

# Rural Development Sub-Committee

## Inquiry into Poverty and Deprivation in Rural Wales

### Response from North Wales Economic forum

Date: 7<sup>th</sup> March 2008

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We welcome this opportunity to respond to the Assembly's Rural Development Sub-Committee's inquiry into poverty and deprivation in rural Wales. Our response is informed by recent empirical analysis of the Index of Multiple Deprivation<sup>1</sup> by the Forum, together with the views and extensive experience of Forum members.

More generally, there is a well developed evidence base on which to inform the questions posed by the Sub-Committee, including on-going work by the Commission for Rural Communities in England.

Of specific benefit to the Committee's inquiry would be further investigation of the Welsh Index of Multiple Deprivation (WIMD). Statistical analysis of the WIMD datasets could help to empirically explore the incidence and distribution of disadvantage across Rural Wales. Results from such an exercise could be combined with other datasets to examine issues of correlation and causation.

Based on evidence currently available, our response to the questions posed by the Sub-Committee is detailed below.

#### **I General**

##### **1. What are the poverty / deprivation problems faced by rural areas? What are the specific needs of rural areas in relation to this issue?**

To understand the specific nature of poverty/deprivation faced by rural areas is to recognise how it relates to – and differs from – disadvantage in urban areas.

Here, evidence suggests that disadvantage, social exclusion and poverty are in the main urban issues. Research points to the processes by which the disadvantaged – and specifically groups suffering 'multiple deprivation' - become concentrated in urban areas,<sup>2</sup> reflecting the availability of social housing and wider social services. Deprivation indices (see Statistical Appendix) empirically point to the most significant concentrations of disadvantaged groups in urban areas and coastal communities (Rhyl being the obvious example).

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<sup>1</sup> North Wales Economic Forum. Review of the Welsh Index of Multiple Deprivation. NWEF, September 2006.

<sup>2</sup> Cumbria Rural Partnership. Understanding Rural Disadvantage in Cumbria. March 2003.

BUT, there is also plenty of evidence of disadvantage in rural communities. In scoping the broad parameters of rural disadvantage it is important to recognise the following facets:

a) **Rural disadvantage differs in nature from urban disadvantage.**

There is a specific RURAL AGENDA which includes issues of:

- housing affordability,
- rural transport (eg. limited public transport provision and cost of running a car combined with longer distances to services, jobs etc),
- accessibility to services, and
- limited supply, choice and quality of employment.

b) **Disadvantage in rural communities varies between different types of rural area.** There are marked differences between those communities in remote rural areas and those nearer to major urban areas. There also appear to be differences between market towns, villages and more isolated hamlets. Research consistently suggests that low incomes, educational deprivation, poor health and unemployment are more prevalent (in England and Wales) in remoter rural areas than in accessible (commutable) areas.

Research by the Forum underlines the significance of the concept of PERIPHERALITY (remote rural) to the debate on poverty / disadvantage in rural areas. While this is evidenced in relation to economic related indices, equally taking into account other aspects of disadvantage there is no straightforward east / west split.

This is illustrated in the attached Statistical Appendix which demonstrates the variations in disadvantage between different types of rural area, notably:

- The significance concentration of disadvantage in PERIPHERAL rural areas (as evidenced by a range of data including overall IMD scores, Income domain data, benefit claimant data, unemployment, economic inactivity and earnings data).
- Higher levels of housing disadvantage in west Wales (and particularly Gwynedd) and much lower levels in the east (particularly Monmouth and Powys).
- Greater levels of accessibility disadvantage in very rural / low population density areas (notably Powys, but also Ceredigion and Pembrokeshire).

- c) **In general, those that live in rural areas experience a high quality of life.** Crime rates are lower in the countryside and the quality of environment higher. Interestingly, the assumption that rural environments are necessarily 'healthier' has been challenged. Evidence suggests that rural mortality advantages disappear after controlling for socio-economic status and limiting long term illness appears to be subject to a U-shaped pattern of prevalence. The highest rates being observed in the most urban and the most PERIPHERAL areas<sup>3</sup>.
- d) **Social and spatial exclusion.** There is evidence that disadvantage has a growing spatial element to it. The movement of relatively affluent 'urbanites' to rural areas can further contribute to problems of housing affordability. Meanwhile, the most vulnerable in society can find it increasingly difficult to remain in rural areas – reflecting more limited availability of jobs, public and wider welfare support services. POLICY CAN INADVERTENTLY REINFORCE SPATIAL INEQUALITIES by placing greater emphasis on the achievement of environmental as opposed to economic objectives combined with more limited expenditure on welfare services in rural areas (see point e below).
- e) **SERVICE DEPRIVATION** is a key component of disadvantage in rural areas. Evidence suggests from a survey of British local authorities found that rural authorities spent less on social care services and direct provision.<sup>4</sup> This problem is often reinforced as the extra costs associated with delivery of services to a highly scattered population tend not to be taken into account in distributing resources.

Unfortunately, MEASURES OF DISADVANTAGE / DEPRIVATION, tend not to capture either the problems / underlying dynamics which are by their very nature 'hidden' or reflect the additional costs of delivering services in rural (particularly remote) areas.

The point has been made in a number of studies into rural disadvantage that indicators that capture deprivation in an urban context should not be expected to perform similarly in rural areas.

For example, the Welsh Index of Multiple Deprivation does not currently include a measure of the quality of employment, since 'underemployment, seasonal employment and employment which is distant from where people live are also aspects of employment deprivation'<sup>5</sup> or housing affordability.

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<sup>3</sup> South West Public Health Observatory. Rural Deprivation and Service Need: A review of the literature and an assessment of indicators for rural service planning. October 2002.

<sup>4</sup> Craig G & Manthorpe J. Fresh fields: rural social care – research, policy and practice agendas, YPS: 2000.

<sup>5</sup> Welsh Assembly Government. Welsh Index of Multiple Deprivation (WIMD) 2008. Response to the consultation on the proposed indicators for updating WIMD. November 2007.

## **2. Are anti-poverty / deprivation activities best dealt with by WAG or by the Local Authorities? Why?**

Both national and local government have important and COMPLEMENTARY ROLES in addressing deprivation in rural areas.

WAG is most appropriately placed to LOBBY UK government to change the operation of the tax credit and /or social benefits system, devise appropriate welfare state approaches to national problems and devise overall policy frameworks.

Local Authorities are best placed to DELIVER local programmes and ensure local actions are co-ordinated / joined-up across a range of relevant service delivery areas.

The question OMITTS reference to the key role for regional agencies, social enterprises and the voluntary sector.

## **3. i) What anti-poverty/deprivation initiatives are you aware of?**

There are a range of initiatives including Communities First (albeit this is focused on urban communities in rural counties), the Rural Development Plan, Child Poverty Plan together with a range of more local regeneration programmes.

## **ii) Do these anti-poverty/deprivation policies adequately address the needs of rural areas?**

Rural deprivation tends to be HIGHLY DISPERSED which raises a number of challenges for policy makers. We are not aware of any systematic assessments of anti-poverty/deprivation policies in rural areas. However, the impression is there is a need for GREATER TARGETING of resources on the areas and people / groups who need them most and greater co-ordination in the delivery of services. In general, there is too much emphasis on neighbourhood / area based factors and insufficient emphasis on FAMILIES and INDIVIDUALS.

## **4. What specific measures would you like to see implemented by the WAG to deal with poverty/deprivation issues in rural Wales?**

- ***The need to consider rural areas as a distinct policy arena.*** Recognition and development of a distinctive rural policy agenda should inform Assembly policy across a range of departments.
- ***Commit to ensuring policies and programmes take account of the rural dimension.*** There is a need to 'rural proof' policies to correct this imbalance. Policy continues to appear to be heavily biased in favour of urban areas. This can include the emphasis on 'hubs' in the Spatial Plan to the generic application of policies and priorities which are inappropriate in rural communities.
- ***Consider the continuing appropriateness of the resources devoted to agriculture and diversification.*** Economic data indicates the sector employs few people, is low waged and relies on migrant and seasonal labour. The emphasis placed on agriculture tends to be at the expense of other sectors and actors. There appears far less dedicated policy and

funding for wider rural economic development beyond farming. This may well be stifling rather than encouraging enterprise.<sup>6</sup>

- **Encourage greater targeting of resources on areas and specifically groups in need.** Area policies in rural areas are questionable given the dispersed nature of disadvantage. Their impact is further reduced if they measures refrain from targeting specific groups in need. Evidence consistently points to the need for families and individuals to be the primary target of policy intervention, with support focused on key 'lifecycle' events.
- **Continue to develop measures of rural deprivation,** including an acknowledgement of the issue of service deprivation and the greater costs of providing services, promoting market adjustments in rural and specifically peripheral rural communities.
- **Recognition of the problems of peripherality,** with a need for measures that address demand as well as supply side off the economy.
- **There remains a need to continue improving the evidence base, identifying and disseminating good practice.**

**5. What examples of good practice are you aware of in Wales / other parts of the UK/overseas?** Experience in Scotland and England is of interest, particularly recent developments stemming from the Commission for Rural Communities in England. Clearly, there are concerns regarding the comparability and hence likely TRANSFERABILITY of overseas practice.

## **II Population Groups**

**6. To what extent are these groups living in poverty / deprivation in rural Wales?**

Empirical evidence (see for example the British Household Panel Survey), suggests there is a weak relationship between low income / disadvantage and low pay. There is far more association between low income and detachment from the labour market (ie. long term sick, family carers). Historically low levels of unemployment have raised the significance of HEALTH as a key factor in disadvantage.

In terms of the incidence of these groups while it is currently difficult to measure, we are aware of approaches that have been developed (eg 'Bundled' indicators of rural disadvantage developed by Cambridge University). The Bundles approach involved counting the number of people exposed to a particular dimension of disadvantage.

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<sup>6</sup> A conclusion strongly supported in recent research by the Wales Rural Observatory. 'An Overview of Policy and Resources Impacting on Rural Wales'. September 2004. For comparative sectoral statistics are detailed in the recent North West Wales - Economic Futures study, 2006.

## **7. What poverty/deprivation issues are experienced by these population groups that are specific to rural areas?**

Based on our knowledge of the specific nature of disadvantage it is anticipated that there will be a specific rural dimension to the issues faced by the following groups including:

- *Children & young people* – access to services including proximity of schools, further education colleges, affordability of housing and limited employment opportunities. These factors frequently result in young people having to move away when entering the labour market. Distance from more specialised services such as FE, may impact on the level of educational attainment.
- *Economically active* – limited employment / career opportunities, employment quality and low pay. Greater distance to access services with a reliance on car travel and associated costs taking a greater proportion of disposable income. More limited opportunities generally reflected in higher levels of SELF EMPLOYMENT, PT and seasonal work. Evidence suggests earnings are lower in more peripheral areas (See Appendix).
- *Economically inactive* – limited availability of jobs and accessibility of employment (given more limited public transport), taking into account travel costs and lower levels of disposable income. In PERIPHERAL areas it can be expected that periods of unemployment are likely to be longer for those individuals that lose their job. Availability of social, rental and affordable housing is more limited.
- *Older people* – difficulties of access, isolation and lower levels of service provision can actively contribute to health and social care problems for the elderly.

To some extent all groups will be affected by the more limited services in rural areas and higher costs for the services that are provided such as local shops, petrol costs etc.

## **8. How do the problems of the 4 groups differ across rural Wales ?**

This is an issue that requires further empirical analysis. However, variations can be expected as a result of:

- *Peripherality* - the more distant rural areas (Anglesey, Gwynedd, Conwy, Pembrokeshire, Carmarthenshire) would in general appear to have a greater concentration of economic disadvantage. There are particular issues here for the economically active and inactive (where the range and choice of jobs is more limited). The Statistical Appendix provides empirical evidence of much higher levels of economic disadvantage in PERIPHERAL rural Wales.
- *Accessible rural areas* – where in-migration may well have exacerbated issues of house price affordability. This might be expected for example in Monmouthshire and parts of Powys and Denbighshire. Measures of affordability are currently not captured in the IMD.

- *Low density areas and small rural communities* – where there will be issues surrounding access to services and public transport. The Statistical Appendix underlines the problems of accessibility in Powys.

Additionally, it is interesting to speculate on the impacts for Welsh language speakers in terms of access to services and also for example on whether language impacts on labour mobility.

### **9. In what ways are any sub-groups within the four population groups particularly affected by rural poverty/deprivation?**

The Social Exclusion Unit<sup>7</sup> has identified a range of groups for whom policies seem less effective across Britain as a whole including:

- *People with physical or mental health problems.* The SEU report (Mental Health & Social Exclusion, 2004), found remote rural districts to have the highest levels of mental health problems.
- *Those who lack skills & qualifications.* Access to further education is clearly more difficult the more remote the area.
- *People from ethnic minority groups, asylum seekers and refugees.*
- *An aging population,* leading to higher demands for care. Most studies indicate this group forms a large section of the rural poor with specific rural issues of access, isolation and low levels of service provision.<sup>8</sup>
- *More single person households,* leading to more isolation which can in turn contribute to health problems.
- *Increasing ethnic diversity.* While minority ethnic groups are a small proportion of the rural population, issues include migrant workers, asylum seekers, gypsies and travellers.

It is probably worth highlighting the very significant relationships that tend to exist between HEALTH and disadvantage. This includes those directly and indirectly affected (eg the role of other family members as carers).

### **10. What are the most effective ways of tackling poverty for individuals from these groups living in rural parts of Wales?**

Some suggestions are made below, albeit with the caveat that variations are to be expected in the success of policy according to the 'client group' targeted and type of service.<sup>9</sup>

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<sup>7</sup> Social Exclusion Unit. Tackling Social Exclusion: Taking stock and looking to the future, 2004.

<sup>8</sup> Although we do not have comparative Welsh figures to hand, in a study by Cumbria County Council of home care services for the elderly, 1 in 16 people aged 65+ received home care services in urban areas. In sparsely populated areas this reduced to 1 in 23 and very sparse areas 1 in 30; almost half the rate of urban areas. Cumbria County Council. Costs of service delivery in rural areas. Briefing Paper, 1997.

<sup>9</sup> For example, previous New Deal research indicates that while there has been success in relation to the reduction of unemployed claimants and lone parent Income Support claimants, disabled claimants were less likely to exit.

Second, it is also important to recognise the diversity of 'marginalised' groups. There is a need to properly understand these groups and consider implications for the future working with marginalised rural communities.

#### *Children & Young People*

The Assembly to examine the role children's centres might play in improving access to services for the most disadvantaged children under 5 and their families living in rural areas. There is a need to create employment and facilitate access to training (and other services) providing opportunities for young people that wish to stay.

#### *Economically Active*

As previously noted there problems of limited choice and quality of employment, particularly in PERIPHERAL rural communities. This requires consideration of barriers, opportunities and pathways to employment. It requires action on the demand side as well as supply side measures, including consideration of the location of public sector employment.

#### *Economically Inactive*

The economically inactive is a major issue, affecting incomes, GVA and more general economic performance. It is a major priority for Wales. Responses will need to be TARGETED, CO-ORDINATED and FLEXIBLE. Actions are required to reduce the barriers to employment (transport to employment centres, health, child care, skills etc).

There also needs to be some recognition of the need to assist people (eg benefits / welfare services take up) where paid work is not a solution.

#### *Older People*

There is a need to examine more systematically disadvantage facing older people, the housing and related support and care needs of older people in rural areas. An issue of growing importance, reflecting migration to rural areas combined with the general 'aging' of the population.

### **11. How can these problems be addressed by WAG?**

Rural communities are changing in the nature of their economies, their relationship to urban areas and demographic make-up. They are specifically affected by the long term restructuring of the rural economy and loss of jobs in agriculture and the pressures on rural services exacerbated by long-term population decline.

Wales is a largely rural country and needs a vibrant and coherent approach to its rural communities. At the heart of this approach must be a set of measures that recognise the specific dynamics affecting rural communities. Below some suggestions are made - this list is not intended to be exhaustive.

#### *Vision, Strategy & Resources*

Responding to these underlying economic forces will require a strong VISION for rural communities, which is capable of challenging vested interests and recognising the ways in which our rural communities are changing.

Specific issues include the largely rural character of much of Wales and the problems this poses for communities which cannot readily access services in



growth 'hubs' and the wider ramifications for the sustainability of communities and specifically Welsh speaking rural communities.

Hence there is a need for measures that:

- Address the problems arising from the aging of the population by encouraging growth of population and thereby improve VIABILITY.
- Ensure that the allocation of resources through the standard spending assessment and other mechanisms take into account the added costs of delivering services in rural areas; specifically the issue of service deprivation and the problems faced in PERIPHERAL rural communities where levels of economic and social disadvantage and costs of responding to these issues are higher.
- Considers the issues raised by the need to promote the Welsh language but also recognise additional dimensions arising, through a national debate on the FUTURE OF RURAL COMMUNITIES in Wales.
- In order to maximise impact it will be important to TARGET resources on the 'problem areas and groups'. This in turn requires further development of the EVIDENCE base, including interrogation of the WIMD plus direct measures of disadvantage (see Appendices). As previously noted, this poses a challenge for policy as rural disadvantage is DISPERSED, the success of policy is likely to vary according to the 'client group' targeted and type of service and spending more on some services appears to have more direct impact on local incomes in deprived areas.

### *Economy*

- Investigate the appropriateness of the level of support provided to agriculture vis-à-vis other EMERGING SECTORS, many of which may fall below the 'radar' (eg growing trend to homeworking), and the measures required to support rural economic regeneration and the strengthening of rural economies.
- The Barker Review has already examined the role of the PLANNING system. These issues are especially pertinent in PERIPHERAL rural areas (covered by extensive environmental designations) and dominated in land use (and perceptions) by agricultural uses. In light of research into changes in the rural economy and emerging drivers, this area may profit from further investigation. Promotion of findings through good practice advice to local planning authorities, including the National Park Authorities.

### *Housing, Accessibility & Services*

- Recognise the threats to local SERVICES and develops measures to address these. This could include for example: a presumption against closing a post office where this is the last shop in the village; funding a Rural Support Service to help provide organisations with on-line access to experts who can help them plan for the future and identify alternative ways of providing services for their communities.
- Investigate the supply of – and demand for – AFFORDABLE HOUSING, including work with local communities and government to highlight major mismatches.

- TRANSPORT is a major concern in rural communities and specifically transport to HEALTHCARE which is problematic in a number of different respects. The Assembly could undertake independent access audits to determine where weaknesses and gaps are in transportation provision in relation to key services. Specifically in relation to health provision the Assembly could facilitate joint working between local authorities and NHS agencies to examine cross-boundary transport arrangements.

#### *Community Capacity*

- Encourage community empowerment and better GOVERNANCE through support to Parish and Community Councils. This might include prizes, dissemination of good practice, support for community plans etc.
- Promote the role of the voluntary, community and SOCIAL ENTERPRISE sectors through the identification and dissemination of examples of good practice, provision of funding and support. Particularly critical in light of the continuing withdrawal of rural services. Social and community enterprises can play a key role in regeneration creating local employment and meeting wider community and environmental objectives.
- Recognition of the complementarity of informal and VOLUNTARY contributions, particularly in sectors like personal and social care, environmental maintenance.

#### *Co-ordination across Government*

- Promotion of RURAL PROOFING, within the policies and measures developed by the Assembly, local authorities, Health Trusts and community strategies. The growing specialisation of health care and concentration in national centres of excellence for example can raise major issues for rural communities in terms of accessibility.
- Publish guides to ensure solutions identified by research, evaluations or case studies are adopted / reflected on by government at all levels, stakeholders and by rural communities themselves.

# NWEF Response to Rural Development Sub Committee: Statistical Appendix

## 1. Is there a distinction between Rural East and West Wales?

### Method

22 Authorities divided in to three categories: Urban, Semi Rural & Rural Authority Level WIMD 2005 measure calculated for a) the percentage of that authority's LSOAs in the top 10% most deprived in Wales and b) the percentage of that authority's LSOAs in the top 20% most deprived in Wales.

### 1.1 Overall Index of Deprivation

LA	R/S/U	Area	East/ West	North/ South	No. LSOAs	Top 10%	Top 20%	% in Top 10%	% in Top 20%
Denbighshire	Rural	NE	East	North	58	5	9	8.62%	15.52%
Carmarthenshire	Rural	SW	West	South	112	7	16	6.25%	14.29%
Conwy	Rural	NW	West	North	71	3	9	4.23%	12.68%
Pembrokeshire	Rural	SW	West	South	71	2	6	2.82%	8.45%
Gwynedd	Rural	NW	West	North	75	2	3	2.67%	4.00%
Isle of Anglesey	Rural	NW	West	North	44	1	5	2.27%	11.36%
<b>Rural North &amp; West</b>					<b>431</b>	<b>20</b>	<b>48</b>	<b>4.64%</b>	<b>11.14%</b>
Powys	Rural	Mid	East	South	80	0	1	0.00%	1.25%
Monmouthshire	Rural	SE	East	South	58	0	0	0.00%	0.00%
Ceredigion	Rural	Mid	West	South	47	0	1	0.00%	2.13%
<b>Rural Mid &amp; SE</b>					<b>185</b>	<b>0</b>	<b>2</b>	<b>0.00%</b>	<b>1.08%</b>
Wrexham	Semi-Rural	NE	East	North	85	6	12	7.06%	14.12%
The Vale of Glamorgan	Semi-Rural	SE	East	South	78	2	5	2.56%	6.41%
Flintshire	Rural	NE	East	North	92	2	6	2.17%	6.52%
Blaenau Gwent	Urban	SE	East	South	47	12	22	25.53%	46.81%
Bridgend	Urban	SE	East	South	85	10	18	11.76%	21.18%
Caerphilly	Urban	SE	East	South	110	12	32	10.91%	29.09%
Cardiff	Urban	SE	East	South	203	33	55	16.26%	27.09%
Merthyr Tydfil	Urban	SE	East	South	36	13	20	36.11%	55.56%
Newport	Urban	SE	East	South	94	10	26	10.64%	27.66%
Rhondda Cynon Taf	Urban	SE	East	South	152	29	57	19.08%	37.50%
Torfaen	Urban	SE	East	South	60	2	8	3.33%	13.33%
Neath Port Talbot	Urban	SW	West	South	91	17	31	18.68%	34.07%
Swansea	Urban	SW	West	South	147	21	37	14.29%	25.17%
<b>ALL WALES</b>					<b>2512</b>	<b>189</b>	<b>379</b>	<b>9.97%</b>	<b>19.99%</b>

Looking at the data, it would appear that Rural and Semi Rural authorities have lower levels of overall deprivation than Urban authorities (based on the Indicators used).

Within the nine Rural authorities, there appears to be two distinct groups:

1. Those in North Wales and South West Wales (which might be classed as the PERIPHERAL authorities) and
2. Those in the South East and Mid-Wales (better-connected rural authorities). There does not appear to be an obvious Rural East/ Rural West distinction.

**1.1.1 Hypothesis Testing: Rural authorities in Mid & SE Wales have significantly lower IMD scores than Rural authorities in North & SW Wales**

ie.. Is 4.64%/ 11.14% significantly greater than 0%/ 1.08% ?

Top 10%:	Test Stat=	
	p=	0.032467532
	<b>Z=</b>	<b>2.978718435</b>
	t.05	1.645
	signif at 95% level	
	t.01	2.326
	signif at 99% level	
Top 20%:	Test Stat=	
	p=	0.081168831
	<b>Z=</b>	<b>4.189273272</b>
	t.05	1.645
	signif at 95% level	
	t.01	2.326
	signif at 99% level	

Hence we can state with 99% confidence, that the IMD deprivation levels in North/SW rural authorities are significantly higher than those in South East/Mid Wales rural authorities.

**1.2 Index of Income Deprivation**

LA	R/S/U	Area	East/ West	North/ South	No. LSOAs	Top 10%	Top 20%	% Top 10%	% Top 20%
Monmouthshire	Rural	SE	East	South	58	0	2	0.00%	3.45%
Powys	Rural	Mid	East	South	80	0	3	0.00%	3.75%
Ceredigion	Rural	Mid	West	South	47	1	2	2.13%	4.26%
<b>RURAL SE/Mid</b>					<b>185</b>	<b>1</b>	<b>7</b>	<b>0.54%</b>	<b>3.78%</b>
Gwynedd	Rural	NW	West	North	75	3	3	4.00%	4.00%
Pembrokeshire	Rural	SW	West	South	71	3	6	4.23%	8.45%
Carmarthenshire	Rural	SW	West	South	112	5	15	4.46%	13.39%
Isle of Anglesey	Rural	NW	West	North	44	2	6	4.55%	13.64%
Conwy	Rural	NW	West	North	71	4	10	5.63%	14.08%
Denbighshire	Rural	NE	East	North	58	6	10	10.34%	17.24%
<b>RURAL SW/North</b>					<b>431</b>	<b>23</b>	<b>50</b>	<b>5.34%</b>	<b>11.60%</b>
<b>RURAL SW/North EXCL</b>					<b>373</b>	<b>17</b>	<b>40</b>	<b>4.56%</b>	<b>10.72%</b>
<b>Denbighshire</b>									
<b>RURAL ALL areas</b>					<b>616</b>	<b>24</b>	<b>57</b>	<b>3.90%</b>	<b>9.25%</b>
Flintshire	Semi-Rural	NE	East	North	92	3	11	3.26%	11.96%
Wrexham	Semi-Rural	NE	East	North	85	6	8	7.06%	9.41%
The Vale of Glamorgan	Semi-Rural	SE	East	South	78	6	9	7.69%	11.54%
<b>SEMI RURAL</b>					<b>255</b>	<b>15</b>	<b>28</b>	<b>5.88%</b>	<b>10.98%</b>
Torfaen	Urban	SE	East	South	60	2	17	3.33%	28.33%
Bridgend	Urban	SE	East	South	85	6	18	7.06%	21.18%
Caerphilly	Urban	SE	East	South	110	11	29	10.00%	26.36%
Neath Port Talbot	Urban	SW	West	South	91	12	29	13.19%	31.87%
Rhondda Cynon Taf	Urban	SE	East	South	152	22	43	14.47%	28.29%
Newport	Urban	SE	East	South	94	16	30	17.02%	31.91%
Cardiff	Urban	SE	East	South	203	37	60	18.23%	29.56%
Swansea	Urban	SW	West	South	147	28	42	19.05%	28.57%
Blaenau Gwent	Urban	SE	East	South	47	9	16	19.15%	34.04%
Merthyr Tydfil	Urban	SE	East	South	36	7	10	19.44%	27.78%
<b>URBAN</b>					<b>1025</b>	<b>150</b>	<b>294</b>	<b>14.63%</b>	<b>28.68%</b>
<b>ALL WALES</b>					<b>1896</b>	<b>189</b>	<b>379</b>	<b>9.97%</b>	<b>19.99%</b>

Looking at the data, it would appear that Rural and Semi Rural authorities have lower levels of overall deprivation than Urban authorities, with the exception of Denbighshire (clearly the effect of Rhyl – a mix of traditional low income groups and the specific problems of disadvantage in coastal resorts).

Within the nine Rural authorities, there appears to be two distinct groups: those in North Wales and South West Wales (EXCEPT Denbighshire) and those in the South East and Mid-Wales (better-connected rural authorities). The data here indicates : most income deprivation in urban areas; followed by Denbighshire (which is distorted by results for the urban area of Rhyl); semi-rural areas; then in the remaining rural areas of Wales there remains a Rural East/ Rural West distinction.

The following hypotheses were tested via the parametric test of the difference between two proportions:

***1.2.1 Hypothesis Testing: Rural authorities in Mid & SE Wales have significantly lower Income deprivation scores than Rural authorities in North & SW Wales***

Hence we can state with 99% confidence, that the Income deprivation levels in North/SW rural authorities are significantly higher than those in South East/Mid Wales rural authorities.

***1.2.2 Hypothesis Testing: Income deprivation in Denbighshire is sig. higher than other Rural LAs in the North & SW***

The test supports the hypothesis with 95% confidence for the 10% most deprived LSOAs: ie Denbighshire has a significantly higher proportion of its LSOAs in the top 10% most Income Deprived LSOAs in Wales than other Rural N/SW authorities. However, the differences for the top 20% most deprived LSOAs are not significant.

Other Hypotheses on the Income Deprivation Index:

***1.2.3 Hypothesis: Income deprivation in Semi-Rural authorities is significantly higher than for Rural N/SW authorities***

The test showed no significant difference for either the top 10% or top 20% most deprived between these groups of authorities.

***1.2.4 Hypothesis: income deprivation in Denbighshire is sig. different from that in Urban authorities***

The test found no significant difference in the top 10% most income-deprived LSOAs in Denbighshire and Urban authorities.

However, for the top 20% most deprived LSOAs, Denbighshire had a significantly lower proportion of its LSOAs in this category than did the Urban authorities (at the 95% level but not at the 99% level of confidence).

### 1.3 Index of Access to Services Deprivation

LA	R/S/U	Area	East/West	North / South	No. LSO As	Top 10%	Top 20%	% Top 10%	% Top 20%
Conwy	Rural	NW	West	North	71	6	15	8.45%	21.13%
Denbighshire	Rural	NE	East	North	58	7	14	12.07%	24.14%
Isle of Anglesey	Rural	NW	West	North	44	6	25	13.64%	56.82%
Gwynedd	Rural	NW	West	North	75	12	38	16.00%	50.67%
Carmarthenshire	Rural	SW	West	South	112	23	40	20.54%	35.71%
Monmouthshire	Rural	SE	East	South	58	13	20	22.41%	34.48%
Pembrokeshire	Rural	SW	West	South	71	26	34	36.62%	47.89%
Ceredigion	Rural	Mid	West	South	47	19	30	40.43%	63.83%
Powys	Rural	Mid	East	South	80	36	49	45.00%	61.25%
<b>Rural</b>					<b>616</b>	<b>148</b>	<b>265</b>	<b>24.03%</b>	<b>43.02%</b>
Flintshire	Semi-Rural	NE	East	North	92	2	17	2.17%	18.48%
Wrexham	Semi-Rural	NE	East	North	85	5	14	5.88%	16.47%
The Vale of Glamorgan	Semi-Rural	SE	East	South	78	5	9	6.41%	11.54%
<b>Semi</b>					<b>255</b>	<b>12</b>	<b>40</b>	<b>4.71%</b>	<b>15.69%</b>
Blaenau Gwent	Urban	SE	East	South	47	0	0	0.00%	0.00%
Caerphilly	Urban	SE	East	South	110	0	2	0.00%	1.82%
Cardiff	Urban	SE	East	South	203	0	0	0.00%	0.00%
Merthyr Tydfil	Urban	SE	East	South	36	0	1	0.00%	2.78%
Neath Port Talbot	Urban	SW	West	South	91	0	1	0.00%	1.10%
Rhondda Cynon Taf	Urban	SE	East	South	152	0	3	0.00%	1.97%
Torfaen	Urban	SE	East	South	60	0	0	0.00%	0.00%
Bridgend	Urban	SE	East	South	85	1	6	1.18%	7.06%
Swansea	Urban	SW	West	South	147	3	8	2.04%	5.44%
Newport	Urban	SE	East	South	94	2	7	2.13%	7.45%
<b>Urban</b>					<b>1025</b>	<b>6</b>	<b>28</b>	<b>0.59%</b>	<b>2.73%</b>

Looking at the data, it would appear that Rural Access deprivation is greater than Semi-Rural Access deprivation, which is greater than Urban Access deprivation. There does not appear to be any East/West distinction within the Rural authorities.

The following hypotheses were tested:

#### ***1.3.1 Hypothesis Testing: Rural authorities suffer more Access deprivation than Semi-Rural authorities***

This hypothesis proved true with 99% confidence, for both the proportion of LSOAs in the top 10% most access deprived and those in the top 20% most deprived.

#### ***1.3.2 Hypothesis Testing: Semi-Rural authorities suffer more Access deprivation than Urban authorities***

This hypothesis proved true with 99% confidence, for both the proportion of LSOAs in the top 10% most access deprived and those in the top 20% most deprived.

## 1.4 Index of Housing Deprivation

LA	R/S/U	Area	East/ West	North/ South	No. LSOAs	Top 10%	Top 20%	%Top 10%	%Top 20%
Gwynedd	Rural	NW	West	North	75	31	48	41.33%	64.00%
Denbighshire	Rural	NE	East	North	58	12	20	20.69%	34.48%
Conwy	Rural	NW	West	North	71	14	25	19.72%	35.21%
Ceredigion	Rural	Mid	West	South	47	9	17	19.15%	36.17%
Isle of Anglesey	Rural	NW	West	North	44	8	28	18.18%	63.64%
Pembrokeshire	Rural	SW	West	South	71	7	20	9.86%	28.17%
Carmarthenshire	Rural	SW	West	South	112	1	6	0.89%	5.36%
Monmouthshire	Rural	SE	East	South	58	0	2	0.00%	3.45%
Powys	Rural	Mid	East	South	80	0	6	0.00%	7.50%
<b>Rural</b>					<b>616</b>	<b>82</b>	<b>172</b>	<b>13.31%</b>	<b>27.92%</b>
Wrexham	Semi- Rural	NE	East	North	85	26	32	30.59%	37.65%
Flintshire	Semi- Rural	NE	East	North	92	9	19	9.78%	20.65%
The Vale of Glamorgan	Semi- Rural	SE	East	South	78	1	7	1.28%	8.97%
<b>Semi Rural &amp; semi</b>					<b>255</b>	<b>36</b>	<b>58</b>	<b>14.12%</b>	<b>22.75%</b>
<b>Rural &amp; semi</b>					<b>871</b>	<b>118</b>	<b>230</b>	<b>13.55%</b>	<b>26.41%</b>
Cardiff	Urban	SE	East	South	203	54	77	26.60%	37.93%
Newport	Urban	SE	East	South	94	5	14	5.32%	14.89%
Swansea	Urban	SW	West	South	147	6	18	4.08%	12.24%
Merthyr Tydfil	Urban	SE	East	South	36	1	5	2.78%	13.89%
Rhondda Cynon Taf	Urban	SE	East	South	152	4	26	2.63%	17.11%
Bridgend	Urban	SE	East	South	85	1	6	1.18%	7.06%
Blaenau Gwent	Urban	SE	East	South	47	0	2	0.00%	4.26%
Caerphilly	Urban	SE	East	South	110	0	1	0.00%	0.91%
Neath Port Talbot	Urban	SW	West	South	91	0	0	0.00%	0.00%
Torfaen	Urban	SE	East	South	60	0	0	0.00%	0.00%
<b>Urban</b>					<b>1025</b>	<b>71</b>	<b>149</b>	<b>6.93%</b>	<b>14.54%</b>
<b>ALL WALES</b>					<b>1896</b>	<b>189</b>	<b>379</b>	<b>9.97%</b>	<b>19.99%</b>

Looking at the data, it would appear that Rural & Semi Rural Housing deprivation is greater than Urban Housing deprivation. The eastern rural authorities of Powys & Monmouthshire appear to suffer much less housing deprivation than the other rural authorities, although Denbighshire seems more akin to the western rural authorities.

The following hypotheses were tested:

### ***1.4.1 Hypothesis Testing: Rural authorities suffer significantly different housing deprivation than Semi-Rural authorities***

This hypothesis was DIS-proved with 99% confidence, for both the proportion of LSOAs in the top 10% most housing deprived and those in the top 20% most deprived. I.e.. there is no significant difference in housing deprivation levels between rural and semi rural authorities.

### ***1.4.2 Hypothesis Testing: Rural & Semi-rural authorities suffer significantly higher housing deprivation than Urban authorities***

This hypothesis proved true with 99% confidence, for both the proportion of LSOAs in the top 10% most housing deprived and those in the top 20% most deprived.

### ***1.4.3 Hypothesis Testing : Semi-rural authorities suffer significantly higher housing deprivation than Urban authorities***

This hypothesis proved true with 99% confidence, for both the proportion of LSOAs in the top 10% most housing deprived and those in the top 20% most deprived.

***1.4.4 Hypothesis Testing: Powys/Monmouthshire suffer significantly less housing deprivation than other rural authorities***

This hypothesis proved true with 99% confidence, for both the proportion of LSOAs in the top 10% most housing deprived and those in the top 20% most deprived.

**1.5 Other Possible Analysis of WIMD 2005**

The above analysis could be completed for the remaining domains, ie..

- Employment
- Health
- Education
- Environment

The analysis could be done for lower spatial areas – ie.. groups of LSOAs which make up lower level areas of differing degrees of rurality.

The domains of the 2005 WIMD do not distinguish specific groups of the population, whereas the 2000 IMD did separate out Children living with Income deprivation. The English IMD 2004 provided both Children and Older people versions of the Income deprivation domain.

The calculations underlying these could be replicated for Wales to look at differences to these specific age groups in rural vs non rural, east vs western areas etc..



## 2. What Can Working Age Benefit Claimant Data tell us about Rural deprivation and whether you can distinguish Rural East from Rural West?

Benefit Claimants - working age client group, May 2007	R/S/U	Area	East/West	North/South	2006 mid yr	Claimants % of popn aged 15-64			
					Working age ~ 15 to 64	any benefits	JSA	any benefits - with children	JSA - with children
Denbighshire	Rural	NE	East	North	59,900	16.84%	2.02%	10.85%	0.32%
Powys	Rural	Mid	East	South	81,700	12.20%	1.37%	8.37%	0.26%
Monmouthshire	Rural	SE	East	South	55,800	11.29%	1.09%	7.83%	0.22%
<b>Rural east</b>					<b>197,400</b>	<b>13.35%</b>	<b>1.49%</b>	<b>8.97%</b>	<b>0.26%</b>
<b>Rural east excl Denbighshire</b>					<b>137,500</b>	<b>11.83%</b>	<b>1.26%</b>	<b>8.15%</b>	<b>0.24%</b>
Carmarthenshire	Rural	SW	West	South	112,300	18.56%	1.88%	12.93%	0.32%
Anglesey	Rural	NW	West	North	43,300	16.56%	2.54%	10.55%	0.35%
Conwy	Rural	NW	West	North	67,200	16.04%	1.99%	10.19%	0.30%
Pembrokeshire	Rural	SW	West	South	72,600	15.34%	1.27%	10.59%	0.23%
Gwynedd	Rural	NW	West	North	74,900	13.95%	1.91%	8.74%	0.28%
Ceredigion	Rural	Mid	West	South	50,900	12.00%	1.12%	8.02%	0.18%
<b>Rural West</b>					<b>421,200</b>	<b>15.79%</b>	<b>1.77%</b>	<b>10.51%</b>	<b>0.28%</b>
Wrexham	Semi-Rural	NE	East	North	86,500	15.53%	1.82%	10.20%	0.27%
Vale of Glamorgan	Semi-Rural	SE	East	South	79,300	13.71%	1.74%	8.94%	0.23%
Flintshire	Semi-Rural	NE	East	North	99,000	13.00%	1.59%	8.90%	0.29%
<b>Semi-Rural</b>					<b>264,800</b>	<b>14.04%</b>	<b>1.71%</b>	<b>9.34%</b>	<b>0.26%</b>
Merthyr Tydfil	Urban	SE	East	South	36,300	26.78%	3.36%	18.15%	0.41%
Blaenau Gwent	Urban	SE	East	South	45,000	25.87%	3.73%	17.22%	0.56%
Rhondda, Cynon, Taff	Urban	SE	East	South	153,400	22.43%	2.26%	15.53%	0.33%
Caerphilly	Urban	SE	East	South	111,900	22.39%	2.43%	15.50%	0.37%
Bridgend	Urban	SE	East	South	86,300	19.88%	2.02%	13.87%	0.29%
Torfaen	Urban	SE	East	South	58,500	19.45%	2.24%	13.33%	0.34%
Newport	Urban	SE	East	South	90,200	17.96%	2.64%	11.36%	0.41%
Cardiff	Urban	SE	East	South	218,300	15.14%	2.02%	9.07%	0.28%
Neath Port Talbot	Urban	SW	West	South	88,500	23.80%	2.26%	16.16%	0.32%
Swansea	Urban	SW	West	South	148,200	18.37%	2.10%	11.65%	0.25%
					<b>1,036,600</b>	<b>19.96%</b>	<b>2.32%</b>	<b>13.21%</b>	<b>0.33%</b>
<b>WALES</b>					<b>1,920,000</b>	<b>17.55%</b>	<b>2.03%</b>	<b>11.64%</b>	<b>0.30%</b>

H0: Proportionally more working age claimants of benefits in Rural West than Rural East  
eg.. 15.8%sig > 13.4%

			any benefits	JSA	any benefits - with children	JSA - with children
p:			0.150097	0.0168283	0.1001778	0.0027481
Z:			9.3561682	1.014635	5.7554062	0.0607051
t.05	1.645	sig 95%?	Yes	No	Yes	No
t.01	2.326	sig 99%?	Yes	No	Yes	No

We can conclude at the 99% confidence level, that the proportion of 15-64 year olds claiming working-age benefits is significantly higher in western rural authorities than eastern rural authorities.

This is true of both all claimants and claimants with dependent children.

There is no significant difference between the proportion of working age claimants claiming job seekers allowance in western rural and eastern rural authorities, either with or without dependent children.

This kind of income deprivation follows the pattern:

- Urban authorities have the highest proportion of working age claimants
- Rural Western authorities the next highest
- Then Semi Rural
- Then Rural Eastern authorities

### 3. What Can Working APS Data on Unemployment rates & economic activity rates tell us about Rural deprivation and whether you can distinguish Rural East from Rural West?

Annual Population Survey, Apr 07	R/S/U	Area	East/West	North / South	Unemployment rate - working age			% who are economically inactive - working age		
					number	denominator	percent	number	denominator	percent
Denbighshire	Rural	NE	East	North	1,800	43,400	4.2	13,300	56,800	23.5
Monmouthshire	Rural	SE	East	South	1,600	42,800	3.7	9,500	52,300	18.1
Powys	Rural	Mid	East	South	1,700	58,400	3.0	14,900	73,300	20.4
<b>Rural East</b>					<b>5,100</b>	<b>144,600</b>	<b>3.53 %</b>	<b>37,700</b>	<b>182,400</b>	<b>20.67 %</b>
Ceredigion	Rural	Mid	West	South	2,200	34,100	6.5	15,900	49,900	31.7
Anglesey	Rural	NW	West	North	1,700	28,900	5.9	9,700	38,600	25.1
Pembrokeshire	Rural	SW	West	South	2,900	52,400	5.5	14,900	67,300	22.1
Carmarthenshire	Rural	SW	West	South	3,700	73,000	5.1	26,200	99,200	26.4
Conwy	Rural	NW	West	North	2,300	47,700	4.9	14,300	62,000	23.1
Gwynedd	Rural	NW	West	North	1,400	50,000	2.8	16,200	66,200	24.4
<b>Rural West</b>					<b>14,200</b>	<b>286,100</b>	<b>4.96 %</b>	<b>97,200</b>	<b>383,200</b>	<b>25.37 %</b>
Vale of Glamorgan	Semi-Rural	SE	East	South	3,200	61,000	5.3	16,200	77,300	21.0
Wrexham	Semi-Rural	NE	East	North	2,700	64,600	4.2	16,200	80,800	20.1
Flintshire	Semi-Rural	NE	East	North	2,200	74,100	3.0	19,600	93,600	20.9
<b>Semi Rural</b>					<b>8,100</b>	<b>199,700</b>	<b>4.06 %</b>	<b>52,000</b>	<b>251,700</b>	<b>20.66 %</b>
Merthyr Tydfil	Urban	SE	East	South	2,300	22,200	10.1	9,900	32,100	30.7
Bridgend	Urban	SE	East	South	5,500	59,400	9.2	18,500	77,900	23.7
Blaenau Gwent	Urban	SE	East	South	2,700	29,300	9.1	11,200	40,400	27.7
Newport	Urban	SE	East	South	4,200	61,800	6.7	18,000	79,900	22.6
Rhondda, Cynon, Taff	Urban	SE	East	South	6,200	99,300	6.2	38,800	138,100	28.1
Cardiff	Urban	SE	East	South	8,700	144,300	6.0	55,300	199,600	27.7
Caerphilly	Urban	SE	East	South	4,500	77,900	5.7	28,800	106,700	27.0
Torfaen	Urban	SE	East	South	1,900	40,400	4.6	12,900	53,400	24.2
Neath Port Talbot	Urban	SW	West	South	3,500	55,600	6.2	23,800	79,400	30.0
Swansea	Urban	SW	West	South	5,400	101,100	5.3	34,600	135,700	25.5
<b>Urban</b>					<b>5,400</b>	<b>101,100</b>	<b>5.34 %</b>	<b>34,600</b>	<b>135,700</b>	<b>25.50 %</b>
Column Total					<b>72,200</b>	<b>1,321,800</b>	<b>5.5</b>	<b>438,700</b>	<b>1,760,500</b>	<b>24.9</b>
<b>NB.. Assume sample size = 10% of 'denominator' values to calc test values</b>										
Ho: Rural West Higher Unemployment & Inactivity than Rural East										
						Z=	6.804			9.924
				t.05	1.645	Sig 95%?	Yes			Yes
				t.01	2.326	Sig 99%?	Yes			Yes

We can say with 99% confidence that both unemployment and economic inactivity rates are significantly higher in Rural Western authorities compared to Rural Eastern authorities.

#### 4. What Can Annual Earnings Survey Data tell us about Rural deprivation and whether you can distinguish Rural East from Rural West?

annual survey of hours and earnings - resident analysis					All Jobs	Full Time Workers	Part Time Workers
2007	R/S/U	Area	East/ West	North/ South	Ave Gross Weekly Pay £	Ave Gross Weekly Pay £	Ave Gross Weekly Pay £
Powys	Rural	Mid	East	South	354.5	444.7	164.3
Denbighshire	Rural	NE	East	North	393.5	486.7	188.0
Monmouthshire	Rural	SE	East	South	478.1	617.8	161.2
Wrexham	Semi-Rural	NE	East	North	388.1	468.4	158.6
Flintshire	Semi-Rural	NE	East	North	423.1	508.2	179.7
Vale of Glamorgan	Semi-Rural	SE	East	South	436.6	514.0	216.2
<b>Rural East/Semi Rural East</b>				<b>Ave</b>	<b>412.3</b>	<b>506.6</b>	<b>178.0</b>
				<b>sd</b>	<b>43.2</b>	<b>60.2</b>	<b>21.9</b>
				<b>n</b>	<b>6.0</b>	<b>6.0</b>	<b>6.0</b>
Pembrokeshire	Rural	SW	West	South	347.4	451.5	159.6
Ceredigion	Rural	Mid	West	South	353.3	453.1	140.5
Gwynedd	Rural	NW	West	North	354.3	482.9	144.3
Conwy	Rural	NW	West	North	383.3	500.5	119.9
Carmarthenshire	Rural	SW	West	South	385.0	467.9	174.2
Anglesey	Rural	NW	West	North	385.9	459.7	163.4
<b>Rural West</b>				<b>Ave</b>	<b>368.2</b>	<b>469.3</b>	<b>150.3</b>
				<b>sd</b>	<b>18.3</b>	<b>19.1</b>	<b>19.4</b>
				<b>n</b>	<b>6.0</b>	<b>6.0</b>	<b>6.0</b>
Blaenau Gwent	Urban	SE	East	South	345.4	397.3	135.6
Rhondda, Cynon, Taff	Urban	SE	East	South	376.4	441.5	173.2
Caerphilly	Urban	SE	East	South	388.4	456.8	186.0
Bridgend	Urban	SE	East	South	393.8	480.0	149.9
Merthyr Tydfil	Urban	SE	East	South	394.2	453.6	178.4
Torfaen	Urban	SE	East	South	403.3	478.9	128.2
Newport	Urban	SE	East	South	415.1	505.8	160.1
Cardiff	Urban	SE	East	South	440.2	540.7	179.9
Swansea	Urban	SW	West	South	397.3	470.3	160.0
Neath Port Talbot	Urban	SW	West	South	406.2	469.8	229.4
<b>Urban</b>				<b>Ave</b>	<b>396.0</b>	<b>469.5</b>	<b>168.1</b>
				<b>sd</b>	<b>24.7</b>	<b>38.0</b>	<b>28.8</b>
				<b>n</b>	<b>10.0</b>	<b>10.0</b>	<b>10.0</b>
				SD	19.14	25.78	11.96
				Z:	2.31	1.45	2.31
				t.05,10	1.812		
					Sig	NOT SIG	Sig
				t.01,10	2.764		
					NOT SIG	NOT SIG	NOT SIG

As there are only three datapoints for Rural East & Semi-Rural (East), we have combined these as to provide a more robust test:

##### **4.1.1 Hypothesis: Average Gross Weekly Pay is significantly higher in Rural/Semi-Rural Eastern authorities than in Rural Western authorities.**

TRUE with 95% confidence for ALL jobs and PT jobs, but FALSE for FT jobs.