

Land Use Change Statistics in England: 2010 provisional estimates

July 2011

The Land Use Change Statistics show the amounts and location of land changing use in England. This Statistical Release provides details of the latest estimates for 2010 on changes to developed uses, covering information on:

- Changes to residential use
- Density of new dwellings
- Changes within the Green Belt
- Changes within areas of high flood risk
- Changes to all developed uses



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In 2010, on a provisional estimate:

- 76 per cent of dwellings (including conversions) were built on previously-developed land, a decrease from 80 per cent in 2009.
- new dwellings were built at an average density of 43 dwellings per hectare, an increase from 41 dwellings per hectare in 2009.
- 2 per cent of dwellings were built within the Green Belt (unchanged since 2004) and 5 per cent of land changing to residential use (from any use) was within the Green Belt, down 2 percentage points since 2009.
- 9 per cent of dwellings were built within areas of high flood risk (a decrease from 11 per cent in 2009) and 5 per cent of land changing to residential use was within areas of high flood risk (a decrease from 6 per cent in 2009).

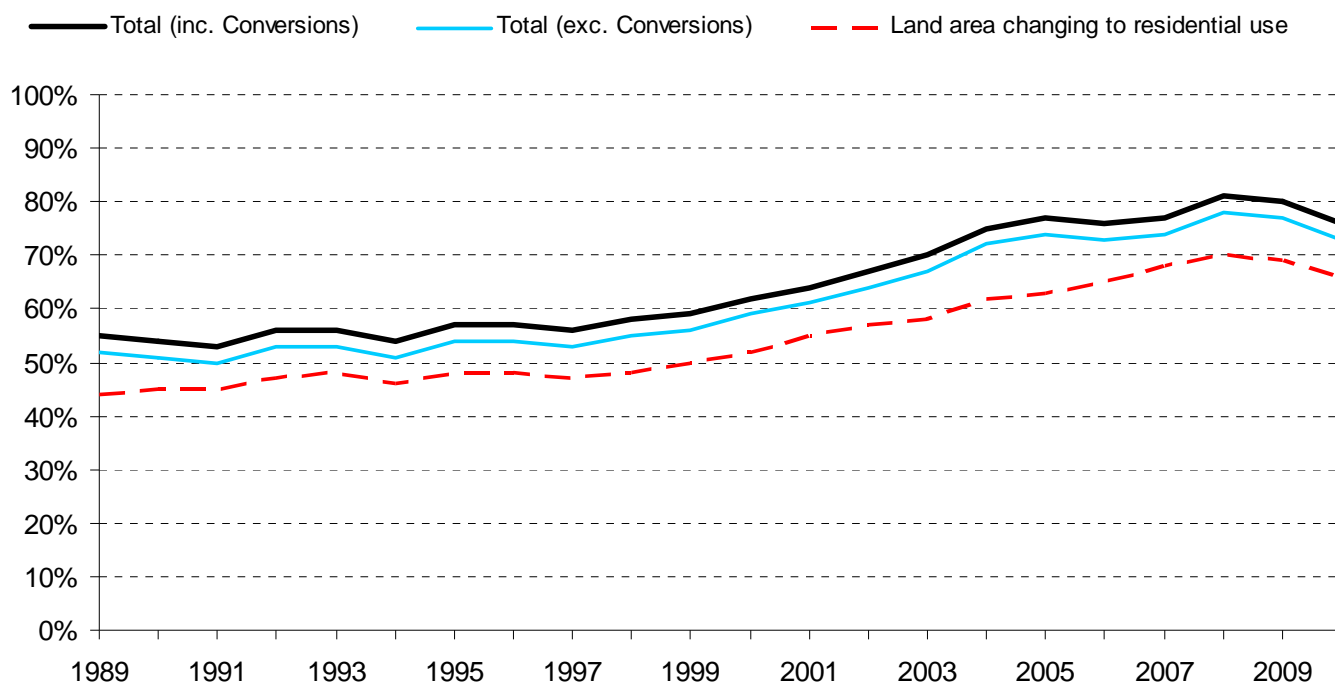
Changes to residential use

The latest national and regional estimates for changes to residential use are for 2010, and the latest local authority estimates are for 2007-10. The statistics show how much residential development has been on previously-developed and non previously-developed land.

(The land use categories defined as previously-developed can be found in the background notes. Previously-developed includes residential gardens.)

- In 2010, on a provisional estimate, 76 per cent of dwellings (including conversions) were built on previously-developed land. This is a decrease from 80 per cent in 2009. **(Table P211)**
- Between 1989 and 2009 the proportion of dwellings (including conversions) built on previously-developed land increased from 55 per cent to 80 per cent, while the proportion of previously-developed land changing to residential use increased from 44 per cent to 69 per cent (see Figure 1).

Figure 1: Proportion of new dwellings on previously-developed land and previously-developed land changing to a residential use, 1989 to 2010



- Compared to 2003, in 2010 every region except London (which had no change) showed an increase in the proportion of dwellings (including conversions) built on previously-developed land (see Figure 2). **(Table P212)**
- In 2010, London had the greatest proportion of dwellings (including conversions) built on previously-developed land (96 per cent), whereas the East Midlands had the smallest proportion (60 per cent).

Figure 2: Proportion of dwellings on previously-developed land, by region, 2003 and 2010

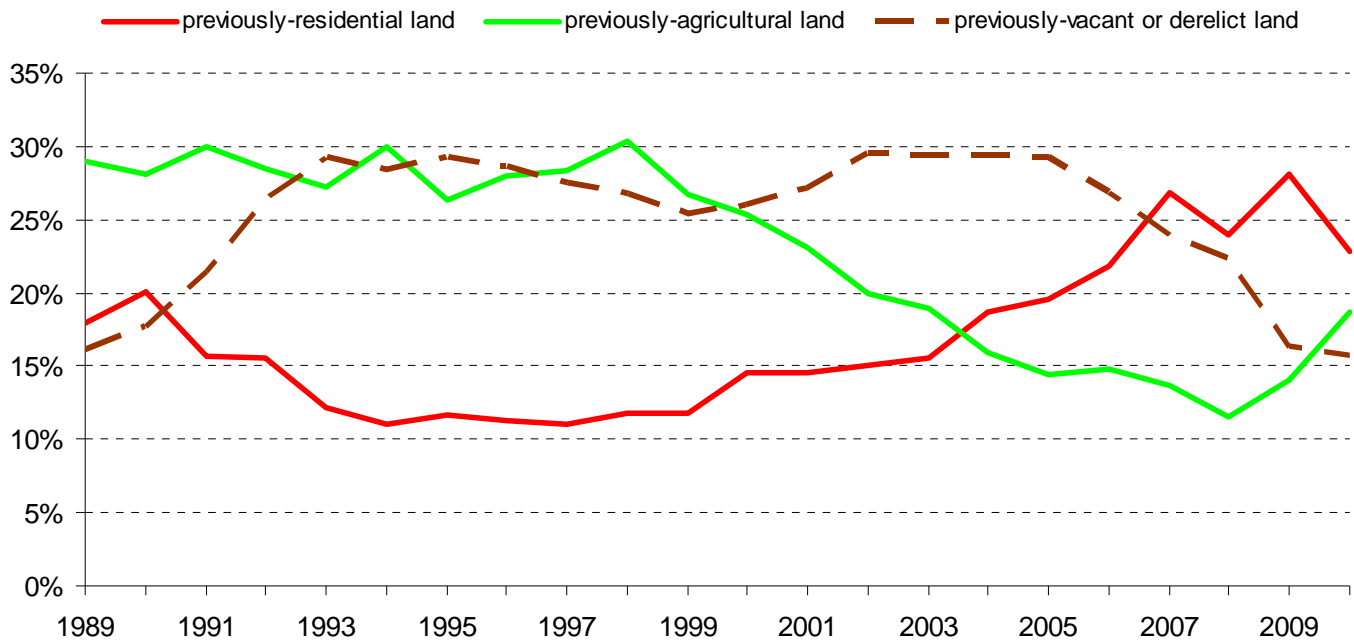


Detailed statistics on residential development on previously-developed land (including data at a local authority level) can be found in the Land Use Change Statistics Live Tables¹, numbers 211 to 213.

Most of the latest figures for land changing to residential use are for 2010. There are 24 land use categories used in LUCS³ and 57 per cent of dwellings were built on land previously classed as residential, agricultural, "vacant" or "derelict" in 2010. The remaining 43 per cent of dwellings were built on land previously classed as one of the remaining 20 land use categories.

- In 2010, on a provisional estimate, 23 per cent of dwellings were built on previously-residential land, including land from demolitions and residential gardens³. This compares to 28 per cent in 2009. **(Table P221)**
- In 2010, on a provisional estimate, 19 per cent of dwellings were built on previously-agricultural land³. This compares to 14 per cent in 2009.
- In 2010, on a provisional estimate, 16 per cent of dwellings were built on previously-developed vacant or derelict land³. This is unchanged from the 2009 estimate.

Figure 3: Proportion of new dwellings built on previously-residential, agricultural and vacant or derelict land, 1989 to 2010



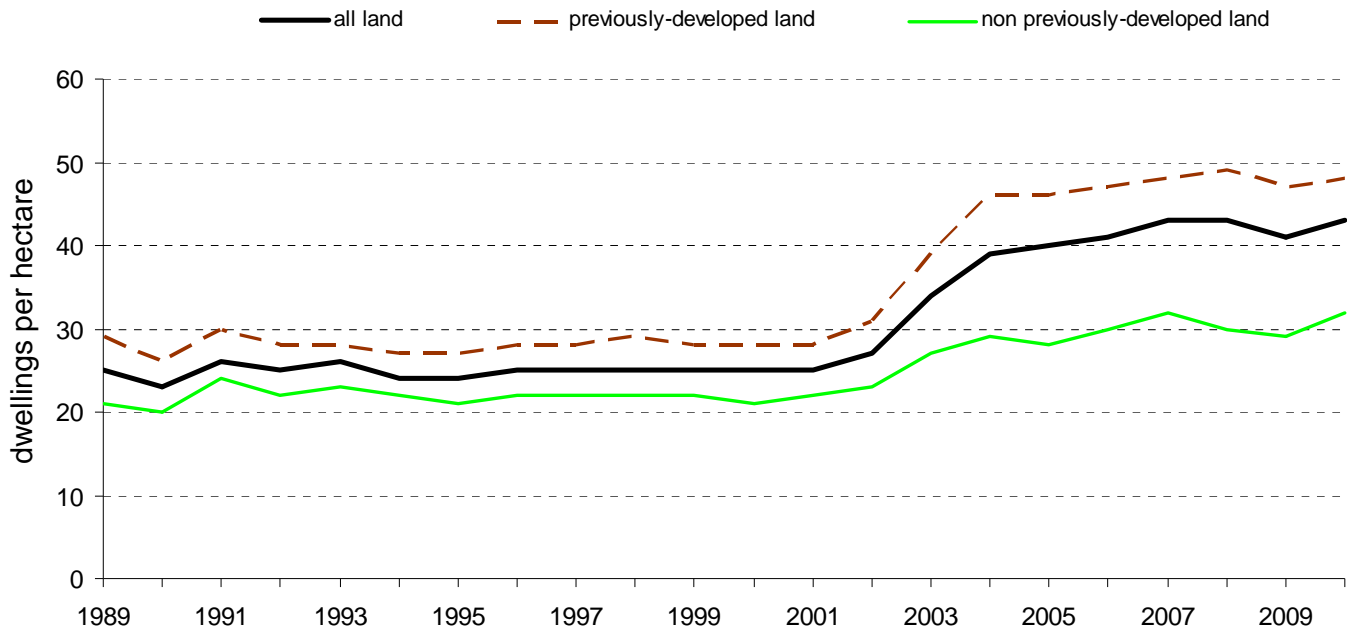
Detailed statistics on land changing to residential use can be found in the *Land Use Change Statistics Live Tables*¹, numbers 221 to 226.

Density of new dwellings

The latest estimates for the density of new dwellings are for 2010. Density is measured in dwellings per hectare.

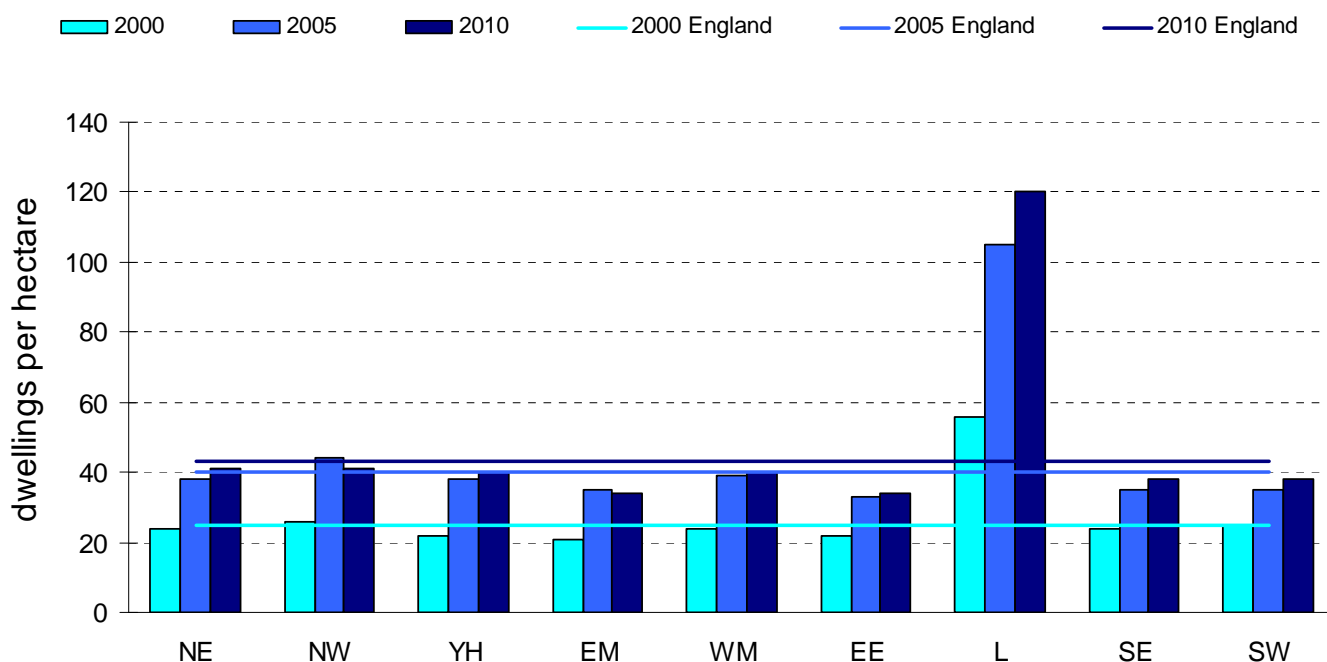
- In 2010, on a provisional estimate, new dwellings were built at an average density of 43 dwellings per hectare, up from 41 dwellings per hectare in 2009 and the same density as 2007 and 2008. The density of new dwellings has increased by 72 per cent between 2001 (when it stood at 25 dwellings per hectare) and 2010 (see Figure 4). **(Table P231)**
- In 2010, on a provisional estimate, new dwellings on previously-developed land were built at an average density of 48 dwellings per hectare, compared to 47 dwellings per hectare in 2009.
- In 2010, on a provisional estimate, new dwellings on non previously-developed land were built at an average density of 32 dwellings per hectare, an increase from 29 dwellings per hectare in 2009.

Figure 4: Density of new dwellings, by previous land type, 1989 to 2010



- Every region showed an increase in the density of new dwellings between 2000 and 2010 (see Figure 5).
- London showed the greatest percentage increase (114 per cent) over this period. Density in London increased from 56 to 120 dwellings per hectare.
- The South West showed the smallest percentage increase (52 per cent) in density over this period, increasing from 25 dwellings per hectare in 2000 to 38 dwellings per hectare in 2010.

Figure 5: Density of new dwellings, by region, 2000, 2005 and 2010

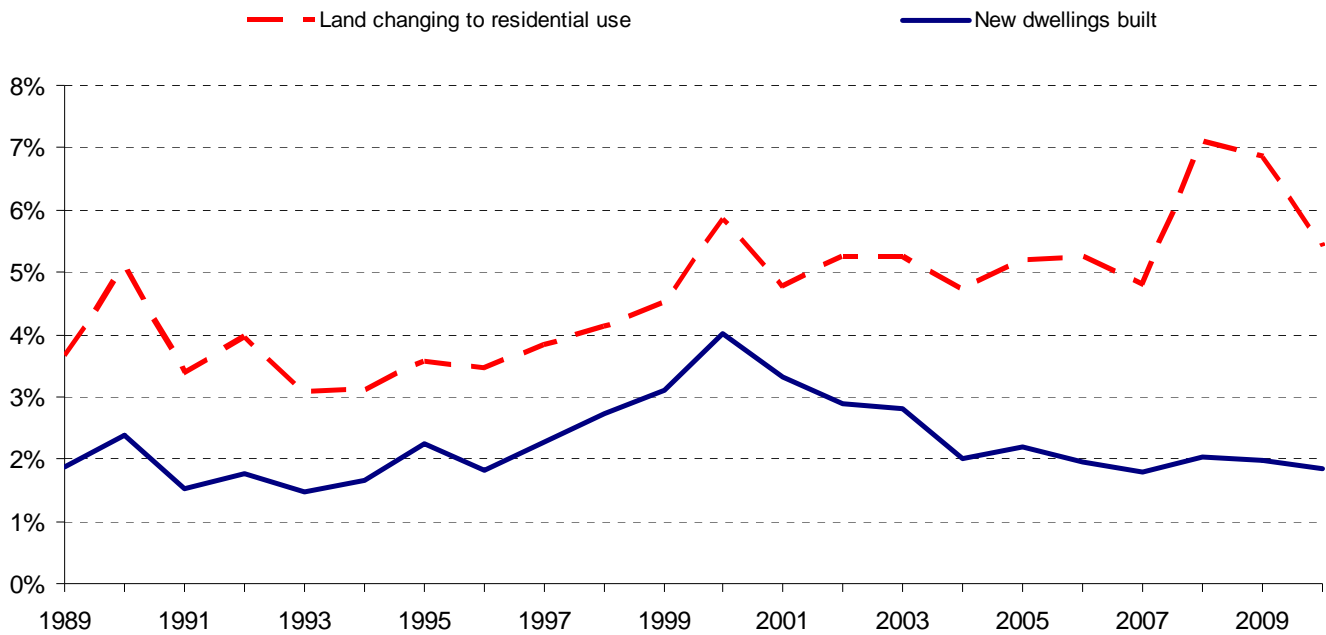


Detailed statistics on the average density of new dwellings (including data at a local authority level) can be found in the *Land Use Change Statistics Live Tables¹*, numbers 231 to 232.

Changes within the Green Belt⁴

- In 2010 on a provisional estimate, 2 per cent of dwellings were built within the Green Belt. This percentage has remained unchanged since 2004 (see Figure 6). **(Table P241)**
- In 2010, on a provisional estimate, 5 per cent of land changing to residential use was within the designated Green Belt. This figure has decreased by 2 percentage points since a peak in 2008 (see Figure 6). **(Table P242)**
- In 2009, on a provisional estimate, 69 per cent of dwellings built within the Green Belt were built on previously-developed land. This compares to 72 per cent in 2008 and 77 per cent in 2007. **(Table P246)**
- In 2009, on a provisional estimate, 39 per cent of land changing to a developed use within the Green Belt was previously-developed. This compares to 24 per cent in 2008 and 42 per cent in 2007. **(Table P245)**

Figure 6: Proportion of new dwellings built and land changing to residential use within the Green Belt, 1989 to 2010

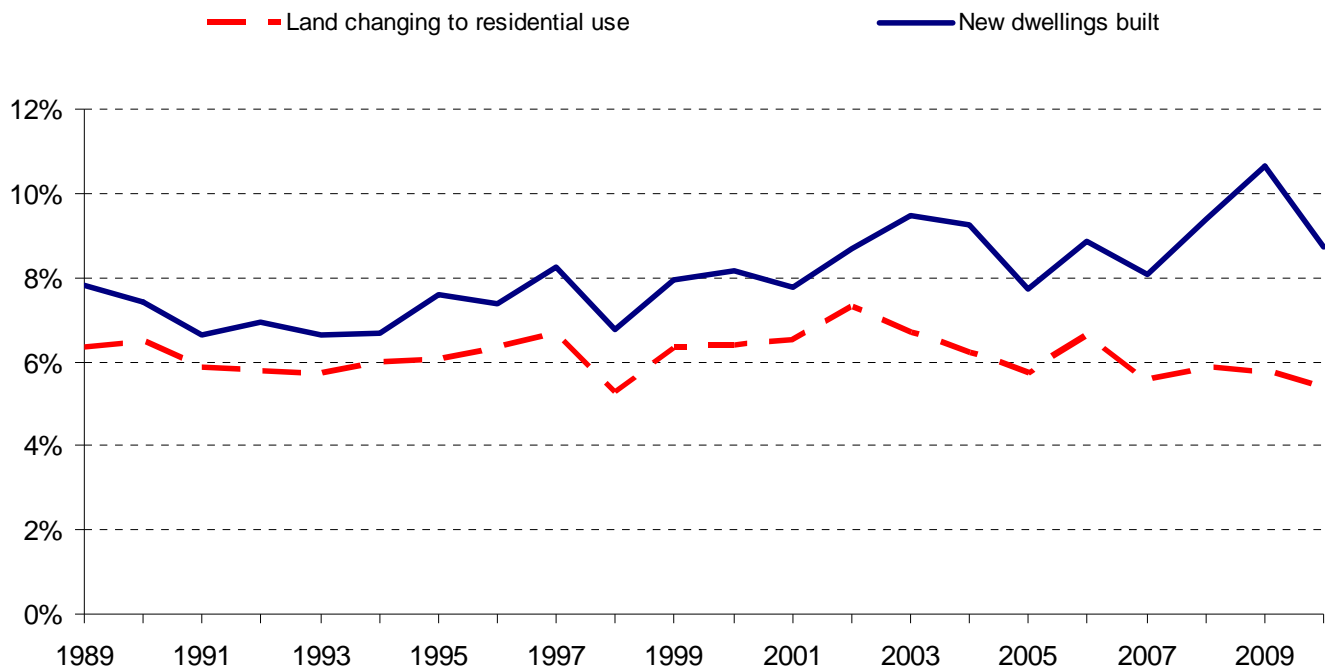


Detailed statistics on changes within the Green Belt can be found in the Land Use Change Statistics Live Tables¹, numbers 241 to 246.

Changes within areas of high flood risk⁵

- In 2010, on a provisional estimate, 9 per cent of new dwellings were built within areas of high flood risk⁵. This compares to 11 per cent in 2009. **(Table P251)**
- In 2010, on a provisional estimate, 5 per cent of land changing to residential use was within areas of high flood risk⁵. This compares to 6 per cent in 2009. **(Table P252)**

Figure 7: Proportion of new dwellings built and land changing to residential use within areas of high flood risk⁵, 1989 to 2010



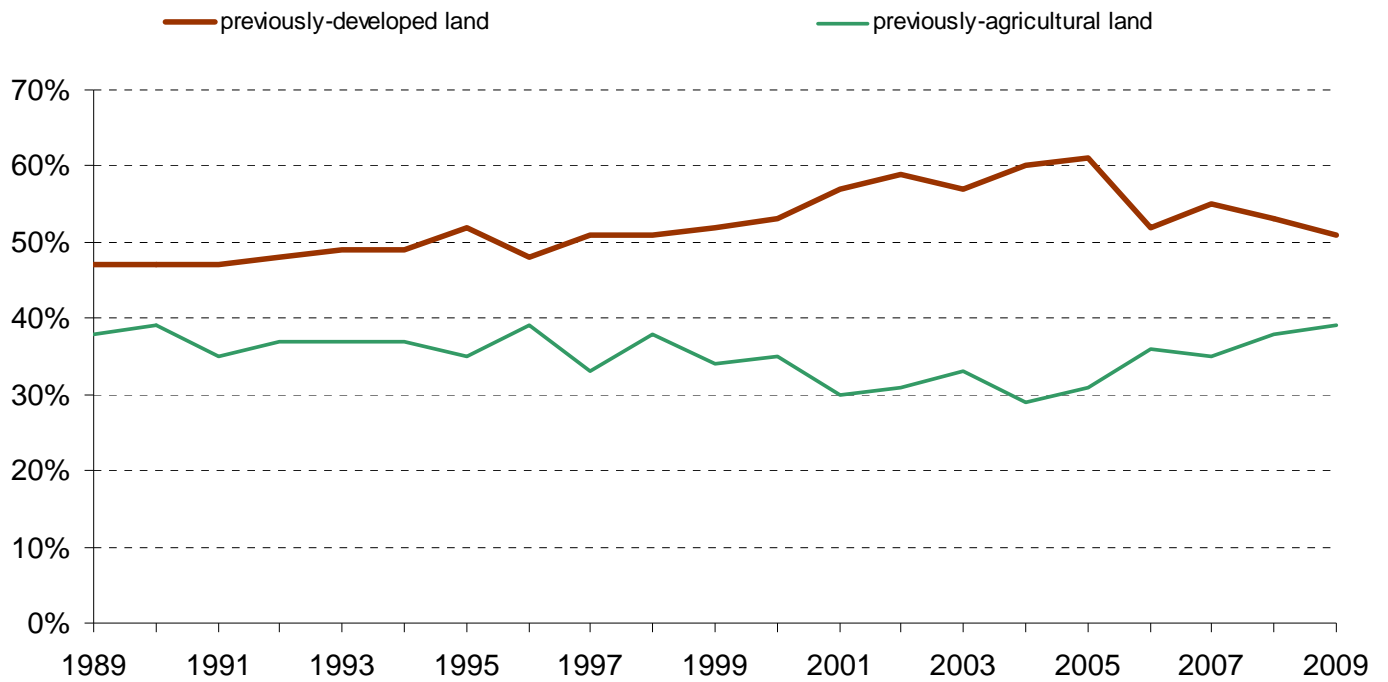
Detailed statistics on changes within areas of high flood risk can be found on the Land Use Change Statistics Live Tables¹, numbers 251 to 252.

Changes to developed uses

The latest figures for changes to developed uses are for 2009².

- In 2009, on a provisional estimate 51 per cent of land changing to a developed use was previously-developed, compared to 53 per cent in 2008. **(Table P261)**
- In 2009, on a provisional estimate 39 per cent of land changing to a developed use was previously agricultural land³ or agricultural buildings³, compared to 38 per cent in 2008.
- In 2006-2009 an average of 46 per cent of land changing to Industry and Commerce³ was previously developed. **(Table P264)**

Figure 8: Proportion of land changing to a developed use that was previously-developed or agricultural, 1989 to 2009



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) show the location and amounts of land changing use and 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.

LUCS provide a way of monitoring development such as changes to residential use. Amongst other statistics, LUCS provide definitive information on the percentage of new dwellings built on previously-developed 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 new housing.

Data Collection

The raw data for Land Use Change Statistics are collected by Ordnance Survey as part of their map revision process and provided to the Department for Communities and Local Government. Ordnance Survey maintains its base mapping using their surveyors and aerial photography. Urban areas, in which rapid changes in land use are more likely than in rural areas, are mainly covered on the ground by surveyors who make on-site visits to collect data about mapping and land use changes in response to prior intelligence about such changes (from Local Authorities, building companies etc). Rural areas 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 defined specification they are consistent over geographical areas and over time. The data are continually updated so the statistics for each change year are, 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 2010 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	(X)
	• Storage and warehousing	(S)				
Community Services	• Community buildings	(C)				
	• Leisure and recreational Buildings	(L)				
Vacant	• Vacant land previously Developed	(V)				
	• Derelict land	(Z)				
Minerals and landfill¹	• Minerals ²	(M)				
	• Landfill waste disposal ²	(Y)				
Defence	• 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

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 in July 2012 will present the first statistics on 2011 as well as updated information on previous years.

9. The previous Government set a target in February 1998 to raise the national proportion of additional housing provided on previously-developed land and through conversion of existing buildings to 60 per cent by 2008.

10. In June 2010 the Government removed gardens from the definition of previously-developed land to give councils and communities more power to prevent development on back gardens. Definitive statistics on the level of such development will be available for the first time in the Land Use Change Statistics for 2011. For the current publication, residential gardens are treated as residential land and thus previously-developed.

Further information

Media Enquiries

email: press@communities.gsi.gov.uk

office hours: 0303 444 1156

out of hours: 0303 444 1051

Public Enquiries

email: planning.statistics@communities.gsi.gov.uk

telephone: 0303 444 2280

Responsible Statistician

Grant Kelly

email: planning.statistics@communities.gsi.gov.uk

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