

Jersey Future Hospital Project

Outline Business Case

Appendix 3 - Jersey Population projections – 2016 release

Document Control

Version	Date Issued	Summary of Changes	Author
V1	27.9.17	Document compilation	N Aubrey
V2	24.10.17	Template updated	T Nicholls

Jersey Resident Population 2016 Estimate

Statistics Unit: www.gov.je/statistics

Introduction

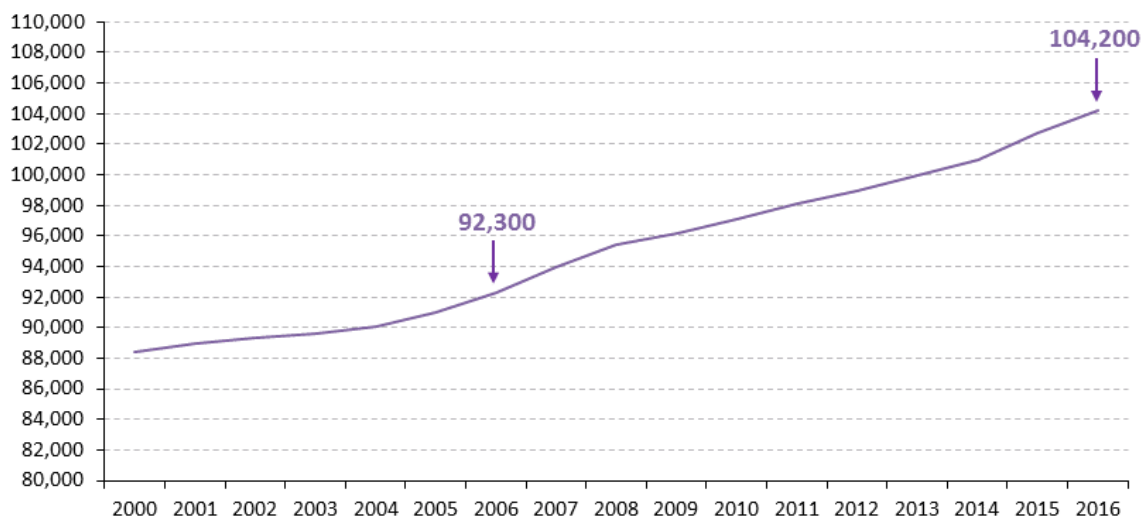
The 2011 Jersey Census measured the total resident population of the Island to be 97,857 on 27 March 2011¹.

The census provides a **baseline** count of the resident population in 2011. The **change** in the resident population in each subsequent year is estimated using data on numbers of births and deaths in Jersey, information on school and pre-school populations, and employment information (see Appendix).

Headlines

- the resident population of Jersey at the end of 2016 is estimated as **104,200**
- during the year 2016 the resident population increased by 1,500 persons:
 - **net inward migration** accounted for 1,300 of the annual increase
 - **natural change** (births minus deaths) accounted for 200 of the annual increase
- **net inward migration** in 2016 (1,300 people) was slightly lower than in 2015, when it had been at its highest level for at least 15 years (1,500 people)
- the total net inward migration in 2016 was comprised of approximately:
 - 200 net inward 'licensed' (formerly j-category) employees² and their dependents
 - 1,100 net inward 'registered' (formerly non-qualified) employees² and their dependents
- the resident population has increased by 11,900 over the last 10 years (see Figure 1)
- net inward migration has accounted for three-quarters (75%) of the increase in the resident population over the last 10 years

Figure 1 - Total resident population from year-end 2000 to year-end 2016



¹ Report on the 2011 Jersey Census; States of Jersey Statistics Unit.

² As defined by the Control of Housing and Work (Jersey) Law, 2012

Resident population

Table 1 gives the estimates of the size of Jersey's resident population for each year since 2000.

The total resident population has increased by 11,900 during the last 10 years, from year-end 2006 to year-end 2016.

Table 1 - Jersey's resident population, 2000 - 2016³.

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	98,100
2012	99,000
2013	<i>Not available⁴</i>
2014	101,000
2015	102,700
2016	104,200

³ Numbers presented in Table 1 have been rounded to the nearest 100.

⁴There was a delay in the availability of one of the main sources of data necessary for the population estimation methodology in 2013. Consequently, analysis for the two years 2013 and 2014 was combined into one period.

Change in resident population

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

- **Natural growth:** the number of births minus the number of deaths
- **Net migration:** the difference 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 2016 and the contributions from natural growth and from net migration.

The average total increase in the resident population during the latest four-year period (2013 to 2016 inclusive), at 1,300 per year, is three times that at the start of the previous decade (2001 to 2004, 400 per year) and at a similar level to that seen during the middle of that decade (2005 to 2008, 1,300 per year).

It is apparent from Table 2 that net inward migration has been greater than natural growth in each year throughout the period from 2001 to 2016, except for calendar year 2003.

Table 2 - Change in Jersey's resident population, 2001 to 2016

(Numbers have been independently rounded to the nearest 100, so may not sum to the total)

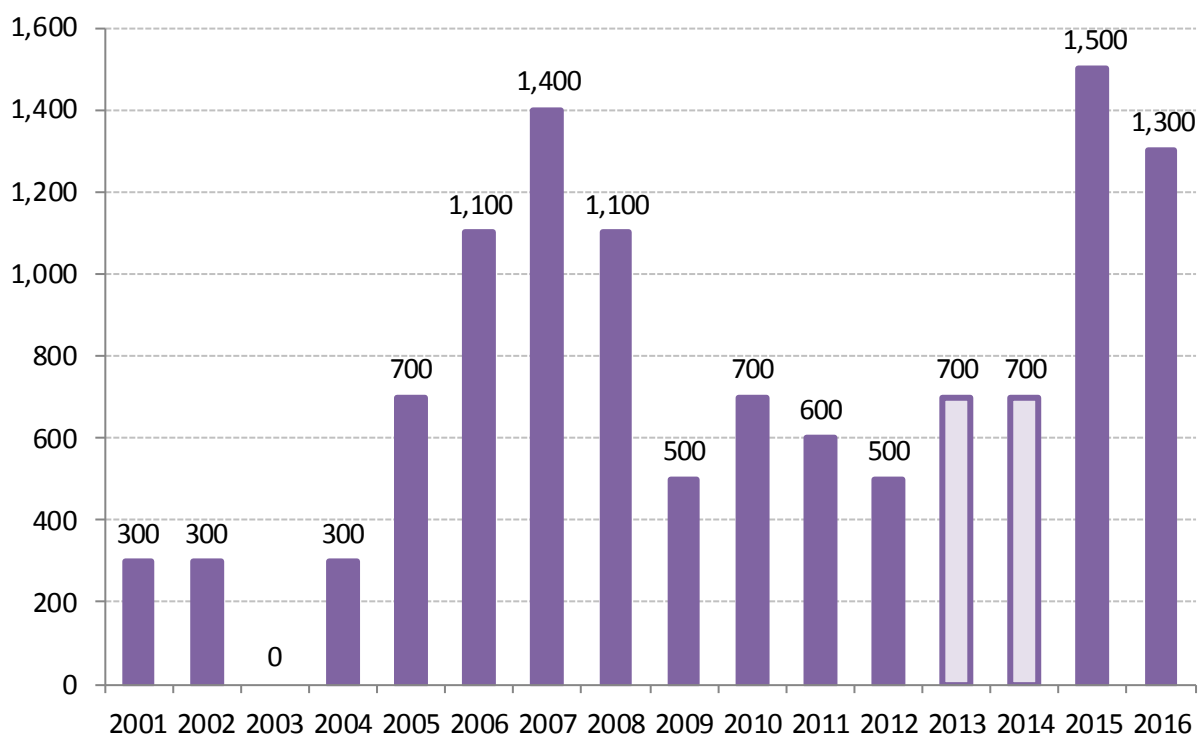
Calendar year	Natural growth	Net inward migration	Total change
2001	200	300	500
2002	100	300	400
2003	200	0	300
2004	200	300	500
2005	200	700	900
2006	200	1,100	1,300
2007	300	1,400	1,700
2008	300	1,100	1,400
2009	200	500	800
2010	300	700	900
2011	400	600	1,000
2012	400	500	900
2013 & 2014 combined⁵	600	1,400	2,000
2015	200	1,500	1,700
2016	200	1,300	1,500

⁵ There was a delay in the availability of one of the main sources of data necessary for the population estimation methodology in 2013. Consequently, analysis for the two years 2013 and 2014 was combined into one period.

Net Migration

Net migration in 2016 is estimated at 1,300 persons into the Island⁶ (see Figure 3).

Figure 3 – Net migration of people INTO the Island per annum, 2001 to 2016



From Figure 3 it is apparent that:

- net migration was inward for each year of the period from 2001 to 2016, with the exception of 2003 which saw essentially nil net migration
- **net inward migration** in 2016 (1,300 people) was slightly lower than in 2015, when it had been at its highest level for at least 15 years (1,500 people).

The net inward migration in 2016 was comprised of approximately:

- 200 net inward 'licensed' (formerly 'j' category) employees⁷ and their dependents
- 1,100 net inward 'registered' (formerly non-qualified)⁷ employees and their dependents.

Over the 10-year period from year-end 2006 to year-end 2016, net inward migration accounted for 9,000 of the total increase in the resident population of 11,900.

Hence, net inward migration has accounted for three-quarters (75%) of the increase in the Island's resident population during the last 10 years.

⁶ Sensitivity analyses indicate that the estimate of net migration for 2016 has an uncertainty of approximately +/- 400.

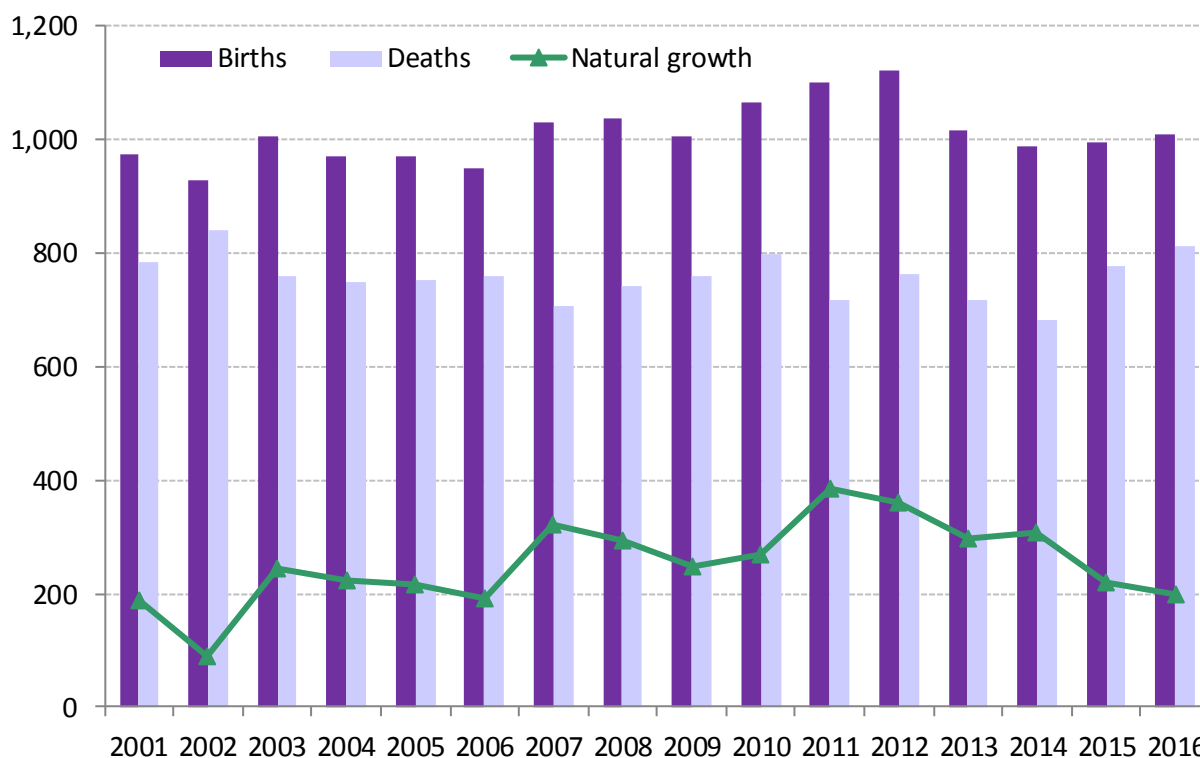
⁷ As defined by the Control of Housing and Work (Jersey) Law, 2012.

Natural growth

The natural growth in 2016 was comprised of 1009 births and 811 deaths⁸.

Figure 2 shows the numbers of births and deaths in the Island and the natural growth for each year from 2001 to 2016.

Figure 2 – Births, deaths and natural growth, 2001 to 2016



Natural growth rose to almost 400 per year in both 2011 and 2012, representing the highest level of natural growth seen in the Island for at least 30 years.

The crude birth rate (CBR) and crude death rate (CDR) are calculated as the number of live births and the number of deaths per 1,000 residents per annum. As Table 3 shows, the crude birth rate in 2016 was lower than in any of the preceding 14 years. However, it is worth highlighting that the *actual number of births* in a particular year (shown in Figure 2) depends on both the crude birth rate and the size of the population.

Table 3 - Crude birth rate (CBR) and crude death rate (CDR), 2001 to 2016 (per 1,000 residents per annum)

Year	CBR	CDR	Year	CBR	CDR
2001	10.9	8.8	2009	10.5	7.9
2002	10.4	9.4	2010	11.0	8.2
2003	11.2	8.5	2011	11.2	7.3
2004	10.8	8.3	2012	11.3	7.7
2005	10.6	8.3	2013	10.2	7.2
2006	10.3	8.2	2014	9.8	6.8
2007	11.0	7.5	2015	9.7	7.6
2008	10.9	7.8	2016	9.7	7.8

⁸ Provisional figures of births and deaths in calendar year 2016 from the Office of the Superintendent Registrar.

Methodology

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

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

where Net migration is *estimated* by:

- Δ 'Registered' (formerly non-qualified) employees + estimate of associated non-economically active adults
- + Δ 'Licensed' (formerly 'j' category) employees + estimate of associated non-economically active adults
- + net migration of pre-school children
- + net migration of school-age children

The impact of the change in the 'Registered' (formerly non-qualified) workforce on the change in overall population in the methodology takes into account:

- the net migration of employees having less than five years continuous residency, as defined under the *Control of Housing and Work (2012) Law (CHWL)*
 - the reclassification to 'Entitled to work' (under CHWL) of employees who had attained five years of continuous residency
 - the outward migration of 'Entitled to work' workers who had not yet attained 'Entitled' status under CHWL
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 migrant characteristics, 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 in December of each calendar year: data collected by the Population Office under the Control of Housing and Work (2012) Law; and statistics compiled by the Statistics Unit
 - data on the migration of pre-school and school-age children from the Departments of Health and Social Services and of Education, respectively

Sensitivity analyses

The methodology used since 2001 for estimating annual net migration and population levels makes use of several administrative data sources covering the size, and change, in the workforce and in school, and pre-school populations.

The methodology has historically also made use of three estimation factors:

- the number of non-economically active adults associated with economically active migrants
- the proportion of migrants who leave prior to staying in the Island for five years
- the proportion of migrants who leave after five years but before gaining full residential qualifications

The numerical values of these estimation factors have been derived from census information. Over time these values could potentially change given varying economic and socio-economic conditions. To quantify the effect of potential changes in the values of the estimation factors, sensitivity analyses have been conducted in order to examine the impact on the resulting population and migration estimates.

An additional factor unique to the methodology for 2013 and 2014 has been required to compensate for the introduction of the Control of Housing and Work (Jersey) Law (CHWL). CHWL introduced additional reporting requirements for businesses and affected the equivalence between the manpower data sets obtained from the Manpower surveys from December 2012 to December 2014. Further analyses were performed to identify and quantify the likely extent of this issue, based on inspecting the results of adjusting an additional empirical factor.

The combined sensitivity testing of the original and additional estimation factors has been used to derive an appropriate range to apply to the population level and migration estimates. The sensitivity analyses indicate that the estimates of total population and annual net migration have an uncertainty of approximately +/- 400. The estimates should therefore be considered to be 'moderately robust'.

Statistics Unit

23 June 2017