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## **The Band D Delusion**

### **How It Creates An Unfair Tax**

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## 1. INTRODUCTION

In their submission, dated 10/01/05, to the Lyons Inquiry, Leicester City Council stated:

*“ . . . if all local authorities spent at the level of their FSS, the Band D council tax would be the same throughout the country. ”*

Why the emphasis on band D? If this statement is correct, then it would apply to all other council tax bands just as well. This is because there is a fixed relationship between the council tax bills for any two property bands within one and the same local authority. If we know the band A bill in any local authority we automatically know the bill for band D or indeed any other band as well. The same applies to bands B, C, D, E, F, G and H - any of which can be used to predict the bill for every other band.

Leicester City Council are by no means alone in their obsession with discussing council tax in terms of band D. Most articles in the media do so as well. Why should this be? It would be understandable if band D were the most common band in the country as a whole - but it isn't. It would also be understandable if it represented the mid point in the property band distribution, with equal numbers of properties in bands higher than D and in bands lower than D - but again this is not the case. It would still be understandable if the band D bill represented the average council tax bill faced by householders - but once again this is not so.

So what is a band D property and why should the government attempt to equalise the tax on all band D properties as Leicester City Council claims? Obviously, if band D properties were all much the same physically, (three bed-roomed semi-detached houses with a garage for example), then this would be understandable. However, this is not the case. A band D property in some places can be a two up and two down terraced house whereas in other places it can be a four or five bed-roomed detached property. Equally the desire to equalise band D council tax across the country would be understandable if most households living in band D property enjoyed much the same levels of income. However, once again this is not the case. Indeed, the only things that the band of a property tells you is roughly how much the council tax on it will be and roughly how much it would have sold for in 1991. In order to predict what type of property it is and what the likely incomes of those dwelling there are likely to be, you need to know in which local authority the property is situated.

This paper argues that the band of a house is essentially a bureaucratic construct and that, as such, it is a delusion, with many undesirable practical consequences arising from treating it as something real and meaningful.

## 2. HOW REPRESENTATIVE IS BAND D OF THE DWELLING STOCK?

In England as a whole there are 354 different bill collecting local authorities. These are made up of 238 shire districts, 46 unitary authorities, 36 metropolitan authorities, 33 London boroughs and the Scilly Isles, (for which there is unfortunately very little data so that I have had to exclude it from any of the analyses which follow).

As of March 2005 there were only 40 local authorities out of the remaining 353, (i.e. 11.33% of them), for which band D was the commonest band. In England as a whole there are only 15.14% of properties to be found in band D. This compares with the 25.43% in band A, the 21.57% in band C and the 19.27% in band B. Clearly band D is not the most “typical” band in terms of it being the most common. In fact band D is not the most common band in **any** region of England or in **any** type of local authority. The most common band for each type of local authority and region is shown in figure 1.

<b>Commonest Council Tax Band by Region and Council Type</b>				
	Shires	Units	Mets	Region
North East	A	A	A	A
North West	A	A	A	A
Yorks & Humber	C	A	A	A
East Midlands	A	A		A
West Midlands	B	A	A	A
Eastern	C	C		C
South East	C	C		C
South West	C	B		B
London				C
England	C	A	A	A

**Fig. 1**

Given that band D is not the most common band of property, is band D typical in some other sense? Does it perhaps represent the mid point in the property distribution with the number of properties in higher bands being roughly equal to the number of properties in lower bands? The answer to this question is a resounding NO!

In England as a whole, 66.27% of properties fall into bands lower than band D whereas only 18.59% of properties fall into Bands above band D. This result is just as marked in terms of local authorities. There are only 41 local authorities where there are more properties in bands higher than band D than there are in bands lower than band D. In contrast, there are 313 local authorities where there are more properties in bands below band D than there are in bands above it. This result is remarkably robust. Even if we insist that the difference in number of properties above and below band D be at least 20% before we treat them as examples of where band D is not the centre of the distribution, we still find that there remain 304 local authorities where there are more properties below band D than above it - whilst there are only 34 Local Authorities in the opposite position. Moreover in every region and every type of local authority, there are more properties and more local authorities in which there are more properties to be found in bands lying below band D than there are above it - even with the 20% "float" so as to allow the numbers above and below to be only "roughly" the same!

So, if band D represents neither the most common band nor the mid point in the distribution of bands, what does it represent? Is it perhaps the financial average – i.e. if every house was in band D, would the yield from council tax be the same in total, (ignoring the effects of any Council Tax Benefit), as it is now? Needless to say, band D does not pass this test of being "typical" either - although it does get a bit closer than on the other criteria that I have just examined.

In 2005/06 the average band D council tax for a house containing two adults, (weighted by the number of properties actually in band D), was £1,215.88p whereas the average council tax bill was £1,008.28p. However, this particular comparison could be regarded as a little "unfair". The band D average assumes no discounts for single occupancy or whatever, whereas the average bill per dwelling includes such discounts. Neither takes any account of Council Tax Benefit. A fairer comparison might be to examine what the average bill would be if there were no discounts. However, this, at £1,117.31p, is still not the same as the average band D bill.

***Note:** These numbers differ slightly from those published by HM Government. This is because I have used figures for the dwelling stock as of March 2005, (which gives **actual** averages), whereas the government has been forced to use earlier data - since council tax budgets, grants and so on are all determined before March of the financial year in question, (this older data is not available to me).*

## **2. WHAT SORT OF PROPERTY IS BAND D - PHYSICALLY?**

Since the council tax band of any property is determined by what would have been its market value in 1991, it is obvious that dwellings in more expensive housing areas will show a tendency to fall into higher bands than otherwise similar houses in the less expensive housing areas. This means that a band D house in one area may be very different in terms of its physical attributes from a band D house in some other areas. Indeed if Leicester City Council is correct in its assertion quoted in the introduction to this paper, this must mean that people occupying what are physically broadly similar houses are likely to be paying very different amounts in council tax. How big is this difference likely to be?

Unfortunately there is no published information about how many dwellings of each type, (detached, semi-detached, terraced housing or flats), fall into different bands in each local authority. However what we do know is how much housing of each of the four types that there are in each local authority. Moreover we know what the average price of each type of housing was, (in 2002), as well as how many dwellings of each band there were, (in 2005), in each bill collecting local authority. We can therefore get some sort of indication of how many houses of each type there are in each band in each Local Authority by allocating all the cheapest type of housing in any local authority to the lowest bands, allocating the second cheapest type to whatever are the lowest bands that still remain and so on until the most expensive type of housing has been fitted into the highest bands.

Obviously, this process can only give a rough picture of what type of house is to be found in any band. After all, flats, for example can vary between a luxury penthouse suite or a somewhat inadequately converted basement. Similarly a terraced property could consist of little more than a back-to-back two-up-two-down or part of a very grand Georgian crescent. Nevertheless, with this proviso we can indeed get some indication of what a band D house might be in different parts of the country.

There are two different ways of looking at the results. On the one hand we could examine what sorts of property go to make up band D in any area. On the other hand we could examine what proportion of each type of property in any area is likely to be in band D.

Figure 2 shows the proportions of different types of property forming band D in the different regions. It is immediately obvious that detached houses, (the most expensive type of house in every area), form a far lower percentage of band D houses in the South East than they do in other regions. Indeed in the East Midlands a band D house is almost certain to be detached.

Region	NE	NW	Y&H	EM	WM	EE	SE	SW
Flats	0.0%	6.4%	15.1%	0.9%	0.0%	0.0%	0.4%	0.0%
Terrace	0.0%	0.0%	0.0%	0.0%	0.0%	14.5%	13.3%	0.0%
Semis	14.5%	29.1%	7.9%	1.4%	26.6%	41.3%	64.7%	33.4%
Detached	85.5%	64.5%	77.0%	97.8%	73.4%	44.3%	21.5%	66.6%

**Fig. 2**

Of course it is possible that the low representation of detached properties in the South East, or of terraced properties in the North East in band D could simply reflect their relative scarcity or abundance. However, this is not the case. In fact 29.6% of dwellings in the South East are detached houses whereas the corresponding figure for the North East is only 14.5%. If we look at what proportion of each type of property is to be found in band D we, get the picture illustrated in figure 3.

Region	NE	NW	Y&H	EM	WM	EE	SE	SW
Flats	0.0%	4.6%	10.6%	0.9%	0.0%	0.0%	0.5%	0.0%
Terrace	0.0%	0.0%	0.0%	0.0%	0.0%	10.6%	11.4%	0.0%
Semis	7.5%	16.2%	3.5%	0.4%	12.0%	23.6%	43.8%	16.9%
Detached	44.1%	35.8%	34.0%	31.6%	33.2%	25.3%	14.6%	33.6%

**Fig. 3**

This shows that only 14.6% of the South East’s stock of detached houses is in band D, (most of the rest is in higher bands). Contrast this with the North East where 44.1% of its stock of detached housing lies in band D

However, the mismatch between property type and council tax band is not just confined to the regions. The mismatch is also to be found between different types of local authority. Figure 4 shows both what percentage of band D is made up of each type of property as well as the percentage of that type of property in the total housing stock.

LA Type	Make-up of Band D			Percentage of type in housing stock		
	Shires	Units	Mets	Shires	Units	Mets
Flats	0.6%	0.9%	10.6%	12.4%	18.2%	16.0%
Terrace	7.4%	6.6%	0.0%	22.9%	28.9%	30.5%
Semis	39.9%	36.9%	25.0%	32.1%	32.1%	39.2%
Detached	52.1%	55.6%	64.4%	32.6%	20.8%	14.2%

**Fig. 4**

The disparities are immediately obvious. Some 64% of the band D properties in the metropolitan local authorities are detached houses. Yet detached houses only make up some 14.2% of all the properties in those same metropolitan areas. In complete contrast, whereas detached houses make up some 32.6%, (i.e. more than twice that in metropolitan authorities), of the housing stock in the shire districts, they only account for some 52.1% of the band D properties, (i.e. less than in the metropolitan areas!).

As a result only some 22.6% of the detached properties in the shire districts fall into band D, (with virtually all of the remainder falling into higher bands), compared with some 36.0% which do so in the metropolitan areas.

The above numbers are, of course, **aggregates**. The disparity becomes much more marked when one looks at **individual** local authorities. In some 139 local authorities band D consists almost entirely of detached houses, whereas in 53 others there are virtually no detached houses in band D at all, (the detached houses tend to be more highly banded)!

What this means is that whether or not a property is in band D depends far more on **where** it is than on **what** it is.

### 3. WHAT INCOMES DO PEOPLE IN BAND D PROPERTIES ENJOY?

If everybody in any local authority area lived in the most “appropriate” housing for their incomes - i.e. nobody in any particular band had a higher income than anyone in a higher band, nor a lower income than anybody in a lower band - then it would be possible to determine, from the income distribution of the residents of any local authority, what the minimum, average and maximum incomes were in each band there. Although it is almost certainly unrealistic to make the assumption that people actually do live in the band of housing most appropriate to their incomes, it does represent the **best** possible outcome in terms of the “fairness” of the council tax. Any “mixing”, (i.e. people living in “inappropriate” housing), will simply increase the spread of bills for any income bracket and so increase its “unfairness” in these terms

However, if we do make the assumption that everyone does indeed live in the band of housing most appropriate to their incomes, then we can see to what extent people in band D enjoy different levels of income. Figure 5 below shows how the average income for band D dwellers in different parts of the country and types of local authority differs from the national average income for band D dwellers.

<b>Percentage difference between national average Band D incomes and local average Band D incomes</b>				
	Shires	Units	Mets	Region
North East	19.8%	17.0%	42.3%	28.6%
North West	-3.6%	11.4%	22.2%	12.5%
Yorks & Humber	-19.2%	21.6%	17.8%	14.3%
East Midlands	7.4%	35.6%		12.9%
West Midlands	-9.5%	12.8%	15.1%	4.8%
Eastern	-10.9%	6.2%		-8.8%
South East	-28.8%	-5.4%		-22.8%
South West	-22.3%	-3.7%		-15.4%
England	-12.7%	7.7%	21.1%	0.0%

**Fig. 5**



If we look at the numbers in figure 5 we can see that band D dwellers in the South East have, on average, substantially lower incomes than band D dwellers in the North East. In fact, the average income of people living in band D property in the South East is only around 60% of that of people living in band D property in the North East. We see a similar disparity when we compare the average incomes of people living in band D properties in the shire districts with those living in band D property in the metropolitan authorities. The average income for the shire districts comes out at only 72.1% of that in the metropolitan areas.

However, these are, once again, **averages**. The average incomes of people in band D houses in shire districts in the South East is only around half (50%) that of people living in band D houses in the metropolitan areas of the North East. However, even **this** is an average! If we look at **individual** local authorities we find that the largest disparity is between Kingston upon Hull and South Buckinghamshire. The average income of band D dwellers in the latter is only around 27.4% of that in the former.

Potentially one of the most upsetting things for those living within the less favoured local authority areas would be to discover that there are some other local authorities whose residents can enjoy incomes whose minimum level before being forced into band D from lower bands is actually higher than the maximum income that they themselves can enjoy before being forced into bands even higher than D. Surprisingly there are a large number of local authorities whose residents find themselves in just such a position. Figure 6 shows the average number of local authorities whose residents find themselves in the more fortunate position when compared with residents in the local authorities in the regions and types of council named.

Average number of other Local Authorities whose residents' minimum Band D income is greater than the maximum Band D income of the residents of the type and Region of the of Local Authority concerned								
Region	NE	NW	Y&H	EM	WM	EE	SE	SW
Shires	21.8	39.8	84.0	21.4	50.0	60.9	121.4	101.9
Units	4.6	13.5	13.4	21.0	56.3	12.3	59.6	48.1
Mets	0.8	8.9	4.9		16.6			
England	13.5	26.6	33.3	21.4	43.7	56.8	110.3	90.9

**Fig. 6**

Figure 6 illustrates the by now familiar result of a discrimination against places like the South East and the shire districts in favour of places like the North East and the metropolitan authorities.

Let us once again look at some specific examples. Band D residents in South Buckinghamshire will find that there are no less than 271 other local authorities whose residents can earn higher incomes than any that they themselves do and still potentially live in band D properties. Other local authorities that do nearly as badly include: Mole Valley, (251); Waverley, (249); Elmbridge, (245); Tandridge, (244); East Dorset, (239); Chiltern, (239). At the opposite end of the scale there are inevitably some local authorities whose residents do exceptionally well. None of Newcastle upon Tyne, Manchester, Salford, Kingston upon Hull, North East Lincolnshire, Boston and Lincoln have any authority doing better than they do on these same criteria. The most favoured local authorities, in terms of the number of other authorities that they themselves do better than on this criterion, are: Kingston upon Hull, (with 313); Stoke on Trent, (275); Nottingham, (272); Sandwell, (244); Easington, (243); Salford, (240); Liverpool, (238).

#### 4. DOES CENTRAL GOVERNMENT TRY TO EQUALISE BAND D COUNCIL TAX?

If central government did not try to equalise the council tax on band D properties, it would not matter that much whether a band D property did or did not offer much the same by way of physical accommodation in each local authority. Equally it would not matter if people in band D properties had very different average incomes in different parts of England. So, the question is whether or not the government does indeed try to equalise band D council tax as alleged by Leicester City Council. There is a lot of evidence that it does. Some of this is statistical and some comes from the way in which central government determines the level of grant that it gives to each local authority.

Figure 7 shows how the gap between the highest and lowest **regional** band D council tax and the highest and lowest **regional** council tax per dwelling has changed in the period 1997/98 to 2005/06.

Ratio between the highest and lowest regional average Council Tax									
Fiscal Year	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
Band D	1.24	1.19	1.16	1.15	1.13	1.12	1.08	1.08	1.08
/ House	1.17	1.18	1.21	1.22	1.22	1.24	1.30	1.31	1.31

Fig. 7

What figure 7 shows is that since 1997, the spread around the average for council tax per dwelling has increased from around 17% to around 31% whereas the similar spread for band D council tax has decreased from around 24% to around 8%. The equalisation of band D council tax is illustrated even more dramatically in figure 8, where I have shown the sum of the squares of the fractional deviations from the average for the 320 non London local authorities.

Sum of squares of deviations from average Band D Council Tax									
Fiscal Year	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
Simple Avge	6.43	3.34	2.79	2.39	1.98	1.47	1.04	0.93	0.89
Weighted Av	6.74	3.42	2.88	2.47	2.05	1.55	1.09	0.98	0.94

**Fig. 8**

## 5. HOW IS COUNCIL TAX DETERMINED?

In principle, the **actual** amount of council tax that any local authority has to collect is the difference between what it, **actually** spends and the total government grants that it **actually** receives. (I ignore the effects of actual spend being different from budgeted spend and the degree to which local authorities build up or run down reserves in any particular year. Taking one year with another, these effects cancel each other out). However the practice is somewhat more complicated:

- There are many local bodies, other than the billing local authority, (such as Police Authorities, Fire Authorities, County Councils and Parish or Town Councils), who levy council tax precepts on residents of the billing authority's area. This all adds to the council tax bills actually received by residents.
- Some, but not all, (for example Parish Councils), of these same local bodies also receive central government grants in their own right.

This means that the actual amount of council tax that has to be collected is the difference between the **total** budgeted spend, (excluding any adjustments to reserves), of all the relevant bodies receiving a portion of the council tax in any billing authority's area and the **total** central government grant made to each of those bodies.

Central government grants consist of three main components, (as well as some additional grants for special purposes). These are the National Non Domestic Rates, (NNDR), the Revenue Support Grant, (RSG), and the Police Grant, (which only goes to Police Authorities). The proceeds from National Non Domestic Rates are distributed to Police Authorities, Fire Services, County Councils, District Councils, Unitary Councils and Metropolitan and London Borough Councils in such a way that the residents of every billing authority receive exactly the same amount per capita in the end. However, this is really just a matter of presentation. What matters for the purposes of determining the level of council tax is the total amount of government grants that are received by the residents of each billing authority. It would seem that the Revenue Support Grants and Police Grants are essentially balancing items to make the total grant received by each authority up to whatever amount central government believes that it should receive.

The total amount of central government grant actually awarded to any local authority is the difference between what the government thinks that the authority, (together with its various precepting authorities), **ought** to spend and the amount that it **ought** to collect from council tax.

- The amount that the government thinks that a local authority ought to **spend** is covered by the Formula Spending Share, (FSS), which attempts to estimate what ought to be spent on each “Service Block”. The FSS is, in practice, so complex that it has been described by one county council leader as “incapable of understanding”.
  - There are seven main Service Blocks included in the Formula Spending Share. These are: education; social services; police; fire; roads; capital financing and environmental services. The latter is subdivided into three main categories: cultural; environment and planning and development. The actual amount of spending in each Service Block is supposed to be driven by some measure of “need” which depends upon the demography of, and other factors relevant to, the area concerned.
- The amount that the government thinks that a local authority ought to **collect** by way of council tax is based on its Share of Average National Council Tax, (SANCT). SANCT is based on the **mix** of properties in its area and the percentages of each band that are subject to **discounts**, (through being unoccupied, singly occupied, occupied by students and so on) and the number of properties concerned.
  - The SANCT is calculated from the “Tax-Base”, which, to a first approximation can be estimated from the multiple of the number of dwellings in any local authority area and the ratio between the average council tax per dwelling in that area and the band D council tax in the same area.

- The correlation coefficient between the tax base calculated as above and the tax base as given in the (old) ODPM spreadsheet of grants for 2005/06 - available on <http://www.local.odpm.gov.uk/finance/0506/grant056s.xls>, is 0.9994.

— Another way of estimating the tax base is from the product of the number of dwellings in an area and what I call the “average band” for that area. The average band is simply the ratio between the council tax revenue that an authority would actually receive and the revenue that it would receive if all properties were in band D with neither being subject to any discounts. It is calculated by a weighted average of the CT multipliers - i.e. the sum of the products of percentage of properties in each band and the relevant CT multiplier for each band. The difference between the taxbases calculated by the two methods is a measure of how many properties are empty, subject to discounts and so on. The correlation coefficient between the taxbase calculated by the average band method and the taxbase given in the web reference above is 0.9986.

The above is, of course, a somewhat simplified version of how actual council tax bills are determined. Nevertheless a linear regression on the difference between Formula Spending Share and central government grants on the one hand and the taxbase on the other for all 320 Local Authorities outside London gives a correlation coefficient of +0.9909, (i.e. an almost perfect fit). This is clear evidence that the government does indeed try to equalise the council tax payable on any band, (and not just band D), throughout the country

## **6. WHAT ARE THE PRACTICAL CONSEQUENCES?**

In its report into council tax for the 2003/04 financial year, the Audit Commission noted that:

*But grant distribution – which moved grant from London and the South to the Midlands and the North – led to some councils putting up council tax more than others.”*

We can get some idea as to how big this effect might have been by investigating what the council tax for each of the 320 non London local authorities would have been in 2005/06 if each council had had to raise the same proportion of the total council tax revenue that it raised in 1998/99

Figure 9 summarises the changes in millions of pounds that have occurred as a result of using the 2005/06 ratios for total council tax yield rather than the 1998/99 ones, (a negative number means that council tax would have been that much lower had the 1998/98 ratios applied).

<b>Millions of pounds re-allocated</b>				
	Shires	Units	Mets	Region
North East	15.8	41.6	48.6	106.0
North West	50.1	19.1	283.3	352.6
Yorks & Humber	-40.8	0.6	103.9	63.7
East Midlands	0.2	21.3		21.6
West Midlands	-59.0	-14.6	176.6	103.1
Eastern	-150.4	-13.1		-163.5
South East	-295.6	-40.5		-336.1
South West	-120.7	-26.5		-147.2
England	-600.3	-12.2	612.5	0.0

**Fig. 9**

The **pattern** shown by these numbers is remarkably similar to the **pattern** of the numbers shown in figures 2, 3, 4,5 and, most particularly, 6 - i.e. the regional and type of council “unfairnesses” are to be found in the same places which have lost grant / had to increase their council tax rates by more than others. The South and the shire districts are “badly” treated with respect to the North and the metropolitan councils. This is exactly in line with the observations of the Audit Commission noted above.

Of course one has to be careful in using the results shown in figure 9. For example, it is just possible that the changes in council tax could have been due to changes in spending by the councils concerned. However, this seems unlikely to be the explanation of all, (or indeed very much), of the differences shown.

If the “unfairnesses” shown in the in earlier sections of this report are indeed real, then the analysis leading to figure 9 would suggest that the band D illusion / band D equalisation is one of the major causes. So are these “unfairnesses” real and is there any evidence that band D equalisation is a major cause of them? The answer to both parts of the question is YES!

As I have already indicated, there is substantial evidence that people in some regions and some types of local authority can end up paying much more, (or less), council tax than others elsewhere who inhabit either similar types of property or enjoy broadly similar incomes. This disparity becomes particularly obvious when one examines median incomes and the council tax paid by people on those incomes.

The Inland Revenue has published data on the median, (as well as the mean), incomes of the residents of each local authority, (this is available on the Inland Revenue web-site reference [http://www.hmrc.gov.uk/stats/income\\_distribution/3\\_14\\_nov05.xls](http://www.hmrc.gov.uk/stats/income_distribution/3_14_nov05.xls)). Admittedly this information is for one year only, (2003/04) and also only covers the gross personal incomes of people who actually pay income tax. Nevertheless it does provide some sort of yardstick against which to investigate the degree to which people in similar financial circumstances are paying different amounts in council tax.

The web-site <http://www.local.odpm.gov.uk/finance/stats/data/dwellnew2.xls> gives details of the number of houses in each council tax band in each local authority in England and the web-site <http://www.local.odpm.gov.uk/finance/ctax/data/tab356pc.xls> gives details on the council tax for each local authority. From these two sources it is possible to work out the size of the median council tax bill faced by the residents in each local authority and then compare this with the median income enjoyed by those same residents.

- In arriving at the council tax bills I first calculate what the tax would be on each property if it were to be occupied by two adults. This is simply the band D tax multiplied by the appropriate council tax multiplier, (e.g. 0.66667 for band A, 2.00000 for band H and so on). I then allow for any reductions such as the 25% discount for single occupancy, the exemptions for unoccupied housing and so on by calculating what the total council tax yield for each local authority would be if every dwelling were to pay the full council tax for two adults and compare this with the actual council tax yield calculated by multiplying the average council tax per dwelling, (obtained from the reference given above), by the number of properties in each local authority. I then use the ratio between these two results to “normalise” the council tax bill, (i.e. after allowances for discounts) for any property by multiplying it by this ratio

Fortunately, (for my purposes), it turns out that the residents of some local authorities have the same median incomes as the residents of some others. This enables me to compare the median council tax bills for two or more different local authorities where the median incomes of the residents are the same. Figure 10 shows some of the results of such a comparison.

Median Income	Low CT LA	CT / Hse	CT / Hse	High CT LA	Difference	
					%	£
12900	Nottingham	750	1012	Torridge	35.0%	262
13400	Derwentside	806	954	Ipswich	18.4%	148
13600	Manchester	631	978	West Somerset	55.0%	347
13800	Knowsley	721	1006	Herefordshire	39.6%	285
13900	Leicester	689	1055	Eden	53.2%	367
14100	Doncaster	647	976	North Cornwall	51.0%	330
14300	Derby	677	973	Caradon	43.7%	296
14500	Sunderland	678	1064	Eastbourne	56.9%	386
14800	Sheffield	753	1182	Rother	56.9%	429
14900	Rochdale	722	983	Sedgemoor	36.2%	261
14900	Salford	749	1092	South Lakeland	45.9%	343
15000	Wear Valley	761	1070	East Devon	40.5%	309
15100	Wolverhampton	735	1218	Purbeck	65.6%	482
15200	Portsmouth	779	1050	Harlow	34.8%	271
15500	Wakefield	657	1116	West Dorset	69.7%	458
15700	Luton	780	1109	Castle Morpeth	42.2%	329
15800	York	909	1163	Christchurch	27.9%	254
16100	North Tyneside	750	1107	Richmondshire	47.7%	358
16300	Crewe and Nantwich	866	1063	Basildon	22.7%	197
16600	Colchester	1018	1235	East Dorset	21.4%	217
16700	Tamworth	846	1058	North Shropshire	25.0%	212
16800	Thurrock	891	1157	Oxford	29.8%	266
17200	Daventry	942	1157	Stratford-on-Avon	22.9%	215
18000	Wychavon	991	1206	Rutland	21.7%	215

Fig. 10



It is obvious from this diagram that many people on similar incomes must be paying very different amounts in council tax.

In order to avoid the type of “cliff edge” problems that can be associated with any discrete banding system, I have also used what I call a “thick” median to get some information about the percentages of people who are paying too much or too little council tax when compared with others on similar incomes. By thick median I mean the average income and average council tax of that portion of each local authority population that lies within 2% on either side of the median. Since the median of the income distribution is always a long way from the mode of the distribution, (the mode is lower and quite close to the 60% of median which is often taken as the poverty line), the average income of the “thick” median is bound to be very close to the median income itself. However, this is not necessarily true of council tax bills. For example, if a band boundary occurs at 49% of the housing stock in one authority but at 51% in another, then the comparison of median Council Tax bills could lead to an exaggeration of the degree of “unfairness” of the council tax insofar as these two particular authorities are concerned. However by taking an average of the bills covering the 48%, 50% and 52% parts of the housing stock, such “cliff edge” problems are less severe.

Figure 11, which shows the approximate percentages of people around the median income paying at least 10% too much and at least 10% too little council tax has been derived using the “thick” median technique.

	CT Bills at least 10% too high				CT Bills at least 10% too low			
	Shires	Units	Mets	Region	Shires	Units	Mets	Region
NE	10.1%	0.0%	0.0%	3.2%	25.9%	22.8%	60.5%	39.9%
NW	32.0%	0.0%	0.0%	10.9%	20.7%	29.0%	55.4%	41.3%
Y&H	27.2%	0.0%	0.0%	3.1%	0.0%	21.6%	64.2%	47.8%
EM	7.3%	4.3%		6.7%	43.3%	30.6%		40.9%
WM	17.2%	36.8%	0.0%	10.3%	10.5%	32.0%	29.7%	22.1%
EE	24.6%	0.0%		21.7%	3.6%	27.3%		6.4%
SE	21.1%	6.6%		17.4%	5.2%	56.8%		18.4%
SW	59.4%	15.9%		43.3%	0.0%	0.0%		0.0%
England	25.5%	7.8%	0.0%	15.5%	12.4%	28.2%	52.6%	25.8%

Fig. 11

The results shown in figure 11, demonstrate that the “unfairnesses” are indeed real, (at least for those on or around local median incomes). The pattern of these unfairnesses is also remarkably similar to the pattern of grant redistribution shown in figure 9.

My procedure for arriving at the results displayed in figure 11 was as follows

- First I sort the local authorities in order of increasing median incomes, and, where two or more authorities enjoy the same median incomes, those authorities are sorted within their median incomes in order of increasing mean incomes.
- Second, I take the average, for each authority, of the median incomes and the median council tax bills in other authorities up to four places above and up to four places below in the sorted list. (For local authorities at each end of the list I have to make do with a smaller sample - at the top of the list I can only take the average median income of the authorities in the four places immediately below and similarly, at the bottom of the list I can only take the average of the four places immediately above it).
- Third, I work out the proportion of the average median income that is taken by the average median council tax bill for each authority and work out what the council tax bill for that authority “ought” to be on the assumption that this proportion should apply to that authority’s median income

It is of interest to determine to what extent this pattern of “unfair” treatment is the result of attempting to equalise band D council tax and to what extent it is inherent within the banding system. As one might expect, the answer is that it is a bit of both.

Using a proprietary, (but well proven), income distribution model, it is possible to determine to what extent the **pattern** of results shown in figure 11 is repeated in other parts of the income distribution or, indeed, over the income distribution as a whole. It is also possible to examine the effect on this pattern of altering central government grants, (within the same overall total), whilst keeping each local authority’s spending and the band mix and band multipliers identical.

*The extent to which we can eliminate this pattern of unfairness whilst keeping the degree of progressiveness of the council tax against income much the same is a direct measure of how the band D illusion causes the “unfairness” through the way in which it drives the distribution of central government grants.*

Figure 12 shows how the percentage of people paying at least 10% more or at least 10% less council tax compared with the average paid by people on similar incomes currently varies between different regions and different types of local authority.

	CT Too High by >10%				CT Too Low by >10%			
	Shires	Units	Mets	Region	Shires	Units	Mets	Region
NE	15.1%	2.0%	2.0%	6.1%	17.8%	41.8%	56.2%	40.3%
NW	20.0%	1.3%	1.8%	8.0%	5.5%	49.2%	49.0%	34.2%
Y&H	54.6%	2.3%	0.7%	7.2%	0.3%	29.3%	78.2%	58.8%
EM	13.7%	5.7%		12.2%	16.6%	69.6%		26.9%
WM	23.6%	21.7%	1.2%	12.5%	3.4%	45.3%	60.6%	35.7%
EE	42.0%	1.1%		37.1%	5.0%	58.4%		11.4%
SE	58.6%	18.7%		48.4%	1.6%	22.8%		7.0%
SW	46.9%	13.1%		34.4%	0.5%	8.8%		3.6%
Eng	38.3%	10.3%	1.4%	23.3%	5.4%	32.9%	61.4%	25.2%

**Fig. 12**

The numbers in this diagram present exactly the same sort of **pattern** as we saw in figure 10.

In figure 13 I show the results of a similar, (albeit rather artificial), exercise in which I have deliberately manipulated the central government grants to each bill collecting local authority in order to reduce the “unfair” bias illustrated in figures 11 and 12. In this exercise, everything else, (such as the number of properties in each band, the council tax band multipliers, and the actual spending of each local authority), have been left unchanged from the present situation.

	CT Too High by >10%				CT Too Low by >10%			
	Shires	Units	Mets	Region	Shires	Units	Mets	Region
NE	5.4%	2.6%	5.2%	4.6%	9.5%	4.5%	9.6%	8.3%
NW	4.2%	3.7%	3.4%	3.7%	5.0%	4.7%	4.0%	4.4%
Y&H	5.5%	3.1%	2.5%	2.9%	6.8%	5.1%	3.7%	4.3%
EM	3.3%	2.9%			3.5%	7.4%		4.2%
WM	5.4%	5.6%	2.5%	4.0%	4.4%	9.1%	3.3%	4.4%
EE	7.6%	7.1%		7.6%	5.8%	4.4%		5.6%
SE	8.0%	9.5%		8.4%	8.2%	6.8%		7.8%
SW	6.0%	4.1%		5.3%	7.0%	3.8%		5.8%
Eng	6.2%	5.4%	3.1%	5.2%	6.2%	5.6%	4.3%	5.6%

**Fig. 13**

It is immediately obvious that the magnitudes of the numbers in figure 13 are substantially less than those in figure 12. This means that much of the apparent “unfairness” in the way that council tax bills don’t treat people on similar incomes similarly is directly attributable to the obsession with equalising band D bills across all local authorities.

Ideally, in conducting an exercise of this sort one would wish to ensure that the council tax was no more regressive against income than it is currently. However, since the “new” central government grants are **not** in any way a recommendation - they merely represent an investigation into what might be **possible** in order to illustrate the pernicious effects of the band D delusion - I have not paid a great deal of attention to this particular aspect. Nevertheless, the actual grants which would produce the results shown in figure 12, only represent a very small increase in regressiveness. The bills in the bottom decile would increase by 2.6%, whereas those for the highest income decile would decrease by 2.4%, (considerably less than the normal average annual changes in council tax bills). This is obviously a drawback. However this drawback has to be set against the advantage of much fewer people in the bottom decile, (where it hurts most), being unfairly treated. Under the current system 10.5% of those in the bottom **national** decile currently pay at least 10% too much council tax, (the figure for the shire districts is 20.1%), whereas under the modified system the figure drops to 2.3%.

The actual percentage changes for council tax bills in each decile are shown in figure 14.

Low	Dec2	Dec3	Dec4	Dec5	Dec6	Dec7	Dec8	Dec9	Top
2.6%	1.8%	0.9%	0.5%	0.4%	0.8%	1.4%	0.5%	-2.2%	-2.4%

**Fig. 14**

It is important not to overemphasise the effect of the change in progressiveness illustrated in figure 14. The loss to those in the bottom income decile would be equivalent to charging them a fifth of one penny in tax on all their income. The effect on the top decile would be equivalent to giving them back between one thirtieth and one fortieth of a penny for each pound of their incomes.

Actually it is comparatively easy to devise changes to the government grants that would simultaneously reduce the sort of “unfairness” illustrated in figure 12 and make the overall system (slightly) more progressive. For example, if we were to adjust central government grants, (within the same overall total), so as to make the council tax per dwelling directly proportional to average incomes within each authority, we would find that the percentage of people paying at least 10% too much in council tax would be reduced from the 23.3% shown in figure 12, (i.e. the current system), to 21.8%. At the same time, average council tax bills in the bottom decile would be reduced by 1.7% but those in the top decile would rise by 3.0%. These effects are much smaller than those that arise from the changes shown in figure 13.

Actually it is quite hard, under the present system, to change the degree of the progressiveness of the council tax very much by altering central government grants. For example, even if we were to adjust central government grants so as to make the council tax **per dwelling**, (instead of band D), the same in all local authorities, the average council tax for those in the bottom income decile would rise by only 4.3%, (equivalent to an extra third of one penny on their incomes), whereas that for the highest income decile would fall by the same percentage, (equivalent to approximately one twentieth of a penny of **their** incomes). Such a change would also reduce the amount of “unfairness” as measured by the number people on similar incomes paying very different amounts of council tax. However, we should note that **any** increase in regressiveness will tend to have this effect. Under the community charge virtually nobody, (in any area), paid more tax than others on similar incomes - since everybody paid the same! The potential changes that I investigated in arriving at the results shown in figure 12 are **not** driven by this effect. (We get a bigger reduction in the “unfairness” for a smaller increase in regressiveness when compared with the results of making the council tax per dwelling uniform.)

The reason why alterations to central government grants are so ineffective in altering the degree of progression of the council tax against income, is simply that the **mix** of bands within each local authority is so poorly correlated with local incomes that any change gives or takes roughly the **same amounts of money in total** to each of the “justified” and “unjustified” winners and losers. What one can do however, (and what I have done in arriving at the results shown in figure 12), is to ensure that those who really need to “win” or “lose” do so in a big way. As a result, the **number** of “unjustified” winners or losers exceeds the number of “justified” ones. However, the **changes** experienced by the “unjustified” winners and losers are smaller than those experienced by the “justified” ones.

The current mix of bands makes it very difficult to do anything about making the council tax much “fairer” or making it more progressive. Altering the band multipliers to increase progressiveness actually makes things worse in terms of “unfairness” - and does very little to increase progressiveness as well!. Indeed, if we were to use the changes to the tax bases resulting from making the band multipliers more progressive to drive any further Resource Equalisation, (i.e. equalising band D council tax across the country), the situation becomes worse still!. We find similar results if we try to “improve” the progressiveness of the tax by adding new bands at the top and bottom. Actual progressiveness hardly changes whereas the “unfairness” increases.

On the other hand we can indeed make the council tax both “fairer” and more progressive by altering the band mix so that the band of any house is arrived at with reference to where its value fits into the **local** distribution of values. However, discussion of this is outside the scope of this report.

## 7. CONCLUDING REMARKS

So, why does the government attempt to equalise council tax on band D properties? There are two answers - the cynical one and the (hopefully) more realistic one.

The cynic would argue that equalising band D council tax results in a shift of resources from non Labour voting areas to Labour voting ones, (which it does), in a manner that appears to be unbiased and politically neutral. He might also argue that, since most people pay **less** than the band D tax, concentrating on band D rates makes more people feel like winners than those who feel like losers - all good for garnering votes!

The more charitable might suggest that the government decided to try to make the council tax somewhat more progressive in order to help those on the lowest incomes. If this is the case, then it is clear from my analysis that the government and / or its advisors simply did not do their homework properly. (According to some politicians' memoirs, a similar thing happened with the community charge - the size of the resulting bills being an unpleasant surprise for all concerned.) Some support for this view is provided by the numerous submissions to the Lyons Inquiry arguing that council tax should be made more progressive - usually by altering the band multipliers and / or adding extra bands. Once again, these people do not seem to have done their homework properly. Neither of these proposals do much for progressiveness but do have the very unfortunate side effect of increasing, (sometimes quite substantially), the amount of "unfairness" inherent in the system.

An alternative explanation is that equalising band D council tax arises simply from central government's, (both politicians' and civil servants') desire for national uniformity. This is why we have **national** multipliers, a banding system based on **national** valuations, and now a **national** council tax for each band - all in the name of what purports to be a **local** tax! The problem arises because of thinking about people in inappropriate groupings - e.g. all the inhabitants of Ambridge rather than all the people on median, (or any other), incomes.

I believe that the evidence provided in this report demonstrates, quite conclusively, that band D is in no way typical of anything important. It is a bureaucratic delusion - and as such is in no way justified as a basis on which to make **any** policy whatsoever! Worse, this delusion, coupled with the desire for national uniformity in local affairs, is the cause of much unnecessary hardship. The idea should be abandoned forthwith!