

Nga Tangata
Oho Mairangi



[Towards] a demographic accounting system for New Zealand

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Mobile Populations: The Impacts and Issues..

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MINISTRY OF BUSINESS,
INNOVATION & EMPLOYMENT
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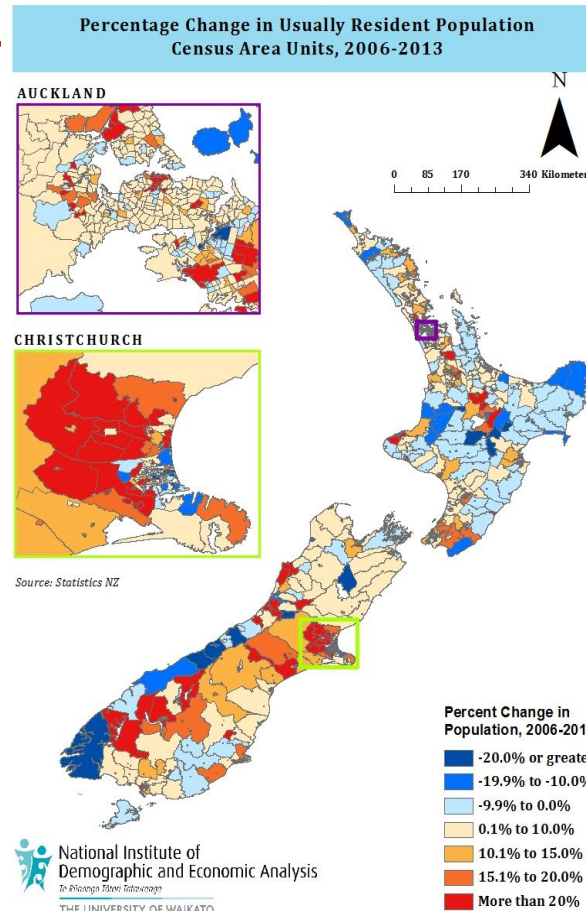


National Institute of
Demographic and Economic Analysis
Te Rōnanga Tataari Tatauranga

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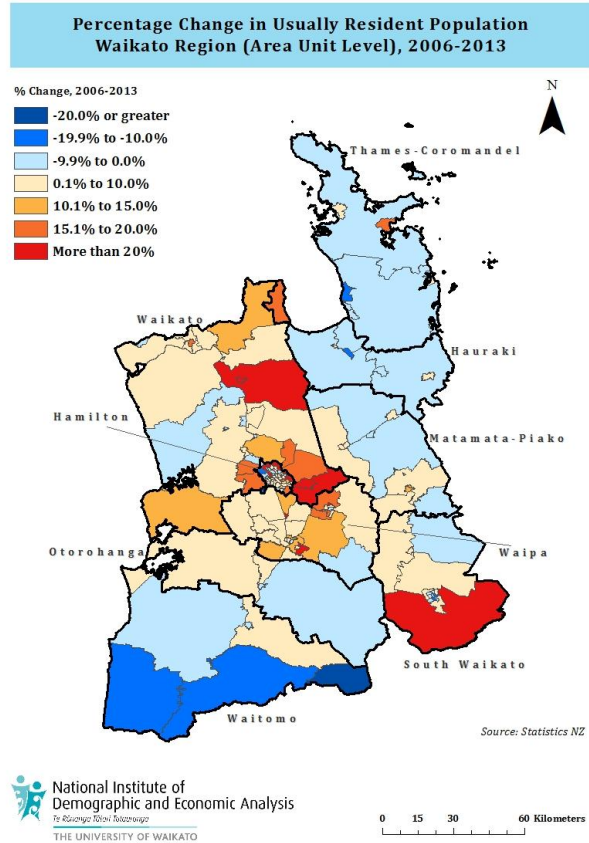
2013 Census – a
peek at last week's
first output:

Total New Zealand,
percentage change
2006-2013 by
Census Area Unit



Waikato Region

Percentage
change 2006-
2013 by
Territorial
Authority Area
and Census
Area Unit

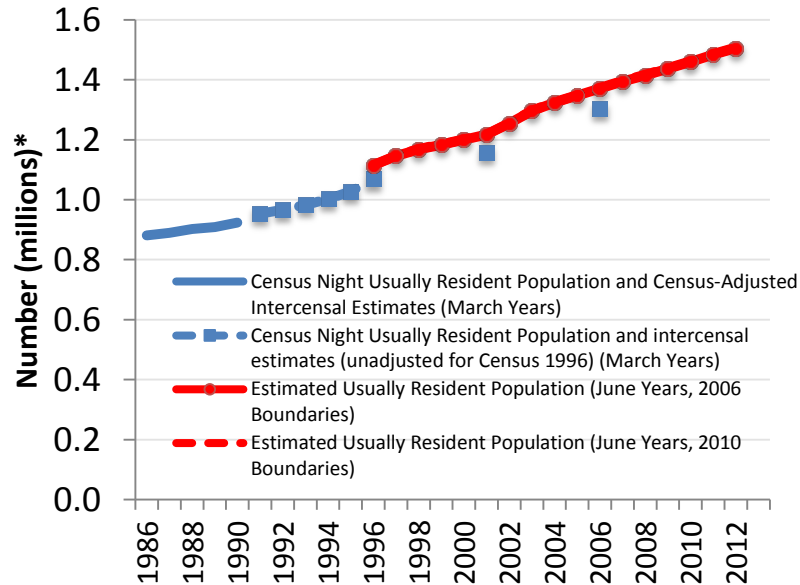


What these snap-shots can't tell us

- What is driving Auckland's growth?
 - Migration (international? Internal?) Natural Increase? Longevity?
- Why the rural decline?
 - What are its components?
 - Is it increasing / decreasing?
 - Where are our regional age structures heading?
 - How is industrial change involved?
- How do subnational changes interact?

Take a simple graph..

Fig 1 – Greater Auckland*

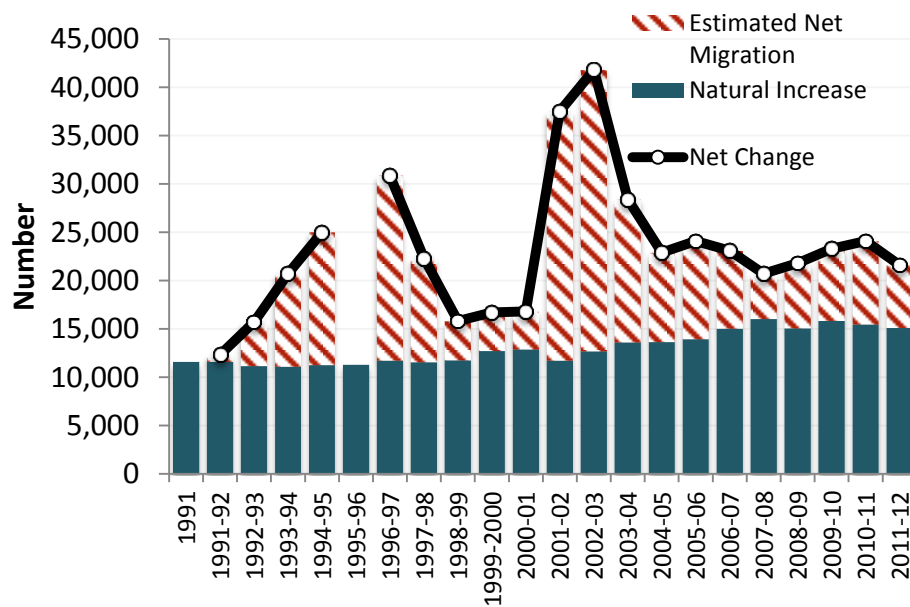


Then look under the bonnet



Lifting the bonnet

Greater Auckland* by components of change



Under the bonnet

- ◆ Estimated Resident population - Table DPE051AA
- ◆ Births - Table VSB016AA
- ◆ Deaths - Table VSD018AA

Residual migration methodology

- Births minus Deaths = Natural Increase
- Net Change minus Natural Increase = Estimated Net Migration

*2006 Boundaries

NB. Changes in timing and method of estimating Resident Population between 1995 and 1996 mean that only natural increase can be shown for that year

Components of Change (i)

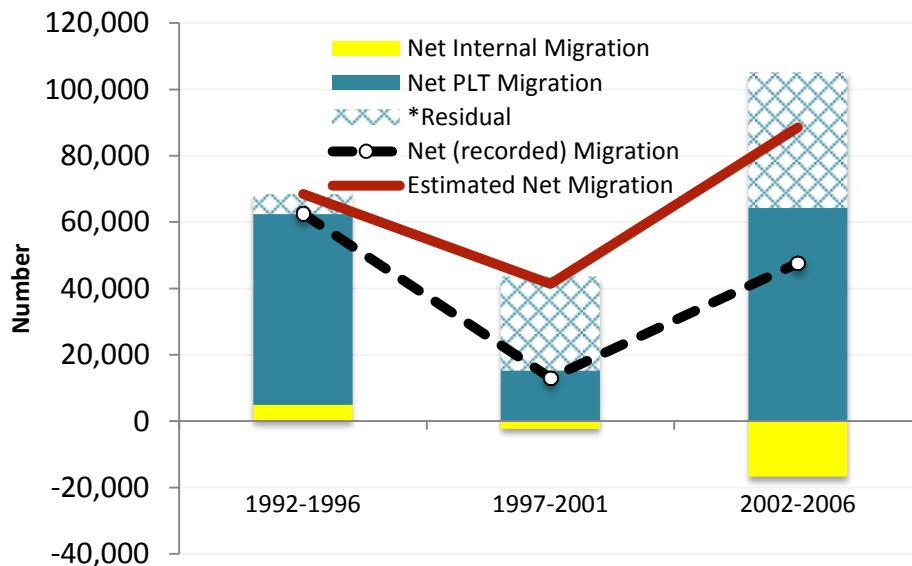
Greater Auckland* by contribution to change (%)

	1996-2001	2001-2006	2006-2011*
Natural Increase	5.4 (59.1%)	5.4 (42.4%)	5.6 (68.5%)
Estimated Net Migration	3.8 (40.9%)	7.3 (57.6%)	2.6 (31.5%)
Net Change	9.2 (100%)	12.7 (100%)	8.2 (100%)

* Estimated Resident Population, 2006 Boundaries

Lifting the bonnet

Greater Auckland*: Net migration by component



Under the bonnet

- ◆ Infoshare, Table ITM194AA: Permanent & long-term migration by age, sex and NZ area (Annual-Dec)
- ◆ Customised JOB-04302: Area of Usual Residence, Age, and Sex by In-migrants (1) and Out-migrants (2) for the Census Usually Resident Population Count which changed Regional Councils/Territorial Authorities between Census years

Methodology

- Estimated Net Migration (Net Change minus Natural Increase)
- Net PLT plus Net Internal Migration = Net (recorded) Migration
- Estimated Net Migration minus Net (recorded) Migration = Residual* (unexplained)

Components of Change (ii)

Greater Auckland* by contribution to change (%)

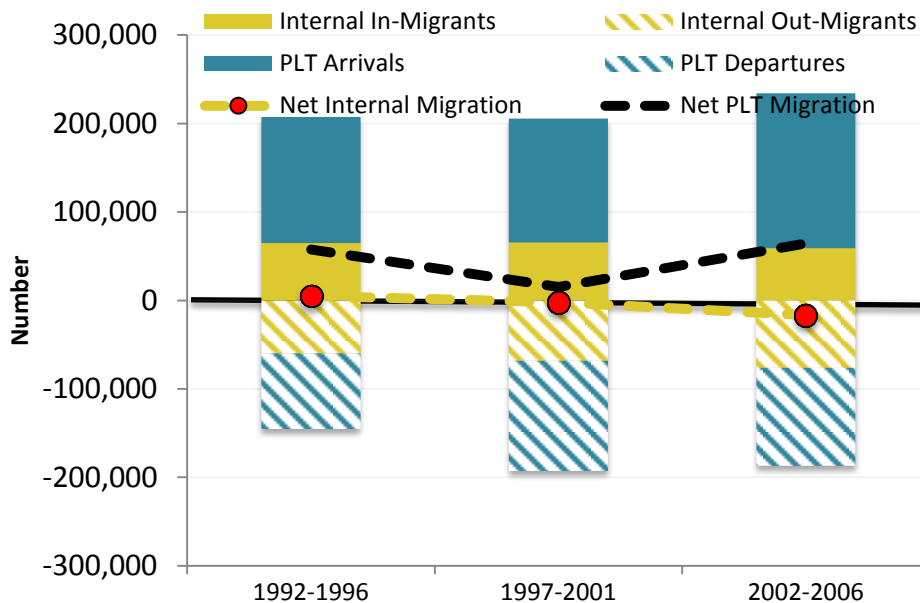
	1996-2001	2001-2006	2006-2011~
Natural Increase	5.4 (59.1%)	5.4 (42%)	5.6
Net Internal Migration	-0.2 (-2.2%)	-1.4 (-10.8%)	...
Net Int' Migration	1.4 (14.9%)	5.3 (41.6%)	...
Residual Migration	2.6 (28.2%)	3.4 (26.8%)	...
Estimated Net Migration	3.8 (40.9%)	7.3 (57.6%)	2.6 (31.5%)
Net Change	9.2 (100%)	12.7 (100%)	8.2 (100%)

* Estimated Resident Population, 2006 Boundaries

~not yet available

Lifting the bonnet

Greater Auckland*: Net migration by flow



Under the bonnet

- ◆ Infoshare, Table ITM194AA: Permanent & long-term migration by age, sex and NZ area (Annual-Dec)
- ◆ Customised JOB-04302: Area of Usual Residence, Age, and Sex by In-migrants (1) and Out-migrants (2) for the Census Usually Resident Population Count which changed Regional Councils/Territorial Authorities between Census years

Methodology

- PLT Arrivals minus PLT Departures = Net PLT
- Internal Arrivals minus Internal Departures = Net Internal
- = Net (recorded) Migration (excludes residual)

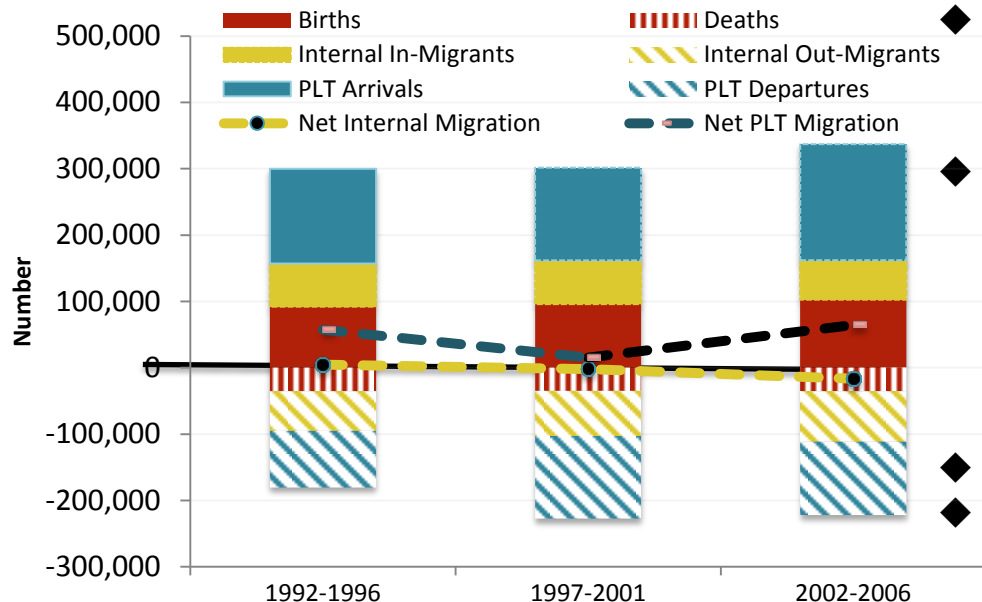
Components of Change (iii)

Greater Auckland* by contribution to change (%)

	1996-2001	2001-2006	2006-2011~
Natural Increase	5.4 (59.1%)	5.4 (42%)	5.6
Inward Migration	5.9 (64.1%)	4.9 (38.3%)	
Outward Migration	-6.1 (-66.3%)	-6.2 (-49.1%)	
Net Internal Migration	-0.2 (-2.2%)	-1.4 (-10.8%)	...
Inward Migration	12.5 (136.4%)	14.4 (113.1%)	
Outward Migration	-11.2 (-121.5%)	-9.1 (-71.6%)	
Net Int'l Migration	1.4 (14.9%)	5.3 (41.6%)	...
Residual Migration	2.6 (28.2%)	3.4 (26.8%)	...
Est. Net Migration	3.8 (40.9%)	7.3 (57.6%)	2.6 (31.5%)
Net Change	9.2 (100%)	12.7 (100%)	8.2% (100%)
* Estimated Resident Population, 2006 Boundaries			~not yet available

Lifting the bonnet

Greater Auckland*: Net Migration by Migration Flow, Births and Deaths



Under the bonnet

◆ Infoshare, Table ITM194AA: Permanent & long-term migration by age, sex and NZ area (Annual-Dec)

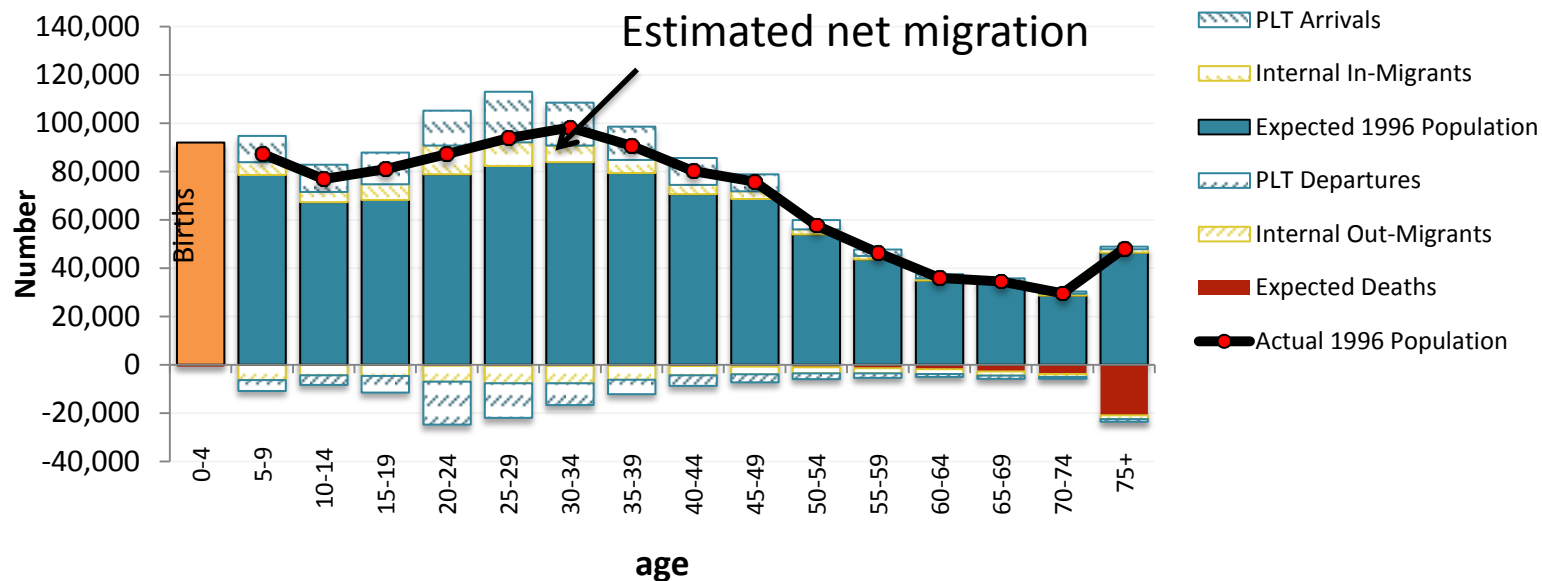
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◆ Births - Table VSB016AA

◆ Deaths - Table VSD018AA

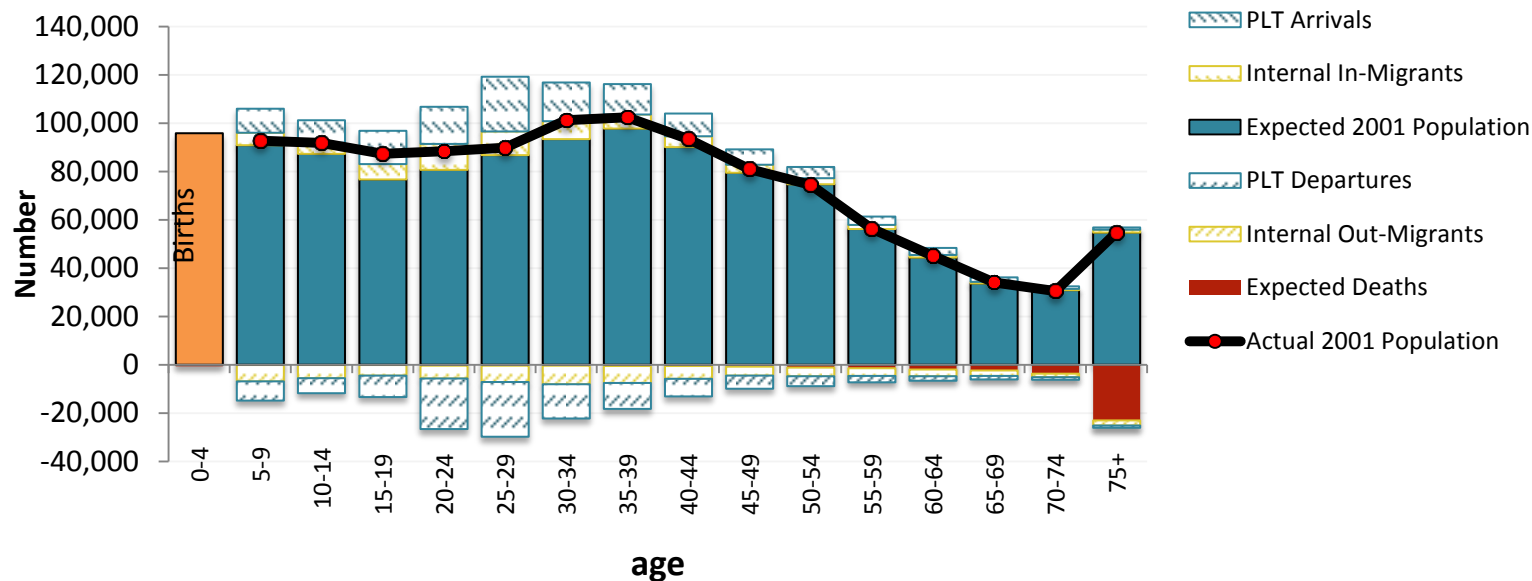
Sea Change~ 1991-1996

Greater Auckland* by components of change, migration flows and age 1991-1996



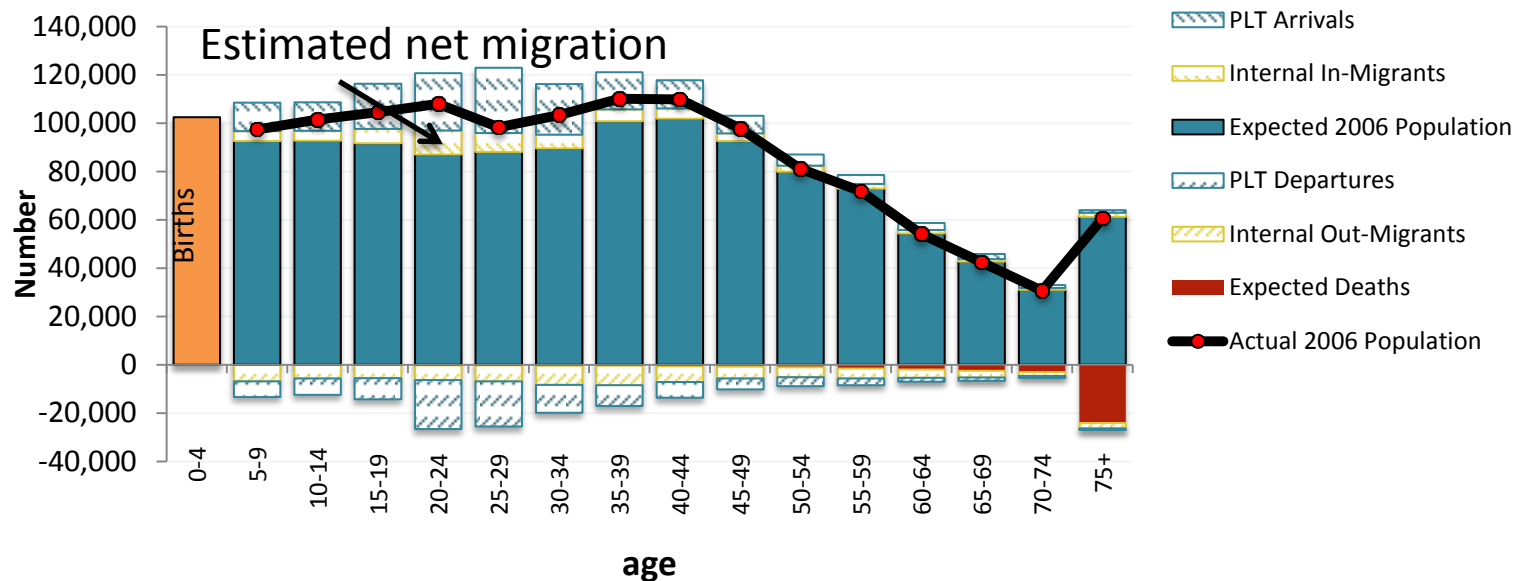
Sea Change~ 1996-2001

Greater Auckland* by components of change, migration flows and age 1996-2001



Sea Change~ 2001-2006

Greater Auckland* by components of change, migration flows and age 2001-2006



Where to from here?

- Natural Increase decomposed by:
 - Major ethnic group
 - NZ-born, Overseas-born
- Internal Movers by age by where living 5 years ago, by:
 - Major ethnic group
 - NZ-born, Overseas-born
 - LF Status and Industry
- Estimated Resident Population by age decomposed by:
 - Major ethnic group
 - NZ-born, Overseas-born
 - LF Status and Industry

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