talk about 'Mainstreaming' rural policy we are talking about ensuring that the policies and processes we develop to deliver our desired outcomes are designed effectively to meet the needs of people living throughout the country. Mainstreaming is about working constructively within a national policy framework which recognises that *all* communities are different; and which is increasingly designed to give local areas the flexibility to respond to local circumstances and needs. It is important in this context that we are able to distinguish between localised issues and concerns and evidence of any systemic challenges associated with rurality. This Intermediate Outcome has been designed to assess the performance of Government policies in rural areas by comparing outcomes and trends in rural areas to the national picture.**

**The overarching themes under which these indicators are grouped were initially developed based on the Social Exclusion Task Force's map of Priority Exclusion Challenges. These were road-tested against the list of 198 Local Authority Performance Indicators; which flow from the priorities identified in Public Service Agreements and Departmental Strategic Objectives announced in the CSR. Details of the relevant cross Government strategies and targets accompany the indicators below. The measures for this IO are:**

1. **Educational Attainment (GCSE Results, entrants to higher education)**
2. **Social Capital/ Quality of Life (Trust, belonging, community cohesion)**
3. **Health (Life expectancy, infant mortality and potential years of life lost for a range of disease)**
4. **Housing Need (Affordability, homelessness, delivery)**
5. **Crime (a range of standard offences)**
6. **Poverty and unemployment (unemployment rates and poverty)**

**In developing indicators for this measure we have been guided by three key principles:**

- **The indicators should, wherever possible, focus on outcomes rather than inputs, outputs or processes,**
- **The outcomes in rural areas will be measured against the national picture,**
- **The indicators must be based on mainstream Government data to which we can reasonably expect to have access to over the full three years of the CSR.**

**The evidence suggests that the majority of rural areas are already relatively 'strong' by most accepted measures. Proportionately fewer rural people live in poverty, whether they are children, pensioners or people of working age. Fewer are victims of crime. Proportionally more people in rural areas are employed and fewer unemployed than in urban areas. Therefore the majority of indicators in this basket are green.**

**However, it is important to be clear that this baseline of information is not an end in itself. It is just the beginning of Defra's work programme on supporting strong rural communities. The indicators underpinning this IO provide the evidence base for Defra's Strong Rural Communities Programme. This evidence will help us to prioritise our activity to ensure that we are focused on those issues where there is greatest evidence of need. It will also provide the basis for a further programme of analysis and investigation; looking beneath the high-level information captured by the DSO exploring evidence gaps and outstanding questions and testing our assumptions.**

**We will also continue to work closely with our colleagues in other Government departments to enable them effectively to rural proof their work and to explore any issues with a specifically rural dimension as well as with our partners in the Commission for Rural Communities who produce a wide range of complementary data – such as the regular State of the Countryside Report.**

## Annex B - Economic growth is supported in rural areas with the lowest levels of performance.

**The Government's central economic objective is to achieve high and stable rates of economic growth and employment. Productivity is the key determinant of long-run growth, which when coupled with employment growth leads to higher prosperity.**

**There is no such thing as a distinctive 'rural economy' – the economies in rural and urban areas are similar, in terms of the mix of businesses and employment. However, whilst most rural areas are performing quite well, there are also rural areas where levels of economic performance are below average and prospects for growth are more limited. These areas share a number of characteristics: distance from economic mass (urban areas); sparse populations and associated low densities of businesses and thin labour markets; and a comparative advantage in low productivity activity such as agriculture and tourism.**

**Productivity in this IO is proxied by GVA per worker which provides an indication of how well labour inputs generate outputs in the economy. Considering GVA per worker gives an indication of the magnitude of productivity in the area where people work and produce, rather than where they live. This is more reflective of how well regional economies are actually performing, as considering GVA per head can tend to hide these true differences due to commuting patterns. Using GVA per worker alone however cannot provide a meaningful picture of prosperity in an area, and that is why the productivity indicator is supported by other indicators to create a more balanced picture of economic outcomes in rural areas.**

**The Government's framework for raising productivity is based on two objectives:**

- **Maintaining macroeconomic stability to ensure certainty around long-term investment decisions for both businesses and individuals.**

- **Microeconomic reform to tackle market failures around the five inter-dependent drivers of productivity: competition, innovation, skills, enterprise and investment.**

**This measure of rural productivity has been developed in conjunction with the Office for National Statistics' (ONS) Economic Analysis Division and it has been applied by Nigel Curry and Don Webber in Annex C.**

## Annex C - Territorial Differences in Rural Productivity in England

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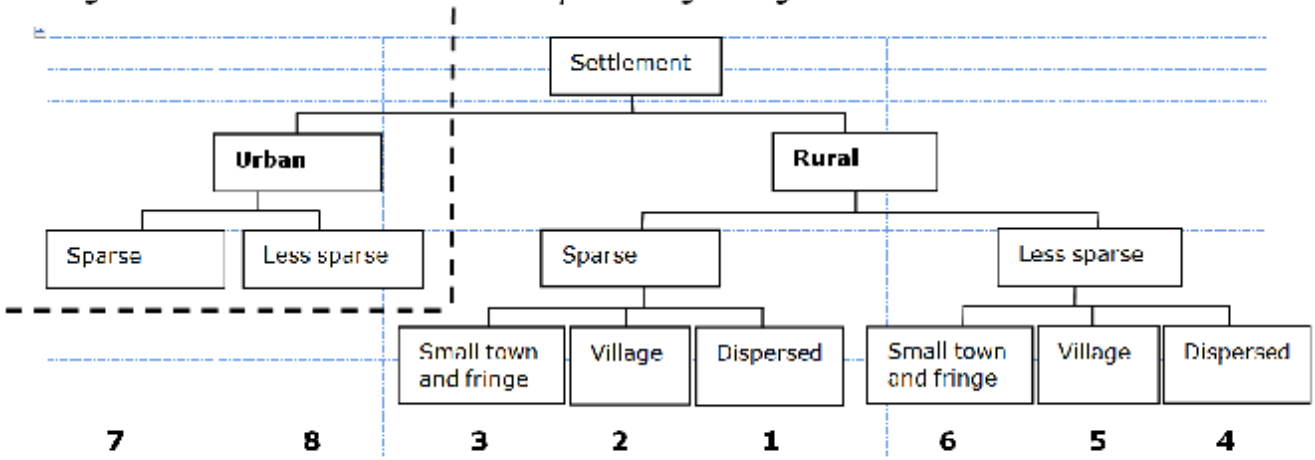
**November 2008**

### Competing interpretations of the territorial nature of 'rural' in English Policy

**Much of the interpretation of rural economic performance depends on the way in which 'rural' is defined. In economic development terms, the English Government Departments have two competing definitions. Defra's (2004) current definition of rural has a number of 'degrees' of rurality contained within it. This spectrum is based upon population densities across the land area. The definition can be employed to interrogate a wide range of different types of data, but importantly the categories used in the definition change according to the degree to which the data that are being used is spatially disaggregated. The default definition is based on data collected at Census Output Area (COA) level and is presented in Figure 1.**

*Figure 1 - the default rural definition pertaining to England and Wales.*




*Source:* adapted from Defra, 2005a

**At this scale of data collection (COA), there are 8 categories in the definition (ranked from most sparse (1) to least sparse (8) in the above diagram): two are urban (and cover all settlements of more than 10,000 in size) and six are rural. These are classified by both type of settlement (town and fringe, village and dispersed) and by what Champion and Shepherd (2006) term their context - sparse or less sparse.**

**If data can be used that are at a level that is *more disaggregated* than the COA (for example at hectare squared or postcode level) it is possible to derive an even more detailed settlement breakdown than this (more than 8 categories). This breakdown remains unstated (Defra 2005a). It is more common, however, that data, and particularly multiple combinations of data, are available at levels that are *more aggregated* than the COA level. Most commonly here, data are available only at Census Super Output Area (CSOA) or Ward level on the one hand, or at the local authority district level (LAD) on the other. In each of these cases, the definitions of rural and urban/rural change because aggregation does not allow as many categories as the 8-fold default classification above.**

**If data are used, disaggregated only to *CSOA or Ward* level the, the 'spectrum' of definitions that can be used for classifying urban/rural drops to 6, four of which are rural (Defra 2005). These are:**

**1. Non-sparse urban,**
**2. Sparse urban,**
**3. Non-sparse town and fringe,**
**4. Sparse town and fringe,**
**5. Non-sparse other,**
**6. Sparse other.**

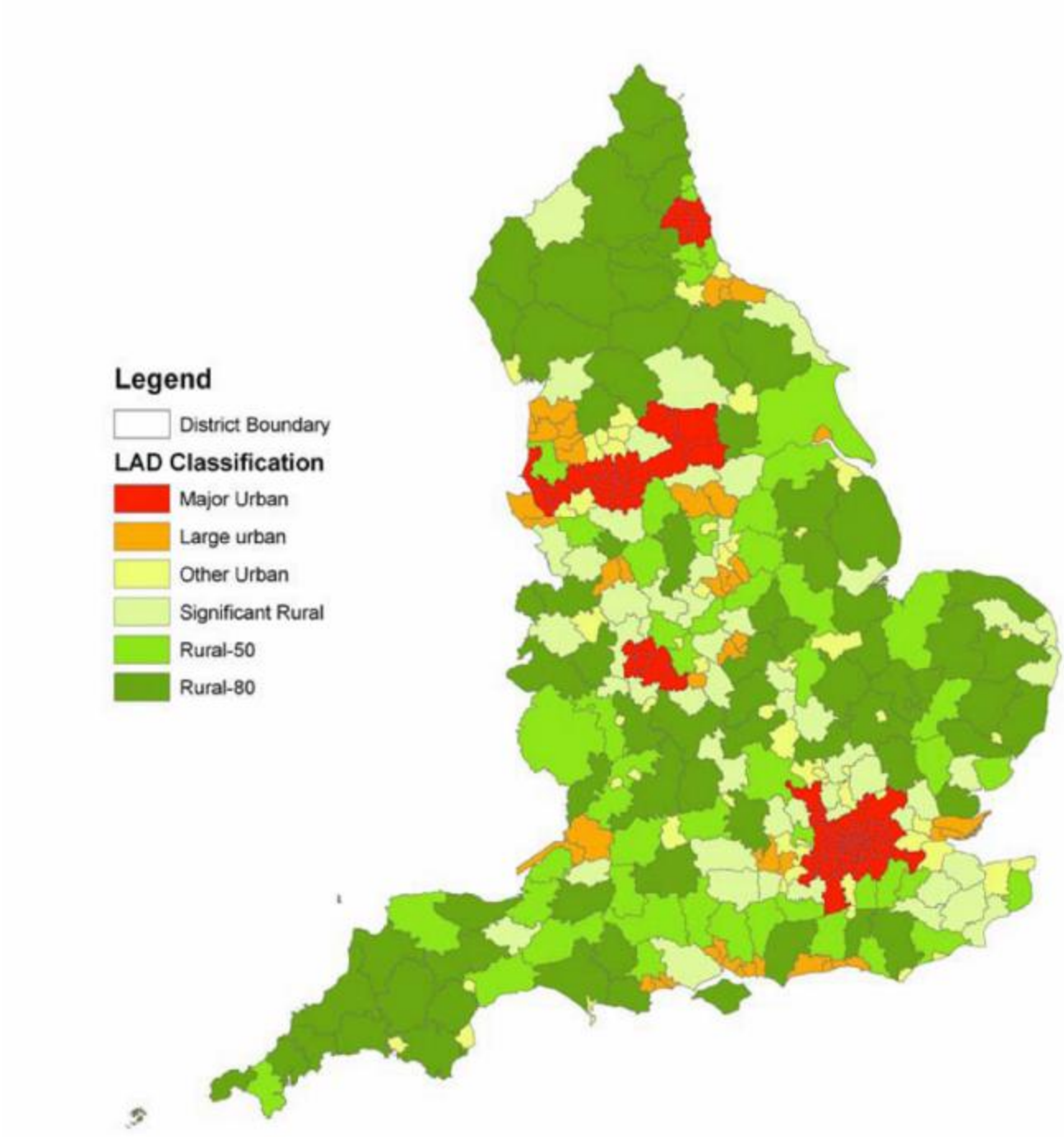
**Where *local authority districts (LADs)* are used as the most disaggregated geographical area for data, the 'spectrum' variable for classifying rural and rural/urban again changes to a six point classification, this time with three rural classifications. The classification using LAD level data thus becomes:**

**1. Major Urban**
**2. Large Urban**
**3. Other Urban**
**4. Significant Rural**
**5. Rural-50**
**6. Rural-80**

**Here, Significant Rural (SR) is defined as a LAD with more than the national average of 26% of the population living in rural settlements (defined in the Defra definition) Rural 50 (R50) is more than 50% of the rural population living in rural settlements and Rural 80 (R80) is more than 80% of the population living in rural settlements). Some 178 of the 354 LADs in England fall into one of these rural types. They comprise 36.5% of the England population (SR, 13.1%, R50, 11.7% and R80, 11.7%). According to the CRC (2008) these three rural local authority categories broadly represent increasing degrees of remoteness and this terminology of 'remoteness' will be used in the remainder of this note.**

**The population of rural LADs (17.9 million in 2001) is much higher than those living in rural areas under the COA definition (9.5 million in 2001), because many rural LADs have urban areas within them. It is clear from the foregoing that the definition is not a definition *per se*, but a structure within which definitions can be derived and made flexible according to the nature and scale of available data, particularly where disparate databases are being used. In the assessment of rural economic performance below, LADs are used as the spatial basis of assessment, and the Defra rural definition distribution of LADs is shown in figure 2 below.**

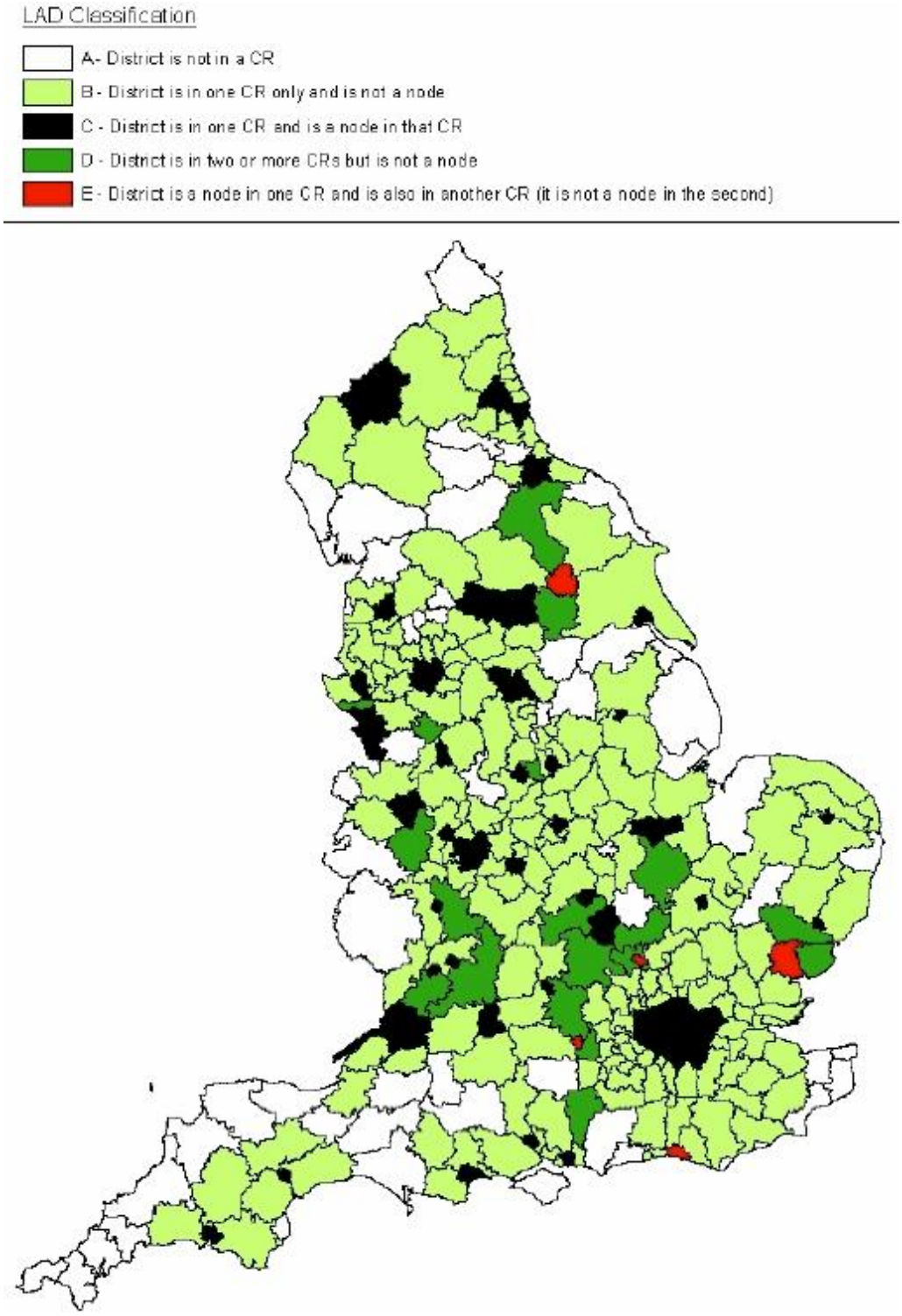
***Figure 2 – Defra Classification of Local Authority Districts (LADs)***




***Source*: Defra (2005a) Annex Two**

**Consistent with the Sub-national Review (Treasury *et al*, 2007) and the Local Government White Paper (DCLG, 2006), however, work also has been undertaken to classify rural LADs by city region, the second of the government's competing definitions. The SQW and Cambridge Econometrics (2006) study classified district authorities in relation to city regions according to commuting patterns to arrive at the classification in Figure 3 below.**

***Figure 3 – city-regions by local authority district***

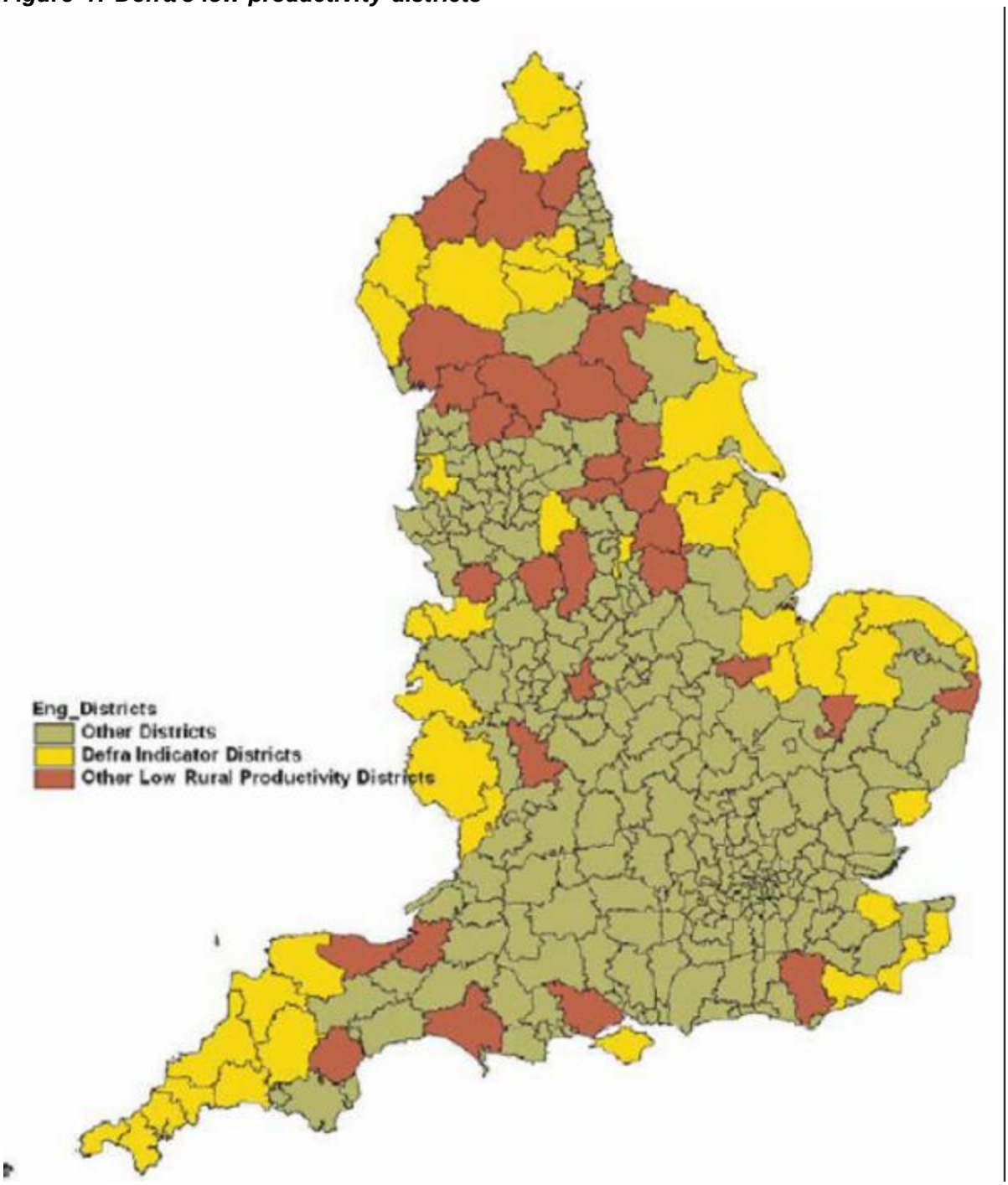



***Source*: SQW and Cambridge Econometrics (2006)**

**Some observations can be made about these two sets of competing definition. Firstly, some25% of districts defined by Defra as SR, R50 or R80 fall outside of a city-region. Under Defra's old PSA 4 productivity target, 44 low productivity rural districts (average incomes in the lowest quartile of local authorities – yellow in the figure 4 below) were prioritised for sponsored Defra intervention as lagging districts.**

**A further 22 districts were identified as less severely challenged but with a number of low productivity wards (those just above the lowest quartile and in brown in figure 4). Interestingly, the 44 lagging districts are largely coastal or peripheral and cluster into seven areas. In Annibal and Boyle's (2007) survey of these districts, a number were not aware that they were a Defra lagging district at all and some had never heard of the PSA 4 target.**

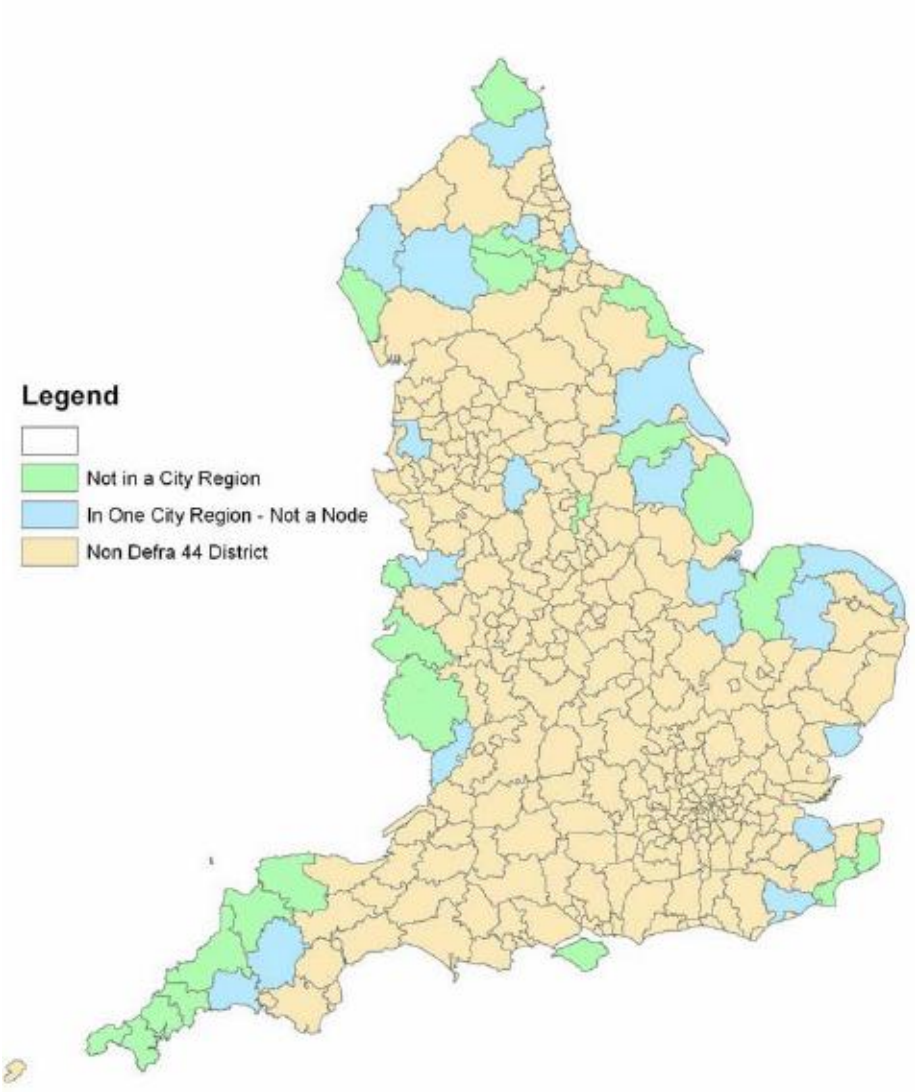
***Figure 4: Defra's low productivity districts***




***Source*: DEFRA (2006) cited in Annibal and Boyle (2007)**

**All of these 44 lagging districts are either not in city-regions at all (55% of them - green in figure 5 below) or are what Annibal and Doyle (2007) term "peripheral" within a city-region (blue in figure 5 below).**

***Figure 5: Low productivity rural districts and city-regions***




***Source*: Annibal and Boyle (2007)**

**The SQW and Cambridge Econometrics (2006) study suggested that rural areas within city-regions are about 8% more productive (using both work-based *and* resident-based income GVA measures) than rural areas outside of city regions. This is only 5% when skills, occupational structures and other regional factors are taken into account – considered to be a more accurate reflection of the city-region influence *per se*. Earnings of rural residents within city-regions are about 18% higher than those outside, but only about 9% when occupational structure and skills levels are taken into account. Rural areas within two or more city regions perform better than those only in one. Whist these rates have not changed much in the recent past, rural areas within city-regions are expected to grow more successfully than those outside. In terms of policy, whilst rural areas within city regions perform better than those outside, according to SQW and Cambridge Econometrics (2006) they still retain typically rural characteristics such as low wages and low skills.**

**The remainder of this paper explores the nature of rural differential economic performance using GVA productivity measures across these two territorial platforms of rural (the Defra definition and the city region) as a means both of identifying influences over productivity but also as a means of exploring the extent to which variations in rural economic productivity can be attributed to the spatial definitions used as much as more substantive economic parameters.**

## Business (plant) structure: rural districts, lagging districts and city regions

**In the empirical analysis below, the plant level data held by the Office for National Statistics in the Annual Respondents Database (ARD2) is used, which brings together a wide range of data relating to individual business units (ONS, 2002). This is supplemented with data from the DEFRA rural area LAD classifications considered above, to allow comparisons of performance both inside and outside of city regions. It is important to note the level at which the data for the ARD2 are collected. This is the level of the plant and there may be more than one plant in a firm. In the analysis, the term 'plant' is therefore used, rather than 'firm' or 'business', as the base economic unit of the analysis.**

**The complete ARD data set includes all firms with greater than 250 employees in England (which are surveyed on an annual basis as a statutory requirement), but only a sample of firms with fewer than 250 employees. Smaller firms are sampled on a random basis (see ONS, 2002, p.2). The ARD2 data omits Standard Industrial Classification (SIC) 100 (agriculture, forestry and fishing) because of the very small size of businesses in this sector, in employment terms.**

**This plant level assessment accounts for the numbers of plants within a firm by using the variable *llunit*, which is the log of the number of plants within the firm establishment. If the firm is a single plant establishment then this is equal to zero. GVA at factor cost per employee is used as the measure of productivity, measured at the plant (and therefore work-based) rather than the place of residence. Data on firm-specific capital stock is obtainable from the ONS and is matched with firm-specific data within the ARD2. Although this is not identical to the Treasury investment productivity driver (CURDs, 2003), it represents the result of past investments and is appropriate in modelling based on the Cobb-Douglas production function.**

**Based on the subsample of the ARD2, which is influenced by data attrition due to the inclusion of additional explanatory variables in the empirical analysis below, some idea of the nature of the differences in economic profiles of rural LADs (relative to each other and relative to non-rural LADs) can be observed. Table A presents a comparison of the plant structure of rural LADs inside and outside of city regions using Defra's LAD classification, SR, R50 and R80. The assessment does not include plants in Major Urban (MU), Large Urban (LU) or Other Urban (OU) LADs (which are part of the Defra definition), which also fall both inside and outside of city regions. Of the 174 Rural LADs in England, 43 of them are outside of city regions.**

***Table A near here***

**Using these classifications, some 1,257 out of a total of 6,124 plants in rural LADs fell outside of city regions altogether – some 20.5% of all rural plants. Interestingly, this proportion is consistent across the three different types of rural area, R80, R50 and SR: 20.2% of plants in the most remote LADs (R80) fall outside of city regions, 20.6% of plants in less remote LADs (R50) fall outside of city regions and 20.8% of plants in the least remote of the rural LADs (SR) fall outside of city regions. This suggests that rural plants are equally likely to fall outside of a city region (and therefore not have access to the policy benefits that a city region might confer) irrespective of how remote the LAD is**

**in which the plant is situated. Similarly, remoteness *per se* does not increase the likelihood of a plant falling outside of a city region.**

**The economic profile of these 'non-city region' LADs can be explored further, again using table A, by examining plants by SIC from the ARD, where remoteness does seem to have a more significant role to play. Thus, 26.3% of all plants in the hotel and catering sector fall outside of city regions in R80 LADs, but only 17.6% of hotels and catering plants in R50 LADs and 22.1% of such plants in SR LADs fall outside of city regions. Whilst there are significant differences across different rural categories these are not linear by rurality: real estate plants are least likely to fall outside of city regions in R50 LADs. There also appears to be a U-shaped relationship for plants operating in 'other sectors' that fall outside of city regions with a relatively low proportion existing in R50, but high proportions existing in R80 LADs; the reverse pattern appears for plants in the transport sector**

*Table A: numbers of rural plants by Defra rural definition, within and outside of city regions in England*

| | Rural 80 | | | Rural 50 | | | Significant Rural | | | Totals from rural 80, rural 50 and significant rural |
|---|---|---|---|---|---|---|---|---|---|---|
| | City region (a) | Not city region (b) | Percent (b) /(a)+(b) | City region (c) | Not city region (d) | Percent (d) /(c)+(d) | City region (e) | Not city region (f) | Percent (f) /(e)+(f) | Total |
| Construction | 137 | 22 | 13.8 | 128 | 31 | 19.5 | 151 | 40 | 20.1 | 509 |
| Hotels and catering sector | 365 | 130 | 26.3 | 357 | 76 | 17.6 | 385 | 109 | 22.1 | 1422 |
| Manufacturing | 332 | 77 | 18.8 | 293 | 92 | 23.9 | 307 | 86 | 21.9 | 1187 |
| Real estate | 272 | 49 | 15.3 | 295 | 58 | 16.4 | 364 | 72 | 16.5 | 1110 |
| Transport | 90 | 13 | 12.6 | 87 | 29 | 25.0 | 88 | 23 | 20.7 | 330 |
| Wholesale | 410 | 116 | 22.1 | 367 | 109 | 22.9 | 439 | 125 | 22.2 | 1566 |
| Other sectors | 279 | 87 | 22.7 | 272 | 56 | 17.1 | 287 | 86 | 23.1 | 1067 |
| Total | 1606 | 407 | 20.2 | 1527 | 395 | 20.6 | 1734 | 455 | 20.8 | 6124 |

**Notes: Sample sizes in other tables are much larger than the numbers in this table; this is because this table relates only to the number of plants in local authority classifications "Rural 80", "Rural 50" and "Significant rural" and not the plants included in the sample from urban areas.**

**It is also possible to create an economic profile of Defra's lagging districts by the Defra LAD rural definition for different industrial sectors. The number of plants by SIC from the ARD sample is shown in table B below. To provide a context for these plant numbers, of the 71 R80 LADs in England, 26 of them are in lagging districts; of the 50 R50 LADs, 13 of them are in lagging districts, and of the 53 SR LADs, 5 of them are in lagging districts.**

**In R80 LADs, more than half of all hotel and catering plants are in lagging districts, despite the fact that only 37% of R80 LADs are lagging districts. Only in real estate in R80 LADs are there proportionately fewer plants than the proportion of R80 LADs that are lagging districts. This pattern is broadly repeated for R50 LADs, 26% of which are lagging districts. The proportion of hotel and catering plants in R50 LADs is lower than in R80 LADs however, where only a third of plants are in lagging R50 districts. The number of plants in lagging SR LADs is small, possibly because of the small number of SD lagging districts and their small proportion of all SDR LADs – only 9%. Whilst these observations could be due to ARD2 sample selection bias or indeed could result from attrition as a result of the introduction of extra explanatory variable in later regressions, the results are likely to be reasonably accurate because of the size of the dataset used.**

***Table B: numbers of plants in the sample by different types of rural district***

| | LA class 1 "Rural 80" | | LA class 2 "Rural 50" | | LA class 3 "Significant Rural" | |
|---|---|---|---|---|---|---|
| | Not in lagging district | In lagging district | Not in lagging district | In lagging district | Not in lagging district | In lagging district |
| Construction | 110 | 49 | 120 | 39 | 182 | < 10 |
| Wholesale | 373 | 153 | 380 | 96 | 528 | 36 |
| Transport | 76 | 27 | 81 | 35 | 97 | 14 |
| Real estate | 261 | 60 | 298 | 55 | 421 | 15 |
| Manufacturing | 277 | 132 | 289 | 96 | 362 | 31 |
| Hotels and catering | 81 | 48 | 79 | 26 | 109 | 12 |
| Other sectors | 267 | 99 | 271 | 57 | 353 | 20 |

**Notes: Sample sizes in tables below are much larger than the numbers in this table; this is because this table relates only to the number of plants in "Rural 80", "Rural 50" and "Significant Rural" classifications.**

**Turning finally to city regions, of the 354 English LADs, 59 are not in a city region. Of these 59, 20 are R80 LADs, 11 are R50 LADs and 12 are SR LADs. The remaining 16 are urban LADs (MU, LU and OU). Of the 44 lagging districts, 23 are not in a city region. These are all rural LADs: of R80 LADs, 13 of 26 lagging districts are not in city regions; of R50 LADs, 7 of the 13 lagging districts are not in city regions and of the SR LADs, 3 of 5 lagging districts are not in city regions. Table C shows the distribution of plants in the sample across lagging and non lagging districts and across districts inside and outside of city regions.**

***Table C: numbers of plants in the sample by lagging rural districts and by districts inside and outside of city regions.***

| | Not a lagging district | Lagging district | Total |
|---|---|---|---|
| City region | 13,883 | 632 | 14,515 |
| Not a city region | 1,252 | 477 | 1,729 |
| Total | 15,135 | 1,109 | 16,244 |

## Labour productivity: rural districts, lagging districts and city regions

**In examining work-place labour productivity levels, the data suggest that plants located in all three of the rural LAD categories in the Defra definition are less productive than the average plant in all English areas taken together (Table D, column 1). Plants in the most rural, R80 LADs, are 17% less productive than the average English plant; R50 LADs are 11.3% less productive and SR 6.6% less productive. Here, there is a clear linear relationship between remoteness and labour productivity: plant productivity declines, the more remote the district.**

***Table D near here***

**But what factors might explain these differences? The capital stock of the firm, the size of the plant's workforce and the ratio of part time to full time staff do account for some of these differences. Once they are taken into account (in column 2 in Table D) the gap in labour productivity of plants in these districts relative to all plants in all English districts falls to the following: R80 LADs are 15.9% less productive; R50 LADs are 9.3% less productive and SR 6.5% less productive. These labour productivity differences also can be explained in part by the industry in which the plant is operating – some LADs appear to be have a much lower level of labour productivity because they have a higher proportion of plants operating in relatively low productivity industries. Once these differences are taken into account, the productivity differences against all LADs taken together again fall (column 3 in Table D): R80 LADs are 13.4% less productive; R50 LADs are 8.2% less productive and SR 6.1% less productive.**

**Columns 4, 5 and 6 in Table D offer explanations of the causes of the labour productivity differences between plants in these three rural area definitions and the average English plant. Low levels of labour productivity in R80 LADs are caused by smaller enhancing effects of capital stock, workforces that are too small to have achieved economies of**

***Table D: Labour productivity disparities in Rural 80, Rural 50 and Significant Rural Local Authority Districts, relative to the whole sample***

| | 1 | 2 | 3 | 4 (Rural 80) | | 5 (Rural 50) | | 6 (Significant rural) | |
|---|---|---|---|---|---|---|---|---|---|
| *N* | 16810 | 15691 | 15691 | 15691 | | 15691 | | 15691 | |
| | | | | Standard | Compound | Standard | Compound | Standard | Compound |
| Rural 80 | -0.170*** (0.026) | -0.159*** (0.023) | -0.134*** (0.022) | – | -0.090 (0.082) | – | – | – | – |
| Rural 50 | -0.113*** (0.026) | -0.093*** (0.023) | -0.082*** (0.022) | – | – | – | -0.049 (0.082) | – | – |
| Significant rural | -0.066*** (0.025) | -0.065*** (0.022) | -0.061*** (0.021) | – | – | – | – | – | -0.130 (0.081) |
| Log (capital stock per worker) | – | 0.265*** (0.005) | 0.300*** (0.005) | 0.306*** (0.005) | -0.061*** (0.016) | 0.302*** (0.005) | -0.012 (0.016) | 0.303*** (0.005) | -0.030** (0.015) |
| Log (employees) | – | -0.008* (0.004) | -0.007 (0.004) | -0.008* (0.005) | 0.025* (0.014) | -0.006 (0.005) | 0.015 (0.014) | -0.005 (0.005) | 0.005 (0.013) |
| Pt/ft ratio | – | -0.011*** (0.001) | -0.010*** (0.001) | -0.009*** (0.001) | -0.015*** (0.003) | -0.010*** (0.001) | -0.008* (0.004) | -0.010*** (0.001) | -0.043*** (0.007) |
| Plants | – | -0.031*** (0.008) | -0.032*** (0.008) | -0.031*** (0.008) | -0.015 (0.026) | -0.029*** (0.008) | -0.031 (0.026) | -0.032*** (0.008) | -0.003 (0.023) |
| Construction | – | – | 0.350*** (0.030) | 0.320*** (0.032) | 0.215** (0.092) | 0.346*** (0.032) | 0.031 (0.092) | 0.319*** (0.033) | 0.203** (0.086) |
| Wholesale | – | – | 0.193*** (0.022) | 0.180*** (0.023) | 0.090 (0.067) | 0.195*** (0.023) | -0.026 (0.069) | 0.153*** (0.023) | 0.285*** (0.065) |
| Transport | – | – | 0.076** (0.033) | 0.057 (0.035) | 0.137 (0.105) | 0.083** (0.035) | -0.043 (0.102) | 0.052 (0.035) | 0.166 (0.103) |
| Real estate | – | – | 0.375*** (0.022) | 0.367*** (0.024) | 0.106 (0.074) | 0.384*** (0.024) | -0.014 (0.073) | 0.354*** (0.024) | 0.221*** (0.068) |
| Manufacturing | – | – | 0.068*** (0.023) | 0.044* (0.025) | 0.159** (0.070) | 0.057** (0.025) | 0.052 (0.073) | 0.021 (0.024) | 0.299*** (0.070) |
| Hotels and catering | – | – | -0.807*** (0.034) | -0.828*** (0.037) | 0.192* (0.104) | -0.808*** (0.036) | 0.025 (0.113) | -0.828*** (0.037) | 0.209** (0.103) |
| $R^2$ | 0.003 | 0.195 | 0.260 | 0.261 | | 0.258 | | 0.261 | |
| *F* statistic | 18.83*** | 542.53*** | 422.95*** | 262.90*** | | 259.50*** | | 263.22*** | |
| Test for compound variables deletion | – | – | – | 6.05*** | | 1.27 | | 6.51*** | |

**scale and larger proportions of part-time employees. R80 LADs would also have higher observable labour productivity levels if they had greater numbers of construction and manufacturing plants; the detracting effect of plants in the hotel and catering sector are not as large in these areas. In R50 LADs the labour productivity differences can be attributed at least in part to the presence of greater proportions of part-time workers. The low levels of labour productivity in SR LADs seems to be due to the smaller enhancing effects of capital stocks and larger proportions of part-time employees. Such areas would also have higher observable levels of labour productivity if there were more plants operating in the construction, wholesale, real estate and manufacturing sectors and, in common with the R80 LADs, the detracting effect of plants in the hotel and catering sector are not as large in these areas.**

**The results presented in Table D are for the whole sample of plants across all areas of England. Table E presents the same types of estimation but this time the sample is constrained to include plants only within city regions. Of the 354 English districts, 295 are within city regions. Of these 295, 131 fall into one of the Defra rural classifications (R80, R50 or SR) and the remainder are urban (MU, LU and OU). Of the 59 LADs not in city regions, 43 (R80, R50 or SR) of them are rural and 16 are urban (MU, LU and OU). The same productivity gap patterns are observable in these tables D and E, albeit with slightly smaller magnitudes. This should be expected because the plants that are operating outside of city regions have been excluded in Table E, and these contain plants that tend to have slightly lower levels of labour productivity. Nevertheless, the results are stable.**

***Table E near here***

**In examining productivity levels in just the R80, R50 and SR LADs that are *outside* of city regions, however, some interesting differences do emerge. Table D shows that plants in R80 and R50 LADs outside of city regions are no less labour productive, using traditional levels of statistical significance, than non-rural LADs (MU, LU or OU) outside of city regions. This might suggest that it is not rurality *per se* that has a particular influence on labour productivity, but rather periperality: falling outside a city region. Table F also indicates that plants in SR LADs outside of city regions are the most productive of all non-city region areas, and this includes non-rural LADs. Table F suggests that this is largely due to a relatively higher proportion of relatively productive wholesale and real estate plants and greater returns to capital stocks in these non-city region SR areas. This evidence suggests that certain kinds of rurality might even have**

***Table E: Labour productivity disparities in Rural 80, Rural 50 and Significant Rural Local Authority Districts within city regions, relative to the whole sample of plants in city regions***

| | 1 | 2 | 3 | 4 (Rural 80) | | 5 (Rural 50) | | 6 (Significant rural) | |
|---|---|---|---|---|---|---|---|---|---|
| *N* | 15081 | 14103 | 14103 | 14103 | | 14103 | | 14103 | |
| | | | | Standard | Compound | Standard | Compound | Standard | Compound |
| Rural 80 | -0.140*** (0.029) | -0.151*** (0.025) | -0.136*** (0.024) | – | -0.122 (0.092) | – | – | – | – |
| Rural 50 | -0.116*** (0.029) | -0.092*** (0.026) | -0.080*** (0.025) | – | – | – | -0.058 (0.092) | – | – |
| Significant rural | -0.081*** (0.028) | -0.076*** (0.024) | -0.070*** (0.023) | – | – | – | – | – | -0.057 (0.091) |
| Log (capital stock per worker) | – | 0.271*** (0.005) | 0.305*** (0.005) | 0.311*** (0.005) | -0.061*** (0.018) | 0.305*** (0.005) | -0.003 (0.018) | 0.307*** (0.005) | -0.039** (0.017) |
| Log (employees) | – | -0.008* (0.005) | -0.007 (0.004) | -0.009* (0.005) | 0.034** (0.015) | -0.006 (0.005) | 0.009 (0.016) | -0.005 (0.005) | 0.011 (0.015) |
| Pt/ft ratio | – | -0.010*** (0.001) | -0.010*** (0.001) | -0.009*** (0.001) | -0.014*** (0.003) | -0.009*** (0.001) | -0.006 (0.004) | -0.009*** (0.001) | -0.087*** (0.012) |
| Plants | – | -0.034*** (0.008) | -0.036*** (0.008) | -0.033*** (0.008) | -0.041 (0.029) | -0.034*** (0.008) | -0.028 (0.030) | -0.035*** (0.008) | -0.002 (0.026) |
| Construction | – | – | 0.320*** (0.032) | 0.291*** (0.034) | 0.234** (0.102) | 0.314*** (0.034) | 0.033 (0.103) | 0.297*** (0.034) | 0.115 (0.098) |
| Wholesale | – | – | 0.171*** (0.023) | 0.156*** (0.025) | 0.127 (0.075) | 0.174*** (0.024) | -0.032 (0.077) | 0.142*** (0.025) | 0.204*** (0.074) |
| Transport | – | – | 0.052 (0.035) | 0.034 (0.037) | 0.152 (0.115) | 0.049 (0.037) | -0.033 (0.116) | 0.033 (0.037) | 0.110 (0.117) |
| Real estate | – | – | 0.358*** (0.023) | 0.348*** (0.025) | 0.128 (0.082) | 0.364*** (0.025) | -0.010 (0.081) | 0.343*** (0.025) | 0.159** (0.076) |
| Manufacturing | – | – | 0.033 (0.025) | 0.011 (0.026) | 0.163** (0.078) | 0.023 (0.025) | 0.037 (0.082) | -0.005 (0.026) | 0.227*** (0.080) |
| Hotels and catering | – | – | -0.828*** (0.037) | -0.843*** (0.039) | 0.143 (0.122) | -0.827*** (0.039) | 0.001 (0.126) | -0.849*** (0.037) | 0.272** (0.116) |
| $R^2$ | 0.003 | 0.200 | 0.263 | 0.263 | | 0.261 | | 0.264 | |
| *F* statistic | 12.92*** | 502.53*** | 385.75*** | 239.76*** | | 236.60*** | | 241.03*** | |
| Test for compound variables deletion | – | – | – | 5.31*** | | 0.84 | | 7.09*** | |

***Table F: Labour productivity disparities in Rural 80, Rural 50 and Significant Rural Local Authority Districts outside of city regions, relative to the whole sample of plants outside of city regions***

| | 1 | 2 | 3 | 4 (Rural 80) | | 5 (Rural 50) | | 6 (Significant rural) | |
|---|---|---|---|---|---|---|---|---|---|
| *N* | 1729 | 1588 | 1588 | 1588 | | 1588 | | 1588 | |
| | | | | Standard | Compound | Standard | Compound | Standard | Compound |
| Rural 80 | -0.093 (0.063) | -0.011 (0.059) | 0.036 (0.056) | – | 0.197 (0.189) | – | – | – | – |
| Rural 50 | 0.090 (0.063) | 0.085 (0.059) | 0.063 (0.025) | – | – | – | -0.029 (0.177) | – | – |
| Significant rural | 0.186*** (0.061) | 0.162*** (0.056) | 0.150*** (0.023) | – | – | – | – | – | -0.191 (0.178) |
| Log (capital stock per worker) | – | 0.195*** (0.015) | 0.267*** (0.015) | 0.233*** (0.017) | -0.029 (0.038) | 0.230*** (0.018) | 0.002 (0.035) | 0.212*** (0.018) | 0.056* (0.034) |
| Log (employees) | – | 0.002 (0.013) | -0.005 (0.013) | -0.002 (0.015) | -0.015 (0.034) | -0.015 (0.015) | 0.048 (0.032) | 0.001 (0.016) | -0.019 (0.029) |
| Pt/ft ratio | – | -0.043*** (0.006) | -0.037*** (0.006) | -0.034*** (0.006) | -0.015 (0.015) | -0.034*** (0.006) | -0.022 (0.018) | -0.043*** (0.007) | 0.015 (0.011) |
| Plants | – | 0.001 (0.022) | 0.008 (0.022) | -0.006 (0.024) | 0.066 (0.055) | 0.027 (0.025) | -0.081 (0.052) | 0.013 (0.026) | -0.030 (0.048) |
| Construction | – | – | 0.580*** (0.086) | 0.607*** (0.067) | -0.123 (0.220) | 0.609*** (0.099) | -0.147 (0.205) | 0.507*** (0.103) | 0.252 (0.185) |
| Wholesale | – | – | 0.369*** (0.062) | 0.430*** (0.071) | -0.266* (0.144) | 0.374*** (0.070) | -0.071 (0.151) | 0.268*** (0.072) | 0.375*** (0.137) |
| Transport | – | – | 0.289*** (0.100) | 0.310*** (0.111) | 0.106 (0.261) | 0.420*** (0.121) | -0.415* (0.223) | 0.261** (0.117) | 0.096 (0.222) |
| Real estate | – | – | 0.497*** (0.072) | 0.529*** (0.081) | 0.124 (0.174) | 0.517*** (0.081) | -0.065 (0.177) | 0.390*** (0.086) | 0.371** (0.155) |
| Manufacturing | – | – | 0.400*** (0.064) | 0.415*** (0.074) | 0.119 (0.148) | 0.406*** (0.072) | -0.118 (0.159) | 0.341*** (0.074) | 0.181 (0.144) |
| Hotels and catering | – | – | -0.541*** (0.094) | -0.605*** (0.113) | 0.148 (0.203) | -0.551*** (0.103) | -0.019 (0.246) | -0.508*** (0.106) | -0.240 (0.224) |
| $R^2$ | 0.013 | 0.168 | 0.255 | 0.255 | | 0.255 | | 0.263 | |
| *F* statistic | 7.26*** | 45.42*** | 41.45*** | 25.53*** | | 25.54*** | | 26.55*** | |
| Test for compound variables deletion | – | – | – | 0.76 | | 0.77 | | 2.22** | |

**productivity advantages over more urban LADs where urban and rural LADs are equally peripheral.**

***Table F near here***

**Turning now to lagging districts, table G presents the results of econometric regressions on a sample which is comprised of plants based in lagging districts and R80 LADs. This is done whilst recognising that there are districts which fall into both of these classifications. This assessment seeks to identify whether the labour productivity performance of plants in the 44 lagging rural districts differs from plants located in the 71 R80 LADs. These results suggest that plant performance in labour productivity terms in lagging districts is about 13% lower than in R80 LADs (column 1), which can be partly explained by a poorer capital stock and a higher proportion of part-time to full-time workers in lagging districts (column 2) as well as different industrial structures (column 3). Column 4 presents the estimates of a cross-section pseudo-Chow test to identify whether these explanatory variables have different effects on lagging districts than in R80 LADs. It appears that real estate plants are less productive and that the detracting effect of employing part-time workers is greater in lagging districts relative to R80 LADs.**

***Table G: productivity profiles of lagging districts compared to Rural 80 districts.***

| | 1 | 2 | 3 | 4 | |
|---|---|---|---|---|---|
| *n* | 2554 | 2341 | 2341 | 2341 | |
| | | | | Standard | Compound |
| Lagging district | -0.130*** (0.037) | -0.088*** (0.034) | -0.077** (0.033) | – | -0.108 (0.125) |
| Log (capital stock per worker) | – | 0.209*** (0.012) | 0.243*** (0.012) | 0.246*** (0.016) | -0.018 (0.025) |
| Log(employees) | – | 0.010 (0.011) | 0.012 (0.011) | 0.002 (0.014) | 0.022 (0.022) |
| Pt/ft ratio | – | -0.027*** (0.003) | -0.025*** (0.003) | -0.022*** (0.003) | -0.043*** (0.010) |
| Plants | – | -0.038* (0.020) | -0.044** (0.020) | -0.049* (0.027) | 0.012 (0.039) |
| Construction | – | – | 0.494*** (0.069) | 0.478*** (0.093) | 0.005 (0.139) |
| Wholesale | – | – | 0.241*** (0.051) | 0.230*** (0.066) | 0.017 (0.103) |
| Transport | – | – | 0.199*** (0.075) | 0.111 (0.104) | 0.157 (0.151) |
| Real estate | – | – | 0.455*** (0.057) | 0.483*** (0.071) | -0.092*** (0.019) |
| Manufacturing | – | – | 0.506*** (0.053) | 0.155** (0.069) | 0.092 (0.107) |
| Hotels and catering | – | – | -0.631*** (0.079) | -0.710*** (0.104) | 0.221 (0.160) |
| $R^2$ | 0.005 | 0.185 | 0.259 | 0.267 | |
| *F* statistic | 12.25*** | 105.99*** | 74.08*** | 40.30*** | |
| Test for compound variables deletion | – | – | – | 2.86*** | |

**Table H presents the results of econometric regressions on a sample which is comprised of plants based in lagging districts and R50 LADs, again recognising that there are districts which are part of both of these classifications. This assessment seeks to identify whether the labour productivity performance of plants in the 44 lagging districts differ from plants located in the 50 R0 LADs. These results suggest that plant performance in labour productivity terms in lagging districts is some 13.6% lower than in the R50 LADs (column 1), which can be explained by lower levels of capital stock, fewer scale economies, and a lower ratio of full time to part time workers in lagging districts (column 2) as well as different industrial structures (column 3). Column 4 presents the estimates**

**of a cross-section pseudo-Chow test to identify whether these explanatory variables have different effects on lagging districts than in Rural 50 districts. It appears that lagging districts suffer from lower returns to capital stocks and the detracting effect of employing part time workers in lagging districts is greater relative to Rural 80 districts. The lagging districts, however, do appear to have some advantages over the R50 districts in that they have more productive transport sector plants and hotel and catering plants that are less of a drain on the economy (they are less 'unproductive') than in R50 districts.**

***Table H: productivity profiles of lagging districts compared to Rural 50 districts.***

| | 1 | 2 | 3 | 4 | |
|---|---|---|---|---|---|
| *n* | 2627 | 2409 | 2409 | 2409 | |
| | | | | Standard | Compound |
| Lagging district | -0.136*** (0.037) | -0.116*** (0.033) | -0.099*** (0.032) | – | 0.013 (0.123) |
| Log (capital stock per worker) | – | 0.241*** (0.012) | 0.273*** (0.012) | 0.297*** (0.015) | -0.069*** (0.024) |
| Log(employees) | – | 0.018* (0.010) | 0.015 (0.010) | 0.009 (0.013) | 0.015 (0.021) |
| Pt/ft ratio | – | -0.024*** (0.004) | -0.022*** (0.003) | -0.015*** (0.004) | -0.050*** (0.011) |
| Plants | – | -0.048* (0.018) | -0.048*** (0.018) | -0.054** (0.024) | 0.016 (0.037) |
| Construction | – | – | 0.467*** (0.067) | 0.426*** (0.088) | 0.057 (0.135) |
| Wholesale | – | – | 0.223*** (0.050) | 0.201*** (0.064) | 0.045 (0.102) |
| Transport | – | – | 0.134* (0.074) | 0.001 (0.100) | 0.268* (0.149) |
| Real estate | – | – | 0.386*** (0.055) | 0.376*** (0.068) | 0.016 (0.117) |
| Manufacturing | – | – | 0.183*** (0.052) | 0.124* (0.069) | 0.123 (0.106) |
| Hotels and catering | – | – | -0.692*** (0.080) | -0.818*** (0.107) | 0.328** (0.162) |
| $R^2$ | 0.005 | 0.205 | 0.274 | 0.284 | |
| *F* statistic | 13.14*** | 123.83*** | 82.21*** | 44.99*** | |
| Test for compound variables deletion | – | – | – | 3.79*** | |

**Table I replicates Tables G and H by investigating the labour productivity gaps between lagging districts and SR LADs. The results suggest that lagging districts appear to have labour productivity levels some 17.6% below the SR LADs (column 1). Again, this can be explained partly by lower levels of capital stock and a higher ratio of part time to full time workers (column 2) as well as industrial structure (column 3). Column 4 shows that plants in SR LADs are affected by these explanatory variables in the same way as all other districts in the sample, except that they suffer more from having lower capital stocks and less productive wholesale plants.**

***Table I: productivity profiles of lagging districts compared to Significant Rural districts.***

| | 1 | 2 | 3 | 4 | |
|---|---|---|---|---|---|
| *n* | 3161 | 2909 | 2909 | 2909 | |
| | | | | Standard | Compound |
| Lagging district | -0.176*** (0.037) | -0.129*** (0.033) | -0.107*** (0.032) | – | 0.080 (0.126) |
| Log (capital stock per worker) | – | 0.226*** (0.011) | 0.262*** (0.012) | 0.277*** (0.014) | -0.049** (0.025) |

| | | | | | |
|---|---|---|---|---|---|
| Log(employees) | – | 0.006<br>(0.010) | 0.011<br>(0.010) | 0.005<br>(0.012) | 0.019<br>(0.021) |
| Pt/ft ratio | – | -0.068***<br>(0.006) | -0.056***<br>(0.006) | -0.051***<br>(0.007) | -0.014<br>(0.013) |
| Plants | – | -0.032*<br>(0.017) | -0.040**<br>(0.017) | -0.040*<br>(0.021) | 0.003<br>(0.036) |
| Construction | – | – | 0.507***<br>(0.063) | 0.518***<br>(0.078) | -0.034<br>(0.133) |
| Wholesale | – | – | 0.383***<br>(0.049) | 0.452***<br>(0.060) | -0.205**<br>(0.103) |
| Transport | – | – | 0.264***<br>(0.074) | 0.239**<br>(0.098) | 0.030<br>(0.152) |
| Real estate | – | – | 0.525**<br>(0.053) | 0.579***<br>(0.062) | -0.188<br>(0.118) |
| Manufacturing | – | – | 0.294***<br>(0.051) | 0.321***<br>(0.064) | -0.074<br>(0.107) |
| Hotels and catering | – | – | -0.570***<br>(0.076) | -0.606***<br>(0.094) | 0.116<br>(0.160) |
| $R^2$ | 0.007 | 0.191 | 0.264 | 0.267 | |
| *F* statistic | 22.81*** | 136.69*** | 94.40*** | 50.07*** | |
| Test for compound variables deletion | – | – | – | 2.12** | |

**Finally, table J shows that plants within city regions that are not lagging districts have the highest level of labour productivity of the four LAD categories in the table. The lowest labour productivity is to be found in plants not in city regions that are in lagging districts. Table J also indicates that plants in city regions are statistically significantly more productive than plants located outside of a city region and plants not in lagging districts are statistically significantly more productive than plants located in lagging districts. Further, within city regions, plants located in lagging districts are statistically significantly less productive than plants located in non-lagging districts and outside of city regions, plants located in lagging districts are statistically significantly less productive than plants located in non-lagging districts. All of these results are statistically significant at the 99% confidence level.**

***Table J: Chi$^2$ tests of labour productivity in city regions and lagging districts***

| | Mean | Standard deviation | Pr(\|T\| > \|t\|) |
|---|---|---|---|
| City region | 3.306 | 1.067 | 0.000 |
| Not city region | 3.143 | 0.928 | |
| Not lagging district | 3.307 | 1.067 | 0.000 |
| Lagging district | 3.093 | 0.907 | |
| City region: not lagging district | 3.318 | 1.076 | 0.000 |
| City region: lagging district | 3.144 | 0.955 | |
| Not city region: not lagging district | 3.188 | 0.958 | 0.001 |
| Not city region: lagging district | 3.024 | 0.835 | |

**From these assessments, the persistent deficiencies in the lagging districts in respect of labour productivity, compared to all rural LADs, appear to be lower levels of capital stock and higher levels of part time, relative to full time, employment. Lower levels of real estate plant productivity (relative to R80 LADs) and wholesale plant productivity (relative to SR LADs) are also evident in the lagging districts. The transport and hotel and catering sectors appear to offer relative productivity advantages for the lagging districts, particularly relative to R50 LADs.**

## Conclusions

**This analysis suggests that city regions as spatial structures for economic development are likely to accentuate economic disadvantage in many rural districts. Using the yardstick of labour productivity, the 59 districts that fall outside of city regions are in aggregate less productive than those within city regions. And of these, 43 are rural (20 R80 LADs, 11 R50 LADs and 12 SR LADs). Interestingly, the rural districts outside of city regions are no less productive than the urban ones, suggesting that remoteness rather than rurality *per se* is the more significant influence over productivity. Indeed, some Significant Rural districts outside of city regions are more productive than urban districts outside of city regions. Further, of the 44 lagging rural districts (defined as being low productivity districts), more than half of them fall outside of city regions. This residualisation in economic development terms can only serve to exacerbate the problems of low productivity in these rural districts: city regions are likely to make these weak districts even weaker.**

**This analysis also shows that, using all of the spatial platforms deployed by the English Government in assessing rural economic performance in tandem, rural remoteness *per se* does not influence the overall proportion of rural economic activity that falls outside of city regions. Rural remoteness, however, does influence individual economic sectors outside of city regions. In particular, there is a greater proportion of hotel and catering plants outside of city regions, the more remote the rural district. This is also true of hotel and catering plants within lagging rural districts.**

**This is significant, because hotel and catering is also a sector with low productivity plants. To a degree, therefore the inherent industrial structure makes remoter rural areas less productive, but it also defines these areas as being amongst the most attractive (through the dominance of tourism) and therefore susceptible to economic 'lifestyle' approaches rather than just those that necessarily maximise productivity, a difference discussed in the previous note. The significant presence of part-time working in remoter and lagging areas too, reduces their productivity relative to other areas, but the evidence does not indicate whether this is as a result of lack of job opportunities or through lifestyle choices. Again, high part-time employment levels could be an indication of more endogenous, lifestyle economies rather than productivity driven ones.**

**The differential objectives for economic performance (productivity, well being, relocalisation and income support) at different governmental levels are likely to cause problems in policy interpretation. This is exemplified by the Defra notion of a lagging district. They have been characterised as lagging by Defra, because of their low productivity. Yet since 2000, district authorities have charged not with the pursuit of productivity, but rather, with well being. It is likely, because of their relative remoteness, that their well-being indicators are orientated more towards 'lifestyle' than productivity ends. In some areas, even, where transition town designations are becoming numerous (49 had been designated in England in the two years to August 2008), such districts, *de facto*, may be moving towards the pursuit of relocalisation objectives, through the selection of particular well-being indicators. These lagging districts have been categorised by a parameter that they have failed to achieve, but have not be asked to pursue anyway.**

**Perhaps in this context there is some purpose in peripheral rural districts (both those that are lagging and that are not in city regions) forming sub-regional partnerships, as mooted in the Sub-national review (Treasury *et al*, 2007) actually to assert their identity in well-being rather than productivity terms – as places to live and work that are 'different' from productivity driven spaces, were 'quality of life' parameters are perhaps higher on their particular agendas. The wide choice of well-being indicators would also allow such sub-regional partnerships to shape their economic purpose to their own**

**particular ends, possibly even aligning it with the relocalisation movement and the increasing range of 'happiness' initiatives outlined in the previous note.**

**The panoply of rural spatial categorisations for economic development combined with the range of measures of economic performance, certainly suggests that at least part of the fortunes of rural districts depend on how they are defined and grouped, rather than necessarily what the quality of life is like for those living and working in them.**

## Annex D – Four Incompatible Policy Goals for rural areas

**Current economic policies for rural areas are confusing, contradictory and incommensurate. They have four main strands: endogenous development, well-being, productivity and income support. Each of these is briefly described as a context to the DSO.**

### *Endogenous development*

**From the late 1970s, European rural policy has focused on endogenous development. The European Integrated Rural Development Programmes of the late 1970s and early 1980s formalised this approach by focusing on the unlocking of skills and the development of communities and societies within the context of the *local* economy. This endogenous approach was considered the most reasonable at the European level in the face of inherent rural problems of remoteness and periperality, agricultural dependence or pressures from urbanisation. The approach was consolidated through the LEADER programmes (LEADER I (1992) and II (1994)) and reasserted in the Cork Declaration of 1996. This declared, rhetorically at least, the importance of participative, bottom-up approaches to rural development, driven by the local community. Since this time endogenous approaches have been the spine of the LEADER + programmes and from 2008, have been incorporated into the Rural Development Programme for England (Pillar II of the Common Agricultural Policy) through Axis IV which applies the LEADER approach in support of the other three Axes, particularly in relation to the developmental functions of Local Action Groups. Importantly this approach is finding favour amongst a number of rural community groups themselves and two movements in particular – the Carnegie local asset-based model and the Transition Towns Movement - offer coherent and specific policy proposal s for the development of rural areas.**

### *Well-being*

**Distinct from endogenous development with its focus on *localisation*, local authorities in urban and rural areas alike in England are required, under Part One of the Local Government Act 2000 to pursue economic (and social and environmental) *well-being* through the production of a community strategy. Whilst rural authorities are to pursue economic well-being, its relationship to the European policy thrust of localisation approaches remains unclear in policy advice. The Treasury and Office for the Deputy Prime Minister have focussed on the *economic* part of this well-being requirement, advising that it should be used to pursue economic performance and local prosperity The 2006 Local Government White Paper is committed to the development of a single performance framework for local authorities, proposing that they select up to 35 performance targets from a set of 198 indicators (only 33 of which pertain to the local economy) to provide flexibility in determining the nature of well-being in their locality. The CRC suggests that this offers the potential to broaden the scope for interpreting economic performance, particularly for authorities in remoter rural areas suffering from the inherent disadvantages that have driven the localisation model. The Lifting the Burden Task Force, however, suggests that, particularly for smaller rural authorities, there may be a lack of confidence in setting these performance targets appropriately.**

### *Productivity*

**In contrast to the pursuit of *localisation* at the community level and *well-being* at the local authority level, both national and regional economic performance Public Service Agreements (PSA) have been built around a third set of measures, concerned with *productivity*: Gross Value Added (GVA) per head, using output, rather than income-based measures. Concern here has been both to increase GVA nationally and to reduce regional disparities. In the rural context, up until 2007, the Department for Environment and Rural Affairs (Defra) had sought more singularly to reduce regional disparities by**

**improving the performance of the weakest regions through the PSA 4 target. This is carried forward into IO 2 in the 2008 Defra DSO.**

***Income support***

**A fourth set of rural economic development measures is encapsulated in Pillar I of the Common Agricultural Policy which provides *income support* to farmers through two means – simply giving them money (direct payments) or supporting the prices for agricultural products at artificially high (above world market) prices (market subsidies). Research suggests that this is, in effect, the converse of pursuing productivity objectives because such direct and indirect subsidy actually discourages efficient production: it removes incentives to modernise and innovate. Although Pillar I support payments are set to decline to 2013 through a shift into Pillar II support, they still comprised 88% of the total CAP budget in 2007. This budget is the largest rural economic funding pot in the UK by a considerable extent.**

## Annex E – the 198 well-being indicators

| Outcome | National indicators |
|---|---|
| **Stronger communities** | **NI 1 % of people who believe people from different backgrounds get on well together in their local area PSA 21**<br>**NI 2 % of people who feel that they belong to their neighbourhood PSA 21**<br>**NI 3 Civic participation in the local area PSA 15**<br>**NI 4 % of people who feel they can influence decisions in their locality PSA 21**<br>**NI 5 Overall/general satisfaction with local area CLG DSO**<br>**NI 6 Participation in regular volunteering CO DSO**<br>**NI 7 Environment for a thriving third sector CO DSO**<br>**NI 8 Adult participation in sport DCMS DSO**<br>**NI 9 Use of public libraries DCMS DSO**<br>**NI 10 Visits to museums or galleries DCMS DSO**<br>**NI 11 Engagement in the arts DCMS DSO**<br>**NI 12 Refused and deferred Houses in Multiple Occupation (HMO) license applications leading to immigration enforcement activity HO DSO**<br>**NI 13 Migrants English language skills and knowledge HO DSO**<br>**NI 14 Avoidable contact: The average number, of customer contacts per received customer request** |
| **Safer communities** | **NI 15 Serious violent crime rate PSA 23**<br>**NI 16 Serious acquisitive crime rate PSA 23**<br>**NI 17 Perceptions of anti-social behaviour PSA 23**<br>**NI 18 Adult re-offending rates for those under probation supervision PSA 23**<br>**NI 19 Rate of proven re-offending by young offenders PSA 23**<br>**NI 20 Assault with injury crime rate PSA 25**<br>**NI 21 Dealing with local concerns about anti-social behaviour and crime by the local council and police PSA 23**<br>**NI 22 Perceptions of parents taking responsibility for the behaviour of their children in the area HO DSO**<br>**NI 23 Perceptions that people in the area treat one another with respect and dignity HO DSO**<br>**NI 24 Satisfaction with the way the police and local council dealt with anti-social behaviour HO DSO**<br>**NI 25 Satisfaction of different groups with the way the police and local council dealt with anti-social behaviour HO DSO**<br>**NI 26 Specialist support to victims of a serious sexual offence PSA 23**<br>**NI 27 Understanding of local concerns about anti-social behaviour and crime by the local council and police HO DSO**<br>**NI 28 Serious knife crime rate HO DSO**<br>**NI 29 Gun crime rate PSA 23**<br>**NI 30 Re-offending rate of prolific and priority offenders HO DSO**<br>**NI 31 Re-offending rate of registered sex offenders PSA 23**<br>**NI 32 Repeat incidents of domestic violence PSA 23**<br>**NI 33 Arson incidents HO DSO**<br>**NI 34 Domestic violence – murder PSA 23**<br>**NI 35 Building resilience to violent extremism PSA 26**<br>**NI 36 Protection against terrorist attack PSA 26**<br>**NI 37 Awareness of civil protection arrangements in the local area CO DSO**<br>**NI 38 Drug-related (Class A) offending rate PSA 25**<br>**NI 39 Alcohol-harm related hospital admission rates PSA 25**<br>**NI 40 Drug users in effective treatment PSA 25**<br>**NI 41 Perceptions of drunk or rowdy behaviour as a problem PSA 25**<br>**NI 42 Perceptions of drug use or drug dealing as a problem PSA 25**<br>**NI 43 Young people within the Youth Justice System receiving a conviction in court who are sentenced to custody MoJ DSO**<br>**NI 44 Ethnic composition of offenders on Youth Justice System disposals MoJ DSO**<br>**NI 45 Young offenders engagement in suitable education, employment or training MoJ DSO**<br>**NI 46 Young offenders access to suitable accommodation MoJ DSO**<br>**NI 47 People killed or seriously injured in road traffic accidents DfT DSO**<br>**NI 48 Children killed or seriously injured in road traffic accidents DfT DSO**<br>**NI 49 Number of primary fires and related fatalities and non-fatal casualties, excluding precautionary checks CLG DSO** |

| Outcome | National indicators |
|---|---|
| **Children & Young People** | ***Enjoy and Achieve***<br>**NI 72 Achievement of at least 78 points across the Early Years Foundation Stage with at least 6 in each of the scales in Personal Social and Emotional Development and Communication, Language and Literacy PSA 10**<br>**NI 73 Achievement at level 4 or above in both English and Maths at Key Stage 2 (Threshold) PSA 10**<br>**NI 74 Achievement at level 5 or above in both English and Maths at Key Stage 3 (Threshold) PSA 10**<br>**NI 75 Achievement of 5 or more A*-C grades at GCSE or equivalent including English and Maths (Threshold) PSA 10**<br>**NI 76 Achievement at level 4 or above in both English and Maths at KS2 (Floor) DCSF DSO**<br>**NI 77 Achievement at level 5 or above in both English and Maths at KS3 (Floor) DCSF DSO**<br>**NI 78 Achievement of 5 or more A*-C grades at GCSE and equivalent including GCSEs in English and Maths (Floor) PSA 10**<br>**NI 79 Achievement of a Level 2 qualification by the age of 19 PSA 10**<br>**NI 80 Achievement of a Level 3 qualification by the age of 19 PSA 10**<br>**NI 81 Inequality gap in the achievement of a Level 3 qualification by the age of 19 DCSF DSO**<br>**NI 82 Inequality gap in the achievement of a Level 2 qualification by the age of 19 DCSF DSO**<br>**NI 83 Achievement at level 5 or above in Science at Key Stage 3 DCSF DSO**<br>**NI 84 Achievement of 2 or more A*-C grades in Science GCSEs or equivalent DCSF DSO**<br>**NI 85 Post-16 participation in physical sciences (A Level Physics, Chemistry and Maths) DCSF DSO**<br>**NI 86 Secondary schools judged as having good or outstanding standards of behaviour DCSF DSO**<br>**NI 87 Secondary school persistent absence rate DCSF DSO**<br>**NI 88 Number of Extended Schools DCSF DSO**<br>**NI 89 Number of schools in special measures DCSF DSO**<br>**NI 90 Take up of 14-19 learning diplomas DCSF DSO**<br>**NI 91 Participation of 17 year-olds in education or training DCSF DSO**<br>**NI 92 Narrowing the gap between the lowest achieving 20% in the Early Years Foundation Stage Profile and the rest PSA 11**<br>**NI 93 Progression by 2 levels in English between Key Stage 1 and Key Stage 2 PSA 11**<br>**NI 94 Progression by 2 levels in Maths between Key Stage 1 and Key Stage 2 PSA 11**<br>**NI 95 Progression by 2 levels in English between Key Stage 2 and Key Stage 3 PSA 11**<br>**NI 96 Progression by 2 levels in Maths between Key Stage 2 and Key Stage 3 PSA 11**<br>**NI 97 Progression by 2 levels in English between Key Stage 3 and Key Stage 4 PSA 11**<br>**NI 98 Progression by 2 levels in Maths between Key Stage 3 and Key Stage 4 PSA 11**<br>**NI 99 Children in care reaching level 4 in English at Key Stage 2 PSA 11**<br>**NI 100 Children in care reaching level 4 in Maths at Key Stage 2 PSA 11**<br>**NI 101 Children in care achieving 5 A*-C GCSEs (or equivalent) at Key Stage 4 (including English and Maths) PSA 11**<br>**NI 102 Achievement gap between pupils eligible for free school meals and their peers achieving the expected level at Key Stages 2 and 4 PSA 11**<br>**NI 103 Special Educational Needs – statements issued within 26 weeks DCSF DSO**<br>**NI 104 The Special Educational Needs (SEN)/non-SEN gap – achieving Key Stage 2 English and Maths threshold DCSF DSO**<br>**NI 105 The Special Educational Needs (SEN)/non-SEN gap – achieving 5 A*-C GCSE inc. English and Maths DCSF DSO**<br>**NI 106 Young people from low income backgrounds progressing to higher education PSA 11**<br>**NI 107 Key Stage 2 attainment for Black and minority ethnic groups DCSF DSO**<br>**NI 108 Key Stage 4 attainment for Black and minority ethnic groups DCSF DSO**<br>**NI 109 Number of Sure Start Children Centres DCSF DSO**<br>***Make a positive contribution***<br>**NI 110 Young people's participation in positive activities PSA 14**<br>**NI 111 First time entrants to the Youth Justice System aged 10 – 17 PSA 14**<br>**NI 112 Under 18 conception rate PSA 14**<br>**NI 113 Prevalence of Chlamydia in under 20 year olds DCSF DSO**<br>**NI 114 Rate of permanent exclusions from school DCSF DSO**<br>**NI 115 Substance misuse by young people PSA 14**<br>***Economic Wellbeing***<br>**NI 116 Proportion of children in poverty PSA 9**<br>**NI 117 16 to 18 year olds who are not in education, training or employment (NEET) PSA 14**<br>**NI 118 Take up of formal childcare by low-income working families DWP DSO** |

| Outcome | National indicators |
|---|---|
| Adult health and wellbeing | NI 119 Self-reported measure of people's overall health and wellbeing DH DSO<br>NI 120 All-age all cause mortality rate PSA 18<br>NI 121 Mortality rate from all circulatory diseases at ages under 75 DH DSO<br>NI 122 Mortality from all cancers at ages under 75 DH DSO<br>NI 123 16+ current smoking rate prevalence PSA 18<br>NI 124 People with a long-term condition supported to be independent and in control of their condition DH DSO<br>NI 125 Achieving independence for older people through rehabilitation/intermediate care PSA 18<br>NI 126 Early access for women to maternity services PSA 19<br>NI 127 Self reported experience of social care users PSA 19<br>NI 128 User reported measure of respect and dignity in their treatment DH DSO<br>NI 129 End of life access to palliative care enabling people to choose to die at home DH DSO<br>NI 130 Social Care clients receiving Self Directed Support (Direct Payments and Individual Budgets) DH DSO<br>NI 131 Delayed transfers of care from hospitals DH DSO<br>NI 132 Timeliness of social care assessment DH DSO<br>NI 133 Timeliness of social care packages DH DSO<br>NI 134 The number of emergency bed days per head of weighted population DH DSO<br>NI 135 Carers receiving needs assessment or review and a specific carer's service, or advice and information DH DSO<br>NI 136 People supported to live independently through social services (all ages) PSA 18<br>NI 137 Healthy life expectancy at age 65 PSA 17<br>NI 138 Satisfaction of people over 65 with both home and neighbourhood PSA 17<br>NI 139 People over 65 who say that they receive the information, assistance and support needed to exercise choice and control to live independently PSA 17 |
| Tackling exclusion and promoting equality | NI 140 Fair treatment by local services PSA 15<br>NI 141 Number of vulnerable people achieving independent living CLG DSO<br>NI 142 Number of vulnerable people who are supported to maintain independent living PSA 17<br>NI 143 Offenders under probation supervision living in settled and suitable accommodation at the end of their order or licence PSA 16<br>NI 144 Offenders under probation supervision in employment at the end of their order or licence PSA 16<br>NI 145 Adults with learning disabilities in settled accommodation PSA 16<br>NI 146 Adults with learning disabilities in employment PSA 16<br>NI 147 Care leavers in suitable accommodation PSA 16<br>NI 148 Care leavers in employment, education or training PSA 16<br>NI 149 Adults in contact with secondary mental health services in settled accommodation PSA 16<br>NI 150 Adults in contact with secondary mental health services in employment PSA 16 |
| Local Economy | NI 151 Overall Employment rate (working-age) PSA 7, 8<br>NI 152 Working age people on out of work benefits PSA 8<br>NI 153 Working age people claiming out of work benefits in the worst performing neighbourhoods DWP DSO<br>NI 154 Net additional homes provided PSA 20<br>NI 155 Number of affordable homes delivered (gross) PSA 20<br>NI 156 Number of households living in temporary accommodation PSA 20<br>NI 157 Processing of planning applications CLG DSO<br>NI 158 % non-decent council homes CLG DSO<br>NI 159 Supply of ready to develop housing sites CLG DSO<br>NI 160 Local authority tenants' satisfaction with landlord services CLG DSO<br>NI 161 Number of Level 1 qualifications in literacy (including ESOL) achieved PSA 2<br>NI 162 Number of Entry level qualifications in numeracy achieved PSA 2<br>NI 163 Proportion of population aged 19-64 for males and 19-59 for females qualified to at least Level 2 or higher PSA 2<br>NI 164 Proportion of population aged 19-64 for males and 19-59 for females qualified to at least Level 3 or higher PSA 2<br>NI 165 Proportion of population aged 19-64 for males and 19-59 for females qualified to at least Level 4 or higher PSA 2<br>NI 166 Median earnings of employees in the area BERR DSO<br>NI 167 Congestion – average journey time per mile during the morning peak PSA 5 |

| Outcome | National indicators |
|---|---|
| | **NI 168 Principal roads where maintenance should be considered DfT DSO**<br>**NI 169 Non-principal classified roads where maintenance should be considered DfT DSO**<br>**NI 170 Previously developed land that has been vacant or derelict for more than 5 years CLG DSO**<br>**NI 171 New business registration rate BERR DSO**<br>**NI 172 Percentage of small businesses in an area showing employment growth BERR DSO**<br>**NI 173 Flows on to incapacity benefits from employment DWP DSO**<br>**NI 174 Skills gaps in the current workforce reported by employers DIUS DSO**<br>**NI 175 Access to services and facilities by public transport, walking and cycling DfT DSO**<br>**NI 176 Working age people with access to employment by public transport (and other specified modes) DfT DSO**<br>**NI 177 Local bus and light rail passenger journeys originating in the authority area DfT DSO**<br>**NI 178 Bus services running on time DfT DSO**<br>**NI 179 Value for money – total net value of on-going cash-releasing value for money gains that have impacted since the start of the 2008-9 financial year CLG DSO**<br>**NI 180 The number of changes of circumstances which affect customers' HB/CTB entitlements within the year DWP DSO**<br>**NI 181 Time taken to process Housing Benefit/Council Tax Benefit new claims and change events DWP DSO**<br>**NI 182 Satisfaction of businesses with local authority regulatory services BERR DSO**<br>**NI 183 Impact of local authority regulatory services on the fair trading environment BERR DSO**<br>**NI 184 Food establishments in the area which are broadly compliant with food hygiene law** |
| **Environmental Sustainability.** | **NI 185 $CO_2$ reduction from Local Authority operations PSA 27**<br>**NI 186 Per capita reduction in $CO_2$ emissions in the LA area PSA 27**<br>**NI 187 Tackling fuel poverty – % of people receiving income based benefits living in homes with a low energy efficiency rating Defra DSO**<br>**NI 188 Planning to Adapt to climate change PSA 27**<br>**NI 189 Flood and coastal erosion risk management Defra DSO**<br>**NI 190 Achievement in meeting standards for the control system for animal health. For introduction in 2009/10**<br>**NI 191 Residual household waste per household Defra DSO**<br>**NI 192 Percentage of household waste sent for reuse, recycling and composting Defra DSO**<br>**NI 193 Percentage of municipal waste land filled Defra DSO**<br>**NI 194 Air quality – % reduction in $NO_x$ and primary $PM_{10}$ emissions through local authority's estate and operations. PSA 28**<br>**NI 195 Improved street and environmental cleanliness (levels of litter, detritus, graffiti and fly posting) Defra DSO**<br>**NI 196 Improved street and environmental cleanliness – fly tipping Defra DSO**<br>**NI 197 Improved local biodiversity – proportion of local sites where positive conservation management has been or is being implemented Defra DSO**<br>**NI 198 Children travelling to school – mode of transport usually used DfT DSO** |

**Measuring the Defra Departmental DSO for rural areas**

**A note for the South West Rural Affairs Forum of March 23 2009**

**Nigel Curry and Malcolm Moseley, March 2009.**

## A BACKGROUND

### 1. The Defra Rural DSO

**The Department for the Environment, Food and Rural Affairs (Defra) has a Departmental Strategic Objective (DSO) of 'Strong Rural Communities', which was introduced in the wake of the 2007 Comprehensive Spending Review and became operative in 2008. This replaced Defra's Public Service Agreement (PSA4) which was to:**

***"reduce the gap in productivity between the least well performing quartile of rural areas and the English median by 2008, demonstrating progress by 2006, and improve the accessibility of services for people in rural areas".***

**DSOs are of lower order importance than PSAs and from this perspective, the 'rural communities' part of Defra's work has been relegated in importance. This note discusses the nature of the Defra DSO and considers how it might be practically measured.**

**The DSO itself has two elements - Intermediate Outcomes (IOs) - and these are as follows (http://www.defra.gov.uk/rural/dso/index.htm).**

- **The evidenced needs of rural people and communities are addressed through mainstream public policy and delivery. This is defined in annex A together with the parameters that Defra proposes to use in its measurement, which are as follows.**

    1. **Educational Attainment (GCSE Results, entrants to higher education)**
    2. **Social Capital/ Quality of Life (Trust, belonging, community cohesion)**
    3. **Health (Life expectancy, infant mortality and potential years of life lost for a range of disease)**
    4. **Housing Need (Affordability, homelessness, delivery)**
    5. **Crime (a range of standard offences)**
    6. **Poverty and unemployment (unemployment rates and poverty**

- **Economic growth is supported in rural areas with the lowest levels of performance (this is defined in annex B together with the parameters that Defra proposes to use in its measurement). These are based on measures if gross value added per worker and have been derived for different rural areas in annex C.**

### 2. The EFRA[1] View on the DSO

**The House of Commons Environment, Food and Rural Affairs Committee of October 2008, were sceptical of this approach to the development of strong rural communities:**

**(http://www.publications.parliament.uk/pa/cm200708/cmselect/cmenvfru/544/544i.pdf)**

**Their main concerns were:**

[1] **House of Commons Environment, Food and Rural Affairs Committee (2008)** ***The potential of England's rural economy*** **Eleventh Report of Session 2007–08, London: The Stationery Office Limited, 29 October.**

- **The IOs are difficult to measure in practice, particularly at the level of individual rural areas.**
- **There is a lack of readily available data by which to measure the DSO indicators properly.**
- **A number of important mainstreaming indicators appear to be missing from IO one (transport, planning, communications, further education).**
- **The Defra indicators do not fully take into account very diverse nature of rural areas.**
- **Defra should not just focus its efforts into rural areas with the lowest level of performance.**
- **The DSO will not be able readily to identify factors inhibiting rural economic growth.**
- **Defra does not have policy influence over the variables in the DSO and therefore cannot readily influence it.**
- **Defra should produce a delivery plan.**

**The EFRA committee recommended that Defra should consider a different title, at least for its DSO, to embrace sustainability.**

### 3. Purpose of Paper

**This paper reviews the nature of the Defra DSO and makes recommendations for the way in which 'strong rural communities' might be measured. We have used four guiding principles here, that derive from the EFRA report**

- **Rural policy is (and should be) increasingly area-based (territorial) rather than sector-based.**
- **Area-based approaches need to be differentiated to accommodate a wide range of different rural areas**
- **The two parts of the DSO need to be integrated ultimately so that policy sets 'connect'. Otherwise one set of policies might work against the other set.**
- **Any DSO for rural areas needs to embrace principles of sustainable development fully.**

**We deal with the two parts of the DSO separately in our analysis and then bring them together in some concluding comments, and we start with the IO on the economy first.**

## B. IO TWO: ECONOMY

### 4. Conflicting rural economic policies

**The development of rural economies has to take place within the context of four contradictory sets of rural economic policy. These are outlined in annex D. The EU (RDPE and LEADER) requires the pursuit of *endogenous development* goals (supported by a range of community policies promoting *localisation*). Rural local authorities are charged with pursuing goals of *well-being* under the Local Government Act, 2000. National government and the regions are charged by the Treasury with pursuing goals of *productivity* for rural areas (including the Defra DSO IO two). There is one sectoral policy, for agriculture, pursuing the goal of *income support*. The first two of these might be considered to conform to the EU's cohesion purposes and the third (and possibly, in a perverse way, the forth) to the EU's competitiveness ones. We would also contend that *localisation* is more closely aligned to the EU's third principal purpose: sustainability. The English Sub-national Review and other recent national policy shifts reinforced the difference between the productivity and well-being purposes outlined above with, perhaps, some difficult consequences for rural areas.**

## 5. Issues for measures of performance in the rural economy

***Endogenous* (localisation) development**

- **Has widespread support within communities.**
- **Is a well-established European model.**
- **Has clear policy objectives and criteria through the Carnegie and Transition Town approaches.**
- **Allows local differentiation**
- **Conforms to principles of sustainable development.**
- **Funding streams are diffuse and fragmented.**
- **Not part of the 'political will' of government.**

***Well-being***

- **Has the potential to integrate economic, social and environmental goals.**
- **Has the potential to pursue sustainable development goals**
- **Allows local differentiation**
- **It is not widely used or understood in local authorities**
- **Requires considerable data collection.**

***Productivity***

- **The natural features of rural areas always put them at a productuvuty disadvantage.**
- **It is *businesses* and not *areas* that are productive (or less productive). If business productivity is a goal this should be dealt with through targeted funding.**
- **It is not sustainable as it is based on economic growth.**
- **The logic of trying to equalise productivity between regions is not clear.**
- **GVA per worker is very difficult to measure meaningfully and require familiarity with the Office for National Statistics Annual Business Respondents Database (ABRD).**
- **Business productivity can be measured accurately through the ABRD only for businesses of greater than 250 employees. This excludes many rural businesses, distorting the analysis.**

***Income Support***

- **It is a huge consumer of public finds (largest public resources going into rural areas and yet not being used by rural areas *per se*)**
- **It works against productivity objectives (it stifles innovation)**
- **It leads to the value of agricultural output being smaller than the value of the subsidy.**
- **It is money that leaks out of the rural economy very quickly.**
- **It has a negative impact on the food economies of third countries.**

## 6. Recommendations on the economy IO

- **For rural areas, the *sub-regional* scale is probably the most appropriate by which to develop measures of economic performance. This has been argued for in the Sub-national review. The RDAs should be encouraged to identify rural sub regions (collections of local authorities) as the basis for economic planning and ensure that Local Strategic Partnerships are operational in these areas.**
- **In order to encourage area-based approaches and to recognise rural differences, sub-regions should develop, again with the encouragement of the RDAs, a set of *economic well-being* indicators that capture the nature of the sub-region most effectively, though Local Area Agreements (LAAs) and Multi Area Agreements (MAAs). These indicators should form the basis of rural economic performance and therefore be readily measurable. They should also form the basis of targeted economic support.**

- **These indicators can be drawn from the 198 indicators (see Annex E), but prior to their refinement, rural sub-regions should produce a development framework that considers the balance of economic objectives in relation to productivity, endogenous development, well-being and income support and the relative importance of each, through LAAs and MAAs**
- **Productivity indicators should be only one of a range of measures considered and where they are used should be work-based rather than residence based.**
- **The notion of trying to 'equalise' productivity across regions and sub regions should be abandoned.**
- **The nature of rural public economic support should be rationalised and simplified around *area* rather than sectoral needs. The SWRDA identified 133 discrete funding streams specifically for rural areas, not including the rural expenditure of individual local authorities in 2007. In Gloucestershire for 2008, the RCC, for example, identified over 370 funding allocations in the county for rural development projects.**

## C. IO ONE: COMMUNITY

### 7. Measuring the needs of rural people

**Unlike measures of rural economic performance, there are no clearly competing measures of the "needs of rural people". This IO, however, does appear to relate to processes rather than outcomes as the IO is about how these rural needs are to be met. The six means of measuring these (section 1 above) do appear to be outcome based, however, and they have been criticised (by EFRA, for example) for being partial. We would add to the list of things that EFRA considered to be missing from the list of six, access to rural services.**

**We do consider, however, that there is the potential for measuring the needs of rural people within the choice of *well-being indicators* offered at annex E. Important to the choice of these indicators, however, is the extent to which they can be measured and the extent to which data can be collected on a regular basis. Such data will need to be:**

- **available at suitable level of geographical disaggregation, probably at the ward or enumeration district level, and capable of being grouped an various ways (the sub region, Rural 50, Rural 80 and Significant Rural areas);**
- **collected sufficiently robustly and regularly to be susceptible to temporal comparison (annually, biennially);**
- **capable of serving genuinely as a reasonable proxy for some aspect of the 'needs of rural people';**
- **measuring something that is within the sphere of influence of government at local, regional or national level.**

**This would require an assessment, beyond the scope of this paper, of the 198 well being indicators in annex E that meet these criteria and then a distillation of the most critical ones for the measurement of the needs of rural people.**

**In filtering these well-being indicators, a distinction should be made between the well-being of *individual rural residents or households* on the one hand the *well-being of particular communities* on the other. They will each require a different set of indicators.**

## D. OVERALL RECOMMENDATIONS

**We suggest that the most appropriate way of understanding and measuring the Defra DSO of Strong Rural Communities is to use the Well-being indicators at Annex E as a basis for constructing a database as this has the potential to combine both economic and social considerations. We suggest that the following approach is adopted.**

- **A set of key indicators is agreed from the 198, that:**
  - **are complementary**
  - **capture both appropriate economic and social measures for rural areas;**
  - **can be tailored to suit local circumstances;**
  - **are capable of having robust data collected for them on a regular basis;**
  - **can have data collected at ward level;**
  - **can be aggregated to a range of other different levels;**
  - **embrace the principles of sustainable development fully.**

**It might also be appropriate to collapse a set for well being indicators into an overall indicator of Strong Rural Communities.**

**The data, and the assessment of Strong Rural Communities that is derived from them, should be used as a central input to a range of local area-based plans. It should also be used to inform public investment decisions for both economic and social objectives.**

**For this approach to be workable there would be a need:**

- **to be directive to local authorities about which of the indicators should have data collected for them;**
- **to make funding available for the collection of these data;**
- **to fund the ongoing analysis of these data to determine the 'strength of rural communities' over time.**

## Annex A - The evidenced needs of rural people and communities are addressed through mainstream public policy and delivery

**The social and economic outcomes sought by Government apply equally to all areas both urban and rural. When we talk about 'Mainstreaming' rural policy we are talking about ensuring that the policies and processes we develop to deliver our desired outcomes are designed effectively to meet the needs of people living throughout the country. Mainstreaming is about working constructively within a national policy framework which recognises that *all* communities are different; and which is increasingly designed to give local areas the flexibility to respond to local circumstances and needs. It is important in this context that we are able to distinguish between localised issues and concerns and evidence of any systemic challenges associated with rurality. This Intermediate Outcome has been designed to assess the performance of Government policies in rural areas by comparing outcomes and trends in rural areas to the national picture.**

**The overarching themes under which these indicators are grouped were initially developed based on the Social Exclusion Task Force's map of Priority Exclusion Challenges. These were road-tested against the list of 198 Local Authority Performance Indicators; which flow from the priorities identified in Public Service Agreements and Departmental Strategic Objectives announced in the CSR. Details of the relevant cross Government strategies and targets accompany the indicators below. The measures for this IO are:**

1. **Educational Attainment (GCSE Results, entrants to higher education)**
2. **Social Capital/ Quality of Life (Trust, belonging, community cohesion)**
3. **Health (Life expectancy, infant mortality and potential years of life lost for a range of disease)**
4. **Housing Need (Affordability, homelessness, delivery)**
5. **Crime (a range of standard offences)**
6. **Poverty and unemployment (unemployment rates and poverty)**

**In developing indicators for this measure we have been guided by three key principles:**

- **The indicators should, wherever possible, focus on outcomes rather than inputs, outputs or processes,**
- **The outcomes in rural areas will be measured against the national picture,**
- **The indicators must be based on mainstream Government data to which we can reasonably expect to have access to over the full three years of the CSR.**

**The evidence suggests that the majority of rural areas are already relatively 'strong' by most accepted measures. Proportionately fewer rural people live in poverty, whether they are children, pensioners or people of working age. Fewer are victims of crime. Proportionally more people in rural areas are employed and fewer unemployed than in urban areas. Therefore the majority of indicators in this basket are green.**

**However, it is important to be clear that this baseline of information is not an end in itself. It is just the beginning of Defra's work programme on supporting strong rural communities. The indicators underpinning this IO provide the evidence base for Defra's Strong Rural Communities Programme. This evidence will help us to prioritise our activity to ensure that we are focused on those issues where there is greatest evidence of need. It will also provide the basis for a further programme of analysis and investigation; looking beneath the high-level information captured by the DSO exploring evidence gaps and outstanding questions and testing our assumptions.**

**We will also continue to work closely with our colleagues in other Government departments to enable them effectively to rural proof their work and to explore any issues with a specifically rural dimension as well as with our partners in the Commission for Rural Communities who produce a wide range of complementary data – such as the regular State of the Countryside Report.**

## Annex B - Economic growth is supported in rural areas with the lowest levels of performance.

**The Government's central economic objective is to achieve high and stable rates of economic growth and employment. Productivity is the key determinant of long-run growth, which when coupled with employment growth leads to higher prosperity.**

**There is no such thing as a distinctive 'rural economy' – the economies in rural and urban areas are similar, in terms of the mix of businesses and employment. However, whilst most rural areas are performing quite well, there are also rural areas where levels of economic performance are below average and prospects for growth are more limited. These areas share a number of characteristics: distance from economic mass (urban areas); sparse populations and associated low densities of businesses and thin labour markets; and a comparative advantage in low productivity activity such as agriculture and tourism.**

**Productivity in this IO is proxied by GVA per worker which provides an indication of how well labour inputs generate outputs in the economy. Considering GVA per worker gives an indication of the magnitude of productivity in the area where people work and produce, rather than where they live. This is more reflective of how well regional economies are actually performing, as considering GVA per head can tend to hide these true differences due to commuting patterns. Using GVA per worker alone however cannot provide a meaningful picture of prosperity in an area, and that is why the productivity indicator is supported by other indicators to create a more balanced picture of economic outcomes in rural areas.**

**The Government's framework for raising productivity is based on two objectives:**

- **Maintaining macroeconomic stability to ensure certainty around long-term investment decisions for both businesses and individuals.**

- **Microeconomic reform to tackle market failures around the five inter-dependent drivers of productivity: competition, innovation, skills, enterprise and investment.**

**This measure of rural productivity has been developed in conjunction with the Office for National Statistics' (ONS) Economic Analysis Division and it has been applied by Nigel Curry and Don Webber in Annex C.**

## Annex C - Territorial Differences in Rural Productivity in England

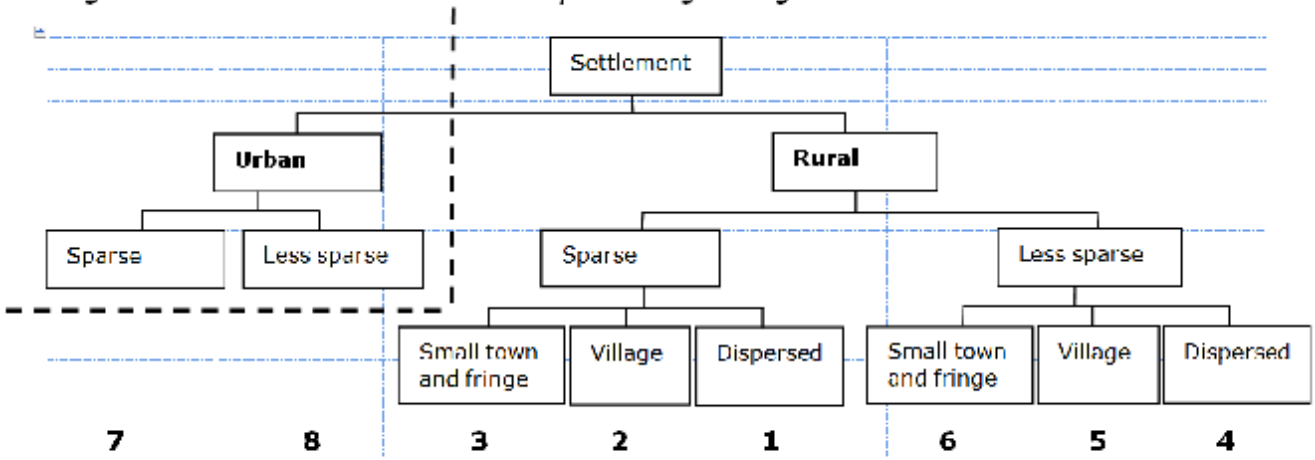
**Nigel Curry and Don Webber, Countryside and Community Research Institute**

**November 2008**

### Competing interpretations of the territorial nature of 'rural' in English Policy

**Much of the interpretation of rural economic performance depends on the way in which 'rural' is defined. In economic development terms, the English Government Departments have two competing definitions. Defra's (2004) current definition of rural has a number of 'degrees' of rurality contained within it. This spectrum is based upon population densities across the land area. The definition can be employed to interrogate a wide range of different types of data, but importantly the categories used in the definition change according to the degree to which the data that are being used is spatially disaggregated. The default definition is based on data collected at Census Output Area (COA) level and is presented in Figure 1.**

*Figure 1 - the default rural definition pertaining to England and Wales.*




*Source:* adapted from Defra, 2005a

**At this scale of data collection (COA), there are 8 categories in the definition (ranked from most sparse (1) to least sparse (8) in the above diagram): two are urban (and cover all settlements of more than 10,000 in size) and six are rural. These are classified by both type of settlement (town and fringe, village and dispersed) and by what Champion and Shepherd (2006) term their context - sparse or less sparse.**

**If data can be used that are at a level that is *more disaggregated* than the COA (for example at hectare squared or postcode level) it is possible to derive an even more detailed settlement breakdown than this (more than 8 categories). This breakdown remains unstated (Defra 2005a). It is more common, however, that data, and particularly multiple combinations of data, are available at levels that are *more aggregated* than the COA level. Most commonly here, data are available only at Census Super Output Area (CSOA) or Ward level on the one hand, or at the local authority district level (LAD) on the other. In each of these cases, the definitions of rural and urban/rural change because aggregation does not allow as many categories as the 8-fold default classification above.**

**If data are used, disaggregated only to *CSOA or Ward* level the, the 'spectrum' of definitions that can be used for classifying urban/rural drops to 6, four of which are rural (Defra 2005). These are:**

**1. Non-sparse urban,**
**2. Sparse urban,**
**3. Non-sparse town and fringe,**
**4. Sparse town and fringe,**
**5. Non-sparse other,**
**6. Sparse other.**

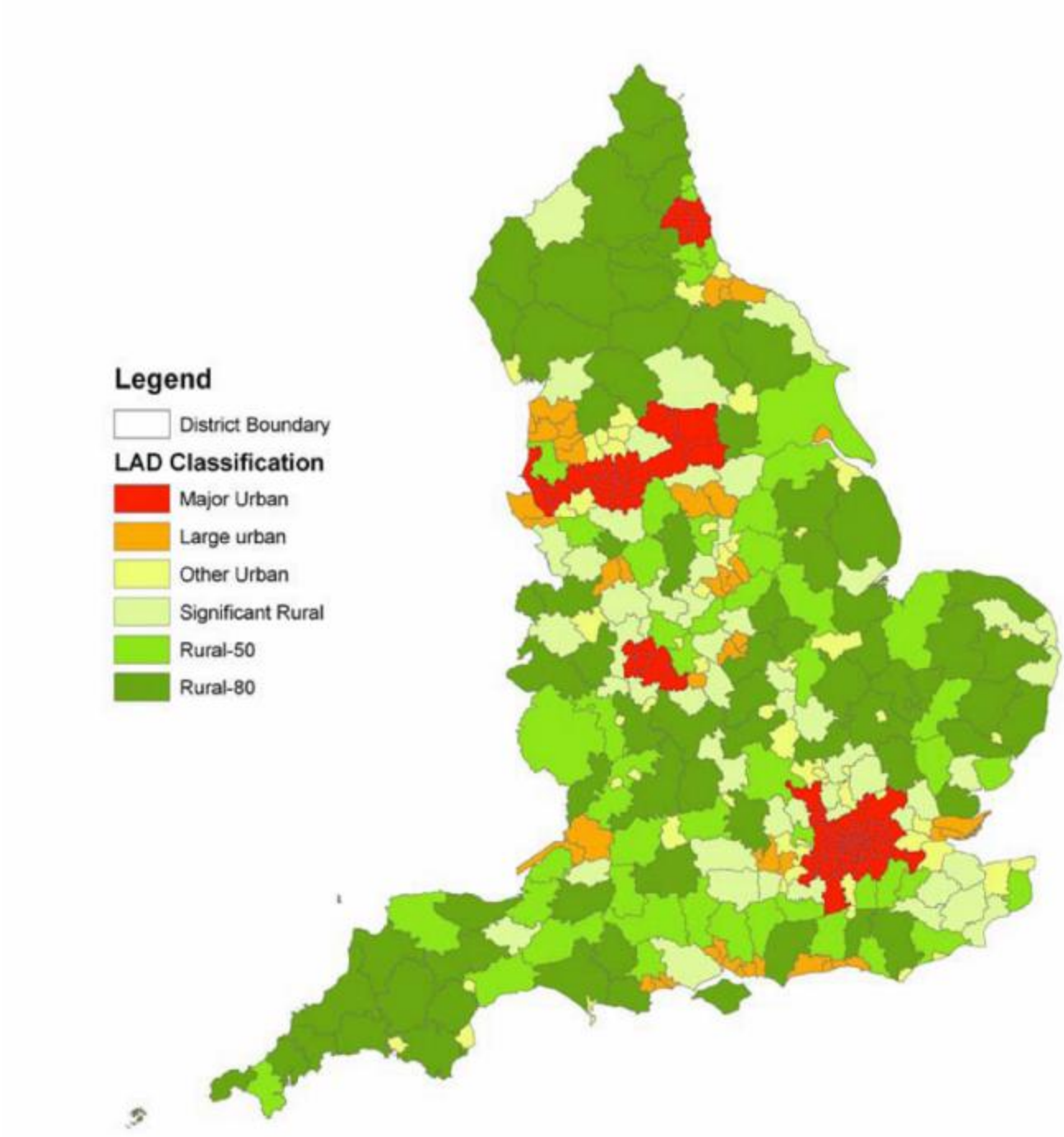
**Where *local authority districts (LADs)* are used as the most disaggregated geographical area for data, the 'spectrum' variable for classifying rural and rural/urban again changes to a six point classification, this time with three rural classifications. The classification using LAD level data thus becomes:**

**1. Major Urban**
**2. Large Urban**
**3. Other Urban**
**4. Significant Rural**
**5. Rural-50**
**6. Rural-80**

**Here, Significant Rural (SR) is defined as a LAD with more than the national average of 26% of the population living in rural settlements (defined in the Defra definition) Rural 50 (R50) is more than 50% of the rural population living in rural settlements and Rural 80 (R80) is more than 80% of the population living in rural settlements). Some 178 of the 354 LADs in England fall into one of these rural types. They comprise 36.5% of the England population (SR, 13.1%, R50, 11.7% and R80, 11.7%). According to the CRC (2008) these three rural local authority categories broadly represent increasing degrees of remoteness and this terminology of 'remoteness' will be used in the remainder of this note.**

**The population of rural LADs (17.9 million in 2001) is much higher than those living in rural areas under the COA definition (9.5 million in 2001), because many rural LADs have urban areas within them. It is clear from the foregoing that the definition is not a definition *per se*, but a structure within which definitions can be derived and made flexible according to the nature and scale of available data, particularly where disparate databases are being used. In the assessment of rural economic performance below, LADs are used as the spatial basis of assessment, and the Defra rural definition distribution of LADs is shown in figure 2 below.**

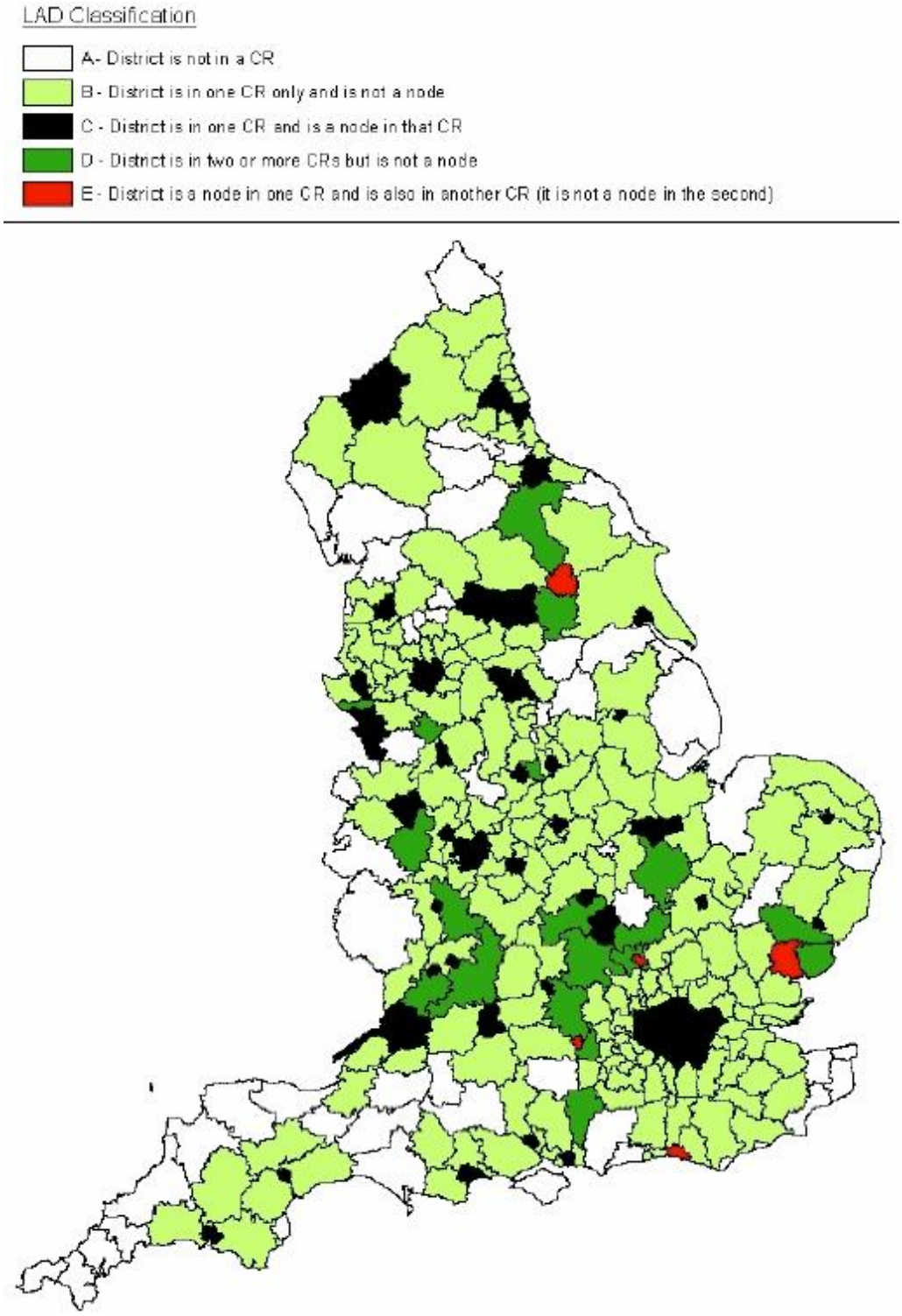
***Figure 2 – Defra Classification of Local Authority Districts (LADs)***




***Source*: Defra (2005a) Annex Two**

**Consistent with the Sub-national Review (Treasury *et al*, 2007) and the Local Government White Paper (DCLG, 2006), however, work also has been undertaken to classify rural LADs by city region, the second of the government's competing definitions. The SQW and Cambridge Econometrics (2006) study classified district authorities in relation to city regions according to commuting patterns to arrive at the classification in Figure 3 below.**

***Figure 3 – city-regions by local authority district***

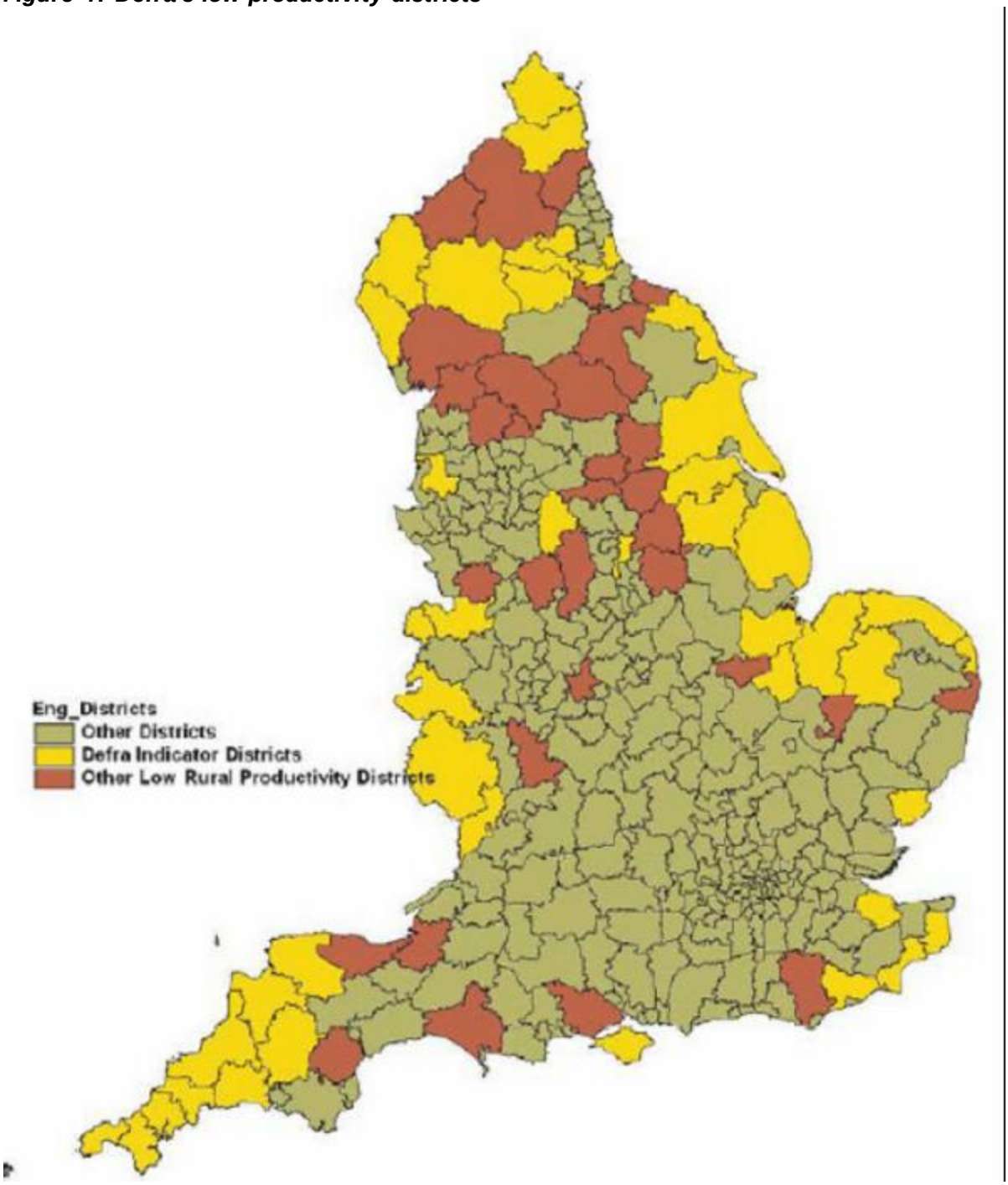



***Source*: SQW and Cambridge Econometrics (2006)**

**Some observations can be made about these two sets of competing definition. Firstly, some25% of districts defined by Defra as SR, R50 or R80 fall outside of a city-region. Under Defra's old PSA 4 productivity target, 44 low productivity rural districts (average incomes in the lowest quartile of local authorities – yellow in the figure 4 below) were prioritised for sponsored Defra intervention as lagging districts.**

**A further 22 districts were identified as less severely challenged but with a number of low productivity wards (those just above the lowest quartile and in brown in figure 4). Interestingly, the 44 lagging districts are largely coastal or peripheral and cluster into seven areas. In Annibal and Boyle's (2007) survey of these districts, a number were not aware that they were a Defra lagging district at all and some had never heard of the PSA 4 target.**

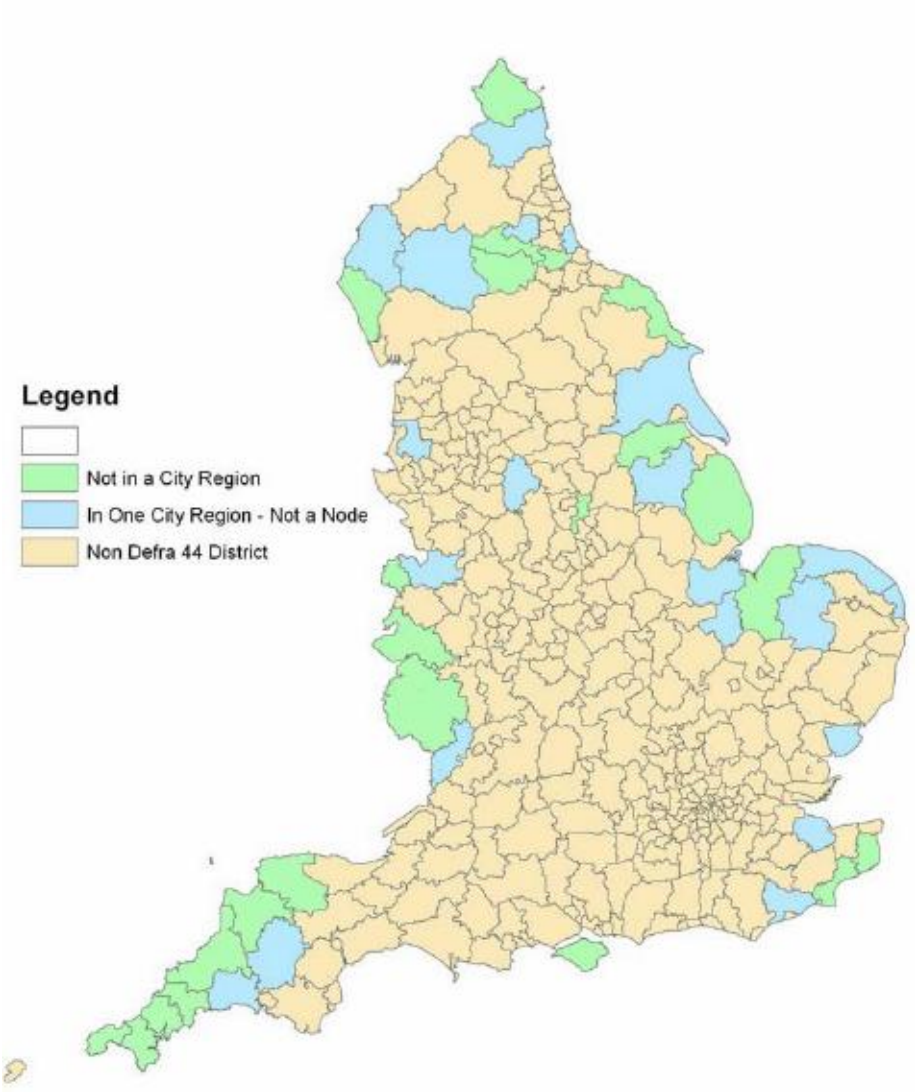
***Figure 4: Defra's low productivity districts***




***Source*: DEFRA (2006) cited in Annibal and Boyle (2007)**

**All of these 44 lagging districts are either not in city-regions at all (55% of them - green in figure 5 below) or are what Annibal and Doyle (2007) term "peripheral" within a city-region (blue in figure 5 below).**

***Figure 5: Low productivity rural districts and city-regions***




***Source*: Annibal and Boyle (2007)**

**The SQW and Cambridge Econometrics (2006) study suggested that rural areas within city-regions are about 8% more productive (using both work-based *and* resident-based income GVA measures) than rural areas outside of city regions. This is only 5% when skills, occupational structures and other regional factors are taken into account – considered to be a more accurate reflection of the city-region influence *per se*. Earnings of rural residents within city-regions are about 18% higher than those outside, but only about 9% when occupational structure and skills levels are taken into account. Rural areas within two or more city regions perform better than those only in one. Whist these rates have not changed much in the recent past, rural areas within city-regions are expected to grow more successfully than those outside. In terms of policy, whilst rural areas within city regions perform better than those outside, according to SQW and Cambridge Econometrics (2006) they still retain typically rural characteristics such as low wages and low skills.**

**The remainder of this paper explores the nature of rural differential economic performance using GVA productivity measures across these two territorial platforms of rural (the Defra definition and the city region) as a means both of identifying influences over productivity but also as a means of exploring the extent to which variations in rural economic productivity can be attributed to the spatial definitions used as much as more substantive economic parameters.**

## Business (plant) structure: rural districts, lagging districts and city regions

**In the empirical analysis below, the plant level data held by the Office for National Statistics in the Annual Respondents Database (ARD2) is used, which brings together a wide range of data relating to individual business units (ONS, 2002). This is supplemented with data from the DEFRA rural area LAD classifications considered above, to allow comparisons of performance both inside and outside of city regions. It is important to note the level at which the data for the ARD2 are collected. This is the level of the plant and there may be more than one plant in a firm. In the analysis, the term 'plant' is therefore used, rather than 'firm' or 'business', as the base economic unit of the analysis.**

**The complete ARD data set includes all firms with greater than 250 employees in England (which are surveyed on an annual basis as a statutory requirement), but only a sample of firms with fewer than 250 employees. Smaller firms are sampled on a random basis (see ONS, 2002, p.2). The ARD2 data omits Standard Industrial Classification (SIC) 100 (agriculture, forestry and fishing) because of the very small size of businesses in this sector, in employment terms.**

**This plant level assessment accounts for the numbers of plants within a firm by using the variable *llunit*, which is the log of the number of plants within the firm establishment. If the firm is a single plant establishment then this is equal to zero. GVA at factor cost per employee is used as the measure of productivity, measured at the plant (and therefore work-based) rather than the place of residence. Data on firm-specific capital stock is obtainable from the ONS and is matched with firm-specific data within the ARD2. Although this is not identical to the Treasury investment productivity driver (CURDs, 2003), it represents the result of past investments and is appropriate in modelling based on the Cobb-Douglas production function.**

**Based on the subsample of the ARD2, which is influenced by data attrition due to the inclusion of additional explanatory variables in the empirical analysis below, some idea of the nature of the differences in economic profiles of rural LADs (relative to each other and relative to non-rural LADs) can be observed. Table A presents a comparison of the plant structure of rural LADs inside and outside of city regions using Defra's LAD classification, SR, R50 and R80. The assessment does not include plants in Major Urban (MU), Large Urban (LU) or Other Urban (OU) LADs (which are part of the Defra definition), which also fall both inside and outside of city regions. Of the 174 Rural LADs in England, 43 of them are outside of city regions.**

***Table A near here***

**Using these classifications, some 1,257 out of a total of 6,124 plants in rural LADs fell outside of city regions altogether – some 20.5% of all rural plants. Interestingly, this proportion is consistent across the three different types of rural area, R80, R50 and SR: 20.2% of plants in the most remote LADs (R80) fall outside of city regions, 20.6% of plants in less remote LADs (R50) fall outside of city regions and 20.8% of plants in the least remote of the rural LADs (SR) fall outside of city regions. This suggests that rural plants are equally likely to fall outside of a city region (and therefore not have access to the policy benefits that a city region might confer) irrespective of how remote the LAD is**

**in which the plant is situated. Similarly, remoteness *per se* does not increase the likelihood of a plant falling outside of a city region.**

**The economic profile of these 'non-city region' LADs can be explored further, again using table A, by examining plants by SIC from the ARD, where remoteness does seem to have a more significant role to play. Thus, 26.3% of all plants in the hotel and catering sector fall outside of city regions in R80 LADs, but only 17.6% of hotels and catering plants in R50 LADs and 22.1% of such plants in SR LADs fall outside of city regions. Whilst there are significant differences across different rural categories these are not linear by rurality: real estate plants are least likely to fall outside of city regions in R50 LADs. There also appears to be a U-shaped relationship for plants operating in 'other sectors' that fall outside of city regions with a relatively low proportion existing in R50, but high proportions existing in R80 LADs; the reverse pattern appears for plants in the transport sector**

*Table A: numbers of rural plants by Defra rural definition, within and outside of city regions in England*

| | Rural 80 | | | Rural 50 | | | Significant Rural | | | Totals from rural 80, rural 50 and significant rural |
|---|---|---|---|---|---|---|---|---|---|---|
| | City region (a) | Not city region (b) | Percent (b) /(a)+(b) | City region (c) | Not city region (d) | Percent (d) /(c)+(d) | City region (e) | Not city region (f) | Percent (f) /(e)+(f) | Total |
| Construction | 137 | 22 | 13.8 | 128 | 31 | 19.5 | 151 | 40 | 20.1 | 509 |
| Hotels and catering sector | 365 | 130 | 26.3 | 357 | 76 | 17.6 | 385 | 109 | 22.1 | 1422 |
| Manufacturing | 332 | 77 | 18.8 | 293 | 92 | 23.9 | 307 | 86 | 21.9 | 1187 |
| Real estate | 272 | 49 | 15.3 | 295 | 58 | 16.4 | 364 | 72 | 16.5 | 1110 |
| Transport | 90 | 13 | 12.6 | 87 | 29 | 25.0 | 88 | 23 | 20.7 | 330 |
| Wholesale | 410 | 116 | 22.1 | 367 | 109 | 22.9 | 439 | 125 | 22.2 | 1566 |
| Other sectors | 279 | 87 | 22.7 | 272 | 56 | 17.1 | 287 | 86 | 23.1 | 1067 |
| Total | 1606 | 407 | 20.2 | 1527 | 395 | 20.6 | 1734 | 455 | 20.8 | 6124 |

**Notes: Sample sizes in other tables are much larger than the numbers in this table; this is because this table relates only to the number of plants in local authority classifications "Rural 80", "Rural 50" and "Significant rural" and not the plants included in the sample from urban areas.**

**It is also possible to create an economic profile of Defra's lagging districts by the Defra LAD rural definition for different industrial sectors. The number of plants by SIC from the ARD sample is shown in table B below. To provide a context for these plant numbers, of the 71 R80 LADs in England, 26 of them are in lagging districts; of the 50 R50 LADs, 13 of them are in lagging districts, and of the 53 SR LADs, 5 of them are in lagging districts.**

**In R80 LADs, more than half of all hotel and catering plants are in lagging districts, despite the fact that only 37% of R80 LADs are lagging districts. Only in real estate in R80 LADs are there proportionately fewer plants than the proportion of R80 LADs that are lagging districts. This pattern is broadly repeated for R50 LADs, 26% of which are lagging districts. The proportion of hotel and catering plants in R50 LADs is lower than in R80 LADs however, where only a third of plants are in lagging R50 districts. The number of plants in lagging SR LADs is small, possibly because of the small number of SD lagging districts and their small proportion of all SDR LADs – only 9%. Whilst these observations could be due to ARD2 sample selection bias or indeed could result from attrition as a result of the introduction of extra explanatory variable in later regressions, the results are likely to be reasonably accurate because of the size of the dataset used.**

***Table B: numbers of plants in the sample by different types of rural district***

| | LA class 1 "Rural 80" | | LA class 2 "Rural 50" | | LA class 3 "Significant Rural" | |
|---|---|---|---|---|---|---|
| | Not in lagging district | In lagging district | Not in lagging district | In lagging district | Not in lagging district | In lagging district |
| Construction | 110 | 49 | 120 | 39 | 182 | < 10 |
| Wholesale | 373 | 153 | 380 | 96 | 528 | 36 |
| Transport | 76 | 27 | 81 | 35 | 97 | 14 |
| Real estate | 261 | 60 | 298 | 55 | 421 | 15 |
| Manufacturing | 277 | 132 | 289 | 96 | 362 | 31 |
| Hotels and catering | 81 | 48 | 79 | 26 | 109 | 12 |
| Other sectors | 267 | 99 | 271 | 57 | 353 | 20 |

**Notes: Sample sizes in tables below are much larger than the numbers in this table; this is because this table relates only to the number of plants in "Rural 80", "Rural 50" and "Significant Rural" classifications.**

**Turning finally to city regions, of the 354 English LADs, 59 are not in a city region. Of these 59, 20 are R80 LADs, 11 are R50 LADs and 12 are SR LADs. The remaining 16 are urban LADs (MU, LU and OU). Of the 44 lagging districts, 23 are not in a city region. These are all rural LADs: of R80 LADs, 13 of 26 lagging districts are not in city regions; of R50 LADs, 7 of the 13 lagging districts are not in city regions and of the SR LADs, 3 of 5 lagging districts are not in city regions. Table C shows the distribution of plants in the sample across lagging and non lagging districts and across districts inside and outside of city regions.**

***Table C: numbers of plants in the sample by lagging rural districts and by districts inside and outside of city regions.***

| | Not a lagging district | Lagging district | Total |
|---|---|---|---|
| City region | 13,883 | 632 | 14,515 |
| Not a city region | 1,252 | 477 | 1,729 |
| Total | 15,135 | 1,109 | 16,244 |

## Labour productivity: rural districts, lagging districts and city regions

**In examining work-place labour productivity levels, the data suggest that plants located in all three of the rural LAD categories in the Defra definition are less productive than the average plant in all English areas taken together (Table D, column 1). Plants in the most rural, R80 LADs, are 17% less productive than the average English plant; R50 LADs are 11.3% less productive and SR 6.6% less productive. Here, there is a clear linear relationship between remoteness and labour productivity: plant productivity declines, the more remote the district.**

***Table D near here***

**But what factors might explain these differences? The capital stock of the firm, the size of the plant's workforce and the ratio of part time to full time staff do account for some of these differences. Once they are taken into account (in column 2 in Table D) the gap in labour productivity of plants in these districts relative to all plants in all English districts falls to the following: R80 LADs are 15.9% less productive; R50 LADs are 9.3% less productive and SR 6.5% less productive. These labour productivity differences also can be explained in part by the industry in which the plant is operating – some LADs appear to be have a much lower level of labour productivity because they have a higher proportion of plants operating in relatively low productivity industries. Once these differences are taken into account, the productivity differences against all LADs taken together again fall (column 3 in Table D): R80 LADs are 13.4% less productive; R50 LADs are 8.2% less productive and SR 6.1% less productive.**

**Columns 4, 5 and 6 in Table D offer explanations of the causes of the labour productivity differences between plants in these three rural area definitions and the average English plant. Low levels of labour productivity in R80 LADs are caused by smaller enhancing effects of capital stock, workforces that are too small to have achieved economies of**

***Table D: Labour productivity disparities in Rural 80, Rural 50 and Significant Rural Local Authority Districts, relative to the whole sample***

| | 1 | 2 | 3 | 4 (Rural 80) | | 5 (Rural 50) | | 6 (Significant rural) | |
|---|---|---|---|---|---|---|---|---|---|
| *N* | 16810 | 15691 | 15691 | 15691 | | 15691 | | 15691 | |
| | | | | Standard | Compound | Standard | Compound | Standard | Compound |
| Rural 80 | -0.170*** (0.026) | -0.159*** (0.023) | -0.134*** (0.022) | – | -0.090 (0.082) | – | – | – | – |
| Rural 50 | -0.113*** (0.026) | -0.093*** (0.023) | -0.082*** (0.022) | – | – | – | -0.049 (0.082) | – | – |
| Significant rural | -0.066*** (0.025) | -0.065*** (0.022) | -0.061*** (0.021) | – | – | – | – | – | -0.130 (0.081) |
| Log (capital stock per worker) | – | 0.265*** (0.005) | 0.300*** (0.005) | 0.306*** (0.005) | -0.061*** (0.016) | 0.302*** (0.005) | -0.012 (0.016) | 0.303*** (0.005) | -0.030** (0.015) |
| Log (employees) | – | -0.008* (0.004) | -0.007 (0.004) | -0.008* (0.005) | 0.025* (0.014) | -0.006 (0.005) | 0.015 (0.014) | -0.005 (0.005) | 0.005 (0.013) |
| Pt/ft ratio | – | -0.011*** (0.001) | -0.010*** (0.001) | -0.009*** (0.001) | -0.015*** (0.003) | -0.010*** (0.001) | -0.008* (0.004) | -0.010*** (0.001) | -0.043*** (0.007) |
| Plants | – | -0.031*** (0.008) | -0.032*** (0.008) | -0.031*** (0.008) | -0.015 (0.026) | -0.029*** (0.008) | -0.031 (0.026) | -0.032*** (0.008) | -0.003 (0.023) |
| Construction | – | – | 0.350*** (0.030) | 0.320*** (0.032) | 0.215** (0.092) | 0.346*** (0.032) | 0.031 (0.092) | 0.319*** (0.033) | 0.203** (0.086) |
| Wholesale | – | – | 0.193*** (0.022) | 0.180*** (0.023) | 0.090 (0.067) | 0.195*** (0.023) | -0.026 (0.069) | 0.153*** (0.023) | 0.285*** (0.065) |
| Transport | – | – | 0.076** (0.033) | 0.057 (0.035) | 0.137 (0.105) | 0.083** (0.035) | -0.043 (0.102) | 0.052 (0.035) | 0.166 (0.103) |
| Real estate | – | – | 0.375*** (0.022) | 0.367*** (0.024) | 0.106 (0.074) | 0.384*** (0.024) | -0.014 (0.073) | 0.354*** (0.024) | 0.221*** (0.068) |
| Manufacturing | – | – | 0.068*** (0.023) | 0.044* (0.025) | 0.159** (0.070) | 0.057** (0.025) | 0.052 (0.073) | 0.021 (0.024) | 0.299*** (0.070) |
| Hotels and catering | – | – | -0.807*** (0.034) | -0.828*** (0.037) | 0.192* (0.104) | -0.808*** (0.036) | 0.025 (0.113) | -0.828*** (0.037) | 0.209** (0.103) |
| $R^2$ | 0.003 | 0.195 | 0.260 | 0.261 | | 0.258 | | 0.261 | |
| *F* statistic | 18.83*** | 542.53*** | 422.95*** | 262.90*** | | 259.50*** | | 263.22*** | |
| Test for compound variables deletion | – | – | – | 6.05*** | | 1.27 | | 6.51*** | |

**scale and larger proportions of part-time employees. R80 LADs would also have higher observable labour productivity levels if they had greater numbers of construction and manufacturing plants; the detracting effect of plants in the hotel and catering sector are not as large in these areas. In R50 LADs the labour productivity differences can be attributed at least in part to the presence of greater proportions of part-time workers. The low levels of labour productivity in SR LADs seems to be due to the smaller enhancing effects of capital stocks and larger proportions of part-time employees. Such areas would also have higher observable levels of labour productivity if there were more plants operating in the construction, wholesale, real estate and manufacturing sectors and, in common with the R80 LADs, the detracting effect of plants in the hotel and catering sector are not as large in these areas.**

**The results presented in Table D are for the whole sample of plants across all areas of England. Table E presents the same types of estimation but this time the sample is constrained to include plants only within city regions. Of the 354 English districts, 295 are within city regions. Of these 295, 131 fall into one of the Defra rural classifications (R80, R50 or SR) and the remainder are urban (MU, LU and OU). Of the 59 LADs not in city regions, 43 (R80, R50 or SR) of them are rural and 16 are urban (MU, LU and OU). The same productivity gap patterns are observable in these tables D and E, albeit with slightly smaller magnitudes. This should be expected because the plants that are operating outside of city regions have been excluded in Table E, and these contain plants that tend to have slightly lower levels of labour productivity. Nevertheless, the results are stable.**

***Table E near here***

**In examining productivity levels in just the R80, R50 and SR LADs that are *outside* of city regions, however, some interesting differences do emerge. Table D shows that plants in R80 and R50 LADs outside of city regions are no less labour productive, using traditional levels of statistical significance, than non-rural LADs (MU, LU or OU) outside of city regions. This might suggest that it is not rurality *per se* that has a particular influence on labour productivity, but rather periperality: falling outside a city region. Table F also indicates that plants in SR LADs outside of city regions are the most productive of all non-city region areas, and this includes non-rural LADs. Table F suggests that this is largely due to a relatively higher proportion of relatively productive wholesale and real estate plants and greater returns to capital stocks in these non-city region SR areas. This evidence suggests that certain kinds of rurality might even have**

***Table E: Labour productivity disparities in Rural 80, Rural 50 and Significant Rural Local Authority Districts within city regions, relative to the whole sample of plants in city regions***

| | 1 | 2 | 3 | 4 (Rural 80) | | 5 (Rural 50) | | 6 (Significant rural) | |
|---|---|---|---|---|---|---|---|---|---|
| *N* | 15081 | 14103 | 14103 | 14103 | | 14103 | | 14103 | |
| | | | | Standard | Compound | Standard | Compound | Standard | Compound |
| Rural 80 | -0.140*** (0.029) | -0.151*** (0.025) | -0.136*** (0.024) | – | -0.122 (0.092) | – | – | – | – |
| Rural 50 | -0.116*** (0.029) | -0.092*** (0.026) | -0.080*** (0.025) | – | – | – | -0.058 (0.092) | – | – |
| Significant rural | -0.081*** (0.028) | -0.076*** (0.024) | -0.070*** (0.023) | – | – | – | – | – | -0.057 (0.091) |
| Log (capital stock per worker) | – | 0.271*** (0.005) | 0.305*** (0.005) | 0.311*** (0.005) | -0.061*** (0.018) | 0.305*** (0.005) | -0.003 (0.018) | 0.307*** (0.005) | -0.039** (0.017) |
| Log (employees) | – | -0.008* (0.005) | -0.007 (0.004) | -0.009* (0.005) | 0.034** (0.015) | -0.006 (0.005) | 0.009 (0.016) | -0.005 (0.005) | 0.011 (0.015) |
| Pt/ft ratio | – | -0.010*** (0.001) | -0.010*** (0.001) | -0.009*** (0.001) | -0.014*** (0.003) | -0.009*** (0.001) | -0.006 (0.004) | -0.009*** (0.001) | -0.087*** (0.012) |
| Plants | – | -0.034*** (0.008) | -0.036*** (0.008) | -0.033*** (0.008) | -0.041 (0.029) | -0.034*** (0.008) | -0.028 (0.030) | -0.035*** (0.008) | -0.002 (0.026) |
| Construction | – | – | 0.320*** (0.032) | 0.291*** (0.034) | 0.234** (0.102) | 0.314*** (0.034) | 0.033 (0.103) | 0.297*** (0.034) | 0.115 (0.098) |
| Wholesale | – | – | 0.171*** (0.023) | 0.156*** (0.025) | 0.127 (0.075) | 0.174*** (0.024) | -0.032 (0.077) | 0.142*** (0.025) | 0.204*** (0.074) |
| Transport | – | – | 0.052 (0.035) | 0.034 (0.037) | 0.152 (0.115) | 0.049 (0.037) | -0.033 (0.116) | 0.033 (0.037) | 0.110 (0.117) |
| Real estate | – | – | 0.358*** (0.023) | 0.348*** (0.025) | 0.128 (0.082) | 0.364*** (0.025) | -0.010 (0.081) | 0.343*** (0.025) | 0.159** (0.076) |
| Manufacturing | – | – | 0.033 (0.025) | 0.011 (0.026) | 0.163** (0.078) | 0.023 (0.025) | 0.037 (0.082) | -0.005 (0.026) | 0.227*** (0.080) |
| Hotels and catering | – | – | -0.828*** (0.037) | -0.843*** (0.039) | 0.143 (0.122) | -0.827*** (0.039) | 0.001 (0.126) | -0.849*** (0.037) | 0.272** (0.116) |
| $R^2$ | 0.003 | 0.200 | 0.263 | 0.263 | | 0.261 | | 0.264 | |
| *F* statistic | 12.92*** | 502.53*** | 385.75*** | 239.76*** | | 236.60*** | | 241.03*** | |
| Test for compound variables deletion | – | – | – | 5.31*** | | 0.84 | | 7.09*** | |

***Table F: Labour productivity disparities in Rural 80, Rural 50 and Significant Rural Local Authority Districts outside of city regions, relative to the whole sample of plants outside of city regions***

| | 1 | 2 | 3 | 4 (Rural 80) | | 5 (Rural 50) | | 6 (Significant rural) | |
|---|---|---|---|---|---|---|---|---|---|
| *N* | 1729 | 1588 | 1588 | 1588 | | 1588 | | 1588 | |
| | | | | Standard | Compound | Standard | Compound | Standard | Compound |
| Rural 80 | -0.093 (0.063) | -0.011 (0.059) | 0.036 (0.056) | – | 0.197 (0.189) | – | – | – | – |
| Rural 50 | 0.090 (0.063) | 0.085 (0.059) | 0.063 (0.025) | – | – | – | -0.029 (0.177) | – | – |
| Significant rural | 0.186*** (0.061) | 0.162*** (0.056) | 0.150*** (0.023) | – | – | – | – | – | -0.191 (0.178) |
| Log (capital stock per worker) | – | 0.195*** (0.015) | 0.267*** (0.015) | 0.233*** (0.017) | -0.029 (0.038) | 0.230*** (0.018) | 0.002 (0.035) | 0.212*** (0.018) | 0.056* (0.034) |
| Log (employees) | – | 0.002 (0.013) | -0.005 (0.013) | -0.002 (0.015) | -0.015 (0.034) | -0.015 (0.015) | 0.048 (0.032) | 0.001 (0.016) | -0.019 (0.029) |
| Pt/ft ratio | – | -0.043*** (0.006) | -0.037*** (0.006) | -0.034*** (0.006) | -0.015 (0.015) | -0.034*** (0.006) | -0.022 (0.018) | -0.043*** (0.007) | 0.015 (0.011) |
| Plants | – | 0.001 (0.022) | 0.008 (0.022) | -0.006 (0.024) | 0.066 (0.055) | 0.027 (0.025) | -0.081 (0.052) | 0.013 (0.026) | -0.030 (0.048) |
| Construction | – | – | 0.580*** (0.086) | 0.607*** (0.067) | -0.123 (0.220) | 0.609*** (0.099) | -0.147 (0.205) | 0.507*** (0.103) | 0.252 (0.185) |
| Wholesale | – | – | 0.369*** (0.062) | 0.430*** (0.071) | -0.266* (0.144) | 0.374*** (0.070) | -0.071 (0.151) | 0.268*** (0.072) | 0.375*** (0.137) |
| Transport | – | – | 0.289*** (0.100) | 0.310*** (0.111) | 0.106 (0.261) | 0.420*** (0.121) | -0.415* (0.223) | 0.261** (0.117) | 0.096 (0.222) |
| Real estate | – | – | 0.497*** (0.072) | 0.529*** (0.081) | 0.124 (0.174) | 0.517*** (0.081) | -0.065 (0.177) | 0.390*** (0.086) | 0.371** (0.155) |
| Manufacturing | – | – | 0.400*** (0.064) | 0.415*** (0.074) | 0.119 (0.148) | 0.406*** (0.072) | -0.118 (0.159) | 0.341*** (0.074) | 0.181 (0.144) |
| Hotels and catering | – | – | -0.541*** (0.094) | -0.605*** (0.113) | 0.148 (0.203) | -0.551*** (0.103) | -0.019 (0.246) | -0.508*** (0.106) | -0.240 (0.224) |
| $R^2$ | 0.013 | 0.168 | 0.255 | 0.255 | | 0.255 | | 0.263 | |
| *F* statistic | 7.26*** | 45.42*** | 41.45*** | 25.53*** | | 25.54*** | | 26.55*** | |
| Test for compound variables deletion | – | – | – | 0.76 | | 0.77 | | 2.22** | |

**productivity advantages over more urban LADs where urban and rural LADs are equally peripheral.**

***Table F near here***

**Turning now to lagging districts, table G presents the results of econometric regressions on a sample which is comprised of plants based in lagging districts and R80 LADs. This is done whilst recognising that there are districts which fall into both of these classifications. This assessment seeks to identify whether the labour productivity performance of plants in the 44 lagging rural districts differs from plants located in the 71 R80 LADs. These results suggest that plant performance in labour productivity terms in lagging districts is about 13% lower than in R80 LADs (column 1), which can be partly explained by a poorer capital stock and a higher proportion of part-time to full-time workers in lagging districts (column 2) as well as different industrial structures (column 3). Column 4 presents the estimates of a cross-section pseudo-Chow test to identify whether these explanatory variables have different effects on lagging districts than in R80 LADs. It appears that real estate plants are less productive and that the detracting effect of employing part-time workers is greater in lagging districts relative to R80 LADs.**

***Table G: productivity profiles of lagging districts compared to Rural 80 districts.***

| | 1 | 2 | 3 | 4 | |
|---|---|---|---|---|---|
| *n* | 2554 | 2341 | 2341 | 2341 | |
| | | | | Standard | Compound |
| Lagging district | -0.130*** (0.037) | -0.088*** (0.034) | -0.077** (0.033) | – | -0.108 (0.125) |
| Log (capital stock per worker) | – | 0.209*** (0.012) | 0.243*** (0.012) | 0.246*** (0.016) | -0.018 (0.025) |
| Log(employees) | – | 0.010 (0.011) | 0.012 (0.011) | 0.002 (0.014) | 0.022 (0.022) |
| Pt/ft ratio | – | -0.027*** (0.003) | -0.025*** (0.003) | -0.022*** (0.003) | -0.043*** (0.010) |
| Plants | – | -0.038* (0.020) | -0.044** (0.020) | -0.049* (0.027) | 0.012 (0.039) |
| Construction | – | – | 0.494*** (0.069) | 0.478*** (0.093) | 0.005 (0.139) |
| Wholesale | – | – | 0.241*** (0.051) | 0.230*** (0.066) | 0.017 (0.103) |
| Transport | – | – | 0.199*** (0.075) | 0.111 (0.104) | 0.157 (0.151) |
| Real estate | – | – | 0.455*** (0.057) | 0.483*** (0.071) | -0.092*** (0.019) |
| Manufacturing | – | – | 0.506*** (0.053) | 0.155** (0.069) | 0.092 (0.107) |
| Hotels and catering | – | – | -0.631*** (0.079) | -0.710*** (0.104) | 0.221 (0.160) |
| $R^2$ | 0.005 | 0.185 | 0.259 | 0.267 | |
| *F* statistic | 12.25*** | 105.99*** | 74.08*** | 40.30*** | |
| Test for compound variables deletion | – | – | – | 2.86*** | |

**Table H presents the results of econometric regressions on a sample which is comprised of plants based in lagging districts and R50 LADs, again recognising that there are districts which are part of both of these classifications. This assessment seeks to identify whether the labour productivity performance of plants in the 44 lagging districts differ from plants located in the 50 R0 LADs. These results suggest that plant performance in labour productivity terms in lagging districts is some 13.6% lower than in the R50 LADs (column 1), which can be explained by lower levels of capital stock, fewer scale economies, and a lower ratio of full time to part time workers in lagging districts (column 2) as well as different industrial structures (column 3). Column 4 presents the estimates**

**of a cross-section pseudo-Chow test to identify whether these explanatory variables have different effects on lagging districts than in Rural 50 districts. It appears that lagging districts suffer from lower returns to capital stocks and the detracting effect of employing part time workers in lagging districts is greater relative to Rural 80 districts. The lagging districts, however, do appear to have some advantages over the R50 districts in that they have more productive transport sector plants and hotel and catering plants that are less of a drain on the economy (they are less 'unproductive') than in R50 districts.**

***Table H: productivity profiles of lagging districts compared to Rural 50 districts.***

| | 1 | 2 | 3 | 4 | |
|---|---|---|---|---|---|
| *n* | 2627 | 2409 | 2409 | 2409 | |
| | | | | Standard | Compound |
| Lagging district | -0.136*** (0.037) | -0.116*** (0.033) | -0.099*** (0.032) | – | 0.013 (0.123) |
| Log (capital stock per worker) | – | 0.241*** (0.012) | 0.273*** (0.012) | 0.297*** (0.015) | -0.069*** (0.024) |
| Log(employees) | – | 0.018* (0.010) | 0.015 (0.010) | 0.009 (0.013) | 0.015 (0.021) |
| Pt/ft ratio | – | -0.024*** (0.004) | -0.022*** (0.003) | -0.015*** (0.004) | -0.050*** (0.011) |
| Plants | – | -0.048* (0.018) | -0.048*** (0.018) | -0.054** (0.024) | 0.016 (0.037) |
| Construction | – | – | 0.467*** (0.067) | 0.426*** (0.088) | 0.057 (0.135) |
| Wholesale | – | – | 0.223*** (0.050) | 0.201*** (0.064) | 0.045 (0.102) |
| Transport | – | – | 0.134* (0.074) | 0.001 (0.100) | 0.268* (0.149) |
| Real estate | – | – | 0.386*** (0.055) | 0.376*** (0.068) | 0.016 (0.117) |
| Manufacturing | – | – | 0.183*** (0.052) | 0.124* (0.069) | 0.123 (0.106) |
| Hotels and catering | – | – | -0.692*** (0.080) | -0.818*** (0.107) | 0.328** (0.162) |
| $R^2$ | 0.005 | 0.205 | 0.274 | 0.284 | |
| *F* statistic | 13.14*** | 123.83*** | 82.21*** | 44.99*** | |
| Test for compound variables deletion | – | – | – | 3.79*** | |

**Table I replicates Tables G and H by investigating the labour productivity gaps between lagging districts and SR LADs. The results suggest that lagging districts appear to have labour productivity levels some 17.6% below the SR LADs (column 1). Again, this can be explained partly by lower levels of capital stock and a higher ratio of part time to full time workers (column 2) as well as industrial structure (column 3). Column 4 shows that plants in SR LADs are affected by these explanatory variables in the same way as all other districts in the sample, except that they suffer more from having lower capital stocks and less productive wholesale plants.**

***Table I: productivity profiles of lagging districts compared to Significant Rural districts.***

| | 1 | 2 | 3 | 4 | |
|---|---|---|---|---|---|
| *n* | 3161 | 2909 | 2909 | 2909 | |
| | | | | Standard | Compound |
| Lagging district | -0.176*** (0.037) | -0.129*** (0.033) | -0.107*** (0.032) | – | 0.080 (0.126) |
| Log (capital stock per worker) | – | 0.226*** (0.011) | 0.262*** (0.012) | 0.277*** (0.014) | -0.049** (0.025) |

| | | | | | |
|---|---|---|---|---|---|
| Log(employees) | – | 0.006<br>(0.010) | 0.011<br>(0.010) | 0.005<br>(0.012) | 0.019<br>(0.021) |
| Pt/ft ratio | – | -0.068***<br>(0.006) | -0.056***<br>(0.006) | -0.051***<br>(0.007) | -0.014<br>(0.013) |
| Plants | – | -0.032*<br>(0.017) | -0.040**<br>(0.017) | -0.040*<br>(0.021) | 0.003<br>(0.036) |
| Construction | – | – | 0.507***<br>(0.063) | 0.518***<br>(0.078) | -0.034<br>(0.133) |
| Wholesale | – | – | 0.383***<br>(0.049) | 0.452***<br>(0.060) | -0.205**<br>(0.103) |
| Transport | – | – | 0.264***<br>(0.074) | 0.239**<br>(0.098) | 0.030<br>(0.152) |
| Real estate | – | – | 0.525**<br>(0.053) | 0.579***<br>(0.062) | -0.188<br>(0.118) |
| Manufacturing | – | – | 0.294***<br>(0.051) | 0.321***<br>(0.064) | -0.074<br>(0.107) |
| Hotels and catering | – | – | -0.570***<br>(0.076) | -0.606***<br>(0.094) | 0.116<br>(0.160) |
| $R^2$ | 0.007 | 0.191 | 0.264 | 0.267 | |
| *F* statistic | 22.81*** | 136.69*** | 94.40*** | 50.07*** | |
| Test for compound variables deletion | – | – | – | 2.12** | |

**Finally, table J shows that plants within city regions that are not lagging districts have the highest level of labour productivity of the four LAD categories in the table. The lowest labour productivity is to be found in plants not in city regions that are in lagging districts. Table J also indicates that plants in city regions are statistically significantly more productive than plants located outside of a city region and plants not in lagging districts are statistically significantly more productive than plants located in lagging districts. Further, within city regions, plants located in lagging districts are statistically significantly less productive than plants located in non-lagging districts and outside of city regions, plants located in lagging districts are statistically significantly less productive than plants located in non-lagging districts. All of these results are statistically significant at the 99% confidence level.**

***Table J: Chi$^2$ tests of labour productivity in city regions and lagging districts***

| | Mean | Standard deviation | Pr(\|T\| > \|t\|) |
|---|---|---|---|
| City region | 3.306 | 1.067 | 0.000 |
| Not city region | 3.143 | 0.928 | |
| Not lagging district | 3.307 | 1.067 | 0.000 |
| Lagging district | 3.093 | 0.907 | |
| City region: not lagging district | 3.318 | 1.076 | 0.000 |
| City region: lagging district | 3.144 | 0.955 | |
| Not city region: not lagging district | 3.188 | 0.958 | 0.001 |
| Not city region: lagging district | 3.024 | 0.835 | |

**From these assessments, the persistent deficiencies in the lagging districts in respect of labour productivity, compared to all rural LADs, appear to be lower levels of capital stock and higher levels of part time, relative to full time, employment. Lower levels of real estate plant productivity (relative to R80 LADs) and wholesale plant productivity (relative to SR LADs) are also evident in the lagging districts. The transport and hotel and catering sectors appear to offer relative productivity advantages for the lagging districts, particularly relative to R50 LADs.**

## Conclusions

**This analysis suggests that city regions as spatial structures for economic development are likely to accentuate economic disadvantage in many rural districts. Using the yardstick of labour productivity, the 59 districts that fall outside of city regions are in aggregate less productive than those within city regions. And of these, 43 are rural (20 R80 LADs, 11 R50 LADs and 12 SR LADs). Interestingly, the rural districts outside of city regions are no less productive than the urban ones, suggesting that remoteness rather than rurality *per se* is the more significant influence over productivity. Indeed, some Significant Rural districts outside of city regions are more productive than urban districts outside of city regions. Further, of the 44 lagging rural districts (defined as being low productivity districts), more than half of them fall outside of city regions. This residualisation in economic development terms can only serve to exacerbate the problems of low productivity in these rural districts: city regions are likely to make these weak districts even weaker.**

**This analysis also shows that, using all of the spatial platforms deployed by the English Government in assessing rural economic performance in tandem, rural remoteness *per se* does not influence the overall proportion of rural economic activity that falls outside of city regions. Rural remoteness, however, does influence individual economic sectors outside of city regions. In particular, there is a greater proportion of hotel and catering plants outside of city regions, the more remote the rural district. This is also true of hotel and catering plants within lagging rural districts.**

**This is significant, because hotel and catering is also a sector with low productivity plants. To a degree, therefore the inherent industrial structure makes remoter rural areas less productive, but it also defines these areas as being amongst the most attractive (through the dominance of tourism) and therefore susceptible to economic 'lifestyle' approaches rather than just those that necessarily maximise productivity, a difference discussed in the previous note. The significant presence of part-time working in remoter and lagging areas too, reduces their productivity relative to other areas, but the evidence does not indicate whether this is as a result of lack of job opportunities or through lifestyle choices. Again, high part-time employment levels could be an indication of more endogenous, lifestyle economies rather than productivity driven ones.**

**The differential objectives for economic performance (productivity, well being, relocalisation and income support) at different governmental levels are likely to cause problems in policy interpretation. This is exemplified by the Defra notion of a lagging district. They have been characterised as lagging by Defra, because of their low productivity. Yet since 2000, district authorities have charged not with the pursuit of productivity, but rather, with well being. It is likely, because of their relative remoteness, that their well-being indicators are orientated more towards 'lifestyle' than productivity ends. In some areas, even, where transition town designations are becoming numerous (49 had been designated in England in the two years to August 2008), such districts, *de facto*, may be moving towards the pursuit of relocalisation objectives, through the selection of particular well-being indicators. These lagging districts have been categorised by a parameter that they have failed to achieve, but have not be asked to pursue anyway.**

**Perhaps in this context there is some purpose in peripheral rural districts (both those that are lagging and that are not in city regions) forming sub-regional partnerships, as mooted in the Sub-national review (Treasury *et al*, 2007) actually to assert their identity in well-being rather than productivity terms – as places to live and work that are 'different' from productivity driven spaces, were 'quality of life' parameters are perhaps higher on their particular agendas. The wide choice of well-being indicators would also allow such sub-regional partnerships to shape their economic purpose to their own**

**particular ends, possibly even aligning it with the relocalisation movement and the increasing range of 'happiness' initiatives outlined in the previous note.**

**The panoply of rural spatial categorisations for economic development combined with the range of measures of economic performance, certainly suggests that at least part of the fortunes of rural districts depend on how they are defined and grouped, rather than necessarily what the quality of life is like for those living and working in them.**

## Annex D – Four Incompatible Policy Goals for rural areas

**Current economic policies for rural areas are confusing, contradictory and incommensurate. They have four main strands: endogenous development, well-being, productivity and income support. Each of these is briefly described as a context to the DSO.**

### *Endogenous development*

**From the late 1970s, European rural policy has focused on endogenous development. The European Integrated Rural Development Programmes of the late 1970s and early 1980s formalised this approach by focusing on the unlocking of skills and the development of communities and societies within the context of the *local* economy. This endogenous approach was considered the most reasonable at the European level in the face of inherent rural problems of remoteness and periperality, agricultural dependence or pressures from urbanisation. The approach was consolidated through the LEADER programmes (LEADER I (1992) and II (1994)) and reasserted in the Cork Declaration of 1996. This declared, rhetorically at least, the importance of participative, bottom-up approaches to rural development, driven by the local community. Since this time endogenous approaches have been the spine of the LEADER + programmes and from 2008, have been incorporated into the Rural Development Programme for England (Pillar II of the Common Agricultural Policy) through Axis IV which applies the LEADER approach in support of the other three Axes, particularly in relation to the developmental functions of Local Action Groups. Importantly this approach is finding favour amongst a number of rural community groups themselves and two movements in particular – the Carnegie local asset-based model and the Transition Towns Movement - offer coherent and specific policy proposal s for the development of rural areas.**

### *Well-being*

**Distinct from endogenous development with its focus on *localisation*, local authorities in urban and rural areas alike in England are required, under Part One of the Local Government Act 2000 to pursue economic (and social and environmental) *well-being* through the production of a community strategy. Whilst rural authorities are to pursue economic well-being, its relationship to the European policy thrust of localisation approaches remains unclear in policy advice. The Treasury and Office for the Deputy Prime Minister have focussed on the *economic* part of this well-being requirement, advising that it should be used to pursue economic performance and local prosperity The 2006 Local Government White Paper is committed to the development of a single performance framework for local authorities, proposing that they select up to 35 performance targets from a set of 198 indicators (only 33 of which pertain to the local economy) to provide flexibility in determining the nature of well-being in their locality. The CRC suggests that this offers the potential to broaden the scope for interpreting economic performance, particularly for authorities in remoter rural areas suffering from the inherent disadvantages that have driven the localisation model. The Lifting the Burden Task Force, however, suggests that, particularly for smaller rural authorities, there may be a lack of confidence in setting these performance targets appropriately.**

### *Productivity*

**In contrast to the pursuit of *localisation* at the community level and *well-being* at the local authority level, both national and regional economic performance Public Service Agreements (PSA) have been built around a third set of measures, concerned with *productivity*: Gross Value Added (GVA) per head, using output, rather than income-based measures. Concern here has been both to increase GVA nationally and to reduce regional disparities. In the rural context, up until 2007, the Department for Environment and Rural Affairs (Defra) had sought more singularly to reduce regional disparities by**

**improving the performance of the weakest regions through the PSA 4 target. This is carried forward into IO 2 in the 2008 Defra DSO.**

***Income support***

**A fourth set of rural economic development measures is encapsulated in Pillar I of the Common Agricultural Policy which provides *income support* to farmers through two means – simply giving them money (direct payments) or supporting the prices for agricultural products at artificially high (above world market) prices (market subsidies). Research suggests that this is, in effect, the converse of pursuing productivity objectives because such direct and indirect subsidy actually discourages efficient production: it removes incentives to modernise and innovate. Although Pillar I support payments are set to decline to 2013 through a shift into Pillar II support, they still comprised 88% of the total CAP budget in 2007. This budget is the largest rural economic funding pot in the UK by a considerable extent.**

## Annex E – the 198 well-being indicators

| Outcome | National indicators |
|---|---|
| **Stronger communities** | **NI 1 % of people who believe people from different backgrounds get on well together in their local area PSA 21**<br>**NI 2 % of people who feel that they belong to their neighbourhood PSA 21**<br>**NI 3 Civic participation in the local area PSA 15**<br>**NI 4 % of people who feel they can influence decisions in their locality PSA 21**<br>**NI 5 Overall/general satisfaction with local area CLG DSO**<br>**NI 6 Participation in regular volunteering CO DSO**<br>**NI 7 Environment for a thriving third sector CO DSO**<br>**NI 8 Adult participation in sport DCMS DSO**<br>**NI 9 Use of public libraries DCMS DSO**<br>**NI 10 Visits to museums or galleries DCMS DSO**<br>**NI 11 Engagement in the arts DCMS DSO**<br>**NI 12 Refused and deferred Houses in Multiple Occupation (HMO) license applications leading to immigration enforcement activity HO DSO**<br>**NI 13 Migrants English language skills and knowledge HO DSO**<br>**NI 14 Avoidable contact: The average number, of customer contacts per received customer request** |
| **Safer communities** | **NI 15 Serious violent crime rate PSA 23**<br>**NI 16 Serious acquisitive crime rate PSA 23**<br>**NI 17 Perceptions of anti-social behaviour PSA 23**<br>**NI 18 Adult re-offending rates for those under probation supervision PSA 23**<br>**NI 19 Rate of proven re-offending by young offenders PSA 23**<br>**NI 20 Assault with injury crime rate PSA 25**<br>**NI 21 Dealing with local concerns about anti-social behaviour and crime by the local council and police PSA 23**<br>**NI 22 Perceptions of parents taking responsibility for the behaviour of their children in the area HO DSO**<br>**NI 23 Perceptions that people in the area treat one another with respect and dignity HO DSO**<br>**NI 24 Satisfaction with the way the police and local council dealt with anti-social behaviour HO DSO**<br>**NI 25 Satisfaction of different groups with the way the police and local council dealt with anti-social behaviour HO DSO**<br>**NI 26 Specialist support to victims of a serious sexual offence PSA 23**<br>**NI 27 Understanding of local concerns about anti-social behaviour and crime by the local council and police HO DSO**<br>**NI 28 Serious knife crime rate HO DSO**<br>**NI 29 Gun crime rate PSA 23**<br>**NI 30 Re-offending rate of prolific and priority offenders HO DSO**<br>**NI 31 Re-offending rate of registered sex offenders PSA 23**<br>**NI 32 Repeat incidents of domestic violence PSA 23**<br>**NI 33 Arson incidents HO DSO**<br>**NI 34 Domestic violence – murder PSA 23**<br>**NI 35 Building resilience to violent extremism PSA 26**<br>**NI 36 Protection against terrorist attack PSA 26**<br>**NI 37 Awareness of civil protection arrangements in the local area CO DSO**<br>**NI 38 Drug-related (Class A) offending rate PSA 25**<br>**NI 39 Alcohol-harm related hospital admission rates PSA 25**<br>**NI 40 Drug users in effective treatment PSA 25**<br>**NI 41 Perceptions of drunk or rowdy behaviour as a problem PSA 25**<br>**NI 42 Perceptions of drug use or drug dealing as a problem PSA 25**<br>**NI 43 Young people within the Youth Justice System receiving a conviction in court who are sentenced to custody MoJ DSO**<br>**NI 44 Ethnic composition of offenders on Youth Justice System disposals MoJ DSO**<br>**NI 45 Young offenders engagement in suitable education, employment or training MoJ DSO**<br>**NI 46 Young offenders access to suitable accommodation MoJ DSO**<br>**NI 47 People killed or seriously injured in road traffic accidents DfT DSO**<br>**NI 48 Children killed or seriously injured in road traffic accidents DfT DSO**<br>**NI 49 Number of primary fires and related fatalities and non-fatal casualties, excluding precautionary checks CLG DSO** |

| Outcome | National indicators |
|---|---|
| **Children & Young People** | ***Enjoy and Achieve***<br>**NI 72 Achievement of at least 78 points across the Early Years Foundation Stage with at least 6 in each of the scales in Personal Social and Emotional Development and Communication, Language and Literacy PSA 10**<br>**NI 73 Achievement at level 4 or above in both English and Maths at Key Stage 2 (Threshold) PSA 10**<br>**NI 74 Achievement at level 5 or above in both English and Maths at Key Stage 3 (Threshold) PSA 10**<br>**NI 75 Achievement of 5 or more A*-C grades at GCSE or equivalent including English and Maths (Threshold) PSA 10**<br>**NI 76 Achievement at level 4 or above in both English and Maths at KS2 (Floor) DCSF DSO**<br>**NI 77 Achievement at level 5 or above in both English and Maths at KS3 (Floor) DCSF DSO**<br>**NI 78 Achievement of 5 or more A*-C grades at GCSE and equivalent including GCSEs in English and Maths (Floor) PSA 10**<br>**NI 79 Achievement of a Level 2 qualification by the age of 19 PSA 10**<br>**NI 80 Achievement of a Level 3 qualification by the age of 19 PSA 10**<br>**NI 81 Inequality gap in the achievement of a Level 3 qualification by the age of 19 DCSF DSO**<br>**NI 82 Inequality gap in the achievement of a Level 2 qualification by the age of 19 DCSF DSO**<br>**NI 83 Achievement at level 5 or above in Science at Key Stage 3 DCSF DSO**<br>**NI 84 Achievement of 2 or more A*-C grades in Science GCSEs or equivalent DCSF DSO**<br>**NI 85 Post-16 participation in physical sciences (A Level Physics, Chemistry and Maths) DCSF DSO**<br>**NI 86 Secondary schools judged as having good or outstanding standards of behaviour DCSF DSO**<br>**NI 87 Secondary school persistent absence rate DCSF DSO**<br>**NI 88 Number of Extended Schools DCSF DSO**<br>**NI 89 Number of schools in special measures DCSF DSO**<br>**NI 90 Take up of 14-19 learning diplomas DCSF DSO**<br>**NI 91 Participation of 17 year-olds in education or training DCSF DSO**<br>**NI 92 Narrowing the gap between the lowest achieving 20% in the Early Years Foundation Stage Profile and the rest PSA 11**<br>**NI 93 Progression by 2 levels in English between Key Stage 1 and Key Stage 2 PSA 11**<br>**NI 94 Progression by 2 levels in Maths between Key Stage 1 and Key Stage 2 PSA 11**<br>**NI 95 Progression by 2 levels in English between Key Stage 2 and Key Stage 3 PSA 11**<br>**NI 96 Progression by 2 levels in Maths between Key Stage 2 and Key Stage 3 PSA 11**<br>**NI 97 Progression by 2 levels in English between Key Stage 3 and Key Stage 4 PSA 11**<br>**NI 98 Progression by 2 levels in Maths between Key Stage 3 and Key Stage 4 PSA 11**<br>**NI 99 Children in care reaching level 4 in English at Key Stage 2 PSA 11**<br>**NI 100 Children in care reaching level 4 in Maths at Key Stage 2 PSA 11**<br>**NI 101 Children in care achieving 5 A*-C GCSEs (or equivalent) at Key Stage 4 (including English and Maths) PSA 11**<br>**NI 102 Achievement gap between pupils eligible for free school meals and their peers achieving the expected level at Key Stages 2 and 4 PSA 11**<br>**NI 103 Special Educational Needs – statements issued within 26 weeks DCSF DSO**<br>**NI 104 The Special Educational Needs (SEN)/non-SEN gap – achieving Key Stage 2 English and Maths threshold DCSF DSO**<br>**NI 105 The Special Educational Needs (SEN)/non-SEN gap – achieving 5 A*-C GCSE inc. English and Maths DCSF DSO**<br>**NI 106 Young people from low income backgrounds progressing to higher education PSA 11**<br>**NI 107 Key Stage 2 attainment for Black and minority ethnic groups DCSF DSO**<br>**NI 108 Key Stage 4 attainment for Black and minority ethnic groups DCSF DSO**<br>**NI 109 Number of Sure Start Children Centres DCSF DSO**<br>***Make a positive contribution***<br>**NI 110 Young people's participation in positive activities PSA 14**<br>**NI 111 First time entrants to the Youth Justice System aged 10 – 17 PSA 14**<br>**NI 112 Under 18 conception rate PSA 14**<br>**NI 113 Prevalence of Chlamydia in under 20 year olds DCSF DSO**<br>**NI 114 Rate of permanent exclusions from school DCSF DSO**<br>**NI 115 Substance misuse by young people PSA 14**<br>***Economic Wellbeing***<br>**NI 116 Proportion of children in poverty PSA 9**<br>**NI 117 16 to 18 year olds who are not in education, training or employment (NEET) PSA 14**<br>**NI 118 Take up of formal childcare by low-income working families DWP DSO** |

| Outcome | National indicators |
|---|---|
| Adult health and wellbeing | NI 119 Self-reported measure of people's overall health and wellbeing DH DSO<br>NI 120 All-age all cause mortality rate PSA 18<br>NI 121 Mortality rate from all circulatory diseases at ages under 75 DH DSO<br>NI 122 Mortality from all cancers at ages under 75 DH DSO<br>NI 123 16+ current smoking rate prevalence PSA 18<br>NI 124 People with a long-term condition supported to be independent and in control of their condition DH DSO<br>NI 125 Achieving independence for older people through rehabilitation/intermediate care PSA 18<br>NI 126 Early access for women to maternity services PSA 19<br>NI 127 Self reported experience of social care users PSA 19<br>NI 128 User reported measure of respect and dignity in their treatment DH DSO<br>NI 129 End of life access to palliative care enabling people to choose to die at home DH DSO<br>NI 130 Social Care clients receiving Self Directed Support (Direct Payments and Individual Budgets) DH DSO<br>NI 131 Delayed transfers of care from hospitals DH DSO<br>NI 132 Timeliness of social care assessment DH DSO<br>NI 133 Timeliness of social care packages DH DSO<br>NI 134 The number of emergency bed days per head of weighted population DH DSO<br>NI 135 Carers receiving needs assessment or review and a specific carer's service, or advice and information DH DSO<br>NI 136 People supported to live independently through social services (all ages) PSA 18<br>NI 137 Healthy life expectancy at age 65 PSA 17<br>NI 138 Satisfaction of people over 65 with both home and neighbourhood PSA 17<br>NI 139 People over 65 who say that they receive the information, assistance and support needed to exercise choice and control to live independently PSA 17 |
| Tackling exclusion and promoting equality | NI 140 Fair treatment by local services PSA 15<br>NI 141 Number of vulnerable people achieving independent living CLG DSO<br>NI 142 Number of vulnerable people who are supported to maintain independent living PSA 17<br>NI 143 Offenders under probation supervision living in settled and suitable accommodation at the end of their order or licence PSA 16<br>NI 144 Offenders under probation supervision in employment at the end of their order or licence PSA 16<br>NI 145 Adults with learning disabilities in settled accommodation PSA 16<br>NI 146 Adults with learning disabilities in employment PSA 16<br>NI 147 Care leavers in suitable accommodation PSA 16<br>NI 148 Care leavers in employment, education or training PSA 16<br>NI 149 Adults in contact with secondary mental health services in settled accommodation PSA 16<br>NI 150 Adults in contact with secondary mental health services in employment PSA 16 |
| Local Economy | NI 151 Overall Employment rate (working-age) PSA 7, 8<br>NI 152 Working age people on out of work benefits PSA 8<br>NI 153 Working age people claiming out of work benefits in the worst performing neighbourhoods DWP DSO<br>NI 154 Net additional homes provided PSA 20<br>NI 155 Number of affordable homes delivered (gross) PSA 20<br>NI 156 Number of households living in temporary accommodation PSA 20<br>NI 157 Processing of planning applications CLG DSO<br>NI 158 % non-decent council homes CLG DSO<br>NI 159 Supply of ready to develop housing sites CLG DSO<br>NI 160 Local authority tenants' satisfaction with landlord services CLG DSO<br>NI 161 Number of Level 1 qualifications in literacy (including ESOL) achieved PSA 2<br>NI 162 Number of Entry level qualifications in numeracy achieved PSA 2<br>NI 163 Proportion of population aged 19-64 for males and 19-59 for females qualified to at least Level 2 or higher PSA 2<br>NI 164 Proportion of population aged 19-64 for males and 19-59 for females qualified to at least Level 3 or higher PSA 2<br>NI 165 Proportion of population aged 19-64 for males and 19-59 for females qualified to at least Level 4 or higher PSA 2<br>NI 166 Median earnings of employees in the area BERR DSO<br>NI 167 Congestion – average journey time per mile during the morning peak PSA 5 |

| Outcome | National indicators |
|---|---|
| | **NI 168 Principal roads where maintenance should be considered DfT DSO**<br>**NI 169 Non-principal classified roads where maintenance should be considered DfT DSO**<br>**NI 170 Previously developed land that has been vacant or derelict for more than 5 years CLG DSO**<br>**NI 171 New business registration rate BERR DSO**<br>**NI 172 Percentage of small businesses in an area showing employment growth BERR DSO**<br>**NI 173 Flows on to incapacity benefits from employment DWP DSO**<br>**NI 174 Skills gaps in the current workforce reported by employers DIUS DSO**<br>**NI 175 Access to services and facilities by public transport, walking and cycling DfT DSO**<br>**NI 176 Working age people with access to employment by public transport (and other specified modes) DfT DSO**<br>**NI 177 Local bus and light rail passenger journeys originating in the authority area DfT DSO**<br>**NI 178 Bus services running on time DfT DSO**<br>**NI 179 Value for money – total net value of on-going cash-releasing value for money gains that have impacted since the start of the 2008-9 financial year CLG DSO**<br>**NI 180 The number of changes of circumstances which affect customers' HB/CTB entitlements within the year DWP DSO**<br>**NI 181 Time taken to process Housing Benefit/Council Tax Benefit new claims and change events DWP DSO**<br>**NI 182 Satisfaction of businesses with local authority regulatory services BERR DSO**<br>**NI 183 Impact of local authority regulatory services on the fair trading environment BERR DSO**<br>**NI 184 Food establishments in the area which are broadly compliant with food hygiene law** |
| **Environmental Sustainability.** | **NI 185 $CO_2$ reduction from Local Authority operations PSA 27**<br>**NI 186 Per capita reduction in $CO_2$ emissions in the LA area PSA 27**<br>**NI 187 Tackling fuel poverty – % of people receiving income based benefits living in homes with a low energy efficiency rating Defra DSO**<br>**NI 188 Planning to Adapt to climate change PSA 27**<br>**NI 189 Flood and coastal erosion risk management Defra DSO**<br>**NI 190 Achievement in meeting standards for the control system for animal health. For introduction in 2009/10**<br>**NI 191 Residual household waste per household Defra DSO**<br>**NI 192 Percentage of household waste sent for reuse, recycling and composting Defra DSO**<br>**NI 193 Percentage of municipal waste land filled Defra DSO**<br>**NI 194 Air quality – % reduction in $NO_x$ and primary $PM_{10}$ emissions through local authority's estate and operations. PSA 28**<br>**NI 195 Improved street and environmental cleanliness (levels of litter, detritus, graffiti and fly posting) Defra DSO**<br>**NI 196 Improved street and environmental cleanliness – fly tipping Defra DSO**<br>**NI 197 Improved local biodiversity – proportion of local sites where positive conservation management has been or is being implemented Defra DSO**<br>**NI 198 Children travelling to school – mode of transport usually used DfT DSO** |