NEW RESIDENTS IN FAST GROWTH LOCATIONS

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Characteristics of migrants moving to selected fast growth locations in Queensland during the five-year period 1996 to 2001 are investigated in this paper. The characteristics of new residents are derived from the 2001 Census of Population and Housing for 12 specific locations by aggregating data at collection district level using a new Census variable. The study shows the impacts of migration in different types of areas with fast population growth, where migrants are a significant part of the total population. It shows whether migration changes or reinforces the population composition in specific locations. Migration destinations favoured by old and young new residents are identified.

Introduction

Locations with many new dwellings recently constructed and fast population growth also have many newcomers among their residents. Often more than 50% of the population are new residents that moved in during the last five years. These fast growth locations are for example master planned communities, rejuvenated inner suburbs with high-rise developments, or rapid infill development of popular seaside towns.

Demographers who are requested to produce population projections of fast growth locations generally find that their battery of projections models are inadequate, mostly because a lack of knowledge about the characteristics of migrants to growth locations. Not surprising, population forecasts of growth location do not have high credibility among users of the forecasts (Sweeney 2002). When past migration do not represent future migration patterns, location specific age profiles of migrants cannot be derived from data describing the past. Instead recent similar developments should be used to determine the most likely composition of the new residents to produce a credible forecast of future residents.

The future age structure of fast growth locations is mostly determined by the age of the new residents. So, even small variations to the age profile of new residents will have dramatic effects on the future population structure. The strong influence of migrants on future population structure also affects other characteristics such as income and labour force status.

This paper addresses the lack of information about characteristics of migrants to specific fast growth locations. Characteristics of new residents in selected fast growth locations in Queensland are analysed. New residents are defined as those people classified in a location in the 2001 Census who had a different SLA of residence in 1996.

Linkages to previous research on migrant age structure are presented and also the new data source that is available from the 2001 Australian Census of Population and Housing. The method used to select the study areas and methods to analyse the data

are briefly presented. Five subsequent sections of the paper show some results from analysis of age structure, income, labour force status, household type and dwelling structure. Two age profile types of new residents are identified using cluster analysis and followed by a brief discussion on the new census variable and the differences in age structure. Finally conclusions about common migrant age profiles are presented.

Australian migrants have a standard age profile

The age profiles of migrants have been found to be remarkable similar in data around the world. With few exceptions, such as occasional increased retirement migration, migrant streams generally have a recognisable age profile. This age profile distinctly peaks in age groups of people between 20 and 30 years, dropping off sharply at earlier and later ages, with a smaller secondary peak of infants, who move with their young parents. This results in a younger population at migrant destinations (Alonso 1980). The regularity of migrant age profiles have been described by mathematical model migration schedules (Rogers and Castor 1981). It is, however, possible that the age structure of migrants to specific growth locations differ from the standard migrant age profile.

Individuals' reasons for migrating at different ages are related to different stages during their course of life (Elder et al 2002). Life course decisions to move relate to such as education, marriage, housing, employment, retirement and health.

In Australia, similar age distributions have been found for different migration flows (Rowland 1979, Bell 1995). The age structures of migration flows for Queensland have presented similarities with Australian wide data (DCILGP 1999, DLGPSR 2005). In general, most migration flows present a concentration of migration among young adults. Also, secondary peaks among recent retirees are rarely significant in Australian data. For example, retirement migration to coastal areas in New South Wales has been found to be less significant in the 1990s than the previous decade (Burnley and Murphy 2002). A slow shift of the peak in the migrant age profile from mid 20s to late 20s and early 30s have been discovered in time series data (Brown et al 2006).

Researchers have called for studies into the feasibility of indirect estimation of migration (Raymer and Rogers 2006). More knowledge about characteristics of migrants to fast growth locations is crucial to determine if migration age profiles for one type of location can be used to forecast future migration to a different location of a similar type.

2001 Census provides new data source

Data on a person's usual residence one or five years ago, when combined with responses to the question on usual residence at census time, have provided information on the extent of internal migration of the population for 30 years in Australia. However, migrant characteristics of new residents in specific fast growth locations have been difficult to compile. Before the 2001 Census, data about migrant characteristics were only available for Statistical Local Areas (SLAs). These SLA

data included a mixture of fast growth locations and established slow growing neighbourhoods. The 2001 Census of Population and Housing provided a new source for migrant data, by coding 'usual residents' to Census Collection Districts (CDs).

In the five-yearly population and housing censuses since 1971, people were asked to provide the address of their usual residence five years ago. A question on usual residence one year ago has been included since 1976. In 1991, respondents were asked only for their state of usual residence one year ago and for their full address five years ago. The 1996 and 2001 Censuses asked for full address of usual residence for both one year ago and five years ago. Only a SLA code, not the actual address, is stored for output purposes.

Until the Census in 2001, migrants could only be identified at SLA level. A new variable in the 2001 Census called "CD of Usual Residence Census Night" (CDUCP) allowed migrants from other SLAs to be identified for individual CDs. This new variable represented an extension of 'usual residence' coding to the CD level. In previous censuses, coding and output of usual residence data had been limited to SLA level and above (2001 Census Dictionary, ABS Cat No 2901.0, p 23).

Selection of study locations

Data from 156 collection districts, aggregated to 12 specific locations, enabled the profiling of new residents moving to the specific locations during the five-year period 1996 to 2001. The specific locations were selected by identifying growth locations with fast population growth between 1996 and 2001 in Urban Centres and Rural Localities (UCLs), SLAs and CDs. The identification of fast growth locations assisted in finding aggregates of CDs where the proportion of new residents in 2001 would be as large as possible. Once these growth locations were identified as aggregates of CDs special census tables were ordered from the Australian Bureau of Statistics.

The selection of fast growth locations was based on analysis of population growth 1996 to 2001. First, the population growth rate for UCLs in Queensland was calculated based on the census count in 1996 and 2001. In this initial analysis, 48 UCLs that had a five year growth of more than 20% were identified. Second, separate localities within the UCLs of Sunshine Coast and Gold Coast were identified. Both Sunshine Coast and Gold Coast were included among the UCLs that grew with more than 20%. Third, additional fast growth areas in Brisbane urban area (within the 2001 UCL boundary) were identified.

Growth rates were calculated based on 'usual residents' + 'visitors from same SLA' and estimated resident population (ERP) in 1996 and 2001. In-migration rates and volumes by SLA were also used to assist in determining the fastest growth areas from net migration rather than from natural increase. Population growth rates were calculated for UCLs, SLAs and CDs. The different measures for population growth and calculation methods for different spatial units were used to overcome issues with boundary changes.

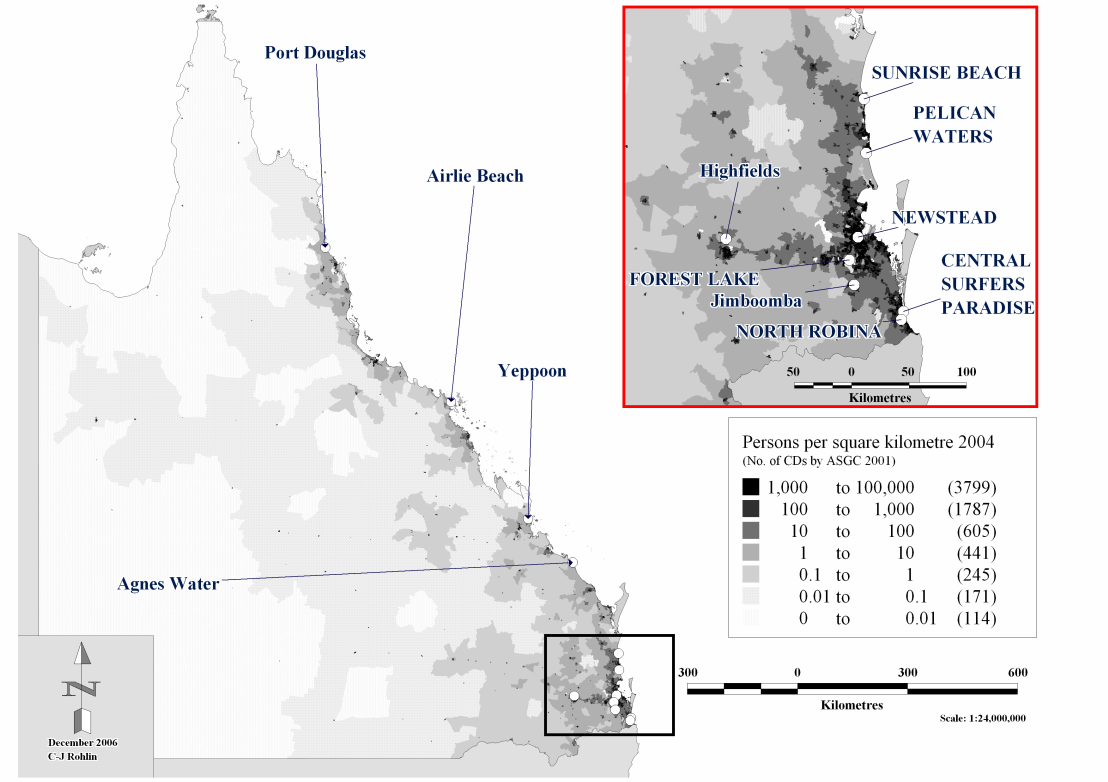

Figure 1 Selected fast growth locations between 1996 and 2001 indicated on a map showing resident population density in 2004 for Queensland 2001 Census Collection Districts

Once 46 UCLs, 19 CD groupings in Gold Coast and Sunshine Coast, and additional SLAs and CD groupings within Brisbane were selected, CD groupings with the same (or almost the same) boundaries in 1996 and 2001 were identified. Data showing population growth in CD groupings know as suburbs, localities or SLAs were analysed. In all data, Surfers Paradise was identified as an important growth area for the 5-year period. The locality or SLA of Surfers Paradise has a rather large population, and a sub-set of CDs (called Central Surfers) was identified as a study area (see Appendix A for CD definition of selected locations).

The selected 12 fast growth locations were ultimately chosen to represent variations among growth locations in Queensland (Figure 1). These areas were in the UCLs of Gold Coast, Sunshine Coast and Brisbane (indicated with CAPITAL LETTERS in the map) or in other UCLs. The 12 selected locations represent a cross section of different types of fast growth areas in Queensland. The selection includes both highly urban areas and fast growing areas with rural qualities, and both costal and inland locations. The selected locations stretch from North Robina in the south to Port Douglas in the north and from costal Central Surfers Paradise in the east to Highfields in the western inland.

Comparisons and clustering used to analyse data

The data for the 12 selected fast growth locations were analysed by contrasting new residents with non-movers comprising two almost equal parts of the population. The data for the fast growth locations were also compared with data on new residents in all SLAs in Queensland.

Cluster analysis was used to identify types of growth locations by age structure of new residents. The age data for the 12 fast growth locations were analysed by broad age groups to find locations that had new residents with similar age structure. The joining of cases was by complete linkage as the amalgamation (joining) rule. Similarities in age structure of new residents among the cases (growth locations) were measured by Euclidean distances in a multi-dimensional space.

Most new residents from intrastate

More than 2/3 of new residents came from Queensland (Table 1). Among the new residents, migrants from Queensland (68.6%) clearly outnumbered migrants from other parts of Australia (20.2%) and from overseas (11.1%). This pattern was repeated in the five age groups. However, in the younger age groups migrants from overseas represented a higher proportion of new migrants than the average. Conversely, in age groups of people 55 years or older, the migrants from Queensland (>70%) and from other parts of Australia (>21%) outnumbered migrants from overseas even more. Note that the proportion interstate migrants increased by age, but the proportion from overseas decreased. For example only 18.3% of 15 to 24 year old migrants came from interstate while 23.9% of new residents 65 years and older came from interstate. New residents who lived overseas five years prior to the 2001 Census were overall a small part of the total number of new residents in all 12 locations. The origin of movers was overwhelmingly from within Queensland.

Table 1 Origin of new residents by broad age groups

	Per cent distribution in age groups					
Origin	**5-14**	**15-24**	**25-54**	**55-64**	**65+**	**Persons**
Queensland	68.7%	69.2%	67.8%	70.9%	70.8%	**68.6%**
Bal Australia	19.8%	18.3%	20.3%	21.1%	23.9%	**20.2%**
Overseas	11.5%	12.5%	11.8%	8.0%	5.3%	**11.1%**
Total	100.0%	100.0%	100.0%	100.0%	100.0%	**100.0%**

Table 2 New residents in fast growth locations by broad age groups

Age group	5-14		15-24		25-54		55-64		65+		Total	
Location	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%
Agnes Water	104	17.8	48	8.1	323	55.2	83	14.2	28	4.7	586	100.0
Airlie Beach	400	12.7	558	17.8	1,850	59.0	243	7.8	87	2.8	3,137	100.0
C. Surfers Paradise	60	3.5	487	28.8	824	48.8	158	9.3	161	9.5	1,689	100.0
Forest Lake	1,403	19.6	1,018	14.2	4,084	57.1	378	5.3	265	3.7	7,147	100.0
Highfields	439	25.5	175	10.2	857	49.7	140	8.1	112	6.5	1,722	100.0
Jimboomba	730	23.5	410	13.2	1,692	54.5	173	5.6	102	3.3	3,107	100.0
Newstead	73	3.5	347	16.6	1,429	68.5	157	7.5	81	3.9	2,087	100.0
North Robina	1,171	16.5	1,076	15.1	3,465	48.8	700	9.9	694	9.8	7,106	100.0
Pelican Waters	280	13.2	191	9.0	894	41.9	397	18.6	370	17.3	2,131	100.0
Port Douglas	164	8.4	342	17.5	1,243	63.6	140	7.2	64	3.3	1,953	100.0
Sunrise Beach	712	16.9	524	12.4	2,402	57.0	369	8.8	205	4.9	4,212	100.0
Yeppoon	1,166	20.9	1,086	19.5	2,403	43.1	420	7.5	503	9.0	5,577	100.0
Total	6,701	16.6	6,260	15.5	21,464	53.1	3,357	8.3	2,670	6.6	40,452	100.0

Age structure

More than 40,000 people moved to the 12 selected fast growth locations in Queensland in the five years between 1996 and 2001. The 12 selected areas included two suburbs in Brisbane (9,233 new residents), two localities each on the Gold (8,795) and Sunshine Coasts (6,343), and six UCLs around Queensland (16,081 new residents). More than half (53.1%) of the new residents were 25 to 54 years old. Only 6.6% were 65 years and older. Overall the new residents had, as expected, a young age structure (Table 2).

In the growth locations, just over 4,900 persons were 0 to 4 years old in 2001. These persons were not classified into the two categories (non-movers and new residents), since they were not born in mid 1996. Just over 500 people coded as movers did not state were they lived five years earlier, and these were included in the total of more than 40,000 new residents.

Most of the new residents were in the age group 25 to 54 years (53.1%). However, this broad age group covers a large part of the population in most areas. Among the non-movers, most people were also 25 to 54 years old (41.5% excluding 0-4 year olds). Although, the age structures were similar for non-movers and new residents, the new residents presented a younger age structure.

The proportions of new residents in age group 55 years and older were larger in locations by the sea and the proportion of new residents in age group 5 to 54 years were larger in locations close to major concentrations of workplaces. The age structures of new residents in each of the 12 growth locations were clearly different. Some locations attracted more young people, while others attracted more old people. Compared with the age structure of all 12 localities, some localities, such as Jimboomba and Forest Lake, had more younger (working age) new residents, while new residents in North Robina and Pelican Waters were older (55+). Both Jimboomba and Forest Lake can be regarded as outer suburbs of Brisbane. North Robina and Pelican Waters are new residential areas on the Gold and Sunshine Coasts respectively.

Newstead in Brisbane had the highest proportion among new residents in age group 25-54 (68.8%). In this working age, the coastal tourist locations of Port Douglas and Airle Beach also presented high proportions, with 63.6% and 59.0% respectively.

Although the new residents had a younger age structure overall, some areas also attracted significant numbers of people planning retirement or already retired. In the age group 55+, North Robina had almost 1,400 new residents, Yeppoon more than 900, and Pelican Waters more than 750.

In Jimboomba, Forest Lake, Airlie Beach, Highfields, Yeppoon, Central Surfers Paradise and North Robina more than 30% of the new residents were younger than 25 years. Although North Robina and Yeppoon attracted significant numbers of people aged 65 years and over (more than 500 each), these locations also had significant numbers of young arrivals aged less than 25 years (almost 2,500 people each).

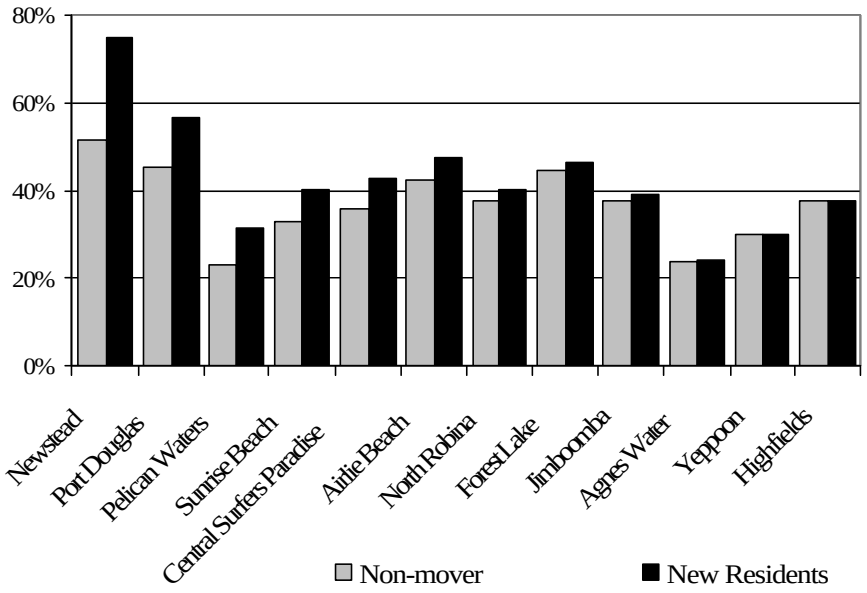

Figure 2 Proportion of non-movers and new residents reporting an income of $400 or more per week by location

In Pelican Waters, North Robina, Agnes Water, Central Surfers Paradise and Yeppoon more than 15% of the new residents were older than 54 years. These areas in particular attracted retirees or pre-retirees.

Seven locations had more than half of the new residents in the main working age group 25 to 54. In descending order, these areas popular to people in working ages were - Newstead, Port Douglas, Airlie Beach, Forest Lake, Sunrise Beach, Agnes Water and Jimboomba. The locations of Newstead, Forest Lake and Jimboomba were close to a variety of workplaces in and around Brisbane, while the other areas were coastal areas. Newstead is an inner suburb of Brisbane undergoing urban renewal, while Forest Lake and Jimboomba are outer suburb where large new housing estates have been developed in the last ten years.

The new residents' age structure in the growth locations was younger than the age structure of the non-movers. The new arrivals thereby provided 'young blood' to the locations, and counter-balanced ageing of the population. In all growth locations more than 50% of the population aged less than 55 years had arrived in the previous five years. Almost 90% of the 5-24 year olds were new arrivals in Central Surfers Paradise (89.5%) and Newstead (89.7%). In all areas the arrival of new residents made the over all population age structure younger.

Income

The income distribution of new residents was positively skewed towards higher incomes compared with the income distribution of the non-movers (Figure 2). The column chart shows the proportions among non-movers and new residents stating in the 2001 Census an income of $400 or more per week. In particular, Newstead had larger proportion new residents with incomes exceeding $400 per week (75.3%) than the non-residents (51.3%). However, many seaside locations also had new residents with higher incomes than the non-movers, such as Port Douglas, Pelican Waters, Sunrise Beach, Central Surfers Paradise and Airlie Beach.

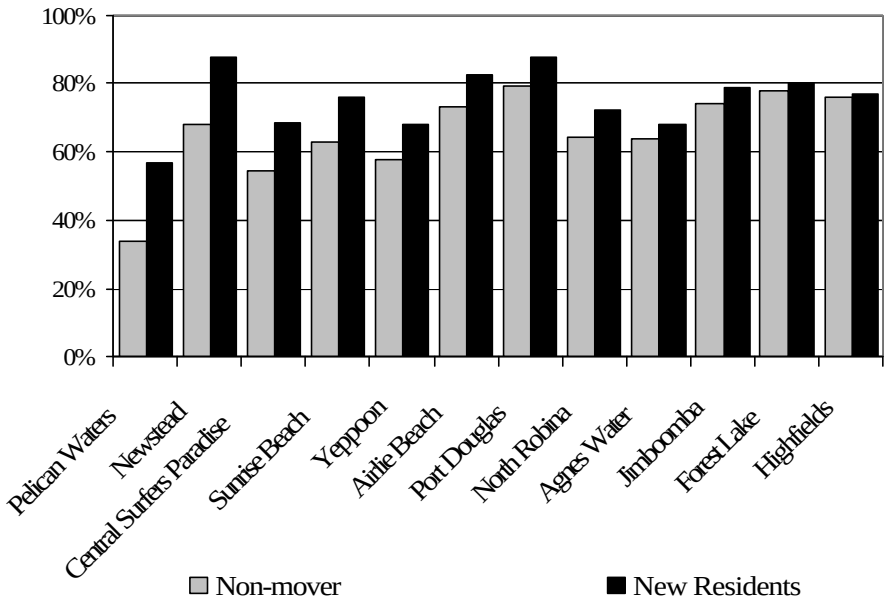

Figure 3 Proportion new residents and non-movers in the labour force in fast growth locations (Refers to people age 15 years and over and who stated their labour force status.)

Labour force status

In up-market and expensive locations the share of employed people was higher. In Port Douglas 61.9% of the non-movers were employed, and in Newstead 55.6% of non-movers were employed. This share was even higher among the new residents. In Port Douglas 74.3% of the new residents were employed, and in Newstead 79.9% of non-movers were employed.

New residents were clearly more employed and in the labour force in Central Surfers Paradise, Newstead and Pelican Waters than the non-movers (Figure 3). In these locations combined, 56.6% of the new residents were employed, while only 30.8% of the non-movers were employed. In these three locations, only 29.1% among the new residents were not in the labour force, while 56.6% of the non-movers were not in the labour force. Although Pelican Waters attracted a large proportion of new residents that were retired or otherwise not in the labour force (43.2%) the share among the non-movers not in the labour force was even higher (66.2%).

Seaside location such as Agnes Water, Airlie Beach, Central Surfers Paradise, Pelican Waters, Sunrise Beach and Yeppoon attracted more unemployed youth. Overall, among new residents 15 to 24 years old to these locations 12.7% were unemployed. In the other locations, including Port Douglas, only 8.6% of the 15 to 24 years old new residents were unemployed.

New residents were both more likely to be younger and in the labour force than the non-movers. Overall, 34.7% of the non-movers were not in the labour force, and only 24.6% of the new residents were not in the labour force.

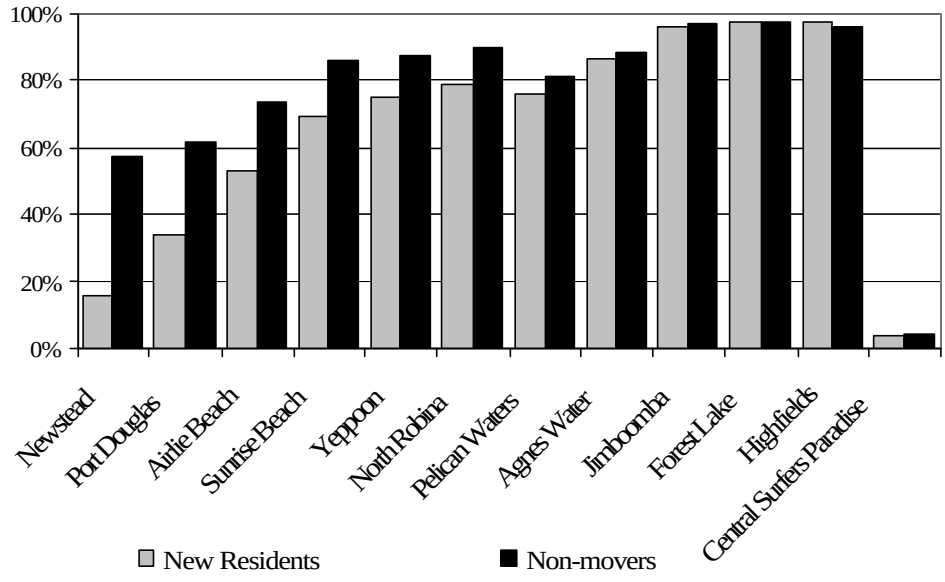

Figure 4 Proportion in detached houses among new residents and non-movers

Household type

No significant differences in regard to people's relationship in households were found in new residents compared with non-movers. The proportion of persons in households defined as lone person households was lower among new residents (8%) than among non-movers (10%). This was expected. Although, it is reasonable to assume that lone person households were more mobile, a large proportion of lone person household were also among the older and less mobile population.

Education was not likely to be an important reason to move to these fast growth locations. Only 5.4% of the new residents were identified as students aged 15 to 24 years.

Dwelling structure

The greatest difference with respect to dwelling structure was the higher proportion of new residents living in attached dwellings. Overall, 86% of non-movers and 72% of new residents lived in detached houses. The differences were greatest in areas with expensive up-market unit developments (Figure 4). In particular, the proportion of new residents in detached houses in Newstead, Port Douglas and Airlie Beach were much smaller than for non-movers.

Explanations to differences in regard to dwelling structure, income and labour force status can be found by grouping locations by the age structure of new residents and non-movers using a cluster analysis technique.

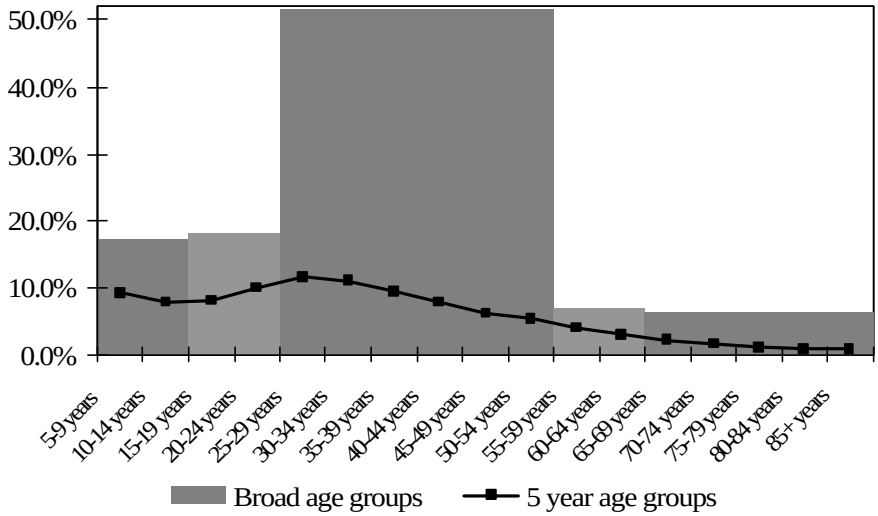

Figure 5 Age profiles of new residents in Queensland by 5-year age groups and by broad age groups

Identifying two standard age profile types

The data for age structure of usual residents in the 12 fast growth locations are by broad age groups. This masks the detailed variations in the age of migrants. Because the census data from the Australian Bureau of Statistics contains an introduced random error for cell counts with small values to protect the anonymity of individuals, the classification into broad age groups reduces the effect of these errors introduced by randomisation. It is now Australian Bureau of Statistics policy not to release the detailed methodology to adjust the data.

In particular, the broad age group 25 to 54 years includes the peak age for migration (25 to 29 years) and declining number of migrants in older ages within the broad age group (Figure 5). Of new residents in Queensland, 11.7% were in age group 25 to 29 years, while only 5.4% were in age group 50 to 54 years. New residents in Queensland included intrastate, interstate and overseas migrants, so that it was comparable with the age structure presented for the 12 fast growth locations (Table 1).

When new residents in Queensland were aggregated to broad age groups more than 50% fell into age group 25 to 54 years. The two younger age groups were similar, with age group 5 to 14 years slightly smaller than age group 15 to 24 years. The two older age groups were also similar, with age group 55 to 64 years slightly larger than age group 65 years and older.

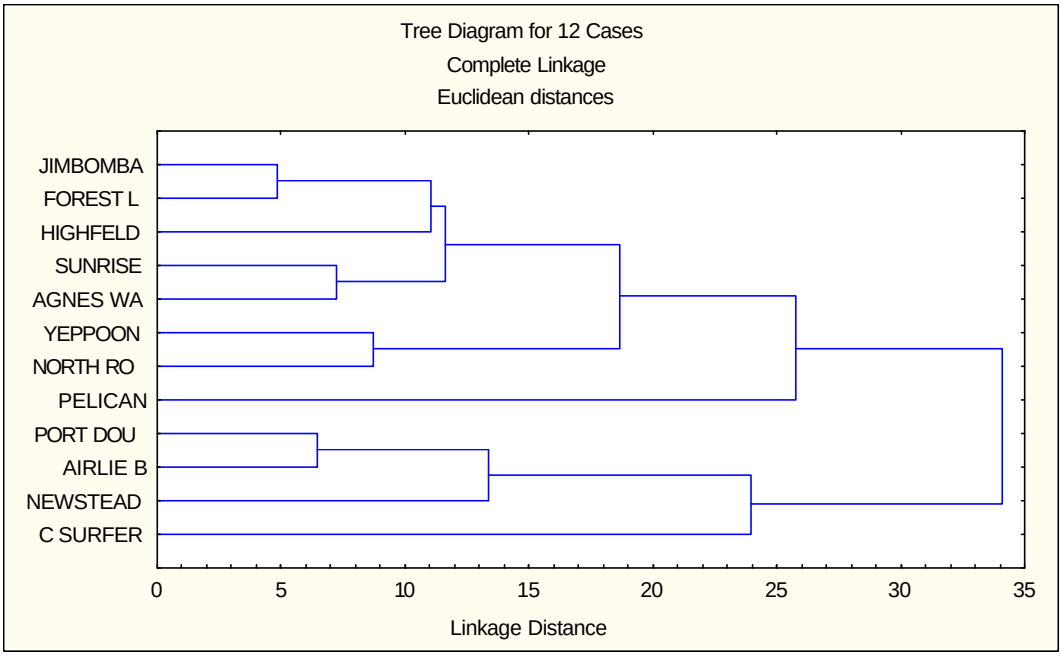

Figure 6 Tree diagram of cluster analysis for 12 growth locations (Location names abbreviated to a maximum of eight characters)

Two clusters were found with linkages at 20 standardised Euclidean distance units when the locations were clustered by age (Figure 6). The first cluster was largest and therefore labelled 'mainstream developments'. This first cluster included Agnes Water, Forest Lake, Highfields, Jimboomba, North Robina, Sunrise Beach and Yeppoon. Although some locations such as Agnes Water (on the coast north of Bundaberg and Hervey Bay), North Robina (on the Gold Coast) and Sunrise Beach (on the Sunshine Coast) attracted slightly older migrants the clustering procedure included them among the mainstream cluster.

The second cluster included Airlie Beach, Newstead and Port Douglas. This cluster was labelled "up-market developments" because these areas had many new expensive multi-storey developments and the new residents had higher income than in any of the other locations. It should be noted that it was the price of dwellings in new developments that determined the age structure of the new residents rather than the location.

Central Surfers Paradise (Gold Coast) and Pelican Waters (Sunshine Coast) were excluded from the two clusters. Pelican Waters attracted large proportion new residents aged 55 years and older. Although Central Surfers Paradise attracted large proportion older new residents (55+), it had an even larger proportion young people aged 15 to 24 years (28.8%) among the new residents. These two locations had the most unusual age profiles among their new residents.

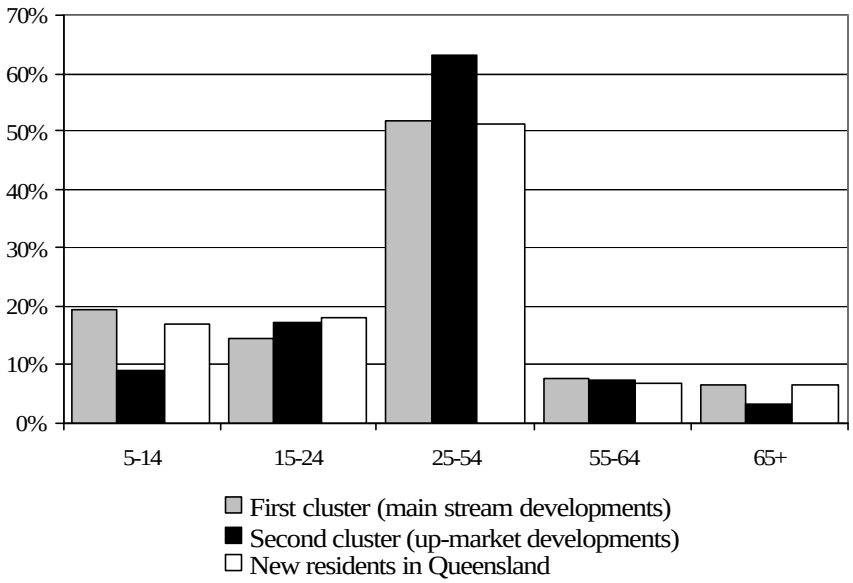

Figure 7 Age structure of two clusters compared with age structure of all new residents in Queensland, 1996 to 2001

The age structure of new residents in mains stream developments was similar to the age structure of people that moved to a place in Queensland overall. New residents in Queensland included intrastate, interstate and overseas migrants, so that it was comparable with the age structure displayed for the two clusters.

In contrast, the age structure of new residents in more expensive up-market developments was different to that of mainstream developments and new residents in Queensland overall. In these areas the new residents were predominantly in working age (25 to 54 years) and had fewer children (age 5 to 14). It should also be noted that few people aged 65 years and older moved to these areas with more up market developments (Figure 7).

A useful new census variable

The new census variable indicating migration at CD level (CDUCP) enabled several comparisons to be made for small areas. By cross tabulating CDUCP with other census variables a distinction between new residents and non-movers was possible for selected fast growth locations. This study showed that it is possible to contrast characteristics, such as origin of movers, age, income, labour force status, household type and type of dwelling, for the two population groups. Small communities of new residents in specific locations could be compared and grouped into types, as presented for groupings by age structure above.

In census data, the residents are classified as "new" (recent migrants or movers) if they had a residential address in another SLA five years earlier. This could be misleading if the study area was a small group of CDs in a large and populous SLA. In the 12 selected locations, this limitation was not a problem in this study. Nevertheless, it should be noted that local migrants were not classified as new residents. For example, people who moved to Jimboomba had to have lived outside

Beaudesert Shire Part A to be classified as new residents, and in Highfields, they had to have lived outside Crow's Nest Part A. The term new resident was used to acknowledge that a complete count of migration transitions over the five-year period into the selected locations was not accomplished using the variable CDUCP.

The census variable does not identify multiple moves in the intercensal period. The census question captures migration transition between two points in time (in this case five years apart). It does not capture every migration event. People who have moved more than once are captured as moving once in the data, and if they move back to their SLA of residence in 1996 they are not captured at all.

What caused people to move to these fast growth locations?

Evidence based only on age and other characteristics of new residents suggest that family formation, housing and employment were more important reasons for migrating than other life course decisions such as those for education, retirement and health. Of the new residents in fast growth locations 85.1% were less than 55 years old. Only 6.6% were older than 65 years, and only 5.4% were students 15 to 24 years old.

As the baby-boomers (the generation born after the end of the Second World War) get older and leave their full-time jobs, retirement migration may increase. Because of the large number of people in the baby-boomer generation, retirement migration numbers may increase without the propensity to migrate in older ages increasing. Because retired new residents need services and amenities, this may in turn generate a demand for further working age migration. However, the effects of retirement migration should not be exaggerated. Based on this study of 12 fast growth locations, the proportion of new residents older than 64 years was low (6.6%). Of more than 40,000 new residents in these locations only 611 persons (1.5%) were from interstate and also 65 years and older. An increase in retirement migration is only likely to have a significant effect in specific local communities, such as Pelican Waters which already have an older age structure.

Conclusion

This paper presented an analysis of in-migrant characteristics in a dozen specific fast growth locations in Queensland. These locations were identified as aggregates of 2001 Census Collection Districts representing a selection of suburbs in the South East Queensland metropolitan area and non-metropolitan localities with fast population growth between 1996 and 2001. The analysis showed differences in what types of migrants move to these growth locations. In all 12 growth locations the new residents that had lived in the location less than five years out-numbered the non-movers who had lived there for more than five years (Appendix B). The population composition of these fast growth locations was therefore significantly influenced by the characteristics of the new residents.

The 2001 Census of Population and Housing was the first Australian census for which the variable usual residence five years ago was coded to the Collection District (CD)

level. This data was successfully used to derive characteristics of new residents in 12 fast growth locations.

The migration age profiles were found to show differences by location. Although the age structure of new residents overall conformed to a standard model migration schedule, some exceptions were noted. New residents in most of the 12 locations did not present significant indications of retirement migration. Pelican Waters was an exception with a large number of new residents in older ages. Retirement migration from interstate was insignificant overall.

Age structures by broad age groups were used to identify two fast growth location types for new residents. The “mainstream developments” type had age structures for new residents similar to the age structure of new residents overall in Queensland. The “up-market developments” type was characterised by families without small children, with higher income moving into attached dwellings. It was the price of the new developments that determined the age structure of the new residents rather than the location.

It is important to know the characteristics of new residents in fast growth locations to forecasts the needs of the future population in these areas. Variations in the characteristics of migrants can have a significant net effect on the population characteristics. If more young people move out than in each year and more old people move in than out each year, the ageing of the population can be significantly augmented.

Acknowledgements

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Appendix A – CD codes of fast growth locations in study

STUDY_AREA	UCL_CODE	UCL_NAME	CD_CODE_2001
Port Douglas	347200	Port Douglas	3010905
Port Douglas	347200	Port Douglas	3010909
Port Douglas	347200	Port Douglas	3010910
Port Douglas	347200	Port Douglas	3010913
Port Douglas	347200	Port Douglas	3010918
Port Douglas	315800	Craiglie	3010906
Port Douglas	315800	Craiglie	3010907
Port Douglas	315800	Craiglie	3010911
Port Douglas	315800	Craiglie	3010912
Airlie Beach	300200	Airlie Beach	3050807
Airlie Beach	300200	Airlie Beach	3050808
Airlie Beach	300200	Airlie Beach	3050811
Airlie Beach	300200	Airlie Beach	3050817
Airlie Beach	311200	Cannonvale	3050804
Airlie Beach	311200	Cannonvale	3050805
Airlie Beach	311200	Cannonvale	3050806
Airlie Beach	311200	Cannonvale	3050810
Airlie Beach	311200	Cannonvale	3050813
Airlie Beach	311200	Cannonvale	3050816
Yeppoon	363000	Yeppoon	3060202
Yeppoon	363000	Yeppoon	3060213
Yeppoon	363000	Yeppoon	3060214
Yeppoon	363000	Yeppoon	3060301
Yeppoon	363000	Yeppoon	3060302
Yeppoon	363000	Yeppoon	3060303
Yeppoon	363000	Yeppoon	3060304
Yeppoon	363000	Yeppoon	3060305
Yeppoon	363000	Yeppoon	3060306
Yeppoon	363000	Yeppoon	3060307
Yeppoon	363000	Yeppoon	3060308
Yeppoon	363000	Yeppoon	3060309
Yeppoon	363000	Yeppoon	3060310
Yeppoon	363000	Yeppoon	3060311
Yeppoon	363000	Yeppoon	3060312
Yeppoon	363000	Yeppoon	3060313
Yeppoon	363000	Yeppoon	3060314
Yeppoon	363000	Yeppoon	3060315
Yeppoon	363000	Yeppoon	3060316
Yeppoon	363000	Yeppoon	3060317
Yeppoon	363000	Yeppoon	3060318
Agnes Water	300100	Agnes Water	3070711
Agnes Water	300100	Agnes Water	3070712
Agnes Water	300100	Agnes Water	3070713
Agnes Water	300100	Agnes Water	3070714
Agnes Water	300100	Agnes Water	3070715
SUNRISE BEACH	352150	Sunshine Coast	3110301
SUNRISE BEACH	352150	Sunshine Coast	3110302
SUNRISE BEACH	352150	Sunshine Coast	3110303
SUNRISE BEACH	352150	Sunshine Coast	3110306
SUNRISE BEACH	352150	Sunshine Coast	3110307
SUNRISE BEACH	352150	Sunshine Coast	3110308
SUNRISE BEACH	352150	Sunshine Coast	3110309
SUNRISE BEACH	352150	Sunshine Coast	3110310
SUNRISE BEACH	352150	Sunshine Coast	3110311
SUNRISE BEACH	352150	Sunshine Coast	3110312
SUNRISE BEACH	352150	Sunshine Coast	3110314
SUNRISE BEACH	352150	Sunshine Coast	3110315
SUNRISE BEACH	352150	Sunshine Coast	3110317
SUNRISE BEACH	352150	Sunshine Coast	3110318
PELICAN WATERS	352150	Sunshine Coast	3111303
PELICAN WATERS	352150	Sunshine Coast	3111307
PELICAN WATERS	352150	Sunshine Coast	3111308
PELICAN WATERS	352150	Sunshine Coast	3111309
PELICAN WATERS	352150	Sunshine Coast	3111310
PELICAN WATERS	352150	Sunshine Coast	3111311

STUDY_AREA	UCL_CODE	UCL_NAME	CD_CODE_2001
PELICAN WATERS	352150	Sunshine Coast	3111312
PELICAN WATERS	352150	Sunshine Coast	3111326
PELICAN WATERS	352150	Sunshine Coast	3111327
SUNRISE BEACH	352150	Sunshine Coast	3112304
SUNRISE BEACH	352150	Sunshine Coast	3112305
SUNRISE BEACH	352150	Sunshine Coast	3112308
SUNRISE BEACH	352150	Sunshine Coast	3112311
SUNRISE BEACH	352150	Sunshine Coast	3112314
Highfields	327200	Highfields	3142207
Highfields	327200	Highfields	3142209
Highfields	327200	Highfields	3142210
Highfields	327200	Highfields	3142213
Highfields	327200	Highfields	3142214
Jimboomba	329800	Jimboomba	3151305
Jimboomba	329800	Jimboomba	3151306
Jimboomba	329800	Jimboomba	3151308
Jimboomba	329800	Jimboomba	3151314
Jimboomba	329800	Jimboomba	3151315
Jimboomba	329800	Jimboomba	3151316
Jimboomba	329800	Jimboomba	3151701
Jimboomba	329800	Jimboomba	3151702
Jimboomba	329800	Jimboomba	3151707
Jimboomba	329800	Jimboomba	3151716
CENTRAL SURFERS PARADISE	323600	Gold Coast	3162410
CENTRAL SURFERS PARADISE	323600	Gold Coast	3162411
CENTRAL SURFERS PARADISE	323600	Gold Coast	3162412
CENTRAL SURFERS PARADISE	323600	Gold Coast	3162414
CENTRAL SURFERS PARADISE	323600	Gold Coast	3162415
CENTRAL SURFERS PARADISE	323600	Gold Coast	3162416
CENTRAL SURFERS PARADISE	323600	Gold Coast	3162417
CENTRAL SURFERS PARADISE	323600	Gold Coast	3162501
CENTRAL SURFERS PARADISE	323600	Gold Coast	3162503
CENTRAL SURFERS PARADISE	323600	Gold Coast	3162507
CENTRAL SURFERS PARADISE	323600	Gold Coast	3162509
CENTRAL SURFERS PARADISE	323600	Gold Coast	3162510
CENTRAL SURFERS PARADISE	323600	Gold Coast	3162511
CENTRAL SURFERS PARADISE	323600	Gold Coast	3162512
CENTRAL SURFERS PARADISE	323600	Gold Coast	3162513
CENTRAL SURFERS PARADISE	323600	Gold Coast	3162607
CENTRAL SURFERS PARADISE	323600	Gold Coast	3162608
CENTRAL SURFERS PARADISE	323600	Gold Coast	3162609
CENTRAL SURFERS PARADISE	323600	Gold Coast	3162610
CENTRAL SURFERS PARADISE	323600	Gold Coast	3162611
CENTRAL SURFERS PARADISE	323600	Gold Coast	3162612
CENTRAL SURFERS PARADISE	323600	Gold Coast	3162613
CENTRAL SURFERS PARADISE	323600	Gold Coast	3162615
NORTH ROBINA	323600	Gold Coast	3170402
NORTH ROBINA	323600	Gold Coast	3170406
NORTH ROBINA	323600	Gold Coast	3170409
NORTH ROBINA	323600	Gold Coast	3170422
NORTH ROBINA	323600	Gold Coast	3170423
NORTH ROBINA	323600	Gold Coast	3170502
NORTH ROBINA	323600	Gold Coast	3171301
NORTH ROBINA	323600	Gold Coast	3171303
NORTH ROBINA	323600	Gold Coast	3171309
NORTH ROBINA	323600	Gold Coast	3171311
NORTH ROBINA	323600	Gold Coast	3171312
NORTH ROBINA	323600	Gold Coast	3171313
NORTH ROBINA	323600	Gold Coast	3171314
NORTH ROBINA	323600	Gold Coast	3171501
NORTH ROBINA	323600	Gold Coast	3171504
NORTH ROBINA	323600	Gold Coast	3171506
NORTH ROBINA	323600	Gold Coast	3171507
NORTH ROBINA	323600	Gold Coast	3171508
NORTH ROBINA	323600	Gold Coast	3171509
NORTH ROBINA	323600	Gold Coast	3171510
NORTH ROBINA	323600	Gold Coast	3171511
NORTH ROBINA	323600	Gold Coast	3171512

STUDY_AREA	UCL_CODE	UCL_NAME	CD_CODE_2001
NEWSTEAD	308400	Brisbane	3191004
NEWSTEAD	308400	Brisbane	3191005
NEWSTEAD	308400	Brisbane	3191006
NEWSTEAD	308400	Brisbane	3191007
NEWSTEAD	308400	Brisbane	3191008
NEWSTEAD	308400	Brisbane	3191009
NEWSTEAD	308400	Brisbane	3191010
NEWSTEAD	308400	Brisbane	3191011
FOREST LAKE	308400	Brisbane	3262502
FOREST LAKE	308400	Brisbane	3262503
FOREST LAKE	308400	Brisbane	3262504
FOREST LAKE	308400	Brisbane	3262505
FOREST LAKE	308400	Brisbane	3262506
FOREST LAKE	308400	Brisbane	3262507
FOREST LAKE	308400	Brisbane	3262509
FOREST LAKE	308400	Brisbane	3262510
FOREST LAKE	308400	Brisbane	3262511
FOREST LAKE	308400	Brisbane	3262512
FOREST LAKE	308400	Brisbane	3262513
FOREST LAKE	308400	Brisbane	3262514
FOREST LAKE	308400	Brisbane	3262515
FOREST LAKE	308400	Brisbane	3262517
FOREST LAKE	308400	Brisbane	3262521
FOREST LAKE	308400	Brisbane	3262522

Appendix B – Proportion new residents by location

	New Residents		Non-movers		Total	
Location	**no.**	**%**	**no.**	**%**	**no.**	**%**
Agnes Water	586	59.8	393	40.2	979	100.0
Airlie Beach	3,137	75.1	1,040	24.9	4,177	100.0
C. Surfers Paradise	1,689	73.2	619	26.8	2,308	100.0
Forest Lake	7,147	71.9	2,798	28.1	9,945	100.0
Highfields	1,722	52.5	1,558	47.5	3,280	100.0
Jimboomba	3,107	51.6	2,910	48.4	6,017	100.0
Newstead	2,087	84.0	396	16.0	2,483	100.0
North Robina	7,106	58.4	5,054	41.6	12,160	100.0
Pelican Waters	2,131	55.4	1,713	44.6	3,844	100.0
Port Douglas	1,953	71.9	763	28.1	2,716	100.0
Sunrise Beach	4,212	63.4	2,430	36.6	6,642	100.0
Yeppoon	5,577	61.0	3,571	39.0	9,148	100.0
Total	**40,452**	**63.5**	**23,245**	**36.5**	**63,697**	**100.0**