

Land Use Change Statistics (England) 2009 - provisional estimates (July 2010)

July 2010

Land Use Change Statistics (LUCS) are annual data. This release provides the latest estimates for 2009 of changes on previously-developed land and the average density of new dwellings. For some topics (see below) 2009 data are not yet robust and so the latest robust data available are presented. This Statistical Release covers information on:

- Changes on previously-developed land
- Density of new dwellings
- Changes within the Green Belt
- Changes within areas of high flood risk
- Land changing to residential use
- Changes to developed uses.

In 2009, on a provisional estimate:

- 80 per cent of dwellings (including conversions) were built on previously-developed land, unchanged from 2008.
- new dwellings were built at an average density of 43 dwellings per hectare, unchanged from 2008.
- 2 per cent of dwellings were built within the Green Belt (unchanged since 2004) and 7 per cent of land changing to residential use (from any use) was within the Green Belt (unchanged from 2008).
- 11 per cent of dwellings were built within areas of high flood risk (an increase from 9 per cent in 2008) and 6 per cent of land changing to residential use was within areas of high flood risk (unchanged since 2007).



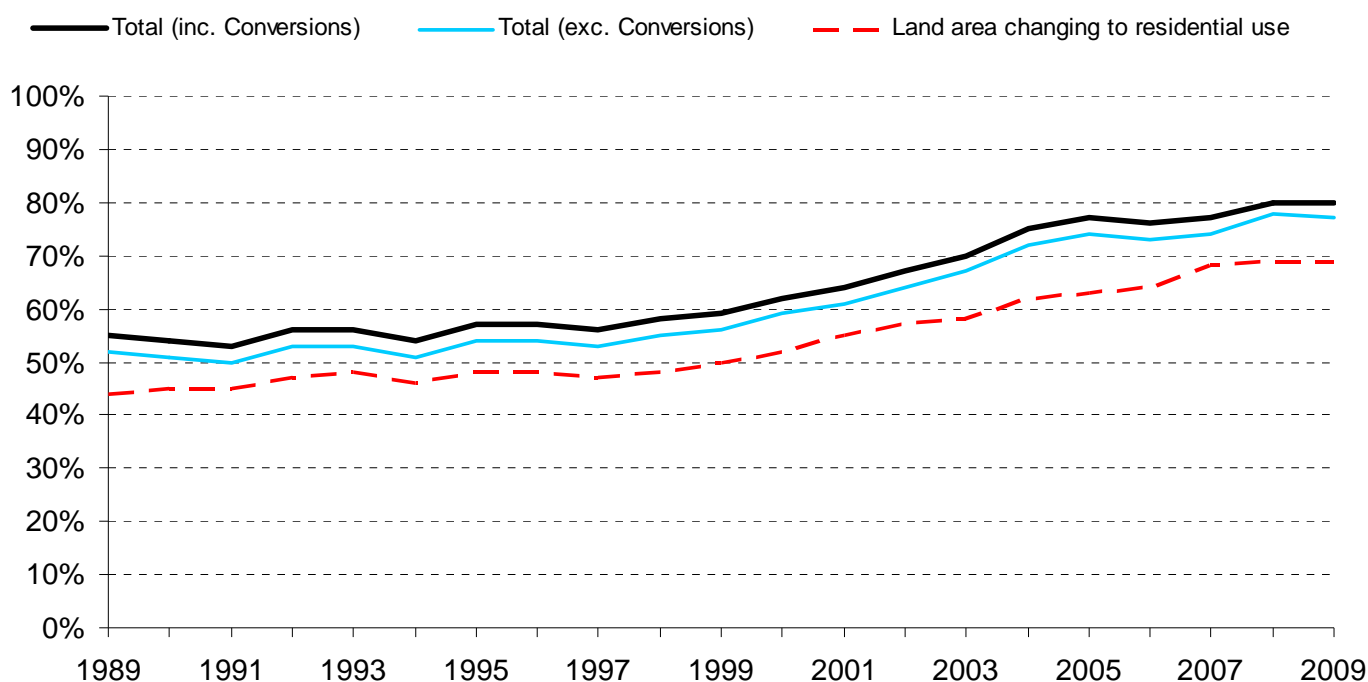
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Changes on previously-developed land

The latest national and regional estimates for changes on previously-developed land are for 2009, and the latest local authority estimates are for 2006-09. The land use categories defined as previously-developed can be found in the background notes.

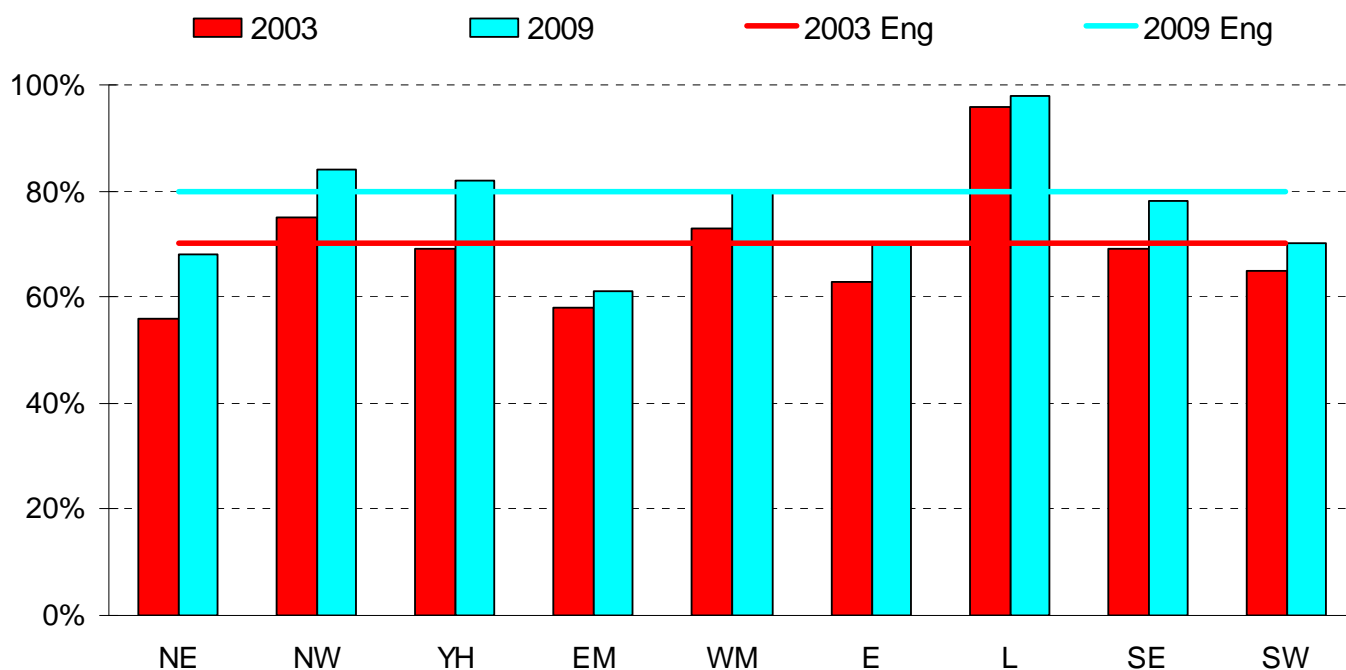
- In 2009, on a provisional estimate, 80 per cent of dwellings (including conversions) were built on previously-developed land. This is unchanged from the 2008 figure.
- Since 1997 the proportion of dwellings (including conversions) built on previously-developed land has increased by 24 percentage points from 56 per cent to 80 per cent, while the proportion of previously-developed land changing to residential use has increased by 22 percentage points from 47 per cent to 69 per cent.

Figure 1: Proportion of new dwellings on previously-developed land and previously-developed residential land, 1989 to 2009



- Compared to 2003, in 2009 every region showed an increase in the proportion of dwellings (including conversions) built on previously-developed land (see Figure 2).
- London has the greatest proportion of dwellings (including conversions) built on previously-developed land (98 per cent in 2009), whereas the East Midlands had the smallest proportion (61 per cent in 2009).

Figure 2: Proportion of dwellings on previously-developed land, by region, 2003 and 2009



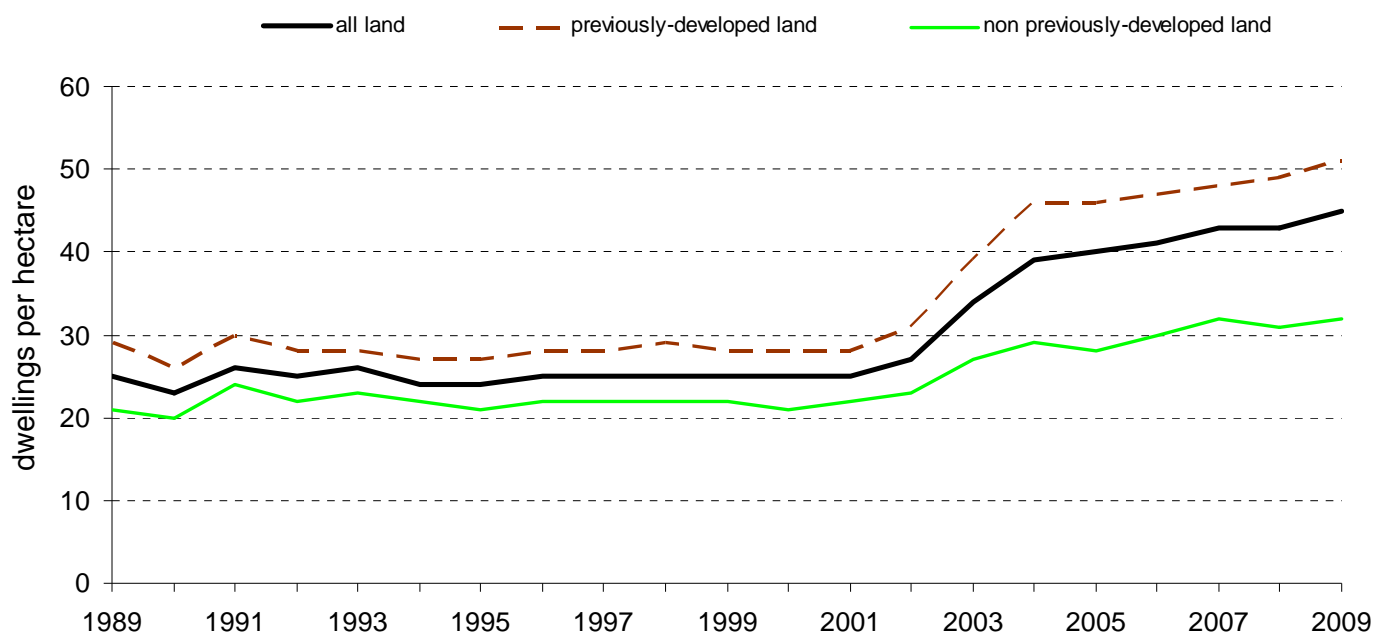
Detailed statistics on changes on previously-developed land (including data at a local authority level) can be found in the Land Use Change Statistics Live Tables¹, numbers 211 to 213.

Density of new dwellings

The latest estimates for the density of new dwellings are for 2009. Density is measured in dwellings per hectare.

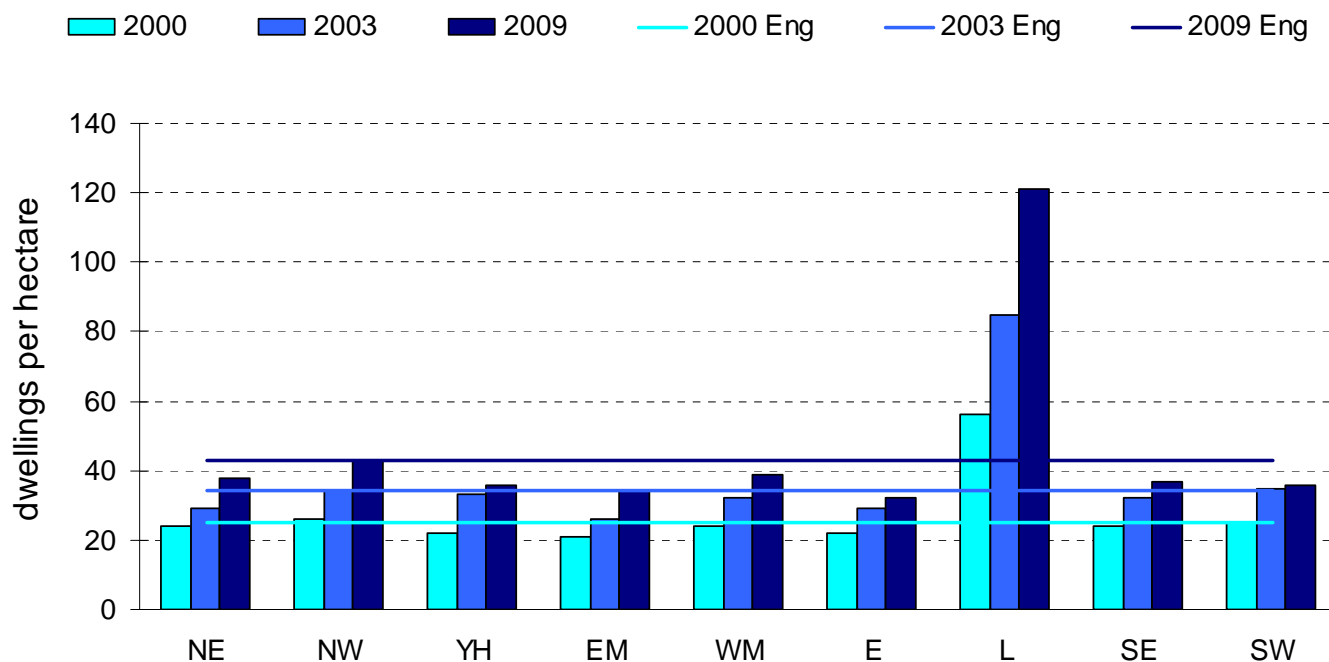
- In 2009, on a provisional estimate, new dwellings were built at an average density of 43 dwellings per hectare, unchanged since 2007. The density of new dwellings has increased by 72 per cent between 2001 (when it stood at 25 dwellings per hectare) and 2009 (see Figure 3).
- In 2009, on a provisional estimate, new dwellings on previously-developed land were built at an average density of 49 dwellings per hectare, unchanged from the 2008 estimate.
- In 2009, on a provisional estimate, new dwellings on **non** previously-developed land were built at an average density of 31 dwellings per hectare, unchanged from 2008.

Figure 3: Density of new dwellings, by previous land type, 1989 to 2009



- Compared to 2000, in 2009 every region showed an increase in the density of new dwellings (see Figure 4).
- London showed the greatest percentage increase (116 per cent) over this period. Density in London increased from 56 to 121 dwellings per hectare.
- The South West showed the smallest percentage increase (44 per cent) in density over this period, increasing from 25 dwelling per hectare in 2000 to 36 dwellings per hectare in 2009.

Figure 4: Density of new dwellings, by region, 2000, 2003 and 2009

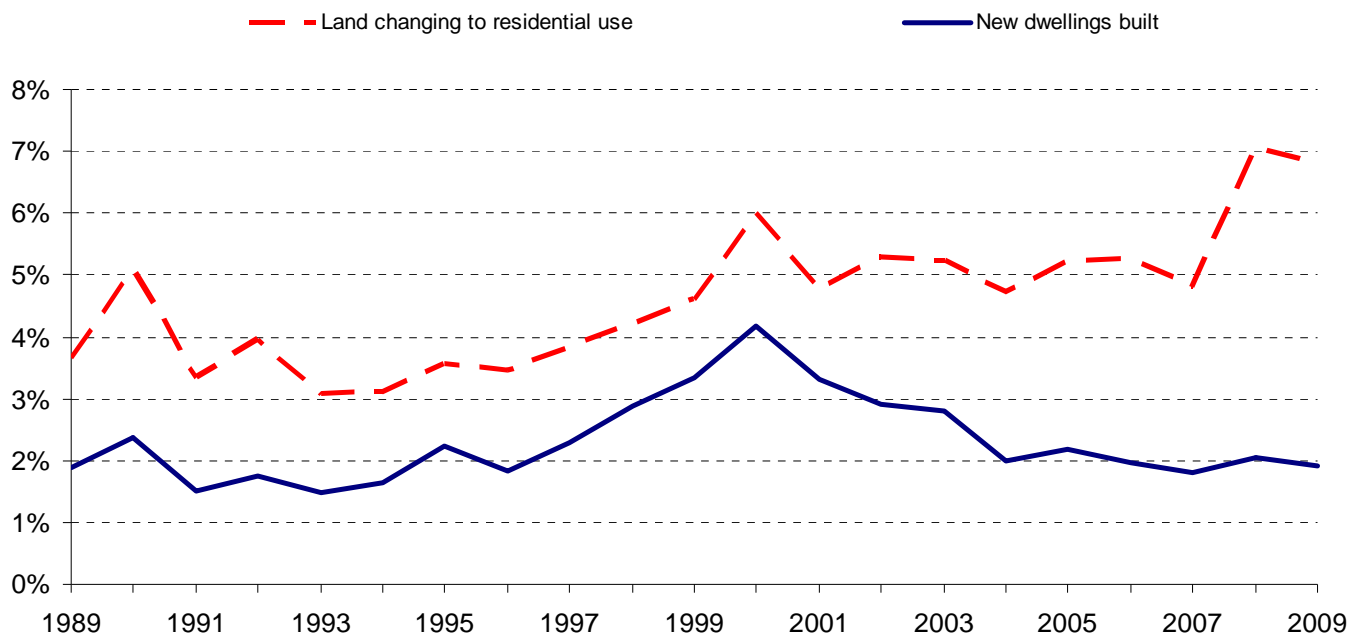


Detailed statistics on the average density of new dwellings (including data at a local authority level) can be found in the *Land Use Change Statistics Live Tables*¹, numbers 231 to 232.

Changes within the Green Belt⁴

- In 2009 on a provisional estimate, 2 per cent of dwellings were built within the Green Belt. This percentage has remained unchanged since 2004 (see Figure 5).
- In 2009, on a provisional estimate, 7 per cent of land changing to residential use was within the Green Belt. This figure remains unchanged from 2008, but has increased by 2 percentage points since 2007 (see Figure 5).
- In 2008, on a provisional estimate, 72 per cent of dwellings built within the Green Belt were built on previously-developed land. This compares to 77 per cent in 2007.
- In 2008, on a provisional estimate, 23 per cent of land changing to a developed use within the Green Belt was previously-developed. This compares to 43 per cent in 2007, but the 2008 estimate is subject to revision.

Figure 5: Proportion of new dwellings built and land changing to residential use within the Green Belt, 1989 to 2009



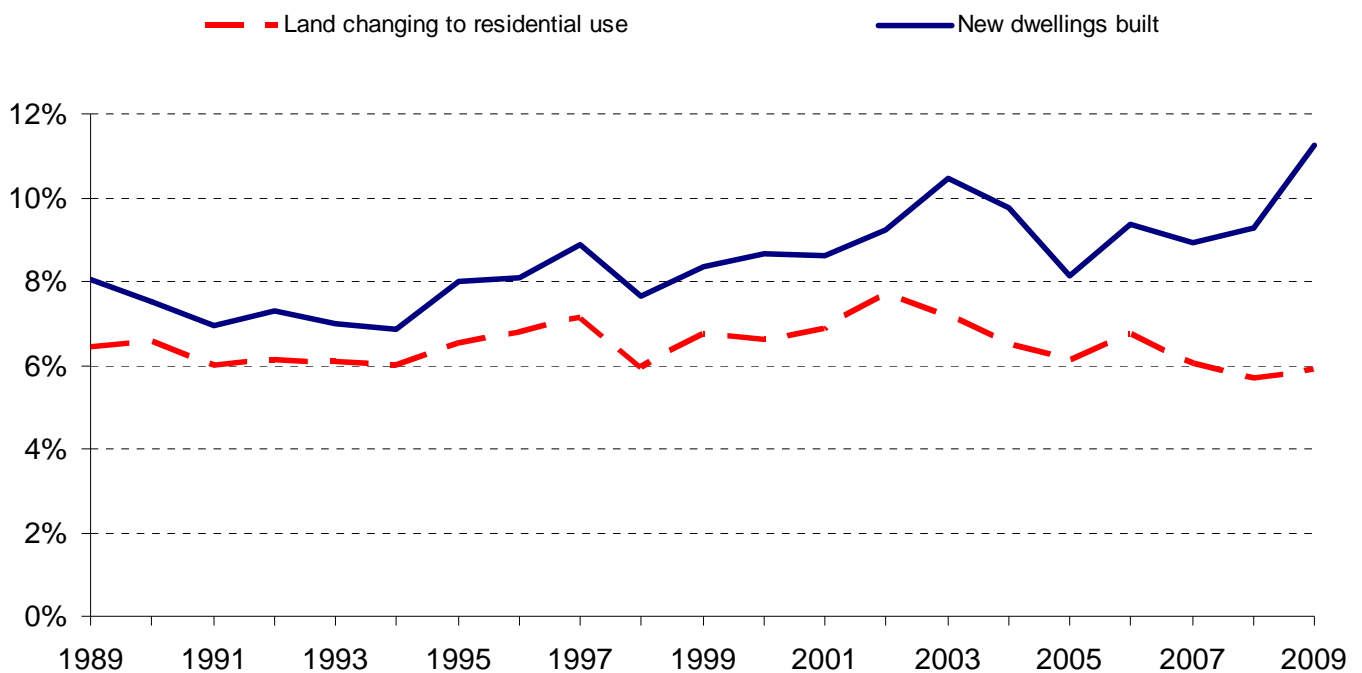
Detailed statistics on changes within the Green Belt can be found in the Land Use Change Statistics Live Tables¹, numbers 241 to 246.

Changes within areas of high flood risk⁵

The latest estimates for changes within high flood risk areas are for 2009.

- In 2009, on a provisional estimate, 11 per cent of new dwellings were built within areas of high flood risk⁵. This compares to 9 per cent in 2008.
- In 2009, on a provisional estimate, 6 per cent of land changing to residential use was within areas of high flood risk⁵. This is unchanged from 2007.

Figure 6: Proportion of new dwellings built and land changing to residential use within areas of high flood risk⁵, 1989 to 2009



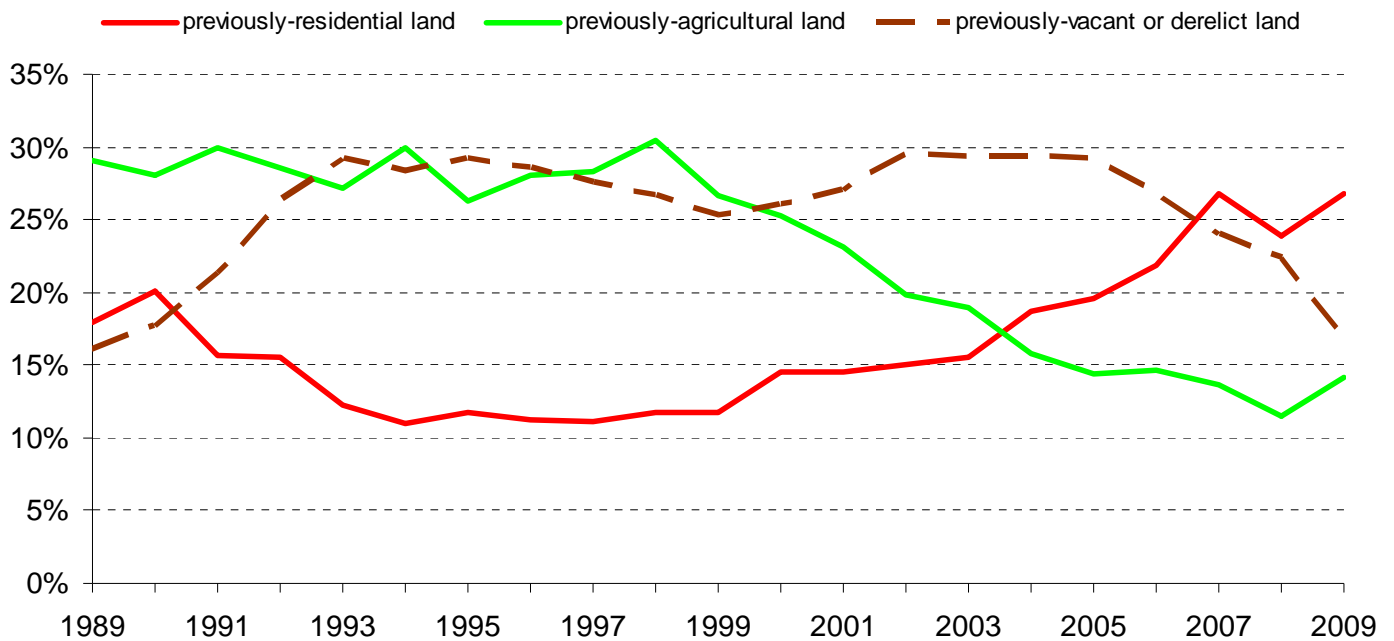
Detailed statistics on changes within areas of high flood risk can be found on the Land Use Change Statistics Live Tables¹, numbers 251 to 252.

Land changing to residential use

Most of the latest figures for land changing to residential use are for 2009. There are 24 land use categories used in LUCS³ and 58 per cent of dwellings were built on land previously classed as residential, agricultural, "vacant" or "derelict" in 2008. The remaining 42 per cent of dwellings were built on land previously classed as one of the remaining 20 land use categories.

- In 2009, on a provisional estimate, 27 per cent of dwellings were built on previously-residential land³. This compares to 24 per cent in 2008.
- In 2009, on a provisional estimate, 14 per cent of dwellings were built on previously-agricultural land³. This compares to 12 per cent in 2008.
- In 2009, on a provisional estimate, 17 per cent of dwellings were built on previously-developed vacant or derelict land³. This compares to 22 per cent in 2008.

Figure 7: Proportion of new dwellings built on previously residential, agricultural and vacant or derelict land, 1989 to 2009



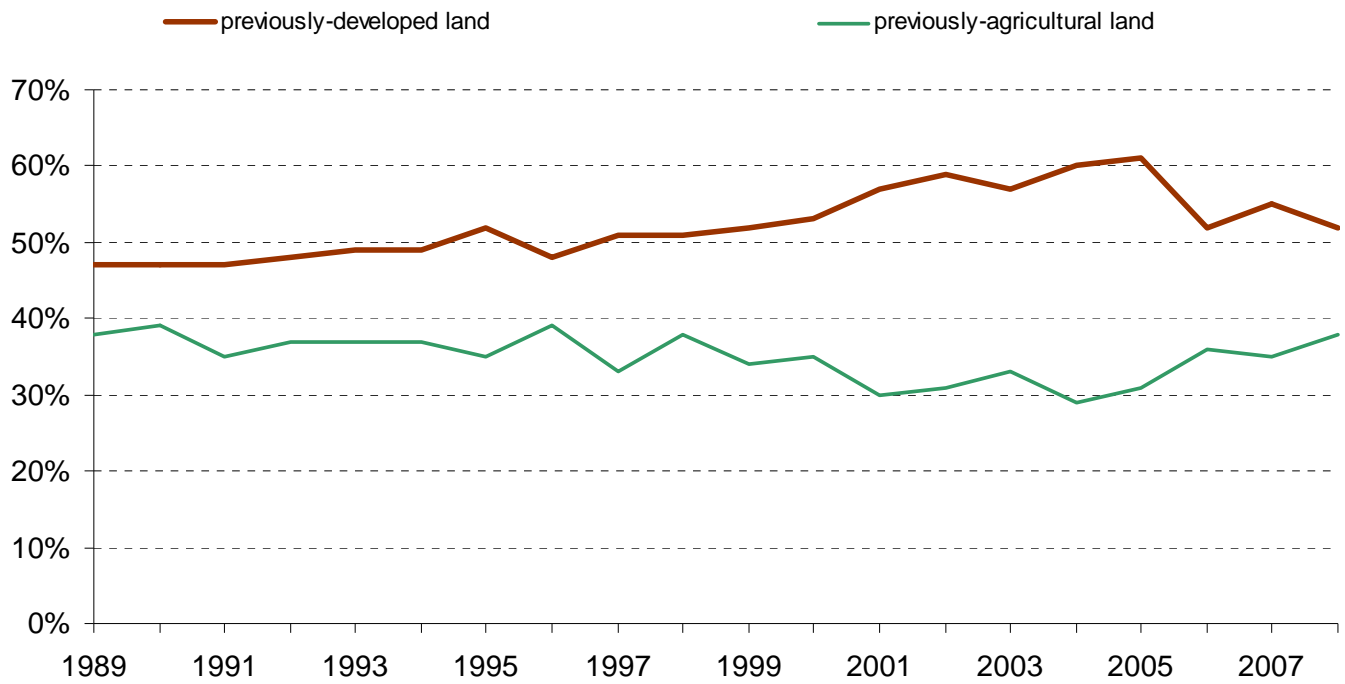
Detailed statistics on land changing to residential use can be found in the Land Use Change Statistics Live Tables¹, numbers 221 to 226.

Changes to developed uses

The latest figures for changes to developed uses are for 2008².

- In 2008, on a provisional estimate 52 per cent of land changing to a developed use was previously-developed, compared to 55 per cent in 2007.
- In 2008, on a provisional estimate 38 per cent was previously agricultural land³ or agricultural buildings³, compared to 35 per cent in 2007.
- In 2005-2008 an average of 53 per cent of land changing to Industry and Commerce³ was previously developed.

Figure 8: Proportion of land changing to a developed use that was previously developed or agricultural, 1989 to 2008



Detailed statistics on changes to developed uses can be found in the *Land Use Change Statistics Live Tables¹*, numbers 261 to 265.

Purpose

Land Use Change Statistics (LUCS) are a rich and comprehensive source of information providing users with a clear picture of the nature and extent of the land use changes taking place in England.

Of particular interest to users are estimates on changes to residential use. Amongst other statistics, LUCS provide definitive information on the percentage of new dwellings built on previously-developed (Brownfield) land and non previously-developed land, the percentage of housing development in flood risk areas, on agricultural land and in the Green Belt and the density (dwellings per hectare) of additional housing.

Data Collection

The raw data behind the Land Use Change Statistics are collected by Ordnance Survey as part of their map revision process and reported to Communities and Local Government. Ordnance Survey maintains its base mapping, from which all its geographical products are derived, using their surveyors. Urban areas, which are likely to see more rapid changes in land use than rural areas, are mainly covered on the ground by surveyors who make on-site visits to collate data about land use changes in response to prior intelligence about such changes (from Local Authorities, building companies etc.). Rural areas on the other hand are less likely to experience frequent change and as a result Ordnance Survey makes regular, but less frequent sweeps of these areas using aerial photography.

A record is created for each site relating to the new and previous uses of the land and Ordnance Survey then supplies a file of all the changes each month.

The data collection started in 1985 and the land use categories have remained unchanged since then. However, there have been some other changes - the number of new dwellings built and the number demolished were collected for the first time in 1989.

Strengths and weaknesses of the data

Land Use Change Statistics do not place any burden on Local Authorities to monitor changes, collect data, maintain their own systems or take responsibility for continuous provision of land use data to Central Government. Instead, the data are collected by Ordnance Survey.

Because Land Use Change Statistics are based on a single, centrally set specification it means that the statistics are consistent over geographical areas and over time. Additionally, because the data are regularly updated the data set for each year is, eventually, very comprehensive. However there is a time-lag between a land use change occurring and it being recorded and the lag varies depending on the nature of the information and whether the site was surveyed by surveyors on the ground or by aerial photography. Thus, the data are subject to regular revision. In particular, estimates for 2009 contained in this statistical release are provisional and will be revised in future releases.

Because of this time-lag some series take longer to become robust than others, and hence are not published as quickly. Thus, statistics showing area (in hectares) are published later than the corresponding percentages and regional figures are sometimes published later than the national total of the same series. Local Authority estimates are only published as a four year average as investigation has shown that annual estimates at Local Authority level are highly volatile and not robust. However, annual estimates at national and regional are considered robust.

For further information please see the LUCS Guidance, which is available from the following link: www.communities.gov.uk/planningandbuilding/planningbuilding/planningstatistics/landusechange/

Background notes

1. Live Tables give further detail and regional breakdowns of the key results presented in this statistical release. They are available from the following link: www.communities.gov.uk/planningandbuilding/planningbuilding/planningstatistics/livetables/landusechange/
2. The time-lag in LUCS data (see strengths and weaknesses of the data above) means that some regional data are published later than the national figure for that series. It also means that some series based on smaller geographies, such as Green Belt or areas of high flood risk, are published later than other series while Local Authority data are published as a four year average. Series measuring areas (in hectares) are also affected.
3. The land use categories used in compiling LUCS data are shown below in Table BN1. For full details on what are included in these groups and categories please refer to the LUCS Guidance.

Table BN1: Land use categories, groups and divisions.

Previously developed land			Non-previously developed land		
Group	Category (codes)		Group	Category (codes)	
Residential	• Residential	(R)	Agriculture	• Agricultural land	(A)
	• Institutional and communal accommodation	(Q)		• Agricultural buildings	(B)
Transport and utilities	• Highways and road transport	(H)	Forestry, open land and water	• Forestry and woodland	(F)
	• Transport (other)	(T)		• Rough grassland and bracken	(G)
	• Utilities	(U)		• Natural and semi-natural land	(N)
Industry and commerce	• Industry	(I)		• Water	(W)
	• Offices	(J)	Outdoor recreation	• Outdoor recreation	(O)
	• Retailing	(K)		Vacant	• Urban land not previously developed ³
Community services	• Storage and warehousing	(S)			
	• Community buildings	(C)			
Vacant	• Leisure and recreational buildings	(L)			
	• Vacant land previously developed	(V)			
Minerals and landfill¹	• Derelict land	(Z)			
	• Minerals ²	(M)			
Defence	• Landfill waste disposal ²	(Y)			
	• Defence ²	(D)			

Notes:

Unless otherwise stated, 'previously developed land' corresponds with 'urban land use' and 'non-previously developed land' with 'rural land use'.

1. Some mineral and landfill sites may be classed as non-previously developed land (see 4.4)
2. Classified as 'rural' land use
3. Classified as 'urban' land use

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4. The Green Belt covers approximately 13 per cent of the land area of England. Change of land use, including to a developed use, does not mean the removal of the land from the Designated Green Belt. Land can only be removed from the Green Belt through the local planning process.
 5. The flood risk analysis in LUCS is based on annually updated data sets of digitised boundaries provided by the Environment Agency. The areas of high flood risk used cover approximately ten per cent of England. They reflect the river and coastal floodplains and provide indicative flood risk areas. They are areas estimated to be at risk of at least a one in one hundred chance of flooding each year from river areas or at least a one in two hundred chance of flooding from the sea. These are approximate boundaries and do not take into account any flood defences.
 6. National Statistics are produced to high professional standards set out in the National Statistics Code of Practice. They undergo regular quality assurance reviews to ensure they meet customer needs.
 7. Details of officials who receive pre-release access to LUCS up to 24 hours before release can be found at: <http://www.communities.gov.uk/documents/statistics/pdf/1131535.pdf>
 8. The next LUCS release date is yet to be announced. The department engaged in user consultation regarding the frequency of publication and is considering a change from quarterly to annual releases.

Further information

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