

Population Projections 2023-2080

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

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Introduction

This report provides data on the projected future size and structure of Jersey's resident population that would arise under particular scenarios of births, deaths and migration patterns.

The projections use a baseline of residents in Jersey based on the latest Jersey <u>population and</u> <u>migration statistics</u>. The population model uses this baseline population and projects the population forwards year by year, by adding births, subtracting deaths and adjusting for inward and outward migration.

It is important to note that the projections are not forecasts and so will differ from the actual future outcomes to a greater or lesser extent. They assume that current trends and behaviour in respect of fertility, mortality and migration continue forward over the projection period. Changes to these assumptions will impact the results, therefore the findings should be considered **an estimate based on recent trends to inform decision making**. For more on this please see the <u>methodology section</u>.

The projections are presented as a series of scenarios based on a set level of net migration experienced every year over the projection period. These are:

- -100 net migration: where 100 people leave the Island over and above the number that arrive.
- Net nil migration: where the number of people arriving equals the number of people leaving.
- +325 net migration: where 325 arrive on the Island over and above the number that leave.
- +700 net migration: where 700 arrive on the Island over and above the number that leave.
- +1,000 net migration: where 1,000 arrive on the Island over and above the number that leave.

Key findings

- The overall population size of Jersey over the population period is heavily influenced by the level of net migration experienced over that time. Broadly:
 - Both the net nil and -100 net migration scenarios result in a decline in overall population.
 - The +325 net migration scenario achieves the closest to a stable total population level, with a relatively low level of overall growth (an increase of less than 10% over the entire projection period) with the population reaching around 113,000 by 2080.
 - Both the +700 and +1,000 net migration scenarios result in an increase in overall population with the population reaching 142,000 and 166,000 by 2080 respectively.
- In all scenarios the number of children (aged under 16) is projected to reduce over the next 10-20 years.
- Regardless of the level of net migration experienced, in all scenarios the older aged population is expected to increase rapidly over the next 20-30 years. This is particularly the case for the older (over 75 and over 85) age groups which are expected to increase by around 50% over the next 20-30 years.
- Changes to the level of net migration primarily influences the working age population, with higher levels of net migration resulting in a lower dependency ratio over the period of the projections and the lower net migration scenarios experiencing much higher ratios, particularly in the first 20-30 years of the projections.
- The higher net migration scenarios are projected to result in an increase in both the licensed and registered populations over the next 10-years. In particular, under the +1,000 scenario the size of the registered population will more than double in that period.



Summary results

The following section summarises the main components of the population and the important indicators for each of the different migration scenarios. For the specifics of an individual scenario see the <u>detailed results</u> section.

Population size

The overall population size of Jersey is an important factor for future planning. A growing or declining population can have major impacts on the future requirements of the Island's economy, infrastructure, provision of housing and public services.

Figure 1 and Table 1 below show the size of the total population of Jersey under the different migration scenarios.



Figure 1 Overall population size over time under different net migration scenarios

Table 1 Overall population size over time under different net migration scenarios

Migration scenario	2022*	2030	2040	2050	2060	2070	2080
+1,000	103,200	110,500	120,300	130,900	141,400	153,000	166,100
+700	103,200	108,000	114,100	120,800	127,000	134,100	142,500
+325	103,200	104,900	106,500	108,100	109,000	110,500	113,000
Net nil	103,200	102,100	99,900	97,100	93,400	90,000	87,400
-100	103,200	101,300	97,800	93,700	88,600	83,700	79,500

* baseline figure from latest population estimate

In respect of the total population size:

- The +325 net migration scenario achieves the closest to a stable total population level, with a relatively low level (an increase of less than 10% over the entire projection period) of overall population growth.
- Both the net nil and -100 net migration scenarios result in a decline in overall population, with a greater number of deaths than births driving the reduction in the case of the net nil scenario.
- Both the +700 and +1,000 net migration scenarios result in an increase in overall population



Working age population

For the purposes of this report, working age adults are considered as those aged 16 to 64 inclusive. It is important to note that future changes to pension ages, the education system, as well as changes in societal behaviour will potentially influence the proportion of the population who would be classed as "working age".

The size of the working age population is an important component in respect of providing a good indicator of the size of the future workforce.



Figure 2 Working age population over time under different net migration scenarios

Table 2 Working age population size over time under different net migration scenarios

Migration scenario	2022*	2030	2040	2050	2060	2070	2080
+1,000	67,600	72,900	78,500	85,300	94,100	102,200	109,100
+700	67,600	70,500	73,200	76,900	82,600	87,600	91,600
+325	67,600	67,600	66,600	66,500	68,200	69,400	69,800
Net nil	67,600	65,000	60,900	57,500	55,700	53,600	50,800
-100	67,600	64,200	59,100	54,700	51,900	48,700	45,000

* baseline figure from latest population estimate

In respect of the working age population:

- As in previous projections, the +325 net migration scenario broadly results in maintaining the working age population at its current size over the projection period.
- Both the net nil and -100 net migration scenarios result in a decline in the working age population, with both scenarios resulting in a decline of over 10% by 2040.
- Both the +700 and +1,000 net migration scenarios result in an increase in the working age population.



Older age population

The size of the older age population is an important factor in respect of the provision of services in a jurisdiction. This is particularly relevant in respect of planning Government expenditure on old age pension and the provision of heath and care services.

Figures 3, 4 and 5 below show the projections for the older age populations for differing age groups (65+, 75+ and 85+).



Figure 3 Population aged 65 or above, over time under different net migration scenarios

Figure 4 Population aged 75 or above, over time under different net migration scenarios



Figure 5 Population aged 85 or above, over time under different net migration scenarios





Table 3 Population aged 65 or above, over time under different net migration scenarios

Migration scenario	2022*	2030	2040	2050	2060	2070	2080
+1,000	19,600	23,400	26,800	28,300	28,900	31,600	36,100
+700	19,600	23,400	26,600	27,700	27,800	29,400	32,700
+325	19,600	23,400	26,300	27,000	26,300	26,700	28,500
Net nil	19,600	23,300	26,100	26,400	25,000	24,400	24,800
-100	19,600	23,300	26,100	26,200	24,700	23,700	23,700

* baseline figure from latest population estimate

Table 4 Population aged 75 or above, over time under different net migration scenarios

Migration scenario	2022*	2030	2040	2050	2060	2070	2080
+1,000	9,400	10,900	13,700	15,500	16,000	16,500	18,900
+700	9,400	10,900	13,700	15,400	15,700	15,800	17,600
+325	9,400	10,900	13,700	15,300	15,300	14,900	15,800
Net nil	9,400	10,900	13,700	15,100	14,900	14,200	14,300
-100	9,400	10,900	13,700	15,100	14,800	13,900	13,900

* baseline figure from latest population estimate

Table 5 Population aged 85 or above, over time under different net migration scenarios

Migration scenario	2022*	2030	2040	2050	2060	2070	2080
+1,000	2,800	3,100	4,200	5,600	6,200	6,600	7,200
+700	2,800	3,100	4,200	5,600	6,200	6,500	6,800
+325	2,800	3,100	4,200	5,600	6,100	6,300	6,400
Net nil	2,800	3,100	4,200	5,600	6,100	6,100	6,000
-100	2,800	3,100	4,200	5,600	6,100	6,100	5,900

* baseline figure from latest population estimate

Unlike the working age population, in the short to medium term, the impact of net migration and therefore the choice of migration scenario has little impact on the size of the older age population in the short to medium term, which is projected to increase rapidly over the next 20-30 years in all scenarios, particularly for the 85 or above age group.

- In all scenarios the population of those aged 65 or above is projected to increase by around a third in the next 20 years, from just under 20,000 today to reach over 26,000 by 2040. This is an average increase of around 1.6% each year for that period.
- In all scenarios the population of those aged 75 or above and those aged 85 or above is projected to increase by almost 50% in the next 20 years.
- Under the lower net migration scenarios (+325, net nil and -100) the rise in the older age population eventually stabilises or starts to reduce.
- Under the higher net migration scenarios (+700 and +1,000), following the plateau of this population around 2050-2060, the size of the older age population continues to increase as the larger number of new arrivals in the earlier periods of the projections subsequently age.



Younger age population

The size of the younger age population, particularly those of compulsory school age is an important consideration for the planning of future education and childcare facilities and resources.

It is important to note that the size of this population is heavily dependent on the fertility assumptions that are used, and these projections assume that recent trends in Jersey's birth rate continues. For more information on this see the <u>methodology section</u>.



Figure 6 Population aged under 16 over time under different net migration scenarios

Table 6 Population aged under 16 over time under different net migration scenarios

Migration scenario	2022*	2030	2040	2050	2060	2070	2080
+1,000	16,000	14,200	14,900	17,300	18,400	19,300	20,900
+700	16,000	14,100	14,300	16,100	16,700	17,100	18,100
+325	16,000	13,900	13,500	14,600	14,500	14,400	14,700
Net nil	16,000	13,800	12,900	13,200	12,700	12,000	11,800
-100	16,000	13,800	12,700	12,800	12,100	11,200	10,900

* baseline figure from latest population estimate

In respect of the younger age population:

- In all scenarios the number of children (aged under 16) is projected to reduce over the next 10-20 years.
- Under the lower net migration scenarios (+325, net nil and -100) this population is projected to stabilise or slightly decline over the long-term, remaining at a level below that seen currently.
- Under the higher net migration scenarios (+700 and +1,000), this population is projected to increase in size above the level seen currently, but this will not occur until around 2050.



Dependency ratios

The **dependency ratio** is the ratio of non-working age to working age persons in the population. The non-working age population includes those aged below working age (some of which will subsequently enter the working age group) and those above working age.

The **old age dependency** ratio is the ratio of those aged above working age to those of working age in the population.

Both of these ratios provide important information that relate to the economic and social health of a population. A higher dependency ratio indicates that a larger proportion of the population is not available to the potential labour force which creates economic activity. This activity would potentially support the wider population. Higher ratios could also potentially place additional burden on healthcare, social security and educational systems.

Figures 7 and 8 below show the dependency and old age dependency ratio for each of the migration scenarios.



Figure 7 Dependency ratio over time, under different net migration scenarios

Figure 8 Old age dependency ratio over time, under different net migration scenarios





Migration scenario	2022*	2030	2040	2050	2060	2070	2080
+1,000	52.6%	51.6%	53.1%	53.5%	50.3%	49.8%	52.2%
+700	52.6%	53.1%	55.9%	57.0%	53.8%	53.1%	55.5%
+325	52.6%	55.2%	59.9%	62.5%	59.9%	59.2%	61.9%
Net nil	52.6%	57.1%	64.0%	69.0%	67.7%	67.9%	72.0%
-100	52.6%	57.7%	65.5%	71.4%	70.9%	71.7%	76.8%

Table 7 Dependency ratio over time, under different net migration scenarios

* baseline figure from latest population estimate

Table 8 Old age dependency ratio over time, under different net migration scenarios

Migration scenario	2022*	2030	2040	2050	2060	2070	2080
+1,000	29.0%	32.1%	34.1%	33.2%	30.7%	30.9%	33.1%
+700	29.0%	33.2%	36.3%	36.0%	33.6%	33.6%	35.7%
+325	29.0%	34.6%	39.5%	40.6%	38.6%	38.5%	40.8%
Net nil	29.0%	35.9%	42.9%	45.9%	45.0%	45.6%	48.9%
-100	29.0%	36.3%	44.1%	47.9%	47.5%	48.6%	52.7%

* baseline figure from latest population estimate

- The old age dependency ratio is projected to increase in all scenarios in the short term (the next 10-20 years).
- Higher levels of net migration result in a lower dependency ratio over the period of the projections.
- Under the lower net migration scenarios much higher dependency ratios are projected, particularly in the medium term (20-30 years).



Change in registered and licensed populations

The <u>Control of Housing and Work (Jersey) Law 2012</u> provides one of the main mechanisms for the control of the Jersey population. Each Jersey resident is classified with a residential status under this law, with the status determining their access to employment and housing¹. New arrivals to the Island will typically be assigned one of two residential statuses: licensed (someone who is considered an essential employee and has access to the qualified property market) or registered (who can only reside in registered / non-qualified accommodation). The number and availability of employment permissions to businesses and of registered accommodation are the main contributing factors to the size of these groups.

Projected changes in the size of these groups under different migration scenarios are therefore important because appropriate employment and accommodation would need to be available.

Given the assumptions around inward and outward migration are dependent on a continuation of existing trends there is additional uncertainty around these populations. This is particularly the case in respect of the proportion of inward and outward migration that is registered and licensed (see <u>methodology notes</u> for more details). As a result the size of these populations are only projected outwards for the next 10-years.

Figures 9 and 10, and Tables 9 and 10 below show the projected size of the working age population of these populations.









¹ See <u>Residential and employment statuses and what they mean</u> for information on these.



Migration scenario	2022*	2024	2026	2028	2030	2032
+1,000	5,100	6,800	8,500	9,500	10,200	10,800
+700	5,100	6,300	7,500	8,200	8,700	9,100
+325	5,100	5,700	6,300	6,600	6,800	6,900
Net nil	5,100	5,200	5,300	5,200	5,100	5,100
-100	5,100	5,000	5,000	4,800	4,600	4,500

Table 9 Registered population over time under different net migration scenarios

* baseline figure from latest population estimate

Table 10 Licensed population over time under different net migration scenarios

Migration scenario	2022*	2024	2026	2028	2030	2032
+1,000	2,700	3,000	3,400	3,700	4,100	4,400
+700	2,700	2,900	3,100	3,300	3,600	3,800
+325	2,700	2,800	2,800	2,800	2,900	2,900
Net nil	2,700	2,600	2,500	2,400	2,300	2,200
-100	2,700	2,600	2,400	2,300	2,200	2,000

* baseline figure from latest population estimate

- The higher net migration scenarios are projected to result in an increase in both the licensed and registered populations over the next 10 years. In particular under the +1,000 scenario the size of the registered population will more than double in the next 10 years.
- As noted above, the +325 migration scenario broadly maintains the size of the working age population and under these projections this will still result in some growth in both the licensed and registered populations to achieve this outcome, assuming the proportion of licensed and registered continues at the same level as currently observed.
- The lower net migration scenarios (-100 and net nil) each project a decrease in both of these populations.



Detailed results

The following pages provide detailed results of each of the 5 migration scenarios covered in this report.

For each scenario a detailed data table is provided, together with summary results of the main indicators. In addition, population pyramids are provided in respect of the short (2030), medium (2050) and long term (2070) projections. You can find additional data tables on our <u>open data site</u>.

Notes on interpreting population pyramids

- The vertical axis represents the age of residents in years: from 0 to 100+ years.
- Horizontally, the length of the purple bars to the right represent the number of females in each year of age; the green bars to the left represent the number of males in each year of age. For example, the diagram below shows just under 400 females aged 0.
- Population pyramids provide a visual image of the **structure** of the population in a particular year, for example it is easy to identify whether there is a larger number of people at older age groups than the younger age groups (as is the case in this example).
- The overall **size** of the population is shown by the overall size of the shape, which is coloured in, both green and purple. A larger population will have a larger overall shape.
- Comparing population pyramids in a single year under different migration scenarios shows how the structure and size of the population is affected by the scenario.
- Pyramids representing one specific migration scenario can be compared through time to show how the size and structure of the population changes.



Figure 11 Example population pyramid



Net outward 100 migration (-100)

In this scenario, an additional 100 people leave the Island over and above the number that arrive each year from 2023 onwards.





Table 11 Baseline, short-, medium- and long-term summary demographics²

	2022	2030	2050	2070
65+	19,600	23,310	26,220	23,700
16-64	67,600	64,210	54,690	48,740
0-15	16,000	13,760	12,840	11,250
Total population	103,200	101,280	93,740	83,680
Dependency ratio	53%	58%	71%	72%
Old age dependency ratio	29%	36%	48%	49%





² All figures are independently rounded and therefore individual rows may not sum to totals.



Table 12 Detailed population table (-100 net migration)

Age	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070	2075	2080
0-4	3,930	3,740	3,750	3,850	3,920	3,810	3,590	3,380	3,260	3,200	3,160	3,100
5-9	4,770	4,050	3,880	3,890	3,980	4,040	3,940	3,750	3,580	3,470	3,420	3,380
10-14	5,440	4,900	4,220	4,060	4,080	4,160	4,210	4,120	3,950	3,780	3,680	3,630
15-19	5,290	5,470	4,950	4,310	4,160	4,160	4,220	4,260	4,170	3,990	3,830	3,720
20-24	5,500	5,610	5,720	5,230	4,610	4,430	4,390	4,400	4,390	4,260	4,070	3,880
25-29	6,160	6,220	6,260	6,310	5,820	5,220	5,000	4,910	4,870	4,810	4,650	4,430
30-34	6,360	6,410	6,430	6,440	6,470	5,990	5,400	5,170	5,060	5,000	4,920	4,750
35-39	6,760	6,280	6,350	6,350	6,340	6,350	5,890	5,330	5,100	4,990	4,920	4,830
40-44	7,380	6,570	6,140	6,210	6,200	6,190	6,180	5,740	5,210	4,990	4,870	4,800
45-49	7,330	7,080	6,360	5,970	6,030	6,020	6,000	5,980	5,560	5,060	4,850	4,740
50-54	7,370	7,060	6,840	6,180	5,820	5,880	5,860	5,830	5,820	5,420	4,940	4,740
55-59	8,040	7,050	6,760	6,570	5,970	5,640	5,690	5,670	5,640	5,630	5,250	4,800
60-64	7,530	7,540	6,630	6,370	6,210	5,670	5,370	5,420	5,410	5,390	5,380	5,030
65-69	6,060	6,950	6,950	6,120	5,900	5,780	5,290	5,030	5,100	5,100	5,100	5,100
70-74	4,820	5,470	6,270	6,270	5,520	5,340	5,250	4,820	4,590	4,670	4,690	4,710
75-79	4,290	4,250	4,810	5,540	5,550	4,900	4,770	4,700	4,330	4,140	4,240	4,280
80-84	2,720	3,500	3,490	3,960	4,610	4,640	4,130	4,050	4,030	3,740	3,600	3,710
85+	2,970	3,140	3,780	4,150	4,710	5,550	6,110	6,060	6,000	6,050	5,980	5,890
All Ages	102,720	101,280	99,610	97,810	95,900	93,740	91,270	88,620	86,040	83,680	81,530	79,520
Age	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070	2075	2080
0-15	15,230	13,760	12,800	12,650	12,800	12,840	12,600	12,120	11,610	11,250	11,020	10,860
16-64	66,630	64,210	61,510	59,100	56,800	54,690	53,130	51,850	50,390	48,740	46,910	44,970
65+	20,860	23,310	25,300	26,050	26,300	26,220	25,540	24,650	24,040	23,700	23,600	23,690
0-15	15%	14%	13%	13%	13%	14%	14%	14%	13%	13%	14%	14%
16-64	65%	63%	62%	60%	59%	58%	58%	59%	59%	58%	58%	57%
65+	20%	23%	25%	27%	27%	28%	28%	28%	28%	28%	29%	30%
Dependency Ratio	54%	58%	62%	65%	69%	71%	72%	71%	71%	72%	74%	77%
Old Age Dependency Ratio	31%	36%	41%	44%	46%	48%	48%	48%	48%	49%	50%	53%



Figure 14 Population pyramids 2030, 2050 and 2070 under -100 net migration scenario





Net nil migration (net nil)

In this scenario, the number arriving to live is set to equal the number moving away, so that overall, there is net nil migration. The population declines under this scenario as there are more deaths than births.



Figure 15 Projected total population size and broad age breakdown (net nil migration)

Table 13 Baseline, short-, medium- and long-term summary demographics

	2022	2030	2050	2070
65+	19,600	23,320	26,410	24,420
16-64	67,600	65,000	57,470	53,600
0-15	16,000	13,800	13,250	11,980
Total population	103,200	102,120	97,120	89,990
Dependency ratio	53%	57%	69%	68%
Old age dependency ratio	29%	36%	46%	46%







Table 14 Detailed population table (net nil migration)

Age	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070	2075	2080
0-4	3,930	3,770	3,830	3,970	4,060	3,980	3,790	3,610	3,520	3,490	3,480	3,450
5-9	4,770	4,050	3,910	3,960	4,080	4,160	4,090	3,930	3,770	3,690	3,670	3,660
10-14	5,440	4,900	4,230	4,090	4,140	4,250	4,330	4,270	4,110	3,970	3,890	3,870
15-19	5,300	5,490	4,980	4,350	4,220	4,260	4,350	4,420	4,350	4,200	4,060	3,980
20-24	5,550	5,710	5 <i>,</i> 850	5,380	4,790	4,650	4,650	4,710	4,740	4,650	4,490	4,340
25-29	6,220	6,370	6,480	6,580	6,130	5,570	5,400	5,370	5,390	5,390	5,280	5,100
30-34	6,400	6,550	6,660	6,740	6,820	6,390	5,850	5,680	5,630	5,630	5,610	5,500
35-39	6,800	6,380	6,530	6,620	6,680	6,740	6,330	5,820	5,650	5,600	5,590	5,570
40-44	7,410	6,650	6,280	6,430	6,500	6,550	6,600	6,210	5,720	5,560	5,510	5,500
45-49	7,350	7,150	6,470	6,140	6,270	6,340	6,380	6,420	6,050	5,590	5,440	5,390
50-54	7,390	7,110	6,940	6,320	6,020	6,140	6,200	6,240	6,270	5,920	5,490	5,340
55-59	8,060	7,100	6,840	6,690	6,130	5,860	5,970	6,020	6,060	6,090	5,760	5,360
60-64	7,540	7,570	6,690	6,460	6,330	5,830	5,580	5,700	5,750	5,780	5,820	5,510
65-69	6,060	6,960	6,970	6,170	5,970	5,880	5,420	5,200	5,330	5,390	5,430	5,480
70-74	4,820	5,470	6,280	6,290	5,560	5,390	5,320	4,920	4,730	4,860	4,930	5,000
75-79	4,290	4,250	4,810	5,540	5,560	4,930	4,810	4,760	4,420	4,260	4,400	4,490
80-84	2,720	3,500	3,490	3,960	4,610	4,650	4,150	4,080	4,070	3,800	3,690	3,840
85+	2,970	3,140	3,780	4,150	4,710	5,560	6,120	6,070	6,030	6,100	6,050	6,010
All Ages	103,020	102,120	101,030	99,850	98,600	97,120	95,350	93,420	91,590	89,990	88,610	87,390
Age	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070	2075	2080
0-15	15,240	13,800	12,900	12,860	13,110	13,250	13,090	12,690	12,260	11,980	11,840	11,770
16-64	66,930	65,000	62,790	60,870	59,070	57,470	56,440	55,690	54,750	53,600	52,260	50,800
65+	20,860	23,320	25,330	26,120	26,420	26,410	25,820	25,040	24,570	24,420	24,520	24,820
0-15	15%	14%	13%	13%	13%	14%	14%	14%	13%	13%	13%	13%
16-64	65%	64%	62%	61%	60%	59%	59%	60%	60%	60%	59%	58%
65+	20%	23%	25%	26%	27%	27%	27%	27%	27%	27%	28%	28%
Dependency Ratio	54%	57%	61%	64%	67%	69%	69%	68%	67%	68%	70%	72%
Old Age Dependency Ratio	31%	36%	40%	43%	45%	46%	46%	45%	45%	46%	47%	49%



Figure 17 Population pyramids 2030, 2050 and 2070 under net nil migration scenario





Net inward 325 migration (+325)

In this scenario, an additional 325 people move into the Island over and above the number that leave the Island each year from 2023 onwards.

Figure 18 Projected total population size and broad age breakdown (+325 net migration)



Table 15 Baseline, short-, medium- and long-term summary demographics

	2022	2030	2050	2070
65+	19,600	23,350	27,010	26,740
16-64	67,600	67,580	66,510	69,380
0-15	16,000	13,930	14,580	14,350
Total population	103,200	104,860	108,100	110,480
Dependency ratio	53%	55%	63%	59%
Old age dependency ratio	29%	35%	41%	39%

Figure 19 Dependency and old age dependency ratios (+325 net migration)





Table 16 Detailed population table (+325 net migration)

Age	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070	2075	2080
0-4	3,950	3,890	4,070	4,330	4,540	4,550	4,440	4,350	4,360	4,430	4,530	4,600
5-9	4,770	4,070	4,010	4,170	4,400	4,580	4,590	4,490	4,420	4,420	4,480	4,560
10-14	5,440	4,900	4,240	4,180	4,330	4,540	4,720	4,730	4,640	4,560	4,570	4,630
15-19	5,350	5,570	5,080	4,470	4,430	4,570	4,780	4,940	4,960	4,880	4,820	4,830
20-24	5,710	6,050	6,280	5,890	5,380	5,370	5,520	5,720	5,890	5,920	5,880	5,840
25-29	6,420	6,880	7,210	7,460	7,140	6,710	6,720	6,880	7,090	7,260	7,320	7,300
30-34	6,550	7,000	7,400	7,710	7,960	7,680	7,300	7,320	7,480	7,680	7,860	7,920
35-39	6,910	6,710	7,120	7,490	7,780	8,020	7,760	7,410	7,440	7,600	7,790	7,960
40-44	7,490	6,900	6,740	7,130	7,470	7,750	7,970	7,730	7,400	7,440	7,590	7,780
45-49	7,420	7,350	6,830	6,690	7,060	7,370	7,630	7,840	7,620	7,320	7,360	7,500
50-54	7,450	7,290	7,240	6,780	6,660	7,010	7,300	7,540	7,750	7,550	7,270	7,310
55-59	8,110	7,250	7,110	7,080	6,660	6,560	6,890	7,170	7,400	7,590	7,410	7,160
60-64	7,580	7,670	6,880	6,750	6,740	6,360	6,270	6,590	6,850	7,070	7,250	7,090
65-69	6,060	6,990	7,060	6,320	6,200	6,200	5,860	5,780	6,080	6,320	6,540	6,720
70-74	4,820	5,470	6,300	6,340	5,660	5,560	5,570	5,260	5,190	5,480	5,720	5,930
75-79	4,290	4,250	4,810	5,560	5,600	5,010	4,940	4,960	4,690	4,640	4,920	5,170
80-84	2,720	3,500	3,490	3,960	4,620	4,680	4,210	4,180	4,230	4,030	4,010	4,280
85+	2,970	3,140	3,780	4,150	4,710	5,560	6,140	6,130	6,130	6,270	6,310	6,390
All Ages	104,010	104,860	105,650	106,490	107,360	108,100	108,610	109,020	109,600	110,480	111,630	112,970
Age	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070	2075	2080
0-15	15,250	13,930	13,250	13,530	14,130	14,580	14,690	14,540	14,370	14,350	14,500	14,720
16-64	67,900	67,580	66,960	66,610	66,430	66,510	67,200	68,180	68,920	69,380	69,620	69,760
65+	20,860	23,350	25,440	26,340	26,800	27,010	26,710	26,310	26,320	26,740	27,500	28,490
0-15	15%	13%	13%	13%	13%	13%	14%	13%	13%	13%	13%	13%
16-64	65%	64%	63%	63%	62%	62%	62%	63%	63%	63%	62%	62%
65+	20%	22%	24%	25%	25%	25%	25%	24%	24%	24%	25%	25%
Dependency Ratio	53%	55%	58%	60%	62%	63%	62%	60%	59%	59%	60%	62%
Old Age Dependency Ratio	31%	35%	38%	40%	40%	41%	40%	39%	38%	39%	39%	41%



Figure 20 Population pyramids 2030, 2050 and 2070 under +325 net migration scenario





Net inward 700 migration (+700)

In this scenario, an additional 700 people move into the Island over and above the number that leave the Island each year from 2023 onwards.

Figure 21 Projected total population size and broad age breakdown (+700 net migration)



Table 17 Baseline, short-, medium- and long-term summary demographics

	2022	2030	2050	2070
65+	19,600	23,390	27,710	29,430
16-64	67,600	70,550	76,950	87,590
0-15	16,000	14,070	16,110	17,090
Total population	103,200	108,010	120,770	134,110
Dependency ratio	53%	53%	57%	53%
Old age dependency ratio	29%	33%	36%	34%

Figure 22 Dependency and old age dependency ratios (+700 net migration)





Table 18 Detailed population table (+700 net migration)

Age	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070	2075	2080
0-4	3,960	4,020	4,350	4,760	5,100	5,210	5,200	5,210	5 <i>,</i> 330	5,520	5,730	5,920
5-9	4,770	4,080	4,120	4,410	4,760	5,060	5,160	5,150	5,160	5,260	5,430	5,610
10-14	5,440	4,900	4,250	4,290	4,550	4,890	5,160	5,260	5,250	5,260	5,350	5,510
15-19	5,400	5,650	5,180	4,610	4,670	4,940	5,270	5,550	5,660	5,660	5,690	5,800
20-24	5,900	6,430	6,780	6,470	6,050	6,200	6,520	6,890	7,220	7,390	7,470	7,570
25-29	6,650	7,460	8,050	8,480	8,300	8,020	8,240	8,620	9,040	9,430	9,670	9,830
30-34	6,730	7,510	8,260	8,840	9,290	9,180	8,970	9,220	9,610	10,060	10,460	10,720
35-39	7,030	7,080	7,810	8,500	9,060	9,490	9,420	9,250	9,500	9,900	10,330	10,730
40-44	7,590	7,190	7,270	7,950	8,590	9,120	9,540	9,490	9,340	9,600	9,990	10,410
45-49	7,500	7,590	7,250	7,330	7,970	8,570	9,070	9,470	9,440	9,320	9,570	9,950
50-54	7,520	7,500	7,600	7,310	7,400	8,010	8,580	9,060	9,450	9,430	9,330	9,580
55-59	8,170	7,430	7,410	7,520	7,280	7,380	7,950	8,490	8,940	9,320	9,320	9,230
60-64	7,610	7,790	7,100	7,080	7,200	6,980	7,080	7,610	8,120	8,550	8,910	8,910
65-69	6,070	7,030	7,150	6,500	6,470	6,570	6,360	6,440	6,940	7,410	7,810	8,140
70-74	4,820	5,470	6,320	6,410	5,790	5,760	5,850	5,650	5,720	6,190	6,630	7,010
75-79	4,290	4,250	4,810	5,580	5,650	5,100	5,090	5,180	5,010	5,090	5,530	5,950
80-84	2,720	3,500	3,490	3,960	4,630	4,710	4,270	4,300	4,400	4,280	4,370	4,780
85+	2,970	3,140	3,780	4,150	4,710	5,570	6,170	6,190	6,250	6,460	6,610	6,840
All Ages	105,150	108,010	110,980	114,140	117,480	120,770	123,910	127,030	130,380	134,110	138,180	142,480
Age	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070	2075	2080
0-15	15,270	14,070	13,660	14,310	15,310	16,110	16,540	16,670	16,790	17,090	17,580	18,130
16-64	69,020	70,550	71,760	73,230	74,920	76,950	79,620	82,590	85,270	87,590	89,670	91,640
65+	20,870	23,390	25,560	26,600	27,250	27,710	27,750	27,770	28,330	29,430	30,940	32,720
0-15	15%	13%	12%	13%	13%	13%	13%	13%	13%	13%	13%	13%
16-64	66%	65%	65%	64%	64%	64%	64%	65%	65%	65%	65%	64%
65+	20%	22%	23%	23%	23%	23%	22%	22%	22%	22%	22%	23%
Dependency Ratio	52%	53%	55%	56%	57%	57%	56%	54%	53%	53%	54%	55%
Old Age Dependency Ratio	30%	33%	36%	36%	36%	36%	35%	34%	33%	34%	35%	36%



Figure 23 Population pyramids 2030, 2050 and 2070 under +700 net migration scenario





Net inward 1,000 migration (+1,000)

In this scenario, an additional 1,000 people move into the Island over and above the number that leave the Island each year from 2023 onwards.

Figure 24 Projected total population size and broad age breakdown (+1,000 net migration)



Table 19 Baseline, short-, medium- and long-term summary demographics

	2022	2030	2050	2070
65+	19,600	23,420	28,280	31,580
16-64	67,600	72,930	85,290	102,160
0-15	16,000	14,190	17,340	19,290
Total population	103,200	110,540	130,910	153,030
Dependency ratio	53%	52%	53%	50%
Old age dependency ratio	29%	32%	33%	31%

Figure 25 Dependency and old age dependency ratios (+1,000 net migration)





Table 20 Detailed population table (+1,000 net migration)

Age	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070	2075	2080
0-4	3,980	4,130	4,570	5,100	5,540	5,740	5,800	5,890	6,100	6,390	6,700	6,970
5-9	4,770	4,090	4,210	4,600	5,060	5,450	5,620	5,670	5,750	5,930	6,180	6,450
10-14	5,440	4,900	4,260	4,370	4,730	5,160	5,520	5,690	5,730	5,810	5,970	6,210
15-19	5,440	5,720	5,270	4,720	4,860	5,230	5,660	6,030	6,220	6,290	6,390	6,580
20-24	6,040	6,740	7,180	6,940	6,590	6,860	7,320	7,830	8,280	8,560	8,750	8,960
25-29	6,830	7,930	8,720	9,290	9,240	9,070	9,460	10,010	10,610	11,160	11,550	11,850
30-34	6,870	7,920	8,940	9,740	10,340	10,380	10,310	10,740	11,320	11,950	12,530	12,970
35-39	7,130	7,380	8,360	9,310	10,070	10,670	10,740	10,710	11,150	11,740	12,360	12,940
40-44	7,670	7,430	7,690	8,610	9,490	10,220	10,800	10,890	10,890	11,330	11,910	12,520
45-49	7,570	7,770	7,580	7,840	8,700	9,530	10,220	10,780	10,890	10,910	11,340	11,900
50-54	7,580	7,660	7,880	7,730	8,000	8,810	9,600	10,260	10,810	10,930	10,970	11,400
55-59	8,220	7,570	7,650	7,880	7,770	8,030	8,800	9,550	10,180	10,710	10,840	10,900
60-64	7,640	7,880	7,270	7,350	7,570	7,470	7,720	8,440	9,130	9,730	10,230	10,360
65-69	6,070	7,060	7,230	6,630	6,680	6,870	6,770	6,980	7,630	8,270	8,820	9,280
70-74	4,820	5,470	6,340	6,460	5 <i>,</i> 880	5,910	6,080	5,970	6,150	6,760	7,350	7,870
75-79	4,290	4,250	4,810	5,590	5,690	5,170	5,210	5,360	5,270	5,440	6,010	6,570
80-84	2,720	3,500	3,490	3,970	4,640	4,740	4,330	4,390	4,540	4,490	4,660	5,190
85+	2,970	3,140	3,780	4,150	4,710	5,580	6,190	6,240	6,340	6,620	6,850	7,190
All Ages	106,070	110,540	115,240	120,270	125,570	130,910	136,150	141,430	147,010	153,030	159,430	166,090
Age	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070	2075	2080
0-15	15,280	14,190	13,980	14,930	16,250	17,340	18,020	18,380	18,740	19,290	20,040	20,850
16-64	69,920	72,930	75,600	78,530	81,720	85,290	89,560	94,120	98,340	102,160	105,700	109,140
65+	20,870	23,420	25,650	26,800	27,610	28,280	28,570	28,940	29,930	31,580	33,690	36,100
0-15	14%	13%	12%	12%	13%	13%	13%	13%	13%	13%	13%	13%
16-64	66%	66%	66%	65%	65%	65%	66%	67%	67%	67%	66%	66%
65+	20%	21%	22%	22%	22%	22%	21%	20%	20%	21%	21%	22%
Dependency Ratio	52%	52%	52%	53%	54%	53%	52%	50%	49%	50%	51%	52%
Old Age Dependency Ratio	30%	32%	34%	34%	34%	33%	32%	31%	30%	31%	32%	33%



Figure 26 Population pyramids 2030, 2050 and 2070 under +1,000 net migration scenario





Methodology

General approach

The projections presented in this report utilise the component method of population projection. The projections use a baseline of residents in Jersey based on the latest Jersey <u>Population and migration</u> <u>statistics</u>. The population model uses this baseline population and projects the population forwards year by year, by adding births, subtracting deaths and adjusting for outward and inward migration.

It is important to note that the projections are not forecasts and so will differ from the actual future outcomes to a greater or lesser extent. The projections assume that current trends and behaviour in respect of fertility, mortality and migration continue forward over the projection period. Any changes to these assumptions will impact the results, therefore the findings should be considered **an estimate based on recent trends to inform decision making**.

These projections use a single year of age breakdowns and projects forward one year at a time. The basic process is illustrated in the diagram below:





Each of the above steps requires different assumptions and these are detailed in the following pages.



Fertility assumptions

To estimate the number of births that occur for each year, Age Specific Fertility Rates (ASFRs) are used. This is the ratio of annual births to women at a given age to the total population of women of the same age in the population.

ASFRs are based on the most recent UK projections³ and then scaled to reflect the most recent experience in Jersey. These are based on the actual births and associated age of mother recorded in Jersey for the period 2012-2022.

Broadly speaking, Jersey has seen lower fertility rates than the UK for younger age groups whilst the proportion of mothers giving birth aged 35 and over in Jersey has increased in recent years and is above that observed in the UK⁴.

The specific scaling factors used in the projections are shown in the table below.

Table 21 Fertility rate scaling factors

Scaling factor
0.35
0.41
0.68
0.98
1.05
1.14

Applying these scaling factors to the UK projected ASFRs results in a reduced total fertility rate (average number of children that are born to a woman over her lifetime) compared to the UK over the period of the projection. This is illustrated in the figure below:

Figure 28 Total actual and projected fertility rates, Jersey and UK



³ National population projections 2020-based interim

⁴ Births and Breastfeeding profile



Sensitivity analysis - Fertility

The principal assumption for fertility is detailed above and is based on the best currently available information. It is however important to understand the sensitivity of the projections to these assumptions, and how variations might impact on the size and makeup of the future population.

In order to illustrate this, the +325 net migration scenario projection was carried out using three different fertility assumptions, with a high and low assumption included based on an increase or decrease to the ASFRs of 10%. The key results of these variant projections are shown below:

Figure 29 Total population, +325 net migration scenario, high, low, and principal fertility assumptions



Figure 30 Population aged under 16, +325 net migration scenario, high, low, and principal fertility assumptions



- Changes to the assumed fertility rates have a limited impact on the overall population totals, with a 10% change in overall fertility resulting in a change of 6% in total population at the end of the projection period (2080). This change is broadly linear over time.
- There is a greater impact on the population aged under 16, with a ±10% change in the fertility assumptions resulting in a ±14% change in this population by the end of the projection period (2080).
- In the short term there is significant difference between the low and high fertility assumptions for the population aged under 16, with the high fertility projection projected to have a population 2,000 higher than the low fertility projection by 2038.



Mortality assumptions

To estimate the number of deaths that occur for each year, Age Specific Mortality Rates (ASMRs) are used. ASMRs are the probability of a person of a specified age and sex dying each year.

ASMRs are initially taken from the projected rates for England⁵ and then scaled appropriately to the recent trends experienced in Jersey. These trends are based on the actual deaths recorded in Jersey for the period 2012-2022. Further adjustments were made to take into account the differing experiences between the two jurisdictions during the 2020-2021 Covid pandemic period.

Broadly speaking mortality rates in Jersey are slightly lower than those in England, in particular for lower age groups (under 50s). The specific scaling factors used in the projections are shown in the table below.

Table 22 Age specific mortality rate scaling factors

	Scaling factors							
Age group	Male	Female						
0-49	0.90	0.70						
50-79	0.94	0.92						
80+	1.03	0.93						
Total	0.98	0.92						

Sensitivity analysis - Mortality

The principal assumption for mortality is detailed above and is based on the best currently available information. It is however important to understand the sensitivity of the projections to these assumptions, and how variations might impact on the size and makeup of the future population.

In order to illustrate this the +325 net migration scenario projection was carried out using three different mortality assumptions, with a high and low assumption included based on an increase or decrease to the ASMRs of 10%. The key results of these variant projections are shown below:

Figure 31 Total population, +325 net migration scenario, high, low, and principal mortality assumptions



⁵ National population projections 2020-based interim





Figure 32 Population aged 65 or over, +325 net migration scenario, high, low, and principal mortality assumptions

- Changes to the assumed mortality rates have a limited impact on the overall population totals, with a 10% change in overall mortality resulting in a change of 1% in total population at the end of the projection period (2080).
- There is a greater impact on the population aged 65 or over, with a ±10% change in the mortality assumptions resulting in a ±3-4% change in this population by the end of the projection period (2080).
- The sensitivity of the projections to the mortality assumptions is noticeably lower than the sensitivity to the fertility assumptions.

Outward migration

For the cohort projection model emigration probabilities were calculated using a logistic regression⁶ model based on data recorded between 2017 and 2021 for the administrative data-based population estimates. It should be noted that this period will have been influenced by events such as the UK's vote to leave the European Union as well as the Covid pandemic. These projections assume that the most recent patterns of emigration continue forward.

Analysis of the data found that the preferred model used residential status and the number of years someone has been continuously resident in Jersey as the best predictors of whether someone would emigrate. The predictors used a transformation (the exact transformation was dependent on the group considered) to best fit with the data and incorporated an interaction between the two predictors.

Emigration probabilities were calculated for 5 different groups:

- \circ Residents aged under 16.
- Residents aged 65 and over.
- \circ $\;$ Working aged residents with entitled / entitled to work status.
- Working aged residents with registered status.
- Working aged residents with licensed status.

The following charts show the resultant model emigration probabilities when compared to the actual emigration patterns experienced in the last 5-years.

⁶ Logistic regression is a process of modelling the probability of a discrete outcome given one or more input variables.



Figure 33 Projection emigration probabilities compared to actual emigration for period 2017-2021





Inward migration

The methodology used in this report produces scenarios based a range of net inward or outward migrations levels. These are calculated by first establishing the level of outward migration for each individual year being considered and then setting the level of inward migration to achieve that scenario.

The age and sex make-up of the inward migrants is estimated based on the actual numbers of inward migrants that have been recorded between 2017 and 2021 for the administrative data-based population estimates shown in the population pyramid in Figure 34.

Figure 34 Projection immigration probabilities by age and sex



As might be expected, inward migration largely consists of working age individuals coming to the Island.

For the purposes of the projection the inward migration probabilities are further separated into the same 5 groups that are used to estimate inward migration with the following criteria applied to produce the required net migration scenario:

- Inward migration of:
 - residents aged under 16,
 - o residents aged 65 and over, and
 - o working aged residents with entitled / entitled to work status

is considered fixed (i.e. the proportions in these categories remains fixed over time) regardless of the net migration scenario selected.

- Inward migration of:
 - \circ working aged residents with licensed residential status, and
 - working aged residents with registered residential status

is scaled upward or downward to achieve the required net migration scenario with the age distribution of these groups based on the most recent trends.