

### 03: Housing space standards: a national perspective

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The project I want to present to you today has been sponsored by the NHBC Foundation. I will be looking at the data from the 2005/06 English House Condition Survey and the sort of values for space that we can get from this data.

We have this premise in England that housing land availability has reduced and building costs have increased over the years and that as a result space standards have got worse. It is strange to be talking this way after just hearing Alejandro's presentation because when you actually look at the housing in England compared to what he has just shown us in Latin America we have just got greedy big spaces.

Space standards in England have improved, certainly in the first part of the 19<sup>th</sup> century, culminating in the 1961 Parker Morris standards, but have things gone downhill since then? When we talk about space standards there are lots of aspects that we need to keep in mind. We may forget that children require just as much space as adults, sometimes even more, and that bedrooms are not just used for sleeping in, they are used for other aspects as well.

Illustration 1 shows that compared to the rest of Europe homes in England are fairly middle of the road at just over 80 square metres on average for a dwelling.

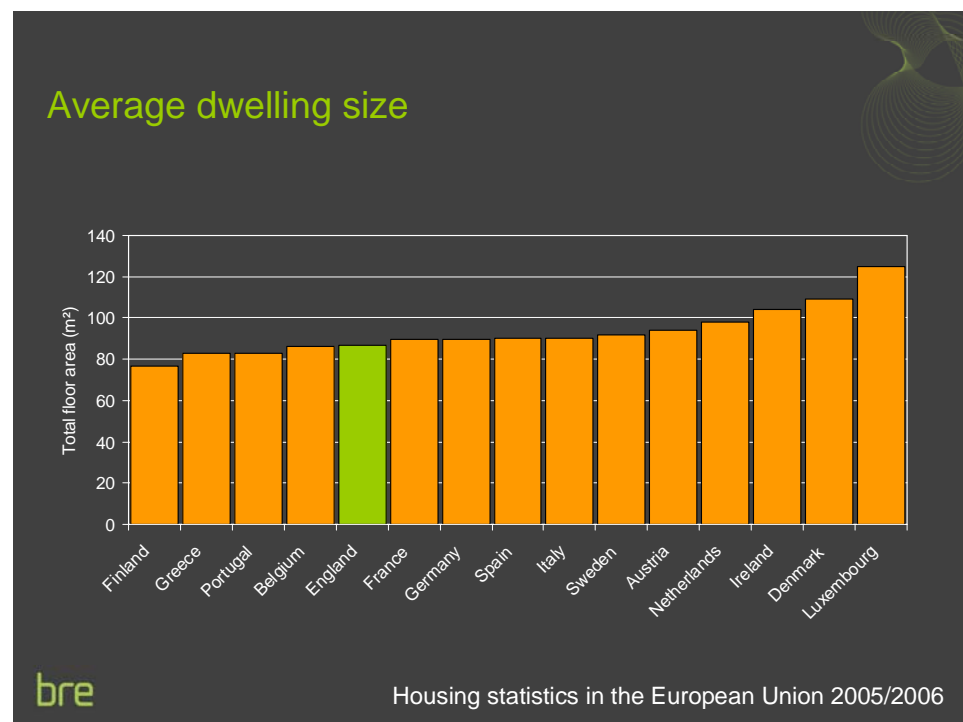


Illustration 1: average dwelling size

A lot of other countries in Europe have similar sizes, but if we look at the new build data in illustration 2 it seems as though England is not doing very well. Italy, Luxembourg and England are now building slightly smaller houses than they were for the average of the stock, but everybody else is actually building larger. For England this is still over 80 square metres so although it is a little bit smaller on average, it is

not much smaller than the average for the rest of our stock (but bear in mind that that is 2001-2003 data for Europe).

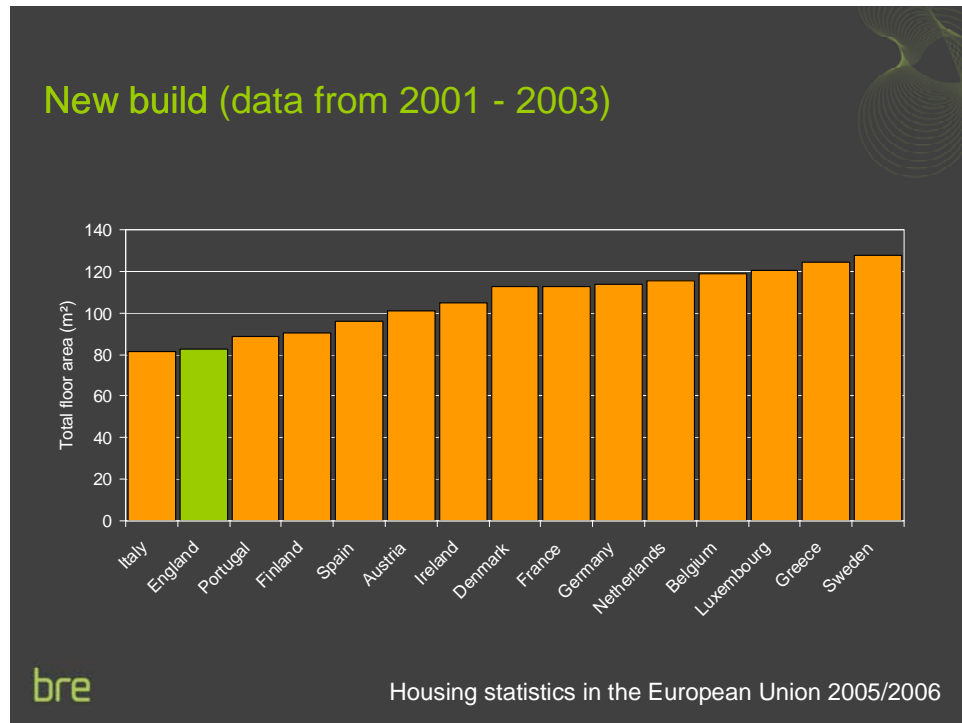


Illustration 2: new build statistics

One of the reasons that we are given for this shift is the changes in the size and the number of households in England. Illustration 3 is a chart presenting life tables from DCLG, showing how the population has basically been stable but the number of households has increased dramatically.

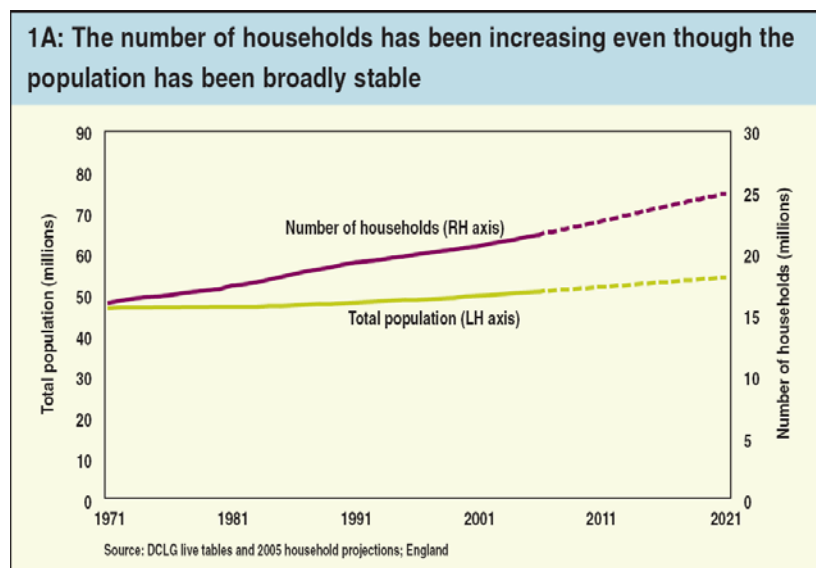


Illustration 3: DCLG live tables and 2005 household projections: England

I want to take this back to a wider span, so we are going back to 1861 and you can see in illustration 4 how the population has increased in England and how the number of households has increased.

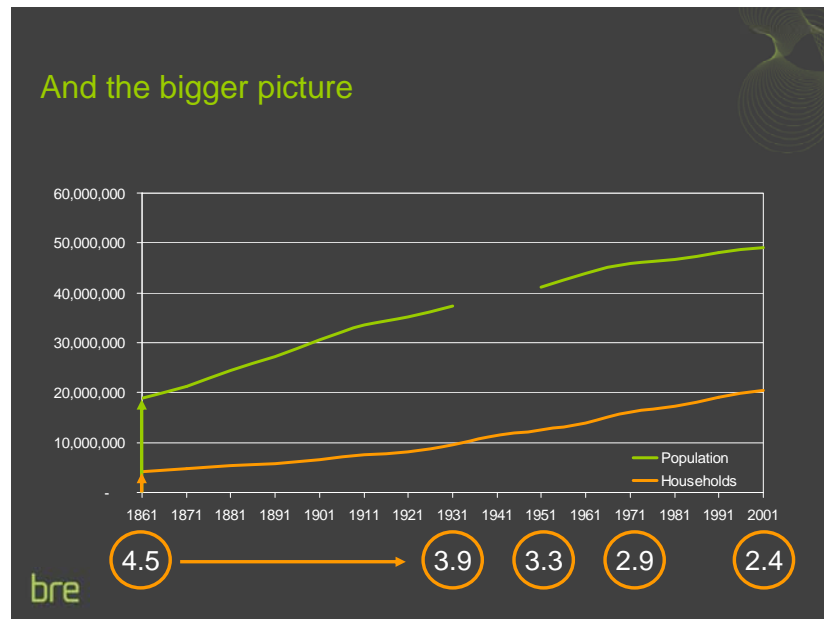


Illustration 4: increase in population and households

What is important to note in this graph is the ratio of households to population which gives you some idea of the number of people in the average house. Back in the 1860s you would get four and a half people to an average house. That number of four and a half people per household stayed pretty constant almost up to 1931 when it reduced to less than four on average for the first time. From 1931 those values have continued to drop through to 1971.

Illustration 5 shows what has been happening to households from 1971 through to 2006.

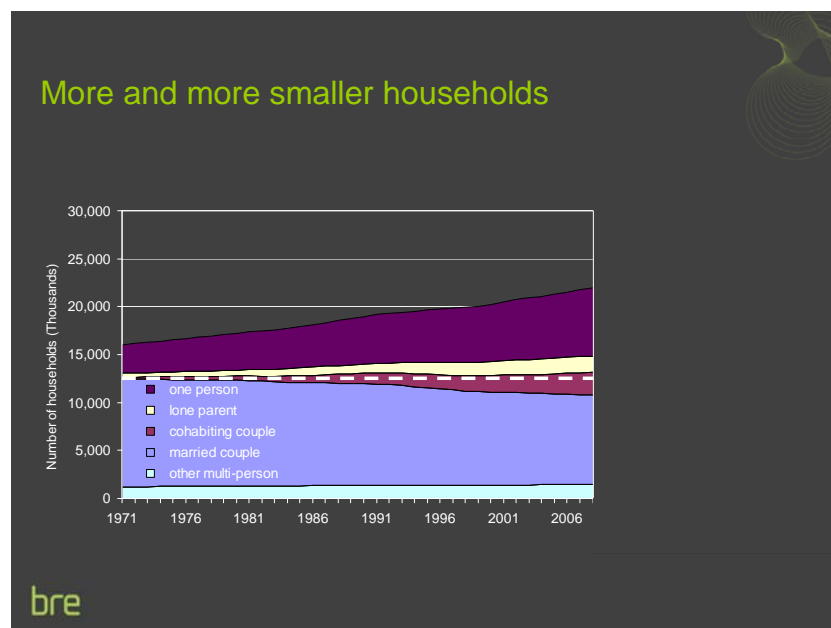


Illustration 5: more and more smaller households

At the bottom of this graph are homes with multiple occupants - people that are sharing a house in some way. Above that are married couples - the number of which

are decreasing with time, but fortunately cohabiting couples are making up for that and keeping total couples about the same. Some of those will have children, some of

them will not, and that will bring your average up to 2.4 per household. What is increasing is that above the dotted white line, which is lone parents and single person households. The number of such households is growing at quite a rate and they are predicted to continue to grow for the next 20 years or so. What England is trying to accommodate, in terms of households, is that expansion in single person households.

I want to have a look at what we are actually building to try and do that accommodating. The information in illustration 6 is from the English House Condition Survey (EHCS) data and it is early stats so I am not going to try and justify any of these figures – that is why I have made them very, very simple. This is the average for all the dwellings that are built in England, according to what we have got with the EHCS data. You can see the average has remained fairly constant, somewhere between 80 and 100 square metres throughout the whole time frame – remember being an average there is quite a spread on that so you will get some down at 20-30 square metres and you will get some that are much bigger than the top of the graph that are being built.

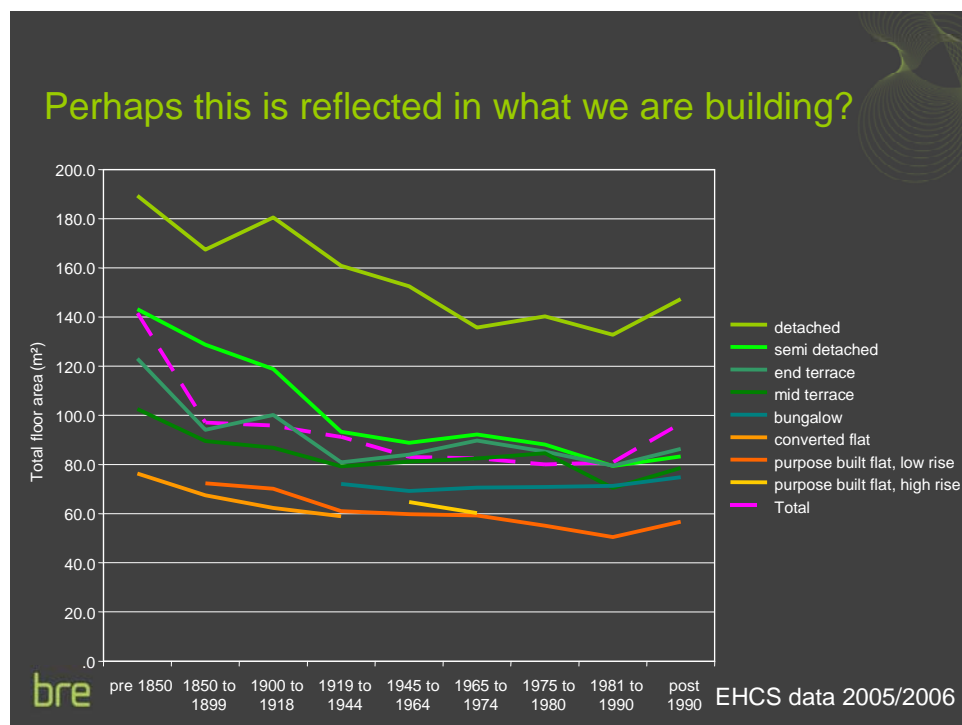


Illustration 6: what we are building

As we go back in time we are talking about property that remains in the housing stock, and that is not necessarily what they built back then, so those that are pre-1850 are what still exist in the housing stock. I am sure they built lots of smaller houses then as well, but they may have been demolished and we may have built something new and small in their place. Within this average there are lots of different types of houses and different types of houses have different sizes. If we look at flats over this time we see flats have stayed roughly around about 60 square metres on average; there is very little change over time although down at the newer stock it may have dropped down to 50 to 55. Bungalows as well have stayed pretty constant over that time. This is an average of course, there is still a spread involved, but on average it is around 70

to 75 square metres. Terraced houses have stayed very, very close to that average line, dropping slightly, but mostly around about the 80 square metres throughout history.

Semi-detached properties do seem to have dropped a bit in size, but again a lot of those will remain from the older stock and they have come to a point where they are now matching end-terrace properties. What stands up over the top of everything is those detached houses that everybody really wants that are a good 40 to 60 square metres bigger, on average, than anything else.

Let me give you some idea of what we are building now: this is not necessarily the national figure, it is not weighted in any way, it is just what we have got as a representative-ish sample. If you look across the housing stock in illustration 7 you can see the sort of buildings that we are building now, right over on the right hand side. We are building more detached properties in this last post-1990 period than we have done for a long, long time. Back in the 1850s that large proportion might just be there because those are the ones that people have kept.

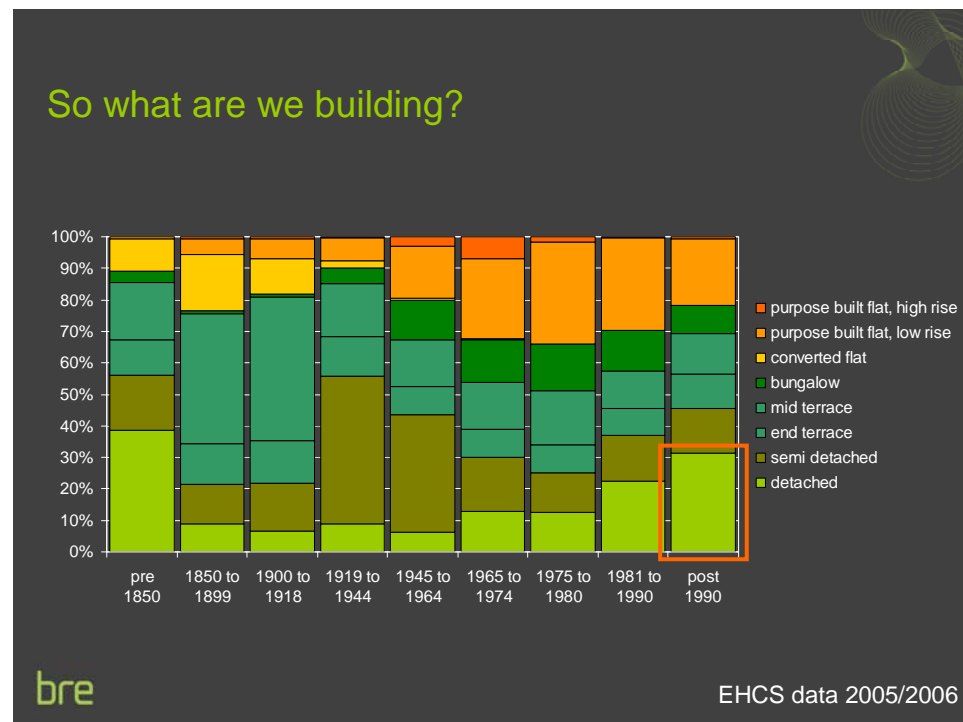


Illustration 7: what we are building now

The next biggest one is actually flats. The proportion of flats to houses is not quite as high as the last 30 to 40 years but there are still quite a lot of flats being built. So we are building lots of two-bedroom flats and we are building a lot of traditional four plus bedroom houses.

Also from this chart you can see what we used to build, or at least what still exists in the housing stock, so the typical semi-detached property from 1919 through to 1964 – there are lots and lots of those everywhere across the whole nation. As you can see, like this one in illustration 8 they are often expanded with some sort of alterations making their floor space seem even bigger than they were when they were originally built.



*Illustration 8: the ubiquitous 1919 – 1964 semi*

Looking a bit more closely at the data back in illustration 6, you can see a funny upward trend from 1981. That might be because we are building more detached properties rather than anything else, but it is roughly the same sort of size of increase when we look at all the individual types of buildings. So very, very similar sizes over time, apart from perhaps the semi-detached and the detached properties. For these two housing types there is a trend that floor areas seem to be coming down; properties have reduced by up to 40 square metres over a century.

But it might not just be the fact that there is a room or two missing, other things could be going on. The number of rooms might be increasing; the size of the main rooms may be decreasing. The ceiling heights could be decreasing and the plot size, the amount of area we are actually putting these buildings on, could be decreasing as well. All these things are going to give an impression of houses getting smaller.

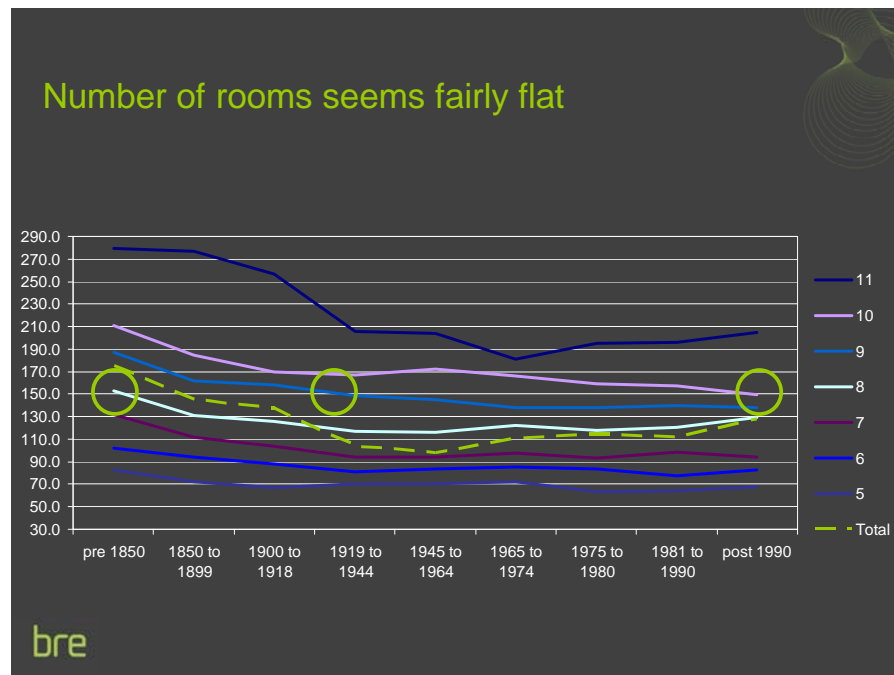
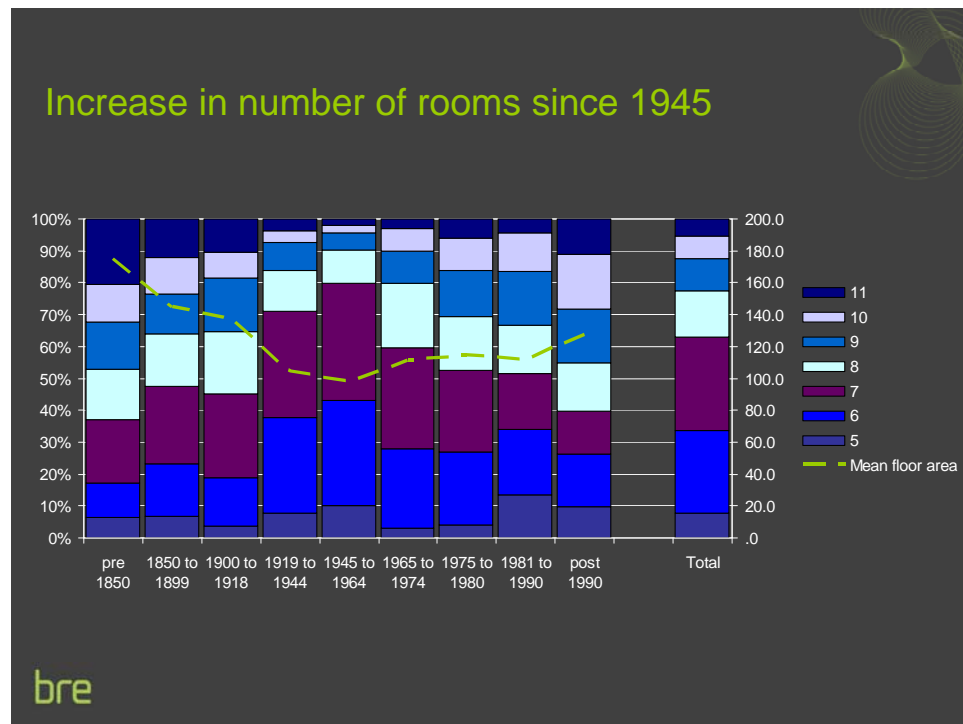


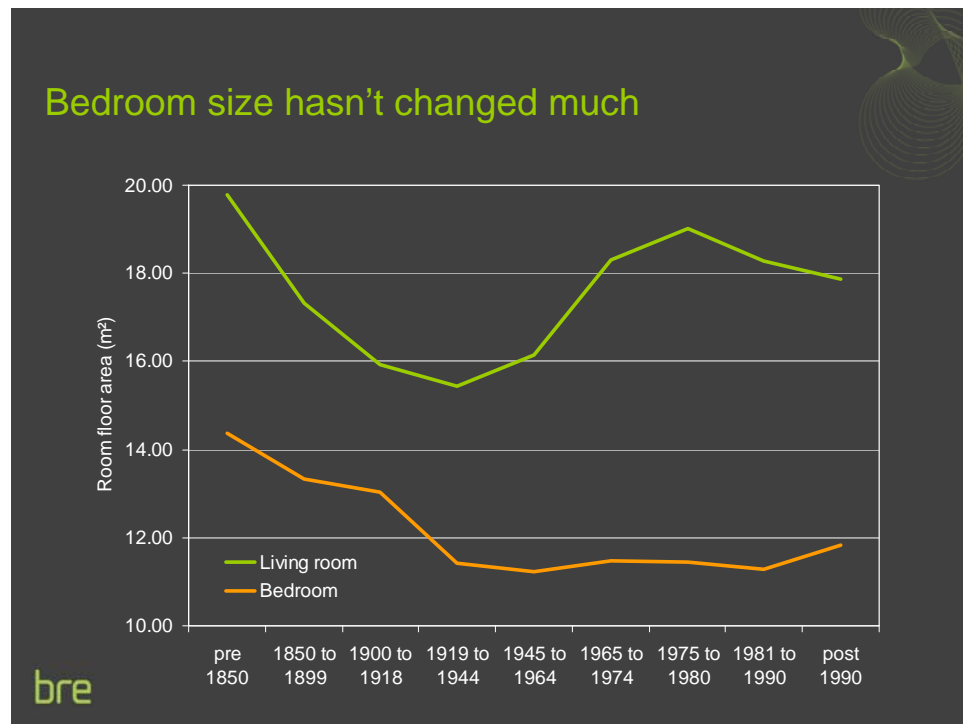
Illustration 9: number of bedrooms across the housing stock

The graph in illustration 9 shows the average number of rooms over the years in semis and detached properties. It shows a little dip from 1919 to 1964 – that is because they built more semis in this period and semis are smaller than detached properties on average, and then it goes up because we have more detached properties again. Looking across the lines, they are flat for most of it. As the properties get a bit bigger and there are more rooms, you are starting to see a bit of a trend, see homes with 11 rooms. I want to pick out a – I do not know if it is typical – 150 square metre property, it might be detached or it might be semi-detached – and if we look back at the 1850 properties that still exist you are looking at eight rooms on average for that sort of size of property. If you bring it into 1919 it has moved up to nine rooms on average and today you are looking at ten rooms on average. We are perhaps building houses with more rooms in not much more space or even the same space, so rooms must be getting smaller. This is re-emphasised on the graph in illustration 10 and it is perhaps easier to see – the drop since 1945 shows that there are more and more houses with eight or more rooms being built, so it clearly shows that more rooms are being built, but with those rooms it is difficult to know how or what is going on. Does it not make you assume that all the rooms must be getting smaller if that is the data that is out there?



*Illustration 10: increase in the number of room since 1945*

When you actually look at the size of rooms over time in illustration 11 – the orange line at the bottom is bedrooms – the average size has not changed much over the years. Certainly from 1919, they looked like they were being very, very constant at just under 12 square metres for a bedroom. The living room, however, shot up in size up until 1975 – I am wondering how much of that is people starting to build more of a living-diner and then that is recorded as the living room. Now we are getting smaller living-diners as we are starting to reduce floor areas, rather than having a living room and a dining room separate, both of which were pretty large, now we are getting one combined room.

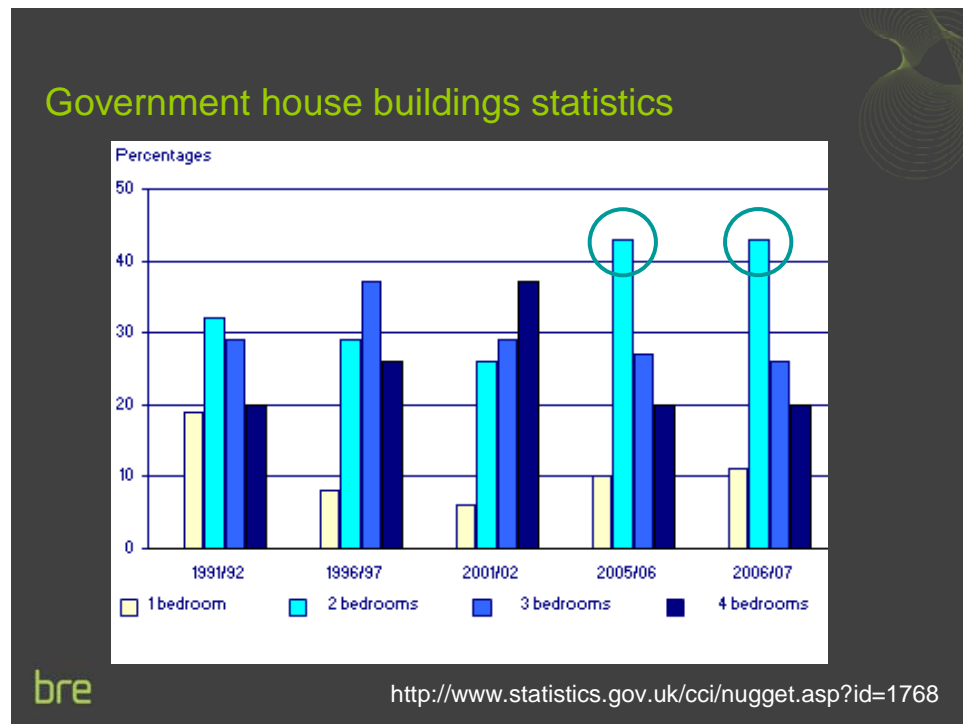


*Illustration 11: room size*

That data in illustration 11 does not seem to give the impression that the main rooms are getting any smaller, but what might be happening is that the other rooms, which I do not have data for, are getting smaller and we are getting more of those smaller rooms. You are bound to get an en-suite bathroom now, a downstairs cloakroom; you will probably have a study and a utility room. All of these are extra rooms that are being added in because we are being told that that is what people want in a modern detached property.

Ceiling heights have definitely changed over the years and, again, you can see that over time when you look around any house – you can almost predict the age of the house just by the height of the ceiling. So from the turn of the century there has been a steady drop. Now we are setting a new standard of 2.35 metres for the ceiling height. If you have got a smaller room and a lower ceiling you are giving the impression that the whole place is smaller and everybody has to paint their ceilings white to try and lift them up again. If you are a clever developer you might start building higher ceilings and more rooms to make you feel like you have got a bigger property.

But things have changed, I think, even since 2001-2003. The last group of data from the EHCS went from 1990 through to 2005/06. There have been many changes in building regulations during that time and other demands from planning policy statements as well, so all those will have quite a dramatic effect on what we are building. Two in every five new homes (2005-2007) have just two bedrooms, so this is big change from what we had around about 2001/2002. If you look at the graph in illustration 12 you can see that up to 2001/2002 four-bedroom plus houses overtook three-bedroom houses for the first time. Then in 2005 through to 2007 we got this huge number of two-bedroom houses being built.



*Illustration 12: government house building statistics*

Through the 1990s therefore we had that change going through to the bigger four-bedroom houses and, in recent years, there has been a shift away from building houses to building flats to the point where 46 per cent of the new dwellings that are being completed are flats. Nearly half of all that we are building is flats. It is a matter of density; we are trying to get as much use out of the land as possible. Densities have gone up from 24 to 40 per hectare, and that is true right across England. In some places like London density has more than doubled, going from 48 to 100 units per hectare. So we are squeezing more onto the same space in the last few years.

In conclusion, some types of houses have on average similar floor areas whenever they were built – at least, that is what the data seems to be suggesting. New properties are likely to have more rooms – en suite, cloakroom, study, utility. Plot areas appear to be getting smaller – something about the density numbers that we are getting gives that impression. More flats will reduce that overall average figure even further. Ceiling heights are affecting perception. But underlying all this we have got a big increase in the number of single-person households who need to be housed – on the assumption that they can actually afford to buy one of these new homes, we are perhaps building more smaller homes, flats and apartments, to accommodate them.