# **Jersey's Resident Population 2011**



Statistics Unit: <u>www.gov.je/statistics</u>

### Headlines

- The resident population of Jersey at the end of 2011 is estimated as 98,000.
- During calendar year 2011:
  - the resident population increased by 900 people;
  - net inward migration accounted for 600 of this latest annual increase;
  - **natural growth** (the excess of births over deaths) accounted for the remaining 300.
- The latest three-year period, 2009-2011, saw:
  - o mean net inward migration of 600 people per year into the Island;
  - o higher levels of net inward migration than at the start of the last decade;
  - lower levels of net inward migration than seen in the previous three-year period; (mean net migration during 2006-2008 was 1,200 people per year into the Island).

#### Introduction

A census of the population of Jersey was held on 27 March 2011; the total resident population of the Island on this date was 97,857.<sup>1</sup>

The 2011 Jersey Census provides a baseline population count for producing ongoing annual estimates of the Island's resident population. These annual population updates estimate the <u>change</u> each year since the most recent census. The annual change is determined from numbers of births and deaths in Jersey and from information on education, health and employment (see Appendix A) to estimate net migration.

In this report, the total resident population at year-end is presented along with estimates of net migration and of crude birth and death rates for each calendar year.

The 2011 Census has provided up-to-date information on patterns of migration of people into and out of the Island. This information has enabled a reconciliation exercise to be undertaken whereby the previously published series of annual estimates of the total resident population and of net migration (based on the results and migration patterns at the time of the 2001 Census) have been compared with the revised set of estimates for the intercensal period derived from the latest (2011) Census. This reconciliation exercise is presented in Appendix B.

The revised estimates of population measures presented in the body of this report, derived from the results of the 2011 Census, should be considered as the definitive annual population estimates for the period 2000 - 2011.

<sup>&</sup>lt;sup>1</sup> The results of the 2011 Jersey Census have been published by the States of Jersey Statistics Unit in a series of bulletins – see www.gov.je/census.

## **Resident population**

Year end	Resident population
2000	88,400
2001	88,900
2002	89,300
2003	89,600
2004	90,100
2005	91,000
2006	92,300
2007	94,000
2008	95,400
2009	96,200
2010	97,100
2011	98,000

Table 1: Estimates of Jersey's resident population: 2000- 2011<sup>2</sup>.

As Figure 1 indicates, the rate of increase of Jersey's resident population during the period 2005 to 2008 was greater than that at the start of the last decade; Table 2 shows that the annual changes during this period were driven by greater levels of net inward migration.



Figure 1 – Total resident population at year-end: 2000 to 2011

Figures for 2000 to 2009 are revised from those previously published,

<sup>&</sup>lt;sup>2</sup> Numbers presented in Table 1 have been rounded to the nearest 100.

## Change in resident population

The change in Jersey's resident population is due to:

- Natural growth: number of births minus number of deaths; and
- **Net migration:** the <u>difference</u> between large numbers of people moving both into and out of the Island, i.e. the number of people arriving minus those people leaving.

Table 2 shows the total annual change in the Island's resident population from 2001 to 2011 and the contributions from natural growth and from net migration<sup>3</sup>.

Calendar year	Annual change	Natural growth	Net INWARD migration
2001	500	190	300
2002	400	90	300
2003	300	250	0
2004	500	220	300
2005	900	220	700
2006	1,300	190	1,100
2007	1,700	320	1,400
2008	1,400	300	1,100
2009	800	250	500
2010	900	270	700
2011	900	300	600

 Table 2: Change in Jersey's resident population: 2001 to 2011.

It is apparent from Table 2 that, except for calendar year 2003, net inward migration has been considerably greater than natural growth throughout the period from 2001 to 2011.

### **Natural growth**

Figure 2 shows the numbers of births and deaths in the Island and the natural growth for each year from 2001 to 2011.

Natural growth in 2011 was 300, comprising 1,100 births and 800 deaths.

Higher natural growth was recorded during the latter part of the last decade, with a mean of 290 per annum during the most recent five-year period (2007-2011) compared with a mean of 190 per annum during the preceding five years (2001-2006). An increase in the number of births per year during 2007-2011 was the main driver of this increase.

<sup>&</sup>lt;sup>3</sup> Numbers presented for the total annual change and annual net migration have been rounded independently to the nearest 100; hence components may not sum to totals.



#### Figure 2 – Births, deaths and natural growth: 2001 to 2011

The crude birth rate (CBR) and crude death rate (CDR) are defined, respectively, as the number of live births and the number of deaths per 1,000 residents per annum. As Table 3 indicates, the crude birth rate in Jersey has remained fairly stable over the last decade, whilst there has been a slight downward trend in the crude death rate during the same period.

	CBR	CDR
2001	10.9	8.8
2002	10.4	9.4
2003	11.2	8.5
2004	10.8	8.3
2005	10.6	8.3
2006	10.3	8.2
2007	11.0	7.5
2008	10.9	7.8
2009	10.5	7.9
2010	11.0	8.2
2011	11.3	8.2

Table 3: Crude birth rate (CBR) and crude death rate (CDR): 2001 to 2011

CBR and CDR are in units of: per 1,000 residents per annum.

#### **Net Migration**

Net migration has been <u>inward</u> for each year of the period from 2001 to 2011 (with the exception of 2003 which saw essentially net nil migration).

From Figure 3 it is apparent that:

- the period from 2001 to 2004 saw lower annual rates of net inward migration than those recorded more recently;
- the three-year period from 2005 to 2007 (a time of real-term growth of Jersey's economy<sup>4</sup>) saw increasing rates of net inward migration;
- during the three-year period from 2006 to 2008 the mean annual net inward migration was 1,200 people per year into the Island;
- during the latest three-year period, 2009 to 2011, the mean annual net inward migration was 600 people per year into the Island.



Figure 3 – Net migration of people INTO the Island per annum, 2001 to 2011

\*Estimates for 2001 to 2009 are revised from those previously published

Since 2008 annual net inward migration has been lower than the levels seen during the preceding three-year period (from 2006 to 2008); nevertheless, recent levels of net inward migration have remained considerably higher than at the start of the decade.

<sup>&</sup>lt;sup>4</sup> Jersey Gross Value Added (GVA) and Gross National Income (GNI) 2010: Statistics Unit, September 2011.

## Methodology

1. The net annual change (represented by the symbol  $\Delta$ ) in the resident population between any two points in time is defined as:

 $\Delta$  population = Natural growth (live births – deaths) + Net migration

where Net migration is estimated by:

- Δ Non-locally qualified employees + associated non-economically active adults
- +  $\Delta$  j-category employees + associated non-economically active adults
- + net migration of pre-school children
- + net migration of school-age children

The change in the non-locally qualified workforce takes into account:

- the net migration of employees having less than five years continuous residency, as defined under the Regulation of Undertakings and Development (Jersey) Law, 1973, as amended (RUDL);
- the reclassification to "locally qualified" (under RUDL) of employees who attain five years of continuous residency (whilst remaining residentially non-qualified under Jersey Housing Law);
- the outward migration of "locally qualified" workers who had not yet attained residentially qualified status under Jersey Housing Law.

The methodology includes an assumption that the net outward migration of residentially qualified (a-h) people is approximately balanced by the transfer of j-category and residentially non-qualified people to residential qualified status. Information from the 2011 Census, and subsequent modelling of flows of people by residential status, shows that this assumption appears to hold.

- 2. The principal sources of data for estimating changes in Jersey's resident population are:
  - Census 2011: constitutes the baseline for the total resident population and is the source of information for identifying current migrant patterns, particularly distributions of length of stay and the household structure and economic activity rates of inward migrants;
  - Births, Marriages and Deaths; Office of the Superintendent Registrar;
  - Labour Market at 31 December of each calendar year; Statistics Unit;
  - data on the migration of pre-school and school-age children from the Departments of Health and Social Services and of Education, Sport and Culture, respectively.

## Appendix B

#### **Reconciliation of population measures**

For each year from 2002 to 2009 the Statistics Unit published annual estimates of the year-end resident population and of annual net migration into or out of the Island. These annual estimates used the 2001 Census data as the baseline for the total resident population and for identifying patterns of migration (particularly distributions of the length of stay of inward migrants). The last report in this series published an estimate for the resident population for year-end 2009 – see "*Jersey's Resident Population 2009*", States of Jersey Statistics Unit, June 2010.

The principal objectives of this reconciliation exercise are:

- to explain the difference between the previously published estimate for year-end 2009 (92,500) and the population enumerated by the census in March 2011 (97,857);
- to compare the revised series of annual estimates of net migration for each year of the period from 2001 to 2009 with the previously published series.

#### Total resident population

The resident population enumerated by the census at March 27<sup>th</sup> 2011 was almost 5,400 persons greater than the previously published estimate for the resident population at year-end 2009.

To identify the true difference between the two population measures, they should be compared at a common point in time. The end of calendar year 2010 represents an appropriate point for conducting such a comparison.

**Firstly**, the previously published series, whose last estimate was for year-end 2009, should be continued to year-end 2010 (applying the identical methodology as used between 2002 and 2009). Thus, the following should be added to the year-end 2009 estimate:

- 2010 natural growth (births deaths);
- 2010 net migration.

Furthermore, the previously published series of population estimates *did not* include persons who were not enumerated by the 2001 census (the 'undercount' – estimated to be 1,600 people). In contrast, the 2011 Census data *did* incorporate the 2011 undercount (265 people). *The 2001 undercount must, therefore, be added to all previously published estimates before being able to be compared with the 2011 Census measure*<sup>5</sup>.

Following this rationale, Table B1 shows the previously published year-end 2009 estimate rolled forward to year-end 2010, using the previous estimation methodology, and including the 2001 undercount:

<sup>&</sup>lt;sup>5</sup> The 2001 Census did not include the 'undercount' in the total resident population, following international practice at the time; (the undercount is the small proportion of households and people from whom a census return was not received). The 2011 census adopted a new approach which enabled the undercount to be included in the measure of the total resident population. The original estimate for the 2001 undercount was 1% of the enumerated resident population, corresponding to 840 ± 100 persons. Part of the reconciliation exercise involved reviewing the methodology which had been used to estimate the 2001 undercount. This review, using administrative data sources relating to 2001 but available subsequently, resulted in the 2001 undercount estimate being revised upwards to 2% of the enumerated population, corresponding to 1,600 ± 100 persons.

Table B1 – Estimate of total resident population for year-end 2010 using previous estimate methodology and 2001 census baseline

2010 year-end	94,600
Undercount from 2001 Census (revised)	+ 1,600
Net migration in 2010 (inward)	+ 200
Natural growth in 2010	+ 300
2009 year-end (previously published)	92,500

**Secondly**, the 2011 Census should be adjusted backwards in time to show residents at year-end 2010 by subtracting:

- natural growth during the first three months of 2011;
- net migration during the first three months of 2011.

Adjusting the 2011 Census data backward to year end 2010 results in an estimate for the total resident population at year-end 2010 of **97,100**.

Hence, the difference between the two measures at year-end 2010 is <u>2,500 people</u>, which represents a mean <u>under</u>-estimation of 250 people per year.

This discrepancy is due to modelling of migration patterns, leading to a cumulative under-estimation of net inward migration in the previous annual update methodology, which was based on those migration patterns seen at the time of the 2001 census. Further detail is given below.

#### Net migration

The 2011 Census provided information on migration patterns over the previous decade which account for the difference in the estimates of the total resident population under the two approaches.

Specifically, up-to-date information on inward migrant year-of-arrival, residential qualification, employment status, economic activity and household structure enabled a re-calibration of the modelling aspects of the methodology of population estimation; in particular the mathematical parameters which describe:

- the proportion of recent inward migrants remaining in the Island for at least five years (thereby, the number each year who achieve locally qualified employment status under RUDL);
- the rates of subsequent outward migration of recent arrivals;
- the level of inward migration each year.

Each of the above will likely have been influenced in recent years by:

- the ongoing reduction of the period of residency required to achieve a-h category Housing status (from 19 years in 2001 to 10 years by 2010);
- the consequent narrowing of the gap between the five-year employment rule (under RUDL) and that for a-h category residential status;
- EU Accession (2004) and EU Enlargement (2007);
- the relative stability of the Jersey Labour Market, in terms of total employment, throughout the post-2008 global economic downturn.

A revised series of estimates of annual net migration for the period 2001 to 2010 was produced using information from both the 2001 and 2011 censuses to re-calibrate the mathematical parameters describing patterns of both inward and outward migration. The resulting back series of annual net migration is shown in Figure B1, together with that previously published.

As is apparent from Figure B1, the revised methodology for estimating annual net migration results in an additional 200 to 400 net migrants <u>into</u> the Island each calendar year. The <u>pattern</u> of net migration over the period, however, is unchanged.



Figure B1 – Net migration: previous and revised methodologies compared

Statistics Unit 15<sup>th</sup> June 2012