

## **2009 Demographic Update**

### ***Executive Summary***

***Growth assumptions upon which the UDS was based in 2006 have been tested against latest available projections for population, households and labour force and found to continue to be a prudent basis for implementation. Projections out to 2061 have been made to show the possible pattern of longer term change. This indicates continuation of the gradual slowing in population increase to 2041.***

***The biggest uncertainty affecting population outcomes is international migration which has been volatile in recent years and close monitoring of shorter term trends is important. Formal review of long term projections will next be made in 2012 following release of 2011 Census results.***

***Profound aging of Greater Christchurch's population age structure is underway with the population aged under 60 years projected to increase by only around 10% over the 35 years to 2041, compared with over 100% for the over 60s. Long term labour force growth is also modest and the transition to a much older workforce significant.***

***Growth in the number of households over the 35 year period by around a half is anticipated and provided for by the UDS, but major change in the types of households can be expected. In the longer term little more than 1 in 4 households will include children and 1 in 3 is likely to contain just one person.***

***Public policy through UDS implementation is responding to some of these changes but in general, agency planning and private sector decision making is only slowly acknowledging these changes and preparing for the "aging bomb".***

### **1. Greater Christchurch to 2061**

The UDS is based on providing for reasonably foreseeable growth in Greater Christchurch's population over the 35 years to 2041. Population growth influences change in the number and type of households and in the labour force - in turn this affects the need for additional housing and for jobs.

This Update focuses on the key points from updated demographic projections for the UDS area that fully reflect the results of the 2006 Census, and which have been extended for a further 20 years to better understand possible changes through to 2061. Initial UDS projections were made in 2006 before all 2006 Census results were available, as they are now for this 2009 update. Projections will next be formally reviewed in 2012 in light of 2011 Census results.

## 2. Overview

Table 1 shows projections for Greater Christchurch's population, households and labour force commissioned from Statistics New Zealand in 2006 upon which the UDS is based, and their 'Low-Medium-High' series released in 2008 that takes full account of 2006 Census results. These cover the 35 years to 2041 and the following 20 years to 2061.

These projections result from Statistics New Zealand's detailed modelling of the demographic consequences of social and economic changes at five year intervals over the 55 year period. Acknowledging uncertainty, the statisticians produce a projected reasonable 'low-high' outcome range, while the 'medium' projection may be considered 'most likely'.

Table 1	SNZ "Med/High" (2006)	Statistics New Zealand (2008)		
		Low	Medium	High
<b>Population</b>	413,500 (2006)			
2006-41 (35yrs)	+135,000 (+33%)	+42,900	+112,400	+178,600
2042-61 (20yrs)	n/a	-25,900	+23,000	+60,900
<b>Households</b>	163,300 (2006)			
2006-41 (35yrs)	+74,800 (+46%)	+37,100	+64,900	+92,600
2042-61 (20yrs)	n/a	-10,300	+10,400	+28,200
<b>Labour Force</b>	226,700 (2006)			
2006-41 (35yrs)	+47,500 (+21%)	-4,100	+39,700	+85,800
2042-61 (20yrs)	n/a	-12,400	+10,500	+33,800

As a basis for planning, the UDS adopted a 'medium-high' projection using information then available in 2006 so as to reduce the risk of under provision for likely household growth compared to using the medium projection. Regular monitoring such as this update enables that risk to be kept under review in light of new information.

The 2006 projections remain in the medium-high range and a prudent basis for implementing the UDS. A forthcoming UDS Monitoring Report in early 2010 will more closely analyse recent annual changes in the context of projections to 2016. The most severe global economic recession in many decades has generally subdued recent growth and its effects are long lasting.

Overall, anticipated UDS area population growth to 2041 is comparatively modest, averaging 1% per annum. Implementation of the UDS is based on providing for a larger, 46% increase in household numbers over a 35 year period - higher than for population as a result of continued projected slow decline in the average number of people per household. Overall, growth slows considerably during the UDS period and this modest growth (decline under the low projection) continues over the following 20 years to 2061.

## 3. Population

Population growth arises from a combination of natural increase (births over deaths) and net migration (arrivals over departures). In turn, net migration subdivides into the exchange of population with the rest of New Zealand (internal) and other countries (international migration). Generally speaking for the UDS area the contribution of natural increase to population growth is relatively predictable and while significant, it is migration and particularly

the uncertainty in international migration that will likely have more influence on population outcomes to 2041.

Fertility (live births per woman) is projected to slowly decline and relatively little change in total births may be expected in the UDS area compared to rising numbers of deaths over the next few decades.

Historically, internal migration flows to and from Greater Christchurch have been relatively constant compared to much wider variation in international migration. The contribution of (largely international) migration to population growth over the 2001-06 period was significant, and unprecedented in recent times.

Within the last two years recorded net international migration for New Zealand has gone from the projected 'Low' to projected 'High' net migration variants. It is New Zealand's economic performance relative to Australia and Immigration Policies that are the main influences on change in Greater Christchurch's population growth rate in the foreseeable future.

Below in Table 2 for the UDS population projection is shown the projected number and % changes by age groups – for children (0-14 years), young adults (15-39 years), older adults (40-59 years), the 'young old' (60-74 years) and the 'old old' (75+ years).

Significant, progressive and long term population aging is evident. While the population grows, the rate of growth slows considerably over time. The proportion of the population under 40 in 2006 was 55% - this declines to 44% by 2061 while that over 40 years of age increases from 18% to 32 % over this period.

The impact of the aging of the 'baby boomers' is graphically shown through the numerical and percentage increases for the 'young olds from 2006-26 and the old olds 2016-41 such that the numbers in these age groups increase by around 100% and nearly 200% respectively over the 2006-41 period.

By contrast numerical and proportionate increases in the traditional working age population (15-60 years) are much more modest and so this group as a percentage of the total decreases from 63% to 53%, 2006 to 2041. The implications of this for labour force growth are further considered below.

The projected extent of population aging discussed above (under 60 years population growth of around 10%; over 60 years growth of +100% 2006-41) has profound implications for the pattern of demand for and planning of community, social and health services and facilities.

**Table 2: Projected UDS Age-Specific Population, 2006-61\***

Year	0-14 yrs (15 yrs)	15-39 yrs (25yrs)	40-59 yrs (20 yrs)	60-74 yrs (20 yrs)	75+ yrs (20+ yrs)	Total
2006	79,150	149,850	112,430	45,660	27,310	414,400
% share	19%	36%	27%	11%	7%	100%
2016	83,950	150,050	125,260	66,290	33,750	459,300
% share	18%	33%	28%	14%	7%	100%
2026	82,760	161,020	123,460	84,720	49,340	501,300
% share	16%	32%	25%	17%	10%	100%
2041	86,570	165,990	125,840	90,600	79,500	548,500
% share	16%	30%	23%	17%	14%	100%
2061	92,020	175,720	141,840	96,580	95,690	601,850
% share	15%	29%	24%	16%	16%	100%
Period						
2006-16 (10 yrs)	+4,800 +6%	+200 -	+12,830 +11%	+20,630 +45%	+6,440 +24%	+44,900 +11%
2016-26 (10 yrs)	-1,190 -1%	+10,970 +7%	-1,800 -1%	+18,430 +28%	+15,590 +46%	+42,000 +9%
2026-41 (15 yrs)	+3,810 5%	+4,970 +3%	+2,380 +2%	+5,880 +7%	+30,160 +61%	+47,200 +9%
2006-41 (35 yrs)	+7,420 +9%	+16,140 +11%	+13,410 +12%	+44,940 +98%	+52,190 +191%	+134,100 +32%
2041-61 (20 yrs)	+5,450 +6%	+9,730 +6%	+16,000 +13%	+5,980 +7%	+16,190 +20%	+53,350 +10%

\* UDS projections were adopted for the 2006-41 period. The 2041-61 projection is a medium/high midpoint of the 2008 projection series for illustrative purposes.

#### 4. Households

Table 3 shows UDS projected household increases in the context of the more recent Statistics NZ projections for the planning periods to 2041 and beyond for the latter. The UDS projections remain relevant medium - high range midpoints, being within 5% of the midpoint of the updated projections.

**Table 3: UDS Area Household Projections, 2006-61**

Year	Low	Medium	UDS (2006)	High
2006-base	163,300			
2006-16 (10y)	+14,700	+21,100	+23,860	+27,800
2016-26 (10y)	+13,900	+20,700	+24,940	+28,600
2026-41 (15y)	+8,500	+23,100	+26,010	+36,100
2006-41 (35y)	+37,100	+64,900	+74,810	+92,600
2041-61 (20y)	-10,300	+10,400	n/a	+28,200
2061	190,000	238,700	n/a	284,100

Long term decline in average household size is evident over recent decades reflecting smaller and more diverse families, and rising family breakdown and affluence - projected to continue - albeit at a slowing rate.

Among the three Council areas making up the UDS area, 2006 average household size was highest in that part of Selwyn District in Greater Christchurch at 2.8 people per household,

projected to fall to 2.5 by 2041. Comparable figures for Eastern Waimakariri are 2.6 falling to 2.4, and for Christchurch, 2.5 in 2006 and 2.2 people per household in 2041.

**Table 4: UDS Area Household Type Projections, 2006-41**

Year	Couple without children	Two-parent with children	One-parent with children	Other multi-person	One-person	Total
2006	48,500	45,700	20,300	9,100	39,700	163,300
% share	29.7%	28.0%	12.4%	5.6%	24.3%	100%
2016	61,300	43,700	22,500	10,100	49,600	187,200
% share	32.8%	23.3%	12.0%	5.4%	26.5%	100%
2026	74,900	39,900	24,000	11,200	62,100	212,100
% share	35.3%	18.8%	11.3%	5.3%	29.3%	100%
2041	83,600	39,800	26,200	12,100	76,400	238,100
% share	35.1%	16.7%	11.0%	5.1%	32.1%	100%
% Change 06-41	+72%	-13%	+29%	+33%	+92%	+46%

Table 4 applies recent household type projections to the UDS totals for the 2006-41 period. Reflecting population changes discussed above, steep rises in the numbers of couple only and one person households can be expected, while households with children decline from 40% to 28% - little more than a quarter of all households.

These changes have significant implications for the household-to-dwelling match among the existing housing stock and the nature of requirements for additions to it over the planning period. They also signal major changes in the character of many existing suburbs and in the local facilities and services required in new residential areas.

Generally speaking these changes in household type are occurring more rapidly than many commentators, developers and planners are appreciating and factoring into decision-making.

## 5. Labour Force

Significant increases occurred in labour force participation over the 2001-06 period, prior to completing the 2006 UDS projections, reflecting low unemployment and steady job growth. As a consequence 2008 UDS area labour force projections, as the midpoint of the medium - high range, have been revised upwards to +62,750 over the 2006-41 period compared with +47,500 previously. 'Labour Force' includes persons 15 years and over engaged in or seeking employment for gain for more than 1 hour per week.

Even with this upwards revision, UDS labour force growth at 28% rather than 21% over the 2006-41 period is still very modest, reflecting the significant impact of population aging.

Table 5 below shows projected change in the labour force by three broad age groups. It indicates slow decline in the share of the labour force among the younger age groups, older workers retaining a similar share but significant proportional growth in those 65+ years actively engaged, albeit from a low base of just 2% in 2006 to 7% in 2041 – a 277% increase.

Overall, the modest numerical growth in the younger work force compared with that for older workers calls for significant adjustment in the labour market. In short, Greater Christchurch faces chronic long term labour force shortages, with half the growth projected over the 35 year period expected over the ten years to 2016 as compared to the 25 years thereafter.

**Table 5: Projected UDS Age Specific Labour Force, 2006-61\***

<b>Year</b>	<b>15-39 yrs (25 yrs)</b>	<b>40-64 yrs (25 yrs)</b>	<b>65+ yrs (25+ yrs)</b>	<b>Total</b>
<b>2006</b>	113,440	107,770	5,490	226,700
<b>% share</b>	50%	48%	2%	100%
<b>2016</b>	117,500	130,330	13,120	260,950
<b>% share</b>	45%	50%	5%	100%
<b>2026</b>	126,340	132,730	17,330	276,400
<b>% share</b>	46%	48%	6%	100%
<b>2041</b>	133,170	135,580	20,700	289,450
<b>% share</b>	46%	47%	7%	100%
<b>2061</b>	138,550	151,160	21,890	311,600
<b>% share</b>	44%	49%	7%	100%
<b>Period</b>				
<b>2006-16 (10 yrs)</b>	+4,060 (+4%)	+22,560 (+21%)	+7,630 (+140%)	+34,250 (+15%)
<b>2017-26 (10 yrs)</b>	+8,840 (+8%)	+2,400 (+2%)	+4,210 (+32%)	+15,450 (+6%)
<b>2027-41 (15 yrs)</b>	+6,830 (+5%)	+2,850 (+2%)	+3,370 (+19%)	+13,050 (+5%)
<b>2006-41 (35 yrs)</b>	+19,730 (+17%)	+27,810 (+26%)	+15,210 (+277%)	+62,750 (+28%)
<b>2042-61 (20 yrs)</b>	+5,380 (+4%)	+15,580 (+11%)	+1,190 (+6%)	+22,150 (+8%)

\* UDS projections were adopted for the 2006-41 period. The 2041-61 projection is a medium/high midpoint of the 2008 projection series for illustrative purposes.

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