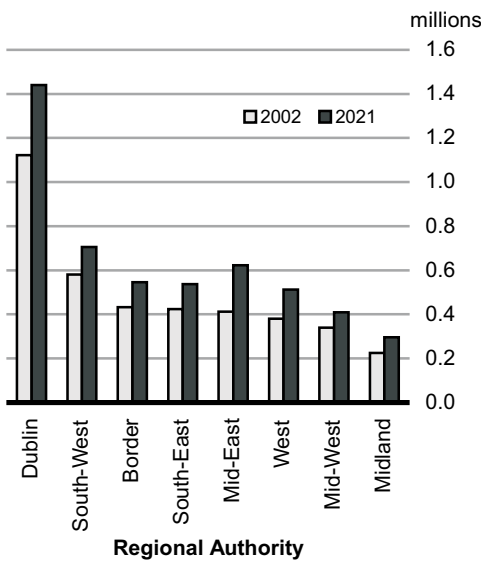




**Figure 1 Population of Regional Authority areas, 2002 and 2021 (M1F2 Medium)**



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Ref 87/2005

## Regional Population Projections 2006-2021

### Population of the Greater Dublin Area to reach 2 million by 2021

The population of the Greater Dublin Area (GDA) is projected to increase by over half a million persons in the period to 2021 based on a regional breakdown of previously published national population projections (*Table 1*). The GDA covers counties Dublin, Kildare, Meath and Wicklow.

Under the M1F2 Medium scenario, which largely assumes a continuation of recent demographic trends, the main features of the regional projections are:

- ◆ All regions will experience population growth over the 19-year period 2002 to 2021.
- ◆ The fastest growing areas will be the Mid-East (+51%), followed by the West (+35%). These areas will grow due to natural increase and international migration and will also gain population through internal migration movements from the remaining six regions.
- ◆ All regions are projected to benefit from external migration (i.e. there will be more immigrants into the various regions than emigrants from them). The regions projected to gain most will be Dublin (+232,000 persons) and the West (+60,000).
- ◆ The Mid-East will gain most (+58,000) from internal migration over the projection period. Dublin is projected to lose out to other regions because of internal migration, with 112,000 more persons leaving the region than entering it. The Mid-West will also lose out, albeit on a smaller scale (-4,000), while all other regions are projected to gain from internal migration flows.
- ◆ Births will exceed deaths in each of the regions, with the excess being most pronounced for Dublin (+197,000 persons) and the Mid-East (+101,000).
- ◆ The GDA, which currently makes up 39.2 per cent of the population of the State, is projected to account for 40.7 per cent of the total projected population of 5 million in 2021.

The present release contains projections for the eight Regional Authority areas for 2002-2021. The assumptions used in relation to regional fertility and mortality trends and international migration to and from each region are consistent with those used at national level. In addition three scenarios have been produced concerning movements between regions (inter-regional migration), i.e. "Recent", "Medium" and "Traditional" (see page 11).

The national projections distinguished six scenarios i.e. M1F1, M1F2, M1F3, M2F1, M2F2 and M2F3. Of these, only M1F2 and M2F2 are considered for the regional projections. This results in six variants i.e. M1F2 Recent, M1F2 Medium, M1F2 Traditional, M2F2 Recent, M2F2 Medium, M2F2 Traditional. The present release concentrates mainly on the three regional variants of the most likely scenario – M1F2.

For further information contact Bernie Ryan on 01-498 4285, Helen Cahill on 01-498 4253 or Aidan Punch on 01-498 4316.

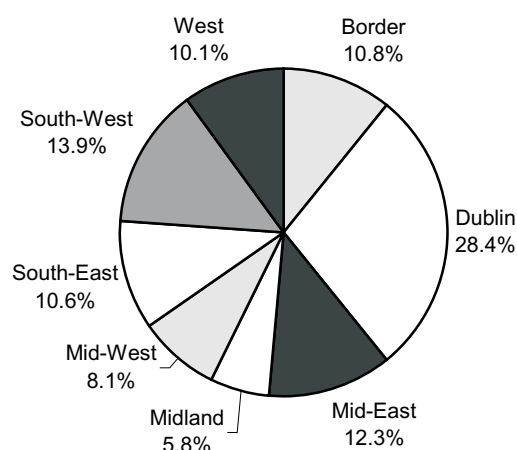
**Table 1 Actual and projected population of Regional Authority<sup>1</sup> areas, 2002 and 2021 (M1F2 Medium)**

Regional Authority area	Population 2002	Natural increase	Internal migration	External migration	Population 2021	Total increase	Average annual increase
	Thousands						%
Border	433	57	8	48	546	113	1.2
GDA	1,535	298	-54	284	2,063	528	1.6
Dublin	1,123	197	-112	232	1,440	317	1.3
Mid-East	413	101	58	51	623	210	2.2
Midland	225	37	14	19	296	71	1.4
Mid-West	340	50	-4	24	410	70	1.0
South-East	424	59	20	35	537	114	1.3
South-West	580	72	2	50	705	124	1.0
West	380	59	13	60	513	133	1.6
State	3,917	633	0	520	5,070	1,153	1.4

<sup>1</sup> Defined on page 12.

## Regional population shares

**Figure 2 Population shares of Regional Authority areas, 2021 (M1F2 Medium)**



In 1961, when the population of the State was at its lowest level (2.8 million), Dublin accounted for just over a quarter of the total population while the share of the Mid-East region was 6.7 per cent. By 2002 Dublin had increased its share to 28.7 per cent while the Mid-East represented 10.5 per cent of the total. All other regions lost population share over the same 41-year period.

Under the M1F2 Medium projection scenario, the Mid-East is projected to further increase its population share while the West will also see its share increase. By 2021 the Mid-East is projected to account for 12.3 per cent of the population of the State while the West will account for 10.1 per cent (up from 9.7% in 2002). All other regions will either show no change or decrease, with the most marked decrease occurring in the South-West. Dublin's share of the population, which remained flat at about 29 per cent during the 1980s and 1990s, will decline marginally to 28.4 per cent by 2021.

## Age structure

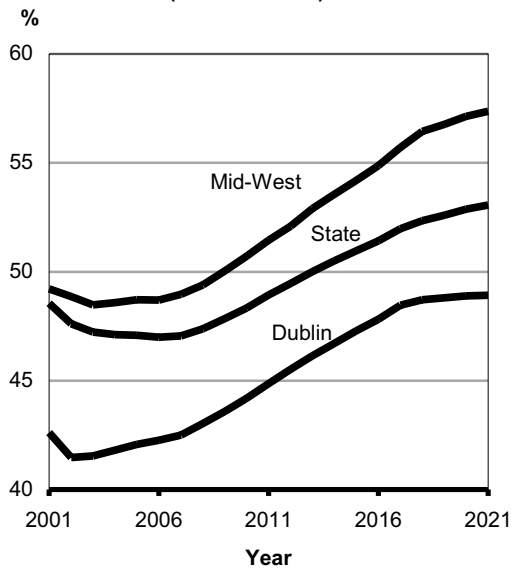
The young population (those aged 0-14 years) will increase in all regions between 2002 and 2021 with the rate of increase projected to taper off in the latter part of the projection period (Table 5). The most pronounced increases will be in the Mid-East (+43%), the West (+36%) and in Dublin (+26%). The results in all regions are affected by the projected increases in the numbers of women of child bearing age which will more than compensate for the assumed declines in fertility rates of these women in accordance with fertility scenario F2.

The Mid-East will see an increase of about one-fifth in the numbers of people aged between 15 and 24 years, while there will be a small increase (about 4%) in the corresponding age group in the Midland region. All other regions will experience decreases in the population in this age group.

Major increases are projected in all regions between 2002 and 2021 for those aged 25 to 64, reflecting earlier birth cohorts joining the population of working age. Projected gains from external migration will also exert a strong influence on this age group. Of particular note is the projected almost doubling of the number of persons aged 45-64 in the Mid-East region.

The number of old persons (65 years and over) will increase in every region over the life-time of the projections, with the most marked increases likely to occur in the Mid-East region (+133%) and in Dublin (+75%). The very old population

**Figure 3 Projected total dependency ratios, 2001 to 2021 (M1F2 Medium)**



(those aged 80 years and over) is projected to increase by two-thirds by 2021, with increases of about 90 per cent projected for both Dublin and the Mid-East.

The young dependency ratio (those aged 0-14 as a percentage of those aged 15-64) is projected to fluctuate but generally decline in most regions between 2002 and 2021. The old dependency ratio (those aged 65 years and over as a percentage of those aged 15-64) will rise over the same period, with the highest ratio projected to occur in the Mid-West region (25.1%) in 2021. Movements in both ratios will be strongly affected by the denominator term (i.e. those aged 15-64).

The Dublin region (48.9%) will have the lowest total dependency ratio in 2021 under the M1F2 Medium scenario, while the Mid-West region will have the highest, at 57.4 per cent.

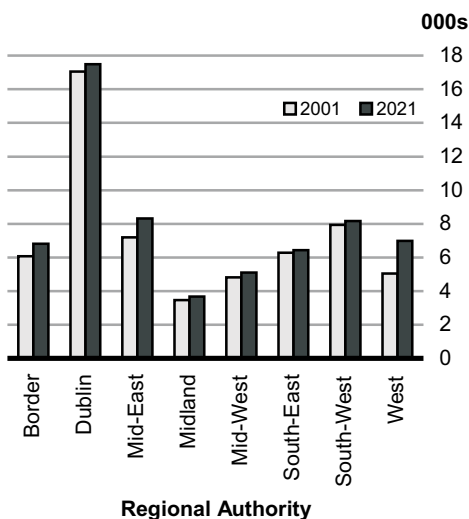
### Births

The number of births in a particular period is a function of the number of women of child bearing age (15-49 years) and the fertility levels of these women. Given that over 90 per cent of births are to women aged 20-39 years, the focus will be on this age group.

At the national level the number of women aged 20-39 increased by over a quarter in the twenty-year period 1981-2001 (*Table 2*). However, over the same period the total fertility rate declined from 3.07 to 1.98. The combined effect was a decline in the number of births from 72,000 in 1981 to 58,000 in 2001. The same broad trend was in evidence in all Regional Authority areas apart from the Mid-East, where the number of births remained the same.

Under the M1F2 Medium scenario the number of births at national level is projected to rise slightly from its 2001 level of 58,000 to reach 63,000 by 2021, an increase of nearly 9 per cent. While this scenario assumes a decline in the total fertility rate from 1.98 in 2003 to 1.85 by 2011, this decline will be counter-balanced by an increase in the number of women aged 20-39 from 595,000 in 2001 to 661,000 in 2021 (an increase of 11%).

**Figure 4 Actual and projected births (M1F2 Medium)**



The number of births in 2021 is projected to be on a par with 2001 levels in four out of eight of the Regional Authority areas. Increases will occur in the remaining regions with the most significant increase projected for the West. In 2021, Dublin and the Mid-East will account for 41 per cent of all births - the same proportion as in 2001.

**Table 2 Females aged 20-39 and total births, 1981, 2001 and 2021 (M1F2 Medium)**

Regional Authority area	Females aged 20-39			Births		
	1981	2001	2021	1981	2001	2021
Thousands						
Border	49	59	70	8	6	7
GDA	198	265	284	28	24	26
Dublin	157	201	203	21	17	17
Mid-East	41	63	81	7	7	8
Midland	24	30	35	4	3	4
Mid-West	39	49	50	7	5	5
South-East	47	59	66	8	6	6
South-West	68	84	87	11	8	8
West	40	49	70	7	5	7
State	466	595	661	72	58	63

## Deaths

The mortality assumptions at national level envisage a decrease in mortality rates consistent with increases in life expectancy at birth of 4.4 years for males and 3.8 years for females between 2002 and 2021. Because of similarities in regional mortality rates, the national assumptions have been applied uniformly at regional level. Differential age structural effects will, therefore, largely dictate changes in the number of deaths projected over the 2002 to 2021 period.

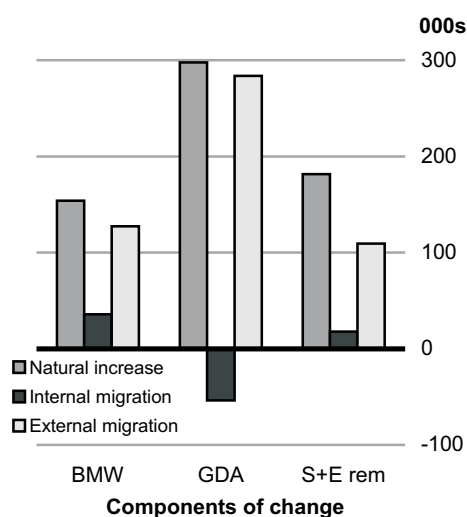
Given that in 2001 nearly four out of five deaths were to persons aged 65 years and over, any changes in the numbers in this age group will be likely to impact on the projected number of deaths. At the national level, the period 2001 to 2021 will see the population aged 65 years and over increasing by nearly three-quarters. The number of deaths, however, is projected to be less pronounced (+10%) because of age structural effects in the population over 65 and the moderating effect of assumed decreases in mortality rates.

The projected number of deaths in 2021 will be largely the same as in 2001 in four out of eight of the regions. The remaining regions will show modest increases under the M1F2 Medium scenario.

**Table 3 Old population and total deaths, 1981, 2001 and 2021 (M1F2 Medium)**

Regional Authority area	Persons aged 65+			Deaths		
	1981	2001	2021	1981	2001	2021
Thousands						
Border	52	54	84	4	4	4
GDA	110	145	274	10	10	12
Dublin	86	112	197	8	8	9
Mid-East	24	33	78	2	2	3
Midland	22	26	43	2	2	2
Mid-West	34	39	65	3	3	3
South-East	41	49	84	4	3	4
South-West	62	68	114	5	5	5
West	48	49	76	4	3	3
State	369	430	741	33	30	33

**Figure 5 Components of change of NUTS2 regions, 2002-2021 (M1F2 Medium)**



## NUTS2 level

There are two NUTS2 regions – the Border, Midland and West (BMW) and the South and East (S+E). Because of its size, the Greater Dublin Area (GDA) – comprising Dublin and the Mid-East – is separately distinguished within the South and East region. The remaining part of the South and East is termed S+E rem.

Under the M1F2 Medium scenario the population of both NUTS2 regions is projected to grow on average by 1.4 per cent per annum between 2002 and 2021 (Table 4). The GDA will provide the main growth stimulus within the South and East region with its population projected to increase at an average annual rate of 1.6 per cent compared with 1.1 per cent for the remainder of the region.

The projected increase of 317,000 in the population of the BMW region will be split fairly evenly between natural increase (154,000) and net inward migration (163,000) with net migrants from abroad making up 127,000 of the latter figure. The BMW is projected to gain 36,000 (or 2,000 annually) in net migration from the South and East between 2002 and 2021.

**Table 4 Actual and projected population of NUTS2 regions, 2002 and 2021 (M1F2 Medium)**

NUTS2 region	Population 2002	Natural increase	Internal migration	External migration	Population 2021	Total increase	Average annual increase
	Thousands						%
BMW	1,038	154	36	127	1,355	317	1.4
S+E	2,879	479	-36	393	3,715	836	1.4
GDA	1,535	298	-54	284	2,063	528	1.6
S+E rem	1,344	182	18	109	1,652	308	1.1
Total	3,917	633	0	520	5,070	1,153	1.4

Natural increase will be the main component of population growth in the South and East region between 2002 and 2021 and will account for 479,000 (57%) of the projected 836,000 increase. Over 62 per cent of the natural increase will arise in the GDA.

### Different scenarios

All eight regions are projected to show population increases between 2002 and 2021 under each of the three internal migration scenarios “Recent”, “Medium” and “Traditional” (Table 7).

Focusing on the M1 international migration assumption, average annual population growth rates in the regions will vary according to the internal migration assumptions chosen. These will be in the range 0.9 to 2.3 per cent for “Recent”, 1.0 to 2.2 per cent for “Medium” and 0.9 to 2.1 per cent for “Traditional”.

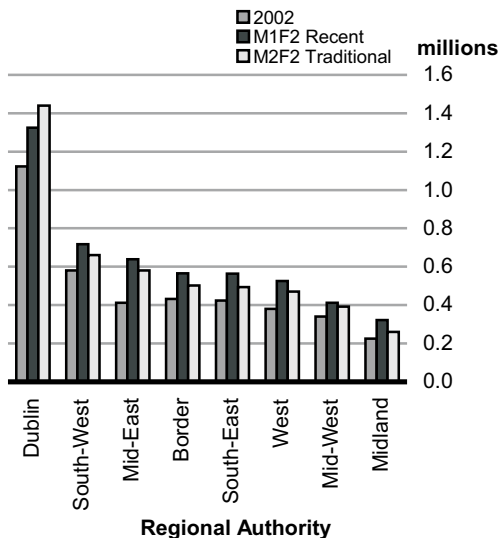
The Dublin region will be the one whose population growth rate will be most affected by the differing internal migration assumptions. The growth rate will vary from 0.9 per cent for “Recent” to 1.3 per cent for “Medium” to 1.7 per cent for “Traditional”. The variation will arise directly because of the additional internal migration flows and indirectly because of the gains in the natural increase which will arise from these additional flows.

The population of the Mid-East will grow at an average annual rate in excess of 2 per cent regardless of the internal migration scenario chosen.

Because the projected population growth rates will vary depending on which internal migration scenario is selected, the resultant population shares in 2021 will differ from those twenty years earlier. Under the “Recent” internal migration scenario, Dublin, the Mid-West and the South-West, although projected to show appreciable population growth rates, will lose population share compared with 2001. The Mid-East and West regions will gain population share regardless of the internal migration variant chosen while the only variant which will result in Dublin increasing its population share compared with 2001 is the so-called “Traditional” one.

The relevant growth rates under M2 will be less than the corresponding ones under M1 because of the lower assumed flows of international migrants. By 2021 the population of Dublin is projected to range between 1.2 million under M2F2 Recent and 1.5 million under M1F2 Traditional while the population of the Greater Dublin Area will be in the range 1.8-2.2 million.

**Figure 6 Projected population under high (M1F2 Recent) and low (M2F2 Traditional) scenarios**



**Table 5 Projected population and dependency ratios for Regional Authority areas, 2001-2021 (M1F2 Medium)**

	Population						Dependency ratios			
	0-14	15-24	25-44	45-64	65+	Total	Young	Old	Total	
	Thousands						Percentage			
<b>Border</b>										
2001	96	67	117	91	54	425	35.1	19.5	54.6	
2006	98	67	132	104	56	457	32.5	18.5	51.0	
2011	103	62	144	115	62	488	32.0	19.3	51.4	
2016	107	62	153	125	73	519	31.4	21.4	52.8	
2021	109	64	152	136	84	546	31.0	23.9	54.9	
<b>GDA</b>										
2001	313	265	481	305	145	1,509	29.8	13.8	43.7	
2006	335	238	559	350	162	1,645	29.2	14.1	43.3	
2011	376	217	613	400	190	1,796	30.5	15.4	46.0	
2016	407	222	638	449	230	1,946	31.1	17.6	48.7	
2021	411	249	617	512	274	2,063	29.8	19.9	49.7	
<b>Of which:</b>										
<b>Dublin</b>										
2001	219	200	354	223	112	1,108	28.2	14.4	42.6	
2006	228	174	409	250	124	1,186	27.4	14.9	42.3	
2011	255	156	447	281	142	1,281	28.8	16.0	44.9	
2016	276	156	462	312	168	1,374	29.7	18.1	47.8	
2021	276	172	440	355	197	1,440	28.6	20.3	48.9	
<b>Mid-East</b>										
2001	94	65	127	82	33	401	34.4	12.2	46.6	
2006	106	64	150	100	38	459	33.9	12.2	46.1	
2011	121	61	167	119	48	515	34.9	13.8	48.7	
2016	131	66	176	137	62	572	34.5	16.3	50.8	
2021	134	77	177	157	78	623	32.7	18.9	51.5	
<b>Midland</b>										
2001	51	35	63	46	26	220	35.6	18.0	53.6	
2006	55	34	72	54	28	243	34.2	17.2	51.4	
2011	59	32	79	61	31	262	34.5	18.0	52.6	
2016	62	32	82	68	36	280	33.8	20.0	53.8	
2021	61	36	81	75	43	296	32.1	22.6	54.7	
<b>Mid-West</b>										
2001	72	57	95	72	39	335	32.3	17.3	49.6	
2006	75	52	105	82	42	355	31.2	17.5	48.7	
2011	80	46	112	90	47	375	32.4	19.1	51.5	
2016	84	46	113	96	56	395	32.9	21.9	54.9	
2021	84	49	109	102	65	410	32.3	25.1	57.4	
<b>South-East</b>										
2001	93	65	119	90	49	416	34.0	17.8	51.8	
2006	97	64	133	103	54	451	32.5	17.9	50.3	
2011	103	60	142	115	61	482	32.6	19.3	51.9	
2016	106	61	147	126	72	512	31.9	21.6	53.6	
2021	106	65	145	137	84	537	30.6	24.2	54.9	
<b>South-West</b>										
2001	121	91	167	125	68	572	31.6	17.9	49.5	
2006	124	86	184	141	74	609	30.1	18.0	48.1	
2011	131	77	195	157	84	644	30.6	19.5	50.0	
2016	136	77	198	169	98	679	30.6	22.1	52.7	
2021	136	82	191	182	114	705	29.8	25.0	54.8	
<b>West</b>										
2001	80	59	100	81	49	369	33.4	20.5	53.9	
2006	82	61	119	94	51	406	30.1	18.5	48.6	
2011	91	55	136	104	56	441	30.9	19.0	49.8	
2016	101	54	146	113	65	480	32.3	20.9	53.2	
2021	109	57	147	123	76	513	33.2	23.3	56.5	
<b>State</b>										
2001	828	638	1,142	810	430	3,847	32.0	16.6	48.5	
2006	866	603	1,304	928	466	4,166	30.6	16.4	47.0	
2011	944	550	1,421	1,042	531	4,488	31.3	17.6	49.0	
2016	1,003	555	1,477	1,145	631	4,811	31.6	19.9	51.4	
2021	1,016	603	1,442	1,267	741	5,070	30.7	22.4	53.1	

**Table 6 Actual and projected population of Regional Authority areas, 1961-2021**

Year	Border	GDA	Dublin	Mid-East	Midland	Mid-West	South-East	South-West	West	State
Thousands										
Actual										
1961	372	906	718	188	180	261	320	447	332	2,818
1966	360	989	795	194	178	265	320	452	320	2,884
1971	361	1,062	852	210	179	270	329	466	312	2,978
1979	395	1,256	984	272	198	301	367	516	336	3,368
1981	402	1,290	1,003	287	202	308	375	525	341	3,443
1986	411	1,336	1,021	315	208	315	385	537	348	3,541
1991	403	1,351	1,025	325	203	311	383	532	343	3,526
1996	407	1,406	1,058	347	206	317	392	547	352	3,626
2001	425	1,509	1,108	401	220	335	416	572	369	3,847
Projected										
<b>M1F2 Recent</b>										
2006	461	1,628	1,167	461	247	355	455	611	409	4,166
2011	498	1,744	1,220	524	275	376	495	651	449	4,488
2016	536	1,863	1,278	585	302	396	533	690	491	4,811
2021	566	1,963	1,324	639	322	411	563	718	526	5,070
<b>M1F2 Medium</b>										
2006	457	1,645	1,186	459	243	355	451	609	406	4,166
2011	488	1,796	1,281	515	262	375	482	644	441	4,488
2016	519	1,946	1,374	572	280	395	512	679	480	4,811
2021	546	2,063	1,440	623	296	410	537	705	513	5,070
<b>M1F2 Traditional</b>										
2006	458	1,643	1,184	459	243	355	451	609	407	4,166
2011	484	1,813	1,300	513	257	375	478	642	439	4,488
2016	508	1,998	1,435	564	266	395	498	672	472	4,811
2021	527	2,156	1,548	608	271	410	513	693	500	5,070
<b>M2F2 Recent</b>										
2006	461	1,628	1,167	461	247	355	455	611	409	4,166
2011	494	1,718	1,199	519	273	372	492	645	443	4,436
2016	521	1,779	1,210	569	295	385	522	670	473	4,646
2021	541	1,828	1,216	612	312	394	545	686	497	4,803
<b>M2F2 Medium</b>										
2006	457	1,645	1,186	459	243	355	451	609	406	4,166
2011	483	1,770	1,259	510	260	372	478	638	436	4,435
2016	504	1,862	1,306	556	274	384	500	659	462	4,645
2021	521	1,928	1,332	596	286	392	519	673	484	4,803
<b>M2F2 Traditional</b>										
2006	458	1,643	1,184	459	243	355	451	609	407	4,166
2011	479	1,786	1,278	508	255	372	474	636	434	4,436
2016	493	1,915	1,367	548	260	384	487	652	455	4,646
2021	502	2,021	1,440	581	261	392	495	661	471	4,803

**Table 7 Actual and projected population of Regional Authority areas, 2002 and 2021**

Regional Authority area	Population 2002	Natural increase	Internal migration	External migration	Population 2021	Total increase	Average annual increase
	Thousands						Percentage
<b>M1F2 Recent</b>							
Border	433	61	24	48	566	133	1.4
<i>GDA</i>	1,535	274	-130	284	1,963	427	1.3
Dublin	1,123	169	-200	232	1,324	201	0.9
Mid-East	413	105	70	51	639	226	2.3
Midland	225	44	33	19	322	97	1.9
Mid-West	340	51	-3	24	411	72	1.0
South-East	424	66	39	35	563	140	1.5
South-West	580	75	13	50	718	138	1.1
West	380	62	24	60	526	146	1.7
State	3,917	633	0	520	5,070	1,152	1.4
<b>M1F2 Medium</b>							
Border	433	57	8	48	546	113	1.2
<i>GDA</i>	1,535	298	-54	284	2,063	528	1.6
Dublin	1,123	197	-112	232	1,440	317	1.3
Mid-East	413	101	58	51	623	210	2.2
Midland	225	37	14	19	296	71	1.4
Mid-West	340	50	-4	24	410	70	1.0
South-East	424	59	20	35	537	114	1.3
South-West	580	72	2	50	705	124	1.0
West	380	59	13	60	513	133	1.6
State	3,917	633	0	520	5,070	1,153	1.4
<b>M1F2 Traditional</b>							
Border	433	55	-8	48	527	94	1.0
<i>GDA</i>	1,535	312	26	284	2,156	621	1.8
Dublin	1,123	213	-20	232	1,548	425	1.7
Mid-East	413	99	45	51	608	195	2.1
Midland	225	33	-6	19	271	46	1.0
Mid-West	340	50	-4	24	410	70	1.0
South-East	424	55	0	35	513	89	1.0
South-West	580	71	-8	50	693	112	0.9
West	380	58	2	60	500	120	1.5
State	3,917	633	0	520	5,070	1,153	1.4
<b>M2F2 Recent</b>							
Border	433	57	24	27	541	109	1.2
<i>GDA</i>	1,535	254	-130	169	1,828	293	0.9
Dublin	1,123	154	-200	139	1,216	94	0.4
Mid-East	413	101	70	29	612	200	2.1
Midland	225	42	33	11	312	86	1.7
Mid-West	340	48	-3	10	394	54	0.8
South-East	424	63	39	19	545	121	1.3
South-West	580	70	13	23	686	106	0.9
West	380	57	24	36	497	117	1.4
State	3,917	591	0	295	4,803	886	1.1
<b>M2F2 Medium</b>							
Border	433	53	8	27	521	89	1.0
<i>GDA</i>	1,535	278	-54	169	1,928	393	1.2
Dublin	1,123	182	-112	139	1,332	209	0.9
Mid-East	413	96	58	29	596	184	2.0
Midland	225	36	14	11	286	60	1.3
Mid-West	340	47	-4	10	392	52	0.8
South-East	424	56	20	19	519	95	1.1
South-West	580	67	2	23	673	93	0.8
West	380	54	13	36	484	103	1.3
State	3,917	591	0	295	4,803	886	1.1
<b>M2F2 Traditional</b>							
Border	433	51	-8	27	502	70	0.8
<i>GDA</i>	1,535	292	26	169	2,021	486	1.5
Dublin	1,123	197	-20	139	1,440	317	1.3
Mid-East	413	94	45	29	581	169	1.8
Midland	225	32	-6	11	261	36	0.8
Mid-West	340	47	-4	10	392	52	0.8
South-East	424	52	0	19	495	71	0.8
South-West	580	66	-8	23	661	80	0.7
West	380	52	2	36	471	91	1.1
State	3,917	591	0	295	4,803	886	1.1



## Assumptions

**Fertility** The national population projections published in December 2004<sup>2</sup> distinguished three fertility assumptions as follows:

- **F1:** TFR (Total Fertility Rate) to increase from its 2003 level of 1.98 to 2.0 by 2011 and remain constant thereafter;
- **F2:** TFR to decrease from its 2003 level to 1.85 by 2011 and remain constant thereafter;
- **F3:** TFR to decrease from its 2003 level to 1.7 by 2011 and remain constant thereafter.

Only F2 is considered in the present release. The age specific fertility rates for each region in 2003 were used as the starting point in the regional projections. This is consistent with the approach adopted for the national projections. Applying the assumed average annual change under F2 to the 2003 regional TFRs would have maintained the regional differentials observed in 2003 unchanged throughout the projection period. It was decided instead that the projection model should attempt to reflect the differential rate of change in regional fertility.

The year 1994, when the TFR was at its lowest level, was taken as the starting point for the comparisons over time (see Table A1 below). There was wide variation in the average annual rate of change in the regional TFRs between 1994 and 2003 ranging from a low of 0.2 per cent for the Border and South-West to a high of 1.6 per cent for the Mid-East. Due to the uncertainty surrounding future variations in regional fertility rates it was decided to apply the average differential for the period 1994 to 2003 to the assumed TFRs for 2011 under the F2 scenario. The resulting figures were then re-calibrated in order to minimise the discrepancy between the derived projected fertility rates and the published ones at national level.

**Table A1 Actual and projected TFRs for Regional Authority areas, 1994-2021**

Year	Border	Dublin	Mid-East	Midland	Mid-West	South-East	South-West	West	State
1994	1.96	1.70	1.95	2.04	2.00	1.89	1.88	1.92	1.85
2003	1.99	1.82	2.25	2.27	2.11	2.10	1.91	1.96	1.98
Average annual change (%)	0.2	0.8	1.6	1.2	0.6	1.2	0.2	0.3	0.7
Average TFRs 1994-2003	2.02	1.75	2.10	2.16	2.06	2.02	1.90	2.00	1.92
Projected TFRs for years 2011 to 2021 (F2)	1.95	1.69	2.02	2.08	1.98	1.94	1.83	1.92	1.85

<sup>2</sup> *Population and Labour Force Projections, 2006-2036, Prn 4017, Stationery Office, Dublin, December 2004.*

**Mortality** Regional life tables for 2002 were produced and the resulting survivorship rates were incorporated into the regional projections model. However, there was no significant difference in the number of projected deaths at regional level between the revised method used and that used in the national projections model. Therefore, it was decided to apply the national mortality rates to the relevant regional populations in the regional projections model. At national level the assumptions are that mortality rates will decrease consistent with gains in life expectancy at birth from:

- 75.1 years in 2002 to 79.5 years in 2021 for males;
- 80.3 years in 2002 to 84.1 years in 2021 for females.

**International migration** Two migration assumptions were used in compiling the population projections at national level. These are:

**M1:** Immigration continuing at a high level and then moderating

- +30,000 per annum in 2002/2006
- +30,000 per annum in 2006/2011
- +30,000 per annum in 2011/2016
- +20,000 per annum in 2016/2021

**M2:** Immigration continuing at more moderate levels

- +30,000 per annum in 2002/2006
- +20,000 per annum in 2006/2011
- +10,000 per annum in 2011/2016
- + 5,000 per annum in 2016/2021

The gross flow components of these assumptions, (which are reproduced in Table A2), were regionally sub-divided using Quarterly National Household Survey (QNHS) data. The regional breakdowns were based on average percentage flows to and from each Regional Authority area during the period 1997-2004. The factors used are given in Table A3. These gross flows were broken down by single year of age and sex on the same basis as for the total flows into and out of the State (i.e. no region-specific age distribution has been applied).

**Table A2 Assumed average annual migration flows, 2002-2021**

Scenario	2002-2006	2006-2011	2011-2016	2016-2021
Thousands				
M1				
Immigration	51	51	51	41
Emigration	21	21	21	21
Net migration	30	30	30	20
M2				
Immigration	51	41	30	25
Emigration	21	21	20	20
Net migration	30	20	10	5

**Table A3 Percentage distribution of gross migration flows by Regional Authority area**

Migration	Border	Dublin	Mid-East	Midland	Mid-West	South-East	South-West	West
Percentage								
Immigration	9.2	41.1	9.7	3.9	6.6	6.9	12.0	10.5
Emigration	9.2	36.5	9.6	4.1	9.0	7.3	15.1	9.2

Source: QNHS 1997-2004

## Internal migration

By examining a person's usual residence at the time of a census and one year previously it is possible to determine inter-regional migration patterns. An analysis of the one-year inflow figures from the 1981, 1986, 1991 and 1996 censuses for internal migration between regions reveals a fairly stable picture in terms of the magnitudes of the inward, outward and net migration flows. The Dublin and Mid-East region had positive net migration flows while flows in all other regions were negative.

However the 2002 Census revealed a substantially different pattern of internal migration between regions, and in particular showed a negative net migration flow for the Dublin region. In the year to April 1996 Dublin experienced positive net inward migration of 2,100 persons. The corresponding 2002 figure was a net outward migration of 12,600 persons. Apart from the Mid-West region, which had a small net outward flow of 200 persons, all other regions had positive net migration flows in the twelve months before Census Day 2002. In addition to increased movements of people from Dublin to the Border, Mid-East, Midland and South-East regions, the 2002 census also showed increased movements of people from the Mid-East region to the Border, Midland and South-East regions.

There was no hard evidence available to the expert group on regional projections as to whether the 2002 pattern was an aberration or whether there would be a return to the long-term traditional pattern, evident between 1981 and 1996, at some time in the future. Available data on house completions would seem to indicate that the 2002 situation has moderated somewhat in recent years. Given the lack of stability on internal migration over the last decade the expert group recommended using three internal migration scenarios:

- **Recent:** The inter-regional flows observed in the 2002 Census are applied up to 2011 and then the average of the trends observed in the 1996 and 2002 censuses is applied in 2021, with the difference between these two patterns apportioned over the intervening years. This scenario would be consistent with the *2002 pattern continuing in the medium term and then moderating by 2021*.
- **Medium:** The average of the trends observed in the 1996 and 2002 Censuses is applied in 2006 and kept constant thereafter, with the difference between the 2002 Census and the average of the 1996 and 2002 pattern apportioned over the years between 2002 and 2006. This scenario would be consistent with the *2002 pattern moderating in the short term*.
- **Traditional:** The 1996 pattern of inter-regional flows is applied in 2011 and kept constant thereafter, with the difference between the 2002 and 1996 patterns apportioned over the years between 2002 and 2011. This scenario is consistent with the *2002 pattern reverting to the traditional 1996 pattern in the medium term*.

**Table A4 Census internal migration flows**

Migration	Border	Dublin	Mid-East	Midland	Mid-West	South-East	South-West	West	State
Thousands									
<b>1996</b>									
Inwards	3.6	14.9	8.5	2.8	5.0	4.7	4.6	4.8	48.8
Outwards	4.5	12.8	6.6	3.8	5.3	5.4	5.4	5.0	48.8
Net inwards	-1.0	2.1	2.0	-1.0	-0.3	-0.7	-0.8	-0.3	0.0
<b>2002</b>									
Inwards	6.5	13.6	13.5	6.2	5.4	7.8	6.1	6.7	65.8
Outwards	4.9	26.3	9.5	3.9	5.5	5.3	5.2	5.2	65.8
Net inwards	1.7	-12.6	4.0	2.2	-0.2	2.5	0.9	1.5	0.0
<b>Average of 1996 and 2002</b>									
Inwards	5.0	14.3	11.0	4.5	5.1	6.2	5.3	5.8	57.3
Outwards	4.7	19.6	8.0	3.9	5.4	5.3	5.3	5.1	57.3
Net inwards	0.3	-5.3	3.0	0.6	-0.2	0.9	0.1	0.6	0.0

## Background Notes

**Methodology** The regional population projections contained in this release represent a top-down disaggregation of the national projections published in 2004. The assumptions used in the national model (fertility, mortality and international migration) are regionalised mainly based on recent historical data, while migration between regions is also assessed. The outcome of this procedure is a set of regional population projections based on what would be likely to happen if recent trends in fertility, mortality and international migration were to continue, subject to the overall constraint of the national population projections.

**Limitations** Because of the greater uncertainty attaching to regional as distinct from national population projections, the results for individual Regional Authority areas must be regarded as somewhat tentative. The objective of the regional population projections is to determine how the population of the various regions would evolve in the period to 2021 if recent demographic trends were to continue. The National Spatial Strategy, which is likely to influence how future regional population trends will evolve, was not factored specifically into the projections.

**More detailed results** More detailed results on population, births, deaths, net internal migration and net international migration under the six projection scenarios are available on the CSO web site (see [www.cso.ie/census/reg\\_pop\\_project.htm](http://www.cso.ie/census/reg_pop_project.htm)). The data on births, deaths and net migration are broken down by sex for each year from 2003 to 2021. The population data are broken down by single year of age and sex from 2002 to 2021. Further information can be obtained from:

Census Inquiries Section	Phone 01 498 4000 Ext. 4284-4288
Central Statistics Office	LoCall 1890 313 414
Ardee Road	Fax 01 498 4268
Rathmines	Email <a href="mailto:census@cso.ie">census@cso.ie</a>
Dublin 6	Web <a href="http://www.cso.ie">www.cso.ie</a>

**NUTS2 and NUTS3 regions** The regional classifications in this release are based on the NUTS (Nomenclature of Territorial Units) classification used by Eurostat. The NUTS3 regions correspond to the eight Regional Authorities established under the Local Government Act, 1991 (Regional Authorities) (Establishment) Order, 1993, which came into operation on 1 January 1994. The NUTS2 regions, which were proposed by Government and agreed by Eurostat in 1999, are groupings of the NUTS3 regions. The composition of the regions is set out below.

### Border, Midland and Western NUTS2 Region

<b>Border</b>	Cavan Donegal Leitrim Louth Monaghan Sligo
<b>Midland</b>	Laoighis Longford Offaly Westmeath
<b>West</b>	Galway City Galway County Mayo Roscommon

### Southern and Eastern NUTS2 Region

<b>Dublin</b>	Dublin City Dún Laoghaire-Rathdown Fingal South Dublin
<b>Mid-East</b>	Kildare Meath Wicklow
<b>Mid-West</b>	Clare Limerick City Limerick County North Tipperary
<b>South-East</b>	Carlow Kilkenny South Tipperary Waterford City Waterford County Wexford
<b>South-West</b>	Cork City Cork County Kerry