14 September 2015

Northern Australia Insurance Premiums Taskforce
The Treasury
Langton Crescent
PARKES ACT 2600

NorthernAustraliaInsurancePremiumsTaskforce@treasury.gov.au

Mr Stephen Powell

Insurance Australia Group (IAG) welcomes the opportunity to make a submission to the Northern Australia Insurance Premiums Taskforce *Interim Report*.

IAG endorses the content and sentiment of the submission made by the Insurance Council of Australia.

IAG has also commissioned Dr Richard Tooth of Sapere Research Group to undertake an economic analysis of the options outlined in the *Interim Report* and related matters. The report forms part of IAG's submission.

Who is Insurance Australia Group?

IAG is the parent company of a general insurance group with controlled operations in Australia, New Zealand, Thailand and Vietnam, employing more than 15,000 people. Its businesses collect over $11 billion of premium per annum, selling insurance under many leading brands including NRMA Insurance, CGU, SGIO, SGIC, Swann, WFI and Lumley Insurance (Australia); NZI, State, AMI and Lumley Insurance (New Zealand); Safety and NZI (Thailand); and AAA Assurance (Vietnam). IAG also has interests in general insurance joint ventures in Malaysia, India and China.

IAG's broad policy position on natural hazard related insurance affordability has been informed by the following principles:

- The solution to the problem of affordability requires a long term strategic approach by Government, the insurance industry and the broader community;
- The primary role of government in this area is to reduce community vulnerability to extreme weather events with a policy framework that promotes stronger building codes, risk appropriate land use planning and preventative infrastructure investment;
- Governments need to ensure appropriate risk management policy settings do not crowd out the private insurance market;
- Governments need to avoid interventions that promote dependence on government assistance and reduce incentives for self-reliance and personal responsibility;

Insurance Australia Group Limited
ABN 60 090 739 923

388 George Street
Sydney NSW 2000
Australia

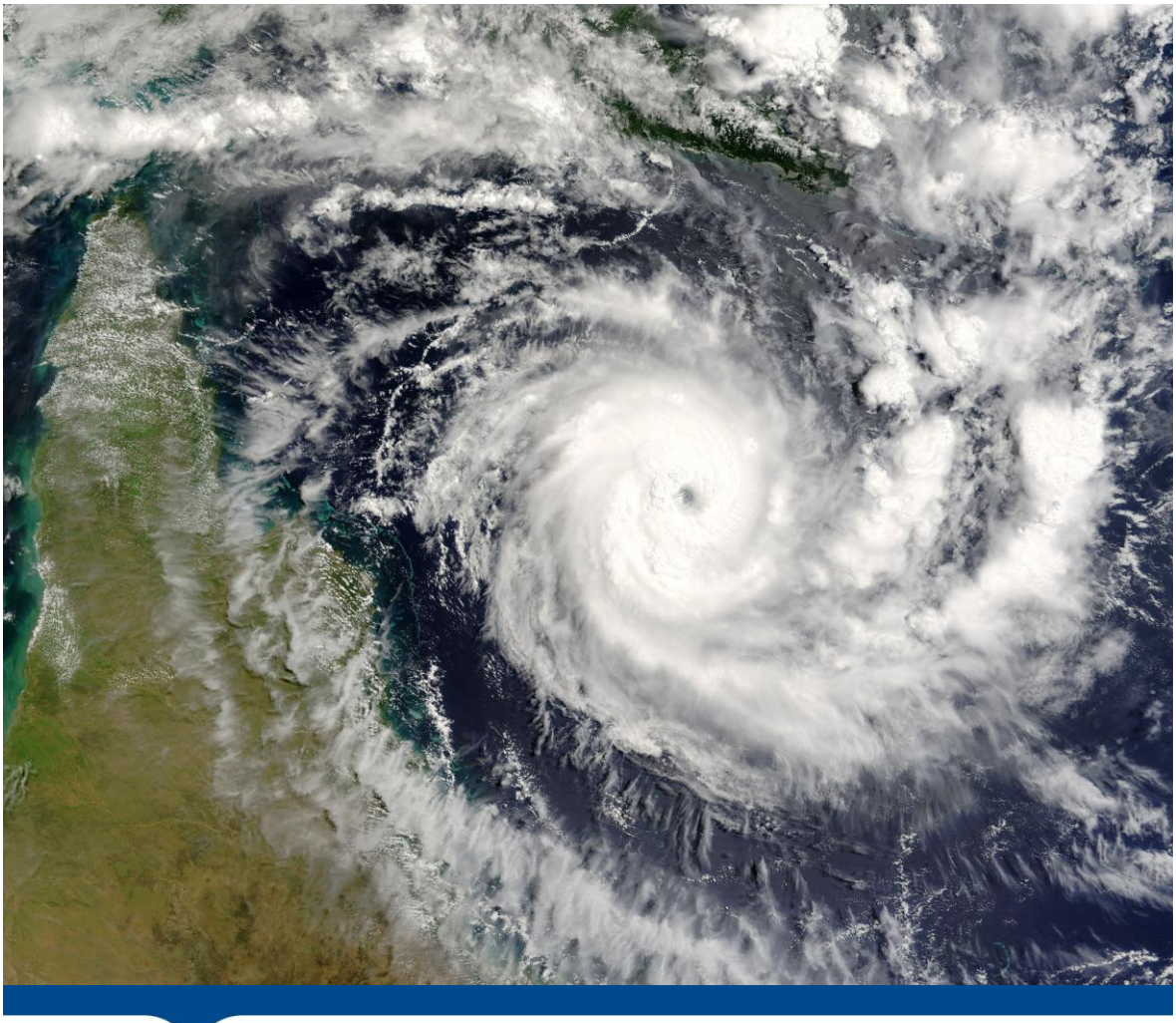
T +61 (0)2 9292 9222
www.iag.com.au

- Any financial assistance provided by Government should be targeted, means tested and accompanied by mitigation strategies so as not to undermine long term risk disaster resilience measures; and
- Importantly, these initiatives should not undermine the role of insurance prices and availability in creating an incentive for individuals, businesses and governments to reduce their exposure to weather related risk.

If you wish to discuss this matter or make further inquiries please contact David Wellfare, Senior Manager, Public Policy & Industry Affairs on (02) 9292 8593.

Yours sincerely

Michael Wilkins
Managing Director and
Chief Executive Officer



NORTHERN AUSTRALIA INSURANCE PREMIUMS TASKFORCE

14 September 2015

CONTENTS

Table of Contents

EXECUTIVE SUMMARY

- IAG does not believe that evidence has been provided to suggest there is market failure in the provision of insurance in Northern Australia.
- IAG submits the private insurance market remains the most effective and economically sustainable solution to ensuring the maximum number of people in Northern Australia choose to cover themselves for their risks.
- IAG believes the most effective way to address longer-term insurance affordability, accessibility and participation in Northern Australia is through a nationally coordinated and well-resourced disaster resilience program that reduces the impact of extreme weather events.
- In relation to a potential mutual insurer (Option 1) IAG considers that an insurance market, which has companies/entities operating in a regulatory vacuum for the sake of ensuring that cover is available to those who seek it (no matter what the quality), is not an optimal public policy result.
- In relation to a potential government reinsurance pool (Option 2), international experience reveals significant disadvantages to government provision or underwriting of natural disaster insurance for private property. These schemes have often failed to meet the objectives they were originally set up to achieve.
- There are more cost effective and targeted measures that could be used to address individual affordability and capacity to pay issues that would benefit the community. While IAG does not support government interventions (Options 1 and 2) in an insurance market where products are available and accessible, a direct and targeted government subsidy is a possible short-term option as long as it is integrated with appropriate risk mitigation measures.
- The price of insurance premiums provides a signal that can help individuals and communities make decisions about development and risk management. Rather than distort this signal, through the establishment of a reinsurance pool or a mutual insurer, the private insurance market must be encouraged to provide insurance products. IAG has invested in finding market solutions for these situations and recently introduced a new product, InsureLite, as a first step in testing how these could work.
- IAG has also successfully trialled a new strata inspection initiative to reduce strata premiums in 2015, announcing $1.3 million in customer savings in North Queensland from the implementation of pre-disaster mitigation measures.
- IAG believes the removal of all State Government taxes and duties on general insurance products is an important first step in addressing insurance affordability, accessibility and participation.
- It is in the interest of government to have a fully insured community so that the costs of responding to catastrophes are not borne by the government and public purse.
- Governments need to ensure appropriate risk management policy settings do not crowd out the private insurance market.

THE IMPORTANCE OF THE GENERAL INSURANCE INDUSTRY

The ways in which insurance contributes to society and economic growth is summed up by the Geneva Association (2012) as follows:

- it allows different risks to be managed more efficiently;
- it encourages loss mitigation;
- it enhances peace of mind and promotes financial stability;
- it helps relieve the burden on governments for providing all services of social protection to citizens via social security systems;
- it facilitates trade and commerce, supporting business and economic growth;
- it mobilises domestic savings; and
- it fosters a more efficient allocation of capital, advancing the development of financial services" (Geneva Association, The Social and Economic Value of Insurance, September 2012).

The most significant contribution of insurance to society is the provision of risk sharing, risk transfer abilities and loss prevention measures. General insurance products allow individuals to avoid the financial burden of incurring damage resulting from a specified event. Insurance supports the individual by keeping his/her financial situation stable by decreasing the level of unnecessary (individual) precautionary savings which enables capital to be allocated to higher-return projects. Thus, insurance stimulates investment and consumption by reducing the amount of capital tied up in relatively unproductive areas such as a traditional banking product. Additionally, unlike insurance, savings may not be sufficient to cover losses following an insurable event in which case governments may be called upon to cover the costs.

As the Treasury notes:

"Insurance also provides an indication of risk, as prices (and availability) reflect to a large extent the insurance industry's assessment of the level of risk involved in a particular circumstance. The price signal provided by insurance can therefore be an effective tool to encourage risk mitigation. Measures that significantly distort insurance prices, such as the imposition of state taxes, duties and levies, or government policies that mandate changes to private insurance arrangements (including subsidisation of insurance) can impact on the incentives for individuals, households, businesses and governments to undertake appropriate risk mitigation and/or purchase insurance as part of their risk management strategy." (The Treasury, Submission to Productivity Commission Inquiry into Natural Disaster Funding Arrangements. (2014).

While North Queensland has long been exposed to natural hazards, the frequency of extreme weather events and their level of destruction have risen significantly over the past nine years. Some of the more significant events include: Tropical Cyclone (TC) Larry (2006); TC Yasi (2011); storms and floods following TC Oswald (2013); and the Mackay Floods (2008). Added to this, despite its small market share, Queensland has been the source of significant claims pay-outs by insurers. Insurers have paid out more than $3.4 billion in claims in North Queensland since 2008 – including Tropical Cyclones Larry (2006), Yasi (2011), Oswald (2012) and Marcia (2014) as well as MacKay floods (2008) (Insurance Council of Australia).

MARKET FAILURE, COMPETITION AND REGULATION

IAG does not believe that evidence has been provided to suggest there is market failure in the provision of insurance in Northern Australia.

The Australian general insurance market can be characterised as being strongly capitalised and highly competitive. The industry is serviced by a large number of insurers providing a wide range of insurance products. The industry is also characterised by low barriers to entry, particularly in the retail short-tail classes of insurance such as home and motor vehicle insurance. In recent years these classes have been the subject of additional competition from foreign insurers. New competitors are also emerging from other financial services sectors, notably banks, and also from outside the industry, such as motor vehicle retailers and large retail groups, who have engaged in aggressive advertising as well as offering lower premiums and alternative products. Competition has also been enhanced through technology, in particular the internet and digital technology, in terms of providing an easier and cheaper way for new competitors to enter the market.

The North Queensland home insurance market is competitive and contestable. Several insurers offer home insurance products in North Queensland. In relation to the strata insurance market the Australian Government Actuary noted "*While it is true that there is limited competition in the NQ strata title insurance market, it is not clear that this has resulted in prices which are unreasonably high when assessed against the underlying risk.*"

Indeed, the *Interim Report* notes *"there are 12 insurers offering home insurance policies directly to customers in Queensland, although not all companies operate in all regions. Around 12 insurers also operate in the Northern Territory"* (p.13). Moreover, the *Interim Report* notes *"in the strata insurance market, brokers report that there was a period where there was only one insurer in the north Queensland market, but that two additional underwriters have recently entered the market."* (p.13)

The *Interim Report* also notes that the extent of competition in the market can also be judged by whether premiums increase beyond a reasonable level and highlighted the Australian Government Actuary findings that the *"higher premiums in northern Queensland compared to east coast cities largely reflected higher losses in the region and did not represent excessive profits of insurers"* (p.14)

IAG appreciates that the Federal Government is mindful of a general policy, adopted by successive Australian Governments in recent times, to the effect that where commercial markets, including insurance markets, operate efficiently and effectively on their own, the government should be reluctant to intervene.

In considering the impact - or likely impact - of any government intervention in the general insurance market in Australia, the views of Ken Henry, former Secretary of the Australian Treasury are of note:

> *"…the fact that your industry won't insure certain things does not, in most cases, provide an argument for the government stepping in to do so. Yet it is the failure to appreciate this simple point that underlies most calls on the government to subsidise various forms of activity. For that reason, most such calls will be resisted."*
>
> *"The second thing that should be emphasised is that the best policy response to an instance of market failure depends on a range of circumstances. Rarely will the best response involve government provision, even government underwriting."* (Ken Henry, Address to the Insurance Council of Australia Conference, 22 August 2002).

MARKET FAILURE, COMPETITION AND REGULATION (CONTINUED)

Also of note is the Policy Information Paper by the Hon. John Howard Treasurer (1979) which stated:

"The Government is satisfied that a scheme of the kind that had been under discussion – that is, one involving the provision of Government financial backing to a 'pool" of insurance companies – would be inappropriate on budgetary, technical and insurance policy grounds. Beyond that however, the Government also believes that such a scheme would be inconsistent with a basic tenet in its political philosophy- namely, that governments and government authorities should, to the maximum extent possible, seek to avoid intervention in matters that can be left to the private sector"(p.iii).

The Productivity Commission noted:

> *"..international experience reveals significant disadvantages to government provision or underwriting of natural disaster insurance for private property. These schemes have often failed to meet the objectives they were originally set up to achieve. Reducing or capping premiums can weaken the price signals that insurance sends people about the risks they face, and therefore discourage mitigation. It can also crowd out private initiatives. Moreover, government backed insurance schemes are not always successful at reducing calls on government budgets after a natural disaster. And on a number of occasions governments have had to bail out their schemes because they failed to accumulate sufficient reserves to pay claims or did not have adequate reinsurance."* (Productivity Commission Inquiry into Natural Disaster Funding Arrangements p.582).

Moreover, the Productivity Commission stated :

> *"Research shows that natural disaster policy is beset by political opportunism and short-sightedness (myopia), which biases how funding is allocated to natural disaster risk management. Politicians can be quick to provide generous post-disaster assistance, which provides immediate, observable and private benefits to individuals and has strong political salience. By contrast, the political incentives for mitigation are weak, since mitigation provides public benefits that accrue over a long time horizon. Over time, this bias creates entitlement dependency and undermines individual responsibility for natural disaster risk management.*
>
> *To create incentives for better risk management, natural disaster policy and funding arrangements need to clearly define roles and responsibilities (and how these relate to private and public risks), and have strong, transparent and credible commitment mechanisms so that governments avoid ad hoc policy responses, myopic policy settings and disincentives for private risk management."* (Productivity Commission Inquiry into Natural Disaster Funding Arrangements Final Report p.13).

IAG submits the private insurance market remains the most effective and economically sustainable solution to ensuring the maximum number of Australians choose to cover themselves for their risks.

INSURANCE AVAILABILITY AND AFFORDABILITY

In Australia, there has been an upward trend in natural disaster costs, particularly since 2000. At present, the total economic costs of natural disasters in Australia are estimated to average around $6.3 billion per year. In real terms, this total is forecast to grow by 3.5% annually. This is primarily due to the likely impact of further population growth, concentrated infrastructure density, and the effect of internal migration to particularly vulnerable regions. With this growth rate, the annual total economic cost of natural disasters in Australia is expected to double by 2030 and reach $23 billion in real terms by 2050.

The Treasury in its submission to the Productivity Commission noted:

> *"Insurers have responded to these significant losses by investing in their understanding of the risk of, and therefore potential losses from, such disasters. Improvements in technology and stronger competitive pressures are leading insurers to adopt more granular pricing methods; this ensures that an insurer neither undercharges for an individual risk nor overcharges (potentially losing market share to competitors which are more accurately pricing the risk). For example, greater access to better quality flood mapping has allowed insurers to more accurately determine the level of flood risk for individual properties. This has resulted in widespread natural disaster risk re-rating of properties. As a result, premiums for many households, especially those located in areas at high risk of cyclones, floods or bushfires, have increased, sometimes sharply."*

Moreover, Treasury noted:

> *"Charging property insurance premiums which are commensurate with the insurable risk borne by each individual property is fair and equitable. However, this process of repricing insurance has led to insurance affordability issues for certain individuals and businesses across Australia."*

An important driver of recent price increases for insurance in Northern Australia has been insurers more closely aligning their premiums with risks — an alignment that is desirable if insurance is to play a useful price signalling role. While this realignment has been occurring across Australia, this process is inevitably having a pronounced collective effect in North Queensland. In effect, the observed premium increases have occurred off a subsidised price base, with previous artificially low premiums on the many higher risk properties in the region paid for by other customers, the majority of who resided outside of North Queensland. It is important to note that while this premium realignment process is leading to higher insurance costs for North Queensland customers as a whole, insurance should become more affordable than would otherwise be the case for those North Queenslanders living in lower risk properties.

Significant improvements in data availability and interpretation capability are allowing insurers to assess an individual customer's circumstances to ensure their premium reflects the risk. This takes into consideration a property's exposure to events like cyclones and storms. Household pricing recognises and rewards customers as individuals, each with their own risk profile, instead of treating them as a postcode, demographic group or risk factor. This means pricing is increasingly more granular and dynamic.

Importantly, the price of insurance premiums provides a signal that can help individuals and communities make decisions about development and risk management. Rather than distort this signal, through the establishment of a Government reinsurance pool or a mutual insurer, the private insurance market must be encouraged to provide insurance products.

INSURANCE AVAILABILITY AND AFFORDABILITY (CONTINUED)

IAG understands that some residents and businesses in Northern Australia are facing immediate cost of living pressures that make insurance difficult to afford. In addition, there are some properties that are extremely vulnerable to natural hazards and therefore attract very high insurance premiums. IAG has invested in finding market solutions for these situations and recently introduced a new product, InsureLite, as a first step in testing how these could work.

InsureLite offers an alternative for customers unable to afford traditional home building insurance in Queensland. It provides customers with a quality new three-bedroom home built up to the value pre-selected by the customer of $150,000 or $200,000, or a lump sum payment up to the same amount, in the event their home is destroyed or damaged beyond repair.

InsureLite works differently to traditional home building insurance products as it doesn't require customers to pay an excess, instead customers preselect a minimum $5,000 or $10,000 damage threshold, which the cost of repairs needs to reach or exceed before they can make a claim. For many people unable to afford traditional building insurance InsureLite offers an alternative.

In the event a customer's home is destroyed, InsureLite will generally provide a new pre-specified three bedroom home and inclusions, such as:

- Kitchen appliances (range hood, oven, cook top)
- Bedroom carpet, tiled living, bathroom and laundry areas
- Kitchen, bathroom and laundry cabinetry
- Bath, shower and bathroom fittings
- Painting
- Demolition of existing home as necessary
- Allowances for local council fees, engineering/drafting and approvals

InsureLite was developed after extensive consultation with welfare and community groups, amid growing concerns household budget pressures were preventing certain parts of the community from taking out home insurance.

InsureLite will be trialled in Queensland over the coming months to get feedback from customers and assess whether it could be extended into other states and territories.

IAG also successfully trialled a new initiative to reduce strata premiums earlier this year, announcing $1.3 million in customer savings in North Queensland from the implementation of pre-disaster mitigation measures (see Enhancing Strata Resilience).

North Queensland in particular is the most densely populated cyclone region in Australia. Details of population, household composition, and dwelling structures in North Queensland are detailed in Appendix 1.

REINSURANCE

IAG's reinsurance programme is an important part of the Group's overall approach to capital management. Reinsurance is used to limit exposure to large single claims and accumulation of claims that arise from the same event or the accumulation of similar events.

Risks underwritten are reinsured in order to limit exposure to losses, stabilise earnings, protect capital resources and ensure efficient control and spread of the risks underwritten. Each subsidiary that is an insurer has its own reinsurance program and determines its own risk tolerances. To facilitate the reinsurance process, manage counter party exposure and create economics of scale, IAG has established a captive reinsurance operation comprising companies located in Australia, Malaysia and Singapore.

The reinsurance operation purchases reinsurance on behalf of Group entities to cover a return period of at least APRA's minimum of a 1:200 year event on a whole of portfolio basis but is authorised to elect to purchase covers up to a 1:250 year event. Dynamic financial analysis modelling is used to determine the optimal level at which reinsurance should be purchased for capital efficiency, compared with the cost and benefits of covers available in the market.

The external reinsurance programs consist of a combination of the following reinsurance protection:

- a Group catastrophe cover which is placed in line with the strategy of buying to the level of a 1:250 year event on a modified whole of portfolio basis. The catastrophe program is negotiated on an annual calendar year basis. Covers purchased are dynamic and the ICRC changes as total requirements change and as the reinsurance purchase strategy evolves;
- an aggregate cover which protects against a frequency of attritional event losses in Australia, New Zealand and Asia and operates below the Group catastrophe cover;
- excess of loss reinsurances which provide 'per risk' protection for retained exposures of the commercial property and engineering businesses in Australia, New Zealand, Thailand, Malaysia, Vietnam and Indonesia;
- excess of loss reinsurance for all casualty portfolios including CTP, public liability, workers' compensation and home owners warranty products;
- excess of loss reinsurance for all marine portfolios;
- adverse development cover and quota share protection on the CTP portfolio;
- excess of loss reinsurance cover for retained natural peril losses; and
- a 20% whole-of-account quota share arrangement, commencing 1 July 2015 for losses occurring after that date.

IAG Group buys reinsurance cover not only for cyclone, but also earthquake, hailstorms, windstorms, bushfire, flood, as well as seaquake, tsunami or volcanic eruptions.

As the Australian Government Actuary noted in the Report on Home and Contents Insurance Prices in North Queensland (2014)

> *"Catastrophe reinsurance policies are typically purchased in respect of an insurer's entire property portfolio. That is, there will usually not be separate catastrophe reinsurance policies for separate blocks of property business. Rather there will usually be one policy covering the whole property portfolio. Home and contents insurance in NQ is likely to represent only a fairly small percentage of an insurer's portfolio. An insurer's catastrophe reinsurance policy would therefore provide protection for far more of its business than just its NQ home insurance business." (p.19)*

MITIGATION

The *Interim Report* notes "*Mitigation should be an important component of any effort to reduce insurance premiums. This was highlighted throughout the consultations, with some stakeholders suggesting it should be the main focus".* IAG agrees mitigation should be the main focus. IAG believes the most effective way to address longer-term insurance affordability, accessibility and participation in Northern Australia is through a nationally coordinated and well-resourced disaster resilience program that reduces the impact of extreme weather events.

IAG supports a co-ordinated and collaborative approach, involving the three levels of government, community and insurers, to managing the impact of natural disasters on the community. The Australian Business Roundtable for Disaster Resilience & Safer Communities (of which IAG is a founding member) commissioned research by Deloitte Access Economics (2013) *'Building our Nation's Resilience to Natural Disasters'* demonstrated that carefully targeted resilience investments of $250 million per annum have the potential to generate budget savings of $12.2 billion for all levels of government and would reduce natural disaster costs by more than 50% by 2050. Considering the increase in natural disaster costs forecast over the period to 2050, it is anticipated that governments will eventually face an annual cost of around $2.3 billion in real terms.

IAG welcomes the Productivity Commission recommendations for the Australian Government to increase its funding to the States for mitigation to $200 million per year. Australia is prone to natural disasters like cyclones, flooding and bushfires but, as a nation, we spend 10 times more on disaster relief and recovery than on putting in place preventative measures to prevent or reduce the impact.

The Business Roundtable's commissioned Paper (2013) noted a program of mitigation activity should be developed based on cost-benefit analysis that demonstrates a clear positive outcome from investing in pre-disaster resilience measures, including a program of community education activities. Prioritisation of these activities should be informed by analysis of research, information and data sets allowing key investment decisions to be taken at all levels, including government incentives and price signals from the private sector.

Information is critical to understanding and managing natural disaster risk. Information on hazards and risk exposure has improved significantly in recent years, but there are opportunities to improve its consistency, sharing and communication.

IAG believes the key to better understanding impacts of natural perils is the availability of accurate, current data and relevant research. Yet, crucial natural disaster information is difficult and costly to access, often incomplete or out of date and frequently duplicated across sources.

Through the research set out in the Business Roundtable's commissioned Report (2014) *'Building an Open Platform for Natural Disaster Resilience Decisions'* the Business Roundtable show that a fresh approach to the collation, co-ordination and analysis of natural disaster information and research is fundamental to the prioritisation of mitigation decisions that will help strengthen and safeguard our communities.

As outlined in *'Building our nation's resilience to natural disasters',* the responsibility for the provision of risk information in an accessible and usable way lies primarily with government. Natural disaster information has some public good characteristics. The use of information by one party does not impact its availability for use by others, but it is excludable. Overall, it has positive externalities, and is therefore classified as a merit good. Accordingly, the net benefits associated with producing information on natural hazards and resilience measures will increase as wider distribution is promoted.

BUILDING STANDARDS

Regulations affecting the built environment have a significant influence on the exposure and vulnerability of communities to natural hazards. While building regulations have generally been effective, there is evidence that land use planning is not always incorporating natural disaster risk. The 2013 Business Roundtable White Paper also reflects this sentiment; *"Supporting an increased effort to co-ordinate and update existing data, natural resource mapping and assessments that may exist across government departments, needs to be prioritised and integrated into land use planning."* IAG believes that this will enable government to provide a more informed and consolidated approach to planning decisions and land management.

Both the 2013 and 2014 Business Roundtable Papers recommend the importance of prioritising the collection and co-ordination of national natural hazard data, to properly inform state and locally based land use planning reforms. Only when this has been completed can the national building codes be geographically addressed accurately and adequately. Until now, building code standards have focused, in principle, on protecting life and safety. The Business Roundtable suggests that following the development of accurate data, there is further scope to enhance building standards so that they also cost-effectively protect the property itself, its owner's financial interest as well as potential disruption to people's lives with all the attendant intangible and indirect costs, and health and social impacts without sacrificing safety performance.

It is of note that post-event analysis of building damage after a number of major natural disasters indicates there is a crucial role for government to support community resilience by ensuring that new buildings in 'at-risk' areas are constructed to withstand hazards such as tropical cyclones, storm surge, severe storms, hailstorms, bushfires and flood. For example, it was found that changing the building code for South East Queensland could be expected to reduce damage from a cyclone by around 66%. This figure was based on historical analysis of the performance of housing in northern Queensland that was built before and after the introduction of similar standards.

An analysis by James Cook University of structural damage to buildings following cyclone Yasi indicated that buildings correctly designed and constructed to the standards/requirements introduced in the 1980s sustained a much lower incidence of damage. IAG's current cyclone premium for post-1980 buildings subsequently has a discount applied.

Building codes that require the use of resilient and/or resistant materials or design are - where implemented and enforced - also likely to reduce the extent of damage to a property which will in turn reduce the cost incurred by insurers in repairing the property. Building codes will also determine how the repair or rebuild is undertaken.

One potentially useful approach could be to develop a form of resilience rating given to buildings, and especially external claddings and internal walls in flood prone areas - similar to the star ratings systems used for energy efficiency and water use. A five star cladding, solar panel or air conditioner should be able to withstand the wind effects of a Category 5 cyclone, for example.

Once resilience ratings were widely in use there would be scope for the insurance industry to offer lower premiums to those people in more resilient buildings compared to those in unrated buildings, thereby providing a financial incentive for individuals to try to self protect and a tool for the construction industry to offer more resilient buildings to clients.

BUILDING STANDARDS (CONTINUED)

Business Roundtable commissioned report noted analysis by the Cyclone Testing Station suggests that the most common risk to houses during a cyclone occurs once the building envelope (the physical separator between the interior and the exterior environments) has been penetrated. Once this occurs, the pressure differential between the house and its environment often results in the destruction of the house's roof structure. As a result, the Cyclone Testing Station has found that some of the most common sources of cyclone damage to houses consist of:

- Failure of fasteners
- Failure of rotten timbers
- Garage doors being blown in or out
- Roofs being blown away in whole or in part
- Doors and windows blown open
- Water ingress through the roof, doors, windows, vents, etc.
- Failure of attachments such as guttering, fascias and eaves
- Damage caused by falling trees.

This suggests that cyclone-related costs could be reduced by first increasing the resilience of the building's envelope by strengthening doors, roller-doors and windows. In high risk locations, resilience could be further developed by adding roof ties to a structure. Roof ties connect the roof structure to the core of the building, essentially linking the roof to the building's foundation.

Both of the Business Roundtable's commissioned research papers outline a new approach to pre-disaster investments in Australia. They highlight the importance of integrated information and activity across governments, businesses and communities. By centralising decision-making and funding, and establishing a national research agenda, Government will be better able to co-ordinate and prioritise resilience activities across relevant departments and levels of government.

By pursuing the key recommendations of the Business Roundtable papers and the Productivity Commission's recommendations, economic costs can be materially reduced, as well as relieving long term pressures on government budgets. More importantly, a safer Australia can be created through building resilience against the trauma and loss of life that all too frequently confronts many of our communities when a natural disaster strikes.

COMMUNITY EDUCATION

Community engagement and education are also critical components of building resilience. To be most effective this requires longer term commitment of resources and activities than is currently available.

IAG works proactively to educate the community on the risk of natural perils. Across the country we run joint campaigns with our community partners to encourage the community to prepare their homes to help prevent the risk of property damage through weather events. As part of this, we encourage consumers to check their level of insurance cover and participate with our organisation in ways other than just at sales and claim time.

IAG's product documents are explicit about what is and is not included in the cover being sold. Indeed, policy terms and conditions, including coverage and exclusions are clearly outlined in Product Disclosure Statements and communicated to customers.

Disaster risk awareness and risk reduction education are effective when the public, private, education, and community sectors collaborate. To involve these many stakeholders, cross-sectoral platforms such as disaster risk reduction task forces or networks can promote a collaborative process for the creation, implementation and dissemination of risk awareness and risk reduction education programs and strategies.

ENHANCING STRATA RESILIENCE

IAG believes there are options for the Federal Government to assist further with strata building resilience. IAG through CGU Insurance implemented a strata building resilience project to enhance resilience and address insurance affordability in North Queensland. The project focused on improving building resilience to severe weather so that customers could receive premium reductions. The assessments cover risks such as building construction type and method, exposure to direct wind-driven rain, as well as other hazards and possible defects. Following completion of each assessment, IAG is revisiting its pricing and reducing premiums where possible. Importantly, this project is being funded in an effort to provide more affordable and sustainable strata insurance premiums.

Recommendations from the assessments are being provided to strata property owners and managers on repairs that can be made to improve the property's resilience and risk rating, enabling the properties to potentially be re-rated so that customers receive sustainable premium discounts. Should the body corporate wish to have the remedial works carried out, IAG could facilitate a detailed quote either through the building manager's preferred trades people or local businesses.

IAG hopes the project will further embed sustainable pricing focused on risk as well as having important benefits for human safety from flying debris, and improved property values. If the bodies corporate carry out the works required to increase resilience this would also result in a lowering of premiums together with an improvement in personal and asset safety, improving the capital value of the assets.

Results from the building assessments have been encouraging. IAG has been able to provide up-front premium relief in the range of 12.5-15.0% for several of the properties that have been assessed. These premium discounts could not be offered earlier because the insured was not in a position to identify the building risks that have been identified in the assessments. IAG is currently circulating to bodies corporate recommendations or requirements on building works that can be undertaken so that further sustainable premium reductions can be achieved.

IAG has offered to share the findings of the building assessments with government, councils and other interested stakeholders, to improve knowledge and awareness of building codes, materials, and other mitigation, which all impact on insurance premiums. For example, the findings of the building assessment reports could be useful for local councils with a view to making changes to building codes so that they include weather resilience. This would help address affordability issues over the longer term as new buildings should be built to withstand extreme weather. The longer term impact of all of these initiatives will not only help the affordability issue but will also likely increase the value of assets in the region. It is also fair to say that a more sustainable insurance environment would lead to an increase in competition within the area.

TAXES AND DUTIES

The *Interim Report* notes that insurance taxes add either 10-20% to the cost of insurance premiums in northern Australia (depending on the jurisdiction).

IAG believes the removal of all State Government taxes and duties on general insurance products is an important first step in addressing insurance affordability, accessibility and participation. Currently, there is an anomaly with statutory classes of insurance, with workers' compensation and CTP exempt from stamp duty, while mandatory cover such as strata insurance is subject to taxes and duties in Queensland. In this context, immediate taxation relief on North Queensland insurance products, particularly mandatory products such as strata insurance, presents the most expeditious and effective means of brining immediate premium relief to North Queensland.

ASSESSING THE INTERIM REPORT OPTIONS

IAG's broad policy position on natural hazard related insurance affordability has been informed by the following principles:

- The solution to the problem of affordability requires a long term strategic approach by Government, the insurance industry and the broader community;
- The primary role of government in this area is to reduce community vulnerability to extreme weather events with a policy framework that promotes stronger building codes, risk appropriate land use planning and preventative infrastructure investment.;
- Governments need to ensure appropriate risk management policy settings do not crowd out the private insurance market. Governments need to avoid interventions that promote dependence on government assistance and reduce incentives for self-reliance and personal responsibility;
- Any financial assistance provided by Government should be targeted, means tested and accompanied by mitigation strategies so as not to undermine long term risk disaster resilience measures; and
- Importantly, these initiatives should not undermine the role of insurance prices and availability in creating an incentive for individuals, businesses and governments to reduce their exposure to weather related risk.

While IAG does not support government interventions in an insurance market where products are available and accessible, IAG has argued in response to previous government inquiries and reviews that a direct and targeted government subsidy is a possible short-term option as long as it is integrated with appropriate risk mitigation measures.

It is of note the consumer attitudes research for the Natural Disaster Insurance Review in 2011 when the issue of a possible government pool for flood was raised as an option stated:

> *"One alternative would be to pursue a funding model designed to focus only on the small number of homes in the extreme risk category. A model that concentrated on that category of houses might be able to deliver improvements in flood mitigation and more resilient buildings – and take some of the price pressure off flood insurance the rest of the market. The establishment of a premium discount scheme linked to mitigation and remedial work could rely on the existing insurance and reinsurance market, rather than requiring the establishment of a new Pool that would have to take on some flood risk.*
>
> *By concentrating on the highest risk band, the intervention may be able to be closely integrated with risk mitigation measures."*

IAG commissioned Dr Richard Tooth of Sapere Research Group to undertake an economic analysis of the options outlined in the *Interim Report* and related matters. The Sapere Research includes:

- An economic analysis of the issues for home and contents insurance in Northern Australia;
- A general review of the potential benefits and risks of Government intervention in insurance markets;
- A review of the costs and benefits of the alternative schemes proposed in the Taskforce's Interim Report; and
- A discussion of possible refinements to the options that would reduce the costs and/or increase the benefits.

The Sapere Report is at Appendix 2.

DIRECT SUBSIDY

The *Interim Report* notes *"some stakeholders have called for the Government to address affordability concerns by making a payment to policyholders to help them meet the cost of insurance."*

Government assistance in the form of a subsidy for the highest risk properties could be a possible solution. A direct subsidy is in contrast to an indirect government subsidy delivered via its involvement in a reinsurance or claims pool.

There are two broad models – a subsidy paid to the resident/policy holder or a subsidy paid to insurer or policy issuer.

IAG recommended a direct subsidy to insurers in its submission to the Natural Disaster Insurance Review (NDIR) – Inquiry into flood insurance and related matters Issues Paper (June 2011). The key components of that proposal are:

- **Insurers** (who offer cover), underwrite 100% of the risk and it is therefore the responsibility of insurers to cover the risk, and pay legitimate claims. There will be a benefit to government in that funding otherwise spent on emergency recovery is likely to be reduced.
- **Owners** whose property has been identified as having extreme or high risk are entitled to a subsidy from government for their home and contents policy.
- **The subsidy** is provided by government as a proportion of the determined premium for each applicable premium in excess of a price threshold.
- **Insurers and government** agree on the premium subsidy rate for all determined premiums. This premium should be payable by government directly to insurers to subsidise individual premium calculations for properties identified with an extreme and high risk.
- **Insurers and government** agree to an actuarial review of the premium subsidy process and oversight of the pricing structure behind the risk premium charged – to be provided as a separate item on the certificate of insurance.
- **Government** to create a database of the properties affected by extreme and high risk.
- **Properties** built or approved after an agreed date would not be eligible for the subsidy, to restrict further development in areas of high risk. It is important that all stakeholders are discouraged, through a risk price signal, from establishing new property in high risk locations.

Examples of direct subsidies to assist affordability are found in other industries, for example in the telecommunication sector. Under the telecommunication USO, the Federal Government guaranteed reasonable access to a standard telephone service regardless of geographical location or income by imposing pricing restrictions on Telstra (as the USO provider) for basic/standard services and then providing funding to Telstra to compensate for the subsidy created by those pricing restrictions. The Private Health Insurance and Child Care Rebates also offer a model.

A subsidy targets and isolates the funding problem to those properties most at risk and provides the Government with the flexibility to target the assistance to specific population segments via means testing. Subsidies are easier to administer and scale (up or down) over time.

A subsidy model provides a mechanism for Government to target those property owners most at risk, without adding frictional costs, avoids structural intervention and provides decision makers with the ability to keep the costs within budget. Government is not on risk (unlike a reinsurance pool or mutual where there is a Government guarantee and therefore its exposure is potentially unlimited) – the costs are predictable and containable.

The establishment of a subsidy scheme linked to mitigation and remedial work could rely on the existing insurance and reinsurance market.

DIRECT SUBSIDY (CONTINUED)

Sapere Research Group (2015) note: *"A direct subsidy approach has several advantages. First, the subsidy could be targeted so as to ensure that it is directed at those most in need of financial assistance. This reduces the total level of subsidy required.*

Second, the offer of the subsidy could be coupled with requirements for mitigation. This would encourage a greater take-up of the assistance program.

Third, a targeted subsidy approach would have lesser impact on the operations of the insurance industry. Most importantly, it would complement and not crowd out insurance industry operations."

Details of potential models for a direct subsidy are outlined in the Insurance Council of Australia's submission.

MUTUAL INSURER

The *Interim Report* notes that *"..the details of the option has not yet been developed, the broad concept is the creation of a new insurance entity that would be 'owned' by the people of northern Australia and offer a retail consumer contract to cover loss caused by cyclones".*

IAG considers that an insurance market, which has companies/entities operating in a regulatory vacuum for the sake of ensuring that cover is available to those who seek it (no matter what the quality), is not an optimal public policy result. IAG believes that it suggests a misplaced concern for an outcome rather than a viable ongoing solution to the original problem. IAG believes all providers of insurance products should be required to meet the APRA prudential and reporting standards. IAG submits that this helps develop a level prudential playing field. To ensure best practice, the performance of different entities providing those products must be measured on the same basis. IAG believes both APRA and ASIC would not be favourably disposed towards arrangements that granted certain privileges to some insurers.

The main rationale for prudential regulation of general insurance is consumer protection. It also has a role in ensuring that a level playing field is maintained with respect to competition when implementing prudential regulation. Some niche and other sensitive lines of insurance are precisely the sectors of the market that require a strong regulatory presence by virtue of the high risk nature of the activities and property being insured.

Within the general insurance sector, IAG considers that substantial information 'asymmetry' exists, in that policyholders may not be equipped with sufficient information on which to base a decision to insure. The consequences of this are adverse for policyholders if it results in insurance claims not being met. It is unreasonable to expect retail consumers to conduct a detailed review of the financial security of their insurance contract or its provider. They should be entitled to assume a base level of security from all providers of retail insurance operating in the local market.

Finally, if a mutual is not subject to the same prudential regulations as Australian licensed insurers, they would gain an unfair competitive advantage over locally operating insurers. Additionally, there is a risk that consumers/bodies corporate may be unable to differentiate between a mutual and a local licensed insurer and unknowingly expose themselves to all the risks associated with an unregulated player e.g. discretionary mutual funds are not subject to the Insurance Contracts Act, nor are these schemes subject to any prudential regulation. These schemes are required to report to APRA however this is to ensure they are not offering insurance and circumventing legal requirements to become a regulated insurer.

Sapere Research Group (2015) note *"..a likely disadvantage of the mutual insurer is that it would not maintain the market discipline of private insurers in underwriting and managing claims".*

Importantly, the *Interim Report* notes *"no Australian government has set up an insurance scheme specifically to address affordability concerns for a specific peril (such as cyclones). Hence there is no precedent of government exit from such an arrangement. Where governments overseas have set up similar bodies, there are few precedents of governments successfully exiting the market." (p.31)*

GOVERNMENT BACKED REINSURANCE POOL FOR CYCLONE RISK

The *Interim Report* notes *"while the details of this model are still to be finalised, the broad outline of the scheme is that a government-supported entity would offer reinsurance to all insurers covering loss caused by tropical cyclones."*

IAG does not support the concept of a government reinsurance pool for cyclone risk. A pool would inevitably become a drain on government resources as evidenced by the US National Flood Insurance Program (approximately US$24 billion in deficit) and the New Zealand Earthquake Commission (EQC) (New Zealand Government insurance liabilities for the EQC property damages were NZ$12.5 billion). These pools are only appropriate where there is no private market solution available. This is not the case for cyclone risk.

Potential government intervention, for example through a Government reinsurance pool, can increase the potential burden on the taxpayer after a loss and create hidden subsidies. It can also limit the effectiveness of the insurance industry by distorting competition and reducing rates to uneconomic levels.

Moreover, the *Interim Report* notes *"Certainty as to what is covered is important if the reinsurance pool is to reduce insurers' costs, which should in turn lead to a reduction in consumer premiums. If the definition of the risk being covered by the reinsurance pool contract is ambiguous and results in uncertainty, insurers may not be able to carve out all cyclone risk from their private reinsurance."* (p.35)

As the *Interim Report* highlights there are many potential permutations of a Government backed insurance scheme or reinsurance pool. International examples of direct government involvement in the insurance market – including the United States, New Zealand, Japan, France and the UK – all have significantly different features as well as varying levels of government and industry financial commitment and participation.

The Productivity Commission Report identified some of the common issues and challenges arising from Government backed insurance schemes or pools:

- Inadequate reserves - Some governments have had to inject capital into their schemes, often following a catastrophic natural disaster;
- Moral hazard – the availability of subsidised insurance can weaken the incentives of households, business and government to implement measures to reduce exposure and vulnerability. This can be exacerbated by cross-subsidisation of premiums and such cross-subsidisation is greater where risk is concentrated on a relatively small number of properties (for eg flood) rather than dispersed more evenly across the population (eg earthquakes and arguably cyclone in Northern Australia);
- Take up rates – expectation of government assistance after a disaster can reduce participation in insurance schemes even when they are explicitly or implicitly subsidised by governments; and
- Private sector provision – government backed schemes can crowd out provision of insurance by the private market.

Sapere Research Group (2015) note *"The rationale used to justify government insurance schemes elsewhere does not appear to apply to cyclone risk in northern Australia. In the absence of a market failure, a government scheme will only serve to increase costs. Rather, consistent with international experience, a Government supported scheme is likely to lead to many negative outcomes."*

CONCLUSION

It is in the interest of government to have a fully insured community so that the costs of responding to catastrophes are not borne by the Government and public purse. Governments need to ensure appropriate risk management policy settings do not crowd out the private insurance market. Governments need to avoid interventions that promote dependence on government assistance and reduce incentives for self-reliance and personal responsibility.

IAG believes that any regulatory or legislative response should be proportional to the issue or "problem" being addressed and only the option that generates the greatest net benefit for the community, taking into account all the impacts, should be adopted.

IAG welcomes the opportunity to work with government and other stakeholders on the development of the most appropriate options to achieve the social and economic policy objectives, and to support a move towards a more sustainable and comprehensive approach to addressing the cost of insurance in Northern Australia.

Queensland Government Statistician's Office

Queensland Regional Profiles

Resident Profile - people who live in the region

NQLD region

Compared with Queensland

NQLD region has been derived using local government areas

3 July 2015

Queensland Government

Queensland Government Statistician's Office
Queensland Treasury
http://www.qgso.qld.gov.au

The region name NQLD region is the customisable region name provided by the generator of this report and does not necessarily represent the current view of Queensland Treasury or the Queensland Government.

All data and information in this report are believed to be accurate and have come from sources believed to be reliable. However, Queensland Treasury does not guarantee or represent that the data and the information are accurate, up to date or complete, and disclaims liability for all claims, losses, damages or costs of whatever nature and howsoever occurring, arising as a result of relying on the data and information, regardless of the form of action, whether in contract, tort (including negligence), breach of statutory duty or otherwise.

Front cover photo credits (from left to right): © Courtesy of Tourism Queensland; © The State of Queensland; © Lyle Radford; © The State of Queensland.

To run this profile again, please click here

Region overview

The resident profiles provide details on a range of topics for people who live in the region. For some topics, more detailed data are available through the Queensland Regional Database (also known as QRSIS), developed and maintained by the Queensland Government Statistician's Office.

NQLD region comprises the 33 local government area 2014s of Aurukun Shire, Burdekin Shire, Burke Shire, Cairns Regional Council, Carpentaria Shire, Cassowary Coast Regional Council, Charters Towers Regional Council, Cloncurry Shire, Cook Shire, Croydon Shire, Douglas Shire, Etheridge Shire, Flinders Shire, Hinchinbrook Shire, Hope Vale Shire, Isaac Regional Council, Kowanyama Shire, Livingstone Shire, Lockhart River Shire, Mackay Regional Council, Mapoon Shire, Mareeba Shire, McKinlay Shire, Mornington Shire, Mount Isa City, Napranum Shire, Northern Peninsula Area Regional Council, Pormpuraaw Shire, Richmond Shire, Rockhampton Regional Council, Tablelands Regional Council, Townsville City and Whitsunday Regional Council.

NQLD region has a total area of 766,486.8 km^2. NQLD region has an average daily temperature range of 18.5 °C to 31.2 °C and on average it receives 857 mm of rainfall each year.

Queensland has a total area of 1,734,238.8 km^2. Queensland has an average daily temperature range of 16.4 °C to 30.0 °C and on average it receives 636 mm of rainfall each year.

Data are based on Australian Bureau of Statistics (ABS), Australian Statistical Geography Standard (ASGS), July 2011. In some cases these data have been concorded from other geographical boundaries.

Demography

Estimated resident population

The estimated resident population (ERP) figure is the official population estimate, and represents the best possible estimate of the resident population. For sub-state geographies, ERP figures are updated annually using a model which includes administrative data that indicate population change, such as registered births and deaths, dwelling approvals, Medicare enrolments and electoral enrolments. Data are updated annually with an approximate delay of 9 months after the reporting period. It is anticipated the next update will be in April 2016.

As at 30 June 2014, the estimated resident population for NQLD region was

829,885 persons

NQLD region

- ERP of 829,885 persons as at 30 June 2014
- Average annual growth rate of 1.6% over five years
- Average annual growth rate of 1.9% over ten years
- Within the region, Townsville (C) LGA had the largest population with 192,038 persons
- Within the region, Northern Peninsula Area (R) LGA had the fastest population growth over five years with 3.2%

Queensland

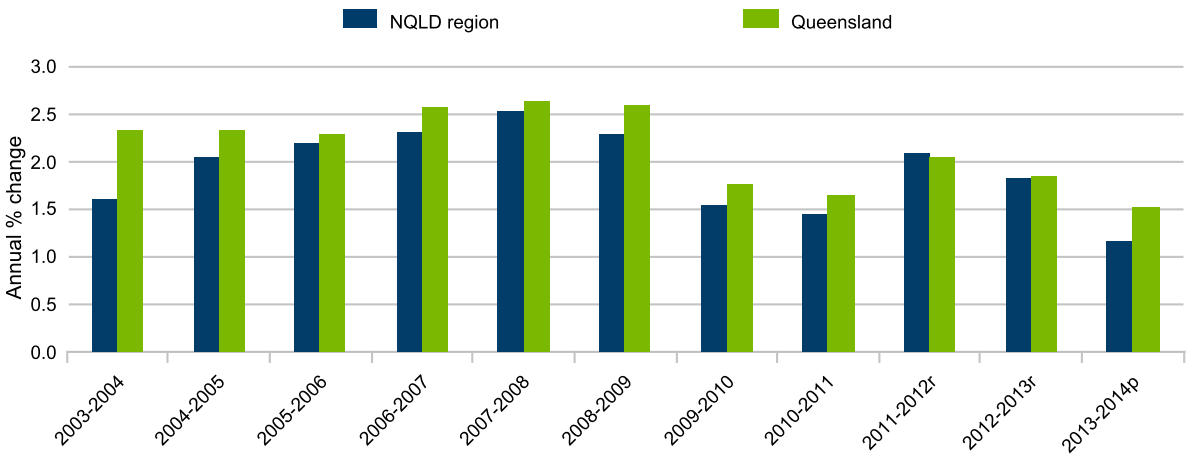
- ERP of 4,722,447 persons as at 30 June 2014
- Average annual growth rate of 1.8% over five years
- Average annual growth rate of 2.1% over ten years

Table 1 Estimated resident population by LGA, NQLD region and Queensland

Custom region / LGA / State	As at 30 June			Average annual growth rate	
	2004	2009	2014p	2004–2014p	2009–2014p
	— number —			— % —	
NQLD region	**685,018**	**766,225**	**829,885**	**1.9**	**1.6**
Aurukun (S)	1,110	1,315	1,410	2.4	1.4
Burdekin (S)	17,636	17,776	17,916	0.2	0.2
Burke (S)	492	543	559	1.3	0.6
Cairns (R)	123,392	145,962	158,985	2.6	1.7
Carpentaria (S)	2,191	2,136	2,245	0.2	1.0
Cassowary Coast (R)	29,337	28,761	28,705	-0.2	0.0
Charters Towers (R)	11,872	12,239	12,517	0.5	0.5
Cloncurry (S)	3,424	3,304	3,399	-0.1	0.6
Cook (S)	3,696	3,988	4,260	1.4	1.3
Croydon (S)	266	307	324	2.0	1.1
Douglas (S)	10,453	11,116	11,607	1.1	0.9
Etheridge (S)	897	927	921	0.3	-0.1
Flinders (S)	1,946	1,834	1,822	-0.7	-0.1
Hinchinbrook (S)	11,851	11,829	11,541	-0.3	-0.5
Hope Vale (S)	831	955	1,095	2.8	2.8
Isaac (R)	19,231	22,237	24,455	2.4	1.9
Kowanyama (S)	1,030	1,088	1,125	0.9	0.7
Livingstone (S)	28,159	32,474	36,378	2.6	2.3
Lockhart River (S)	591	554	540	-0.9	-0.5
Mackay (R)	96,285	111,455	123,383	2.5	2.1
Mapoon (S)	232	271	293	2.4	1.6
Mareeba (S)	18,353	20,177	21,537	1.6	1.3
McKinlay (S)	973	1,011	1,083	1.1	1.4
Mornington (S)	1,054	1,158	1,223	1.5	1.1
Mount Isa (C)	19,908	21,607	22,717	1.3	1.0
Napranum (S)	836	901	943	1.2	0.9
Northern Peninsula Area (R)	2,074	2,273	2,663	2.5	3.2
Pormpuraaw (S)	623	673	731	1.6	1.7
Richmond (S)	1,007	898	847	-1.7	-1.2
Rockhampton (R)	72,420	77,448	83,439	1.4	1.5
Tablelands (R)	22,699	24,103	24,973	1.0	0.7
Townsville (C)	151,172	173,067	192,038	2.4	2.1
Whitsunday (R)	28,977	31,838	34,211	1.7	1.4
Queensland	**3,829,970**	**4,328,771**	**4,722,447**	**2.1**	**1.8**

Source: ABS 3218.0, *Regional Population Growth, Australia, 2013-14*

Figure 1 Estimated resident population growth, NQLD region and Queensland



Source: ABS 3218.0, *Regional Population Growth, Australia, 2013-14*

Population by age and sex

The estimated resident population (ERP) figure is the official population estimate, and represents the best possible estimate of the resident population. For sub-state geographies, ERP figures are updated annually using a model which includes administrative data that indicate population change, such as registered births and deaths, dwelling approvals, Medicare enrolments and electoral enrolments. Data are updated annually with an approximate delay of 12 months after the reporting period. It is anticipated the next update will be in September 2015.

As at 30 June 2013, the proportion of the estimated resident population aged 65 years and over for NQLD region was

12.0%

NQLD region

- 20.9% aged 0–14 years as at 30 June 2013
- 67.1% aged 15–64 years
- 12.0% aged 65+ years
- Within the region, Mornington (S) LGA had the largest percentage of persons aged 0–14 with 35.6%
- Within the region, Burke (S) LGA had the largest percentage of persons aged 15–64 with 75.7%
- Within the region, Hinchinbrook (S) LGA had the largest percentage of persons aged 65+ with 23.0%

Queensland

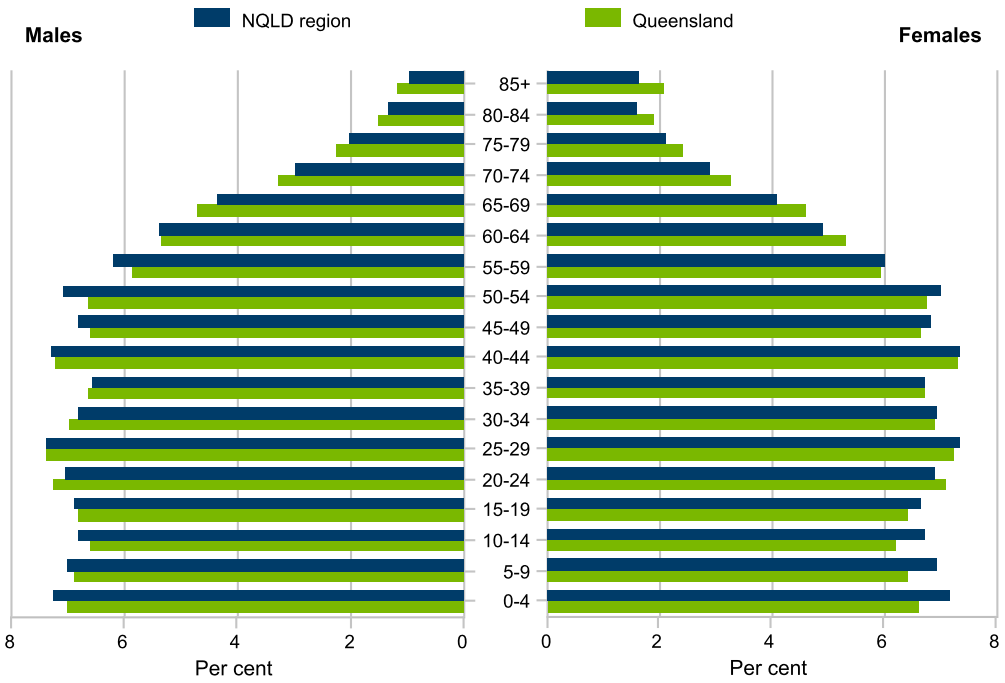
- 19.8% aged 0–14 years as at 30 June 2013
- 66.5% aged 15–64 years
- 13.6% aged 65+ years

Table 2 Estimated resident population by age and LGA, NQLD region and Queensland, 30 June 2013p

Custom region / LGA / State	Age group									
	0–14		15–24		25–44		45–64		65+	
	number	%	number	%	number	%	number	%	number	%
NQLD region	**172,001**	**20.9**	**112,861**	**13.7**	**231,700**	**28.2**	**206,272**	**25.1**	**98,349**	**12.0**
Aurukun (S)	392	28.0	269	19.2	460	32.8	223	15.9	57	4.1
Burdekin (S)	3,565	19.9	2,077	11.6	4,169	23.3	4,818	26.9	3,259	18.2
Burke (S)	107	19.2	71	12.8	198	35.6	152	27.3	28	5.0
Cairns (R)	34,036	21.7	20,044	12.8	46,116	29.4	40,283	25.6	16,600	10.6
Carpentaria (S)	494	22.2	246	11.1	594	26.7	655	29.4	236	10.6
Cassowary Coast (R)	5,320	18.5	3,363	11.7	6,441	22.4	8,611	30.0	4,959	17.3
Charters Towers (R)	2,816	22.5	1,572	12.6	2,960	23.7	3,091	24.7	2,052	16.4
Cloncurry (S)	662	19.4	460	13.5	1,172	34.3	885	25.9	234	6.9
Cook (S)	791	18.0	475	10.8	1,446	32.9	1,218	27.7	463	10.5
Croydon (S)	78	24.2	42	13.0	108	33.5	61	18.9	33	10.2
Douglas (S)	2,126	18.5	1,276	11.1	3,138	27.4	3,336	29.1	1,595	13.9
Etheridge (S)	161	17.5	67	7.3	221	24.1	294	32.0	175	19.1
Flinders (S)	362	19.8	184	10.1	413	22.6	510	27.9	359	19.6
Hinchinbrook (S)	1,996	17.1	1,307	11.2	2,305	19.7	3,405	29.1	2,687	23.0
Hope Vale (S)	302	28.0	225	20.8	350	32.4	159	14.7	44	4.1
Isaac (R)	5,993	24.7	2,830	11.7	8,881	36.6	5,440	22.4	1,131	4.7
Kowanyama (S)	317	28.4	189	17.0	381	34.2	203	18.2	25	2.2
Livingstone (S)	7,019	19.8	4,408	12.4	8,199	23.1	10,453	29.5	5,413	15.3
Lockhart River (S)	122	23.1	103	19.5	159	30.1	95	18.0	50	9.5
Mackay (R)	25,620	21.0	16,443	13.5	35,480	29.1	30,945	25.4	13,421	11.0
Mapoon (S)	65	22.6	32	11.1	84	29.2	89	30.9	18	6.3
Mareeba (S)	4,129	19.3	2,461	11.5	5,247	24.5	5,863	27.4	3,682	17.2
McKinlay (S)	191	17.6	140	12.9	384	35.4	270	24.9	100	9.2
Mornington (S)	432	35.6	146	12.0	337	27.8	246	20.3	53	4.4
Mount Isa (C)	5,292	23.2	3,453	15.2	7,762	34.1	4,790	21.0	1,482	6.5
Napranum (S)	287	31.0	164	17.7	285	30.8	155	16.7	35	3.8
Northern Peninsula Area (R)	856	33.4	499	19.5	639	25.0	433	16.9	133	5.2
Pormpuraaw (S)	183	25.2	79	10.9	238	32.7	176	24.2	51	7.0
Richmond (S)	164	19.4	94	11.1	233	27.6	251	29.7	103	12.2
Rockhampton (R)	17,494	21.2	12,280	14.9	22,228	26.9	19,225	23.3	11,324	13.7
Tablelands (R)	5,045	20.3	2,600	10.5	4,919	19.8	7,231	29.2	4,998	20.2
Townsville (C)	39,267	20.8	30,932	16.3	56,034	29.6	43,659	23.1	19,346	10.2
Whitsunday (R)	6,317	18.6	4,330	12.7	10,118	29.7	9,048	26.6	4,203	12.4
Queensland	**924,352**	**19.8**	**642,291**	**13.8**	**1,313,426**	**28.2**	**1,142,755**	**24.5**	**633,979**	**13.6**

Source: ABS 3235.0, *Population by Age and Sex, Regions of Australia, 2013*

Figure 3 Estimated resident population by age and sex, NQLD region and Queensland, 30 June 2013p



Source: ABS 3235.0, *Population by Age and Sex, Regions of Australia, 2013*

Median age

The median age is the age at which half the population is older and half is younger. These median age estimates have been calculated by the ABS and Queensland Treasury using single year of age estimated resident population data. Data are updated annually with an approximate delay of 12 months after the reporting period. It is anticipated the next update will be in September 2015.

As at 30 June 2013, the median age for NQLD region was

35.8 years

NQLD region

- Median age of 35.8 years as at 30 June 2013
- Decrease of 1.5 years from median age of 34.4 years as at 30 June 2003
- Within the region, Hinchinbrook (S) LGA had the highest median age of 46.9 years
- Within the region, Etheridge (S) LGA and Flinders (S) LGA had the largest decrease in median age from 30 June 2003 to 30 June 2013 with 7.9 years

Queensland

- Median age of 36.6 years as at 30 June 2013
- Increase of 1.1 years from median age of 35.5 years as at 30 June 2003

Table 3 Median age by LGA, NQLD region and Queensland

Custom region / LGA / State	As at 30 June			Change
	2003	2008	2013p	2003–2013p
	— years —			years
NQLD region	**34.4**	**35.5**	**35.8**	**1.5**
Aurukun (S)	26.9	27.1	26.5	-0.4
Burdekin (S)	37.8	40.2	41.2	3.4
Burke (S)	33.5	34.4	34.3	0.8
Cairns (R)	34.0	35.3	36.1	2.1
Carpentaria (S)	32.1	35.0	37.9	5.8
Cassowary Coast (R)	38.2	41.0	43.0	4.8
Charters Towers (R)	34.3	37.1	38.6	4.3
Cloncurry (S)	29.5	31.1	33.9	4.4
Cook (S)	38.7	39.5	37.1	-1.5
Croydon (S)	31.4	28.6	30.4	-1.0
Douglas (S)	36.4	38.7	40.5	4.1
Etheridge (S)	37.7	42.3	45.6	7.9
Flinders (S)	35.5	36.9	43.4	7.9
Hinchinbrook (S)	41.1	44.2	46.9	5.8
Hope Vale (S)	27.1	25.0	25.5	-1.6
Isaac (R)	31.8	31.4	32.0	0.2
Kowanyama (S)	28.3	29.1	27.7	-0.6
Livingstone (S)	38.8	40.2	41.3	2.4
Lockhart River (S)	25.0	26.5	28.8	3.8
Mackay (R)	34.9	35.7	35.5	0.6
Mapoon (S)	27.8	30.2	32.1	4.3
Mareeba (S)	38.6	40.1	41.4	2.8
McKinlay (S)	34.3	35.0	33.5	-0.8
Mornington (S)	27.2	27.2	26.7	-0.6
Mount Isa (C)	29.7	29.9	30.6	0.9
Napranum (S)	24.3	23.7	25.7	1.4
Northern Peninsula Area (R)	21.4	22.2	23.6	2.2
Pormpuraaw (S)	30.2	32.3	34.3	4.1
Richmond (S)	32.3	35.8	39.5	7.3
Rockhampton (R)	34.6	35.0	34.5	-0.1
Tablelands (R)	40.5	43.0	44.5	4.0
Townsville (C)	32.1	32.9	33.1	1.0
Whitsunday (R)	37.0	37.4	37.3	0.3
Queensland	**35.5**	**36.2**	**36.6**	**1.1**

Refer to explanatory notes for additional information.

Source: ABS 3235.0, *Population by Age and Sex, Regions of Australia* unpublished data and Queensland Treasury estimates

Population projections

The Queensland Government population projections are generated by applying assumptions regarding future trends in the components of population change (fertility, mortality and migration) and the latest planning and development intelligence available. Data presented in this topic are based on a medium series. Data are updated twice every five years. It is anticipated the next update will be in December 2016.

From 2011 to 2036, the population for NQLD region is projected to increase from

789,249 persons to 1,227,154 persons

NQLD region

- Population projected to be 1,227,154 persons as at 30 June 2036
- Increase of 1.8% per year over 25 years
- Within the region, Townsville (C) LGA is projected to have the largest population as at 30 June 2036 with 314,362 persons
- Within the region, Livingstone (S) LGA is projected to have the fastest growth in population from 30 June 2011 to 2036 with an average annual rate of 2.5% per year

Queensland

- Population projected to be 7,095,177 persons as at 30 June 2036
- Increase of 1.9% per year over 25 years

Table 4 Projected population by LGA, NQLD region and Queensland

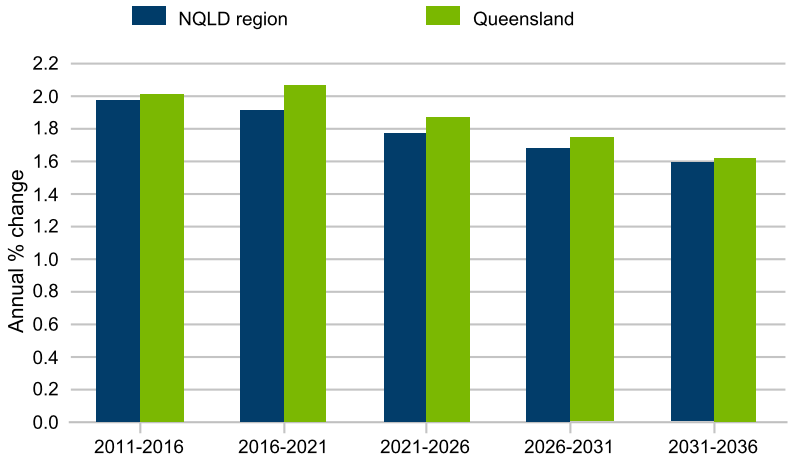
Custom region / LGA / State	As at 30 June						Average annual growth rate
	2011[(a)]	2016	2021	2026	2031	2036	2011–2036
	— number —						%
NQLD region	**789,249**	**870,092**	**956,423**	**1,043,979**	**1,134,467**	**1,227,154**	**1.8**
Aurukun (S)	1,398	1,511	1,611	1,701	1,784	1,860	1.1
Burdekin (S)	17,775	18,001	18,365	18,713	19,079	19,467	0.4
Burke (S)	557	584	609	633	655	678	0.8
Cairns (R)	150,992	167,794	186,575	205,735	225,006	244,083	1.9
Carpentaria (S)	2,197	2,286	2,357	2,421	2,480	2,536	0.6
Cassowary Coast (R)	28,636	28,715	29,214	29,639	30,347	31,476	0.4
Charters Towers (R)	12,434	12,480	12,531	12,533	12,507	12,459	0.0
Cloncurry (S)	3,342	3,445	3,476	3,509	3,547	3,590	0.3
Cook (S)	4,409	4,765	5,037	5,320	5,527	5,754	1.1
Croydon (S)	327	345	368	391	414	439	1.2
Douglas (S)	11,186	11,969	12,873	13,797	14,748	15,717	1.4
Etheridge (S)	929	941	963	985	1,006	1,027	0.4
Flinders (S)	1,840	1,822	1,801	1,785	1,774	1,768	-0.2
Hinchinbrook (S)	11,817	11,733	11,664	11,565	11,460	11,351	-0.2
Hope Vale (S)	1,052	1,150	1,239	1,310	1,414	1,502	1.4
Isaac (R)	23,188	25,803	28,655	31,359	34,014	36,676	1.9
Kowanyama (S)	1,112	1,161	1,201	1,236	1,269	1,299	0.6
Livingstone (S)	33,394	39,377	44,072	49,824	56,405	62,226	2.5
Lockhart River (S)	520	505	491	477	463	448	-0.6
Mackay (R)	115,960	130,896	146,304	162,455	179,677	197,905	2.2
Mapoon (S)	281	310	337	358	389	414	1.6
Mareeba (S)	20,745	22,015	23,660	25,304	26,962	28,623	1.3
McKinlay (S)	1,085	1,114	1,141	1,171	1,204	1,240	0.5
Mornington (S)	1,220	1,315	1,406	1,491	1,573	1,652	1.2
Mount Isa (C)	22,079	23,233	24,292	25,324	26,341	27,352	0.9
Napranum (S)	908	927	983	1,021	1,070	1,105	0.8
Northern Peninsula Area (R)	2,463	2,621	2,758	2,884	3,000	3,110	0.9
Pormpuraaw (S)	715	762	805	847	888	928	1.0
Richmond (S)	847	822	794	767	743	722	-0.6
Rockhampton (R)	78,939	86,688	94,045	100,986	108,031	116,297	1.6
Tablelands (R)	24,372	25,500	27,019	28,039	28,831	29,390	0.8
Townsville (C)	180,114	203,672	229,982	257,292	285,479	314,362	2.3
Whitsunday (R)	32,416	35,830	39,795	43,106	46,383	49,700	1.7
Queensland	**4,476,778**	**4,946,319**	**5,477,082**	**6,007,578**	**6,548,220**	**7,095,177**	**1.9**

Refer to explanatory notes for additional information.

(a) 2011 data are estimated resident population (ERP).
For more detailed data on the Queensland Government population projections, please refer to the Queensland Government Statistician's Office website at http://www.qgso.qld.gov.au/subjects/demography/population-projections/index.php

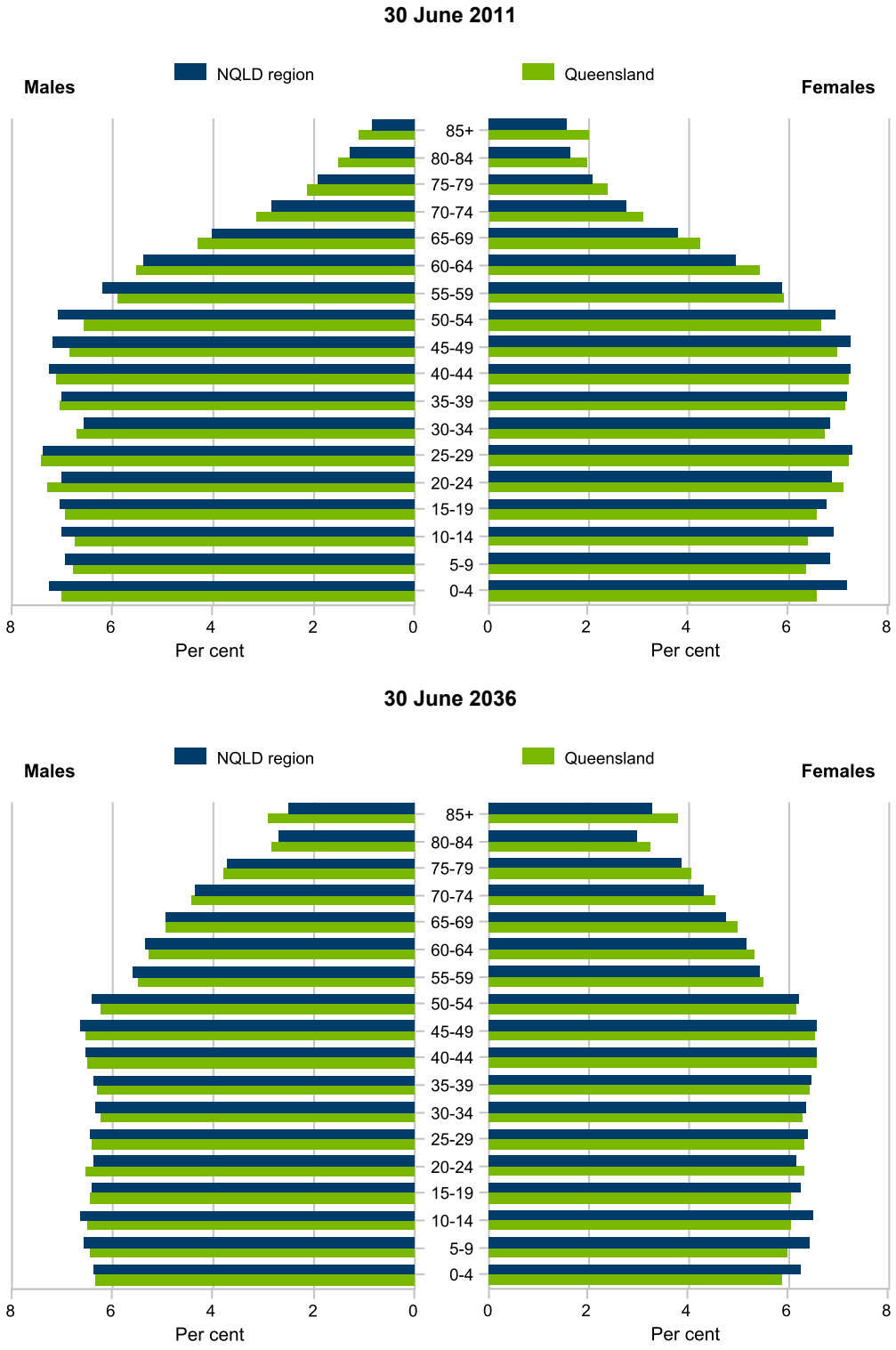
Source: *Queensland Government Population Projections*, 2013 edition (medium series)

Figure 4 Projected population change, NQLD region and Queensland



Source: *Queensland Government Population Projections*, 2013 edition (medium series)

Figure 5 Projected population by age and sex, NQLD region and Queensland, 30 June 2011 and 30 June 2036



Source: *Queensland Government Population Projections*, 2013 edition (medium series)

Indigenous population

Indigenous population is based on the 2011 Census of Population and Housing question about Indigenous status where each person is asked to identify whether they are of Aboriginal and/or Torres Strait Islander origin. This is based on persons by place of usual residence.

The percentage of Indigenous persons in NQLD region was

8.1%

NQLD region

- 61,587 persons (or 8.1%) were Indigenous
- Within the region, Napranum (S) LGA had the largest percentage of Indigenous persons with 95.9%

Queensland

- 155,824 persons (or 3.6%) were Indigenous

Table 5 Indigenous status by LGA, NQLD region and Queensland, 2011

Custom region / LGA / State	Indigenous persons					Non-Indigenous persons		Total persons[b]
	Aboriginal	Torres Strait Islander	Both[a]	Total				
	— number —			number	%	number	%	number
NQLD region	**43,966**	**10,115**	**7,506**	**61,587**	**8.1**	**651,113**	**85.2**	**764,341**
Aurukun (S)	1,163	7	25	1,195	92.2	98	7.6	1,296
Burdekin (S)	671	98	123	892	5.1	15,631	90.0	17,362
Burke (S)	140	0	3	143	27.8	286	55.6	514
Cairns (R)	6,997	4,176	2,264	13,438	9.2	121,627	83.7	145,332
Carpentaria (S)	714	7	36	757	36.8	1,046	50.9	2,055
Cassowary Coast (R)	1,779	438	376	2,593	9.4	23,653	85.5	27,668
Charters Towers (R)	885	22	55	962	7.9	10,448	85.9	12,169
Cloncurry (S)	661	22	19	702	21.8	2,158	66.9	3,227
Cook (S)	742	28	61	831	20.0	3,003	72.3	4,152
Croydon (S)	74	3	0	77	24.6	219	70.0	313
Douglas (S)	729	73	124	925	8.5	8,919	82.4	10,826
Etheridge (S)	27	3	0	30	3.4	809	90.4	895
Flinders (S)	98	10	3	111	6.2	1,554	86.8	1,791
Hinchinbrook (S)	533	69	52	654	5.7	10,440	90.2	11,568
Hope Vale (S)	919	0	7	926	94.1	42	4.3	984
Isaac (R)	492	58	54	604	2.7	19,788	87.6	22,586
Kowanyama (S)	915	0	22	937	91.1	89	8.6	1,029
Livingstone (S)	919	122	68	1,109	3.4	29,509	90.6	32,564
Lockhart River (S)	403	12	15	430	89.0	47	9.7	483
Mackay (R)	2,907	1,303	702	4,912	4.4	101,061	89.6	112,797
Mapoon (S)	155	9	72	236	89.1	26	9.8	265
Mareeba (S)	2,245	239	193	2,677	13.4	16,141	80.7	20,013
McKinlay (S)	39	0	0	39	3.7	894	85.3	1,048
Mornington (S)	986	4	15	1,005	88.0	131	11.5	1,142
Mount Isa (C)	2,984	100	122	3,206	15.1	15,112	71.2	21,237
Napranum (S)	471	71	279	821	95.9	35	4.1	856
Northern Peninsula Area (R)	141	890	932	1,963	85.4	302	13.1	2,298
Pormpuraaw (S)	544	14	42	600	90.5	60	9.0	663
Richmond (S)	45	3	0	48	5.8	713	86.1	828
Rockhampton (R)	4,243	327	319	4,889	6.4	66,655	86.8	76,775
Tablelands (R)	1,477	155	207	1,839	7.8	20,739	87.4	23,716
Townsville (C)	7,800	1,727	1,176	10,703	6.1	153,056	87.7	174,462
Whitsunday (R)	1,068	125	140	1,333	4.2	26,821	85.3	31,427
Queensland	**122,896**	**20,094**	**12,834**	**155,824**	**3.6**	**3,952,707**	**91.2**	**4,332,740**

(a) Applicable to persons who are of 'both Aboriginal and Torres Strait Islander origin'.
(b) Includes Indigenous status not stated.

Source: ABS, Census of Population and Housing, 2011, Indigenous Profile - I02 (usual residence)

Births and deaths

Birth and death statistics are an estimate of the number of births and deaths that have been registered in Australia's state and territory Registries of Births, Deaths and Marriages over a calendar year. These estimates are useful for two distinct purposes – use as a component of population growth and for analysis of fertility and mortality. Data are updated annually with an approximate delay of 12 months after the reporting period. It is anticipated the next update will be in December 2015.

The number of registered births in 2013 to mothers with a usual residence in NQLD region was

12,063 births

NQLD region

- 12,063 registered births in 2013
- 4,698 registered deaths
- Within the region, Napranum (S) LGA had the largest crude birth rate with 32.4 births per 1,000 population

Queensland

- 63,354 registered births in 2013
- 27,901 registered deaths

Table 6 Registered births and deaths by LGA, NQLD region and Queensland, 2013

Custom region / LGA / State	Births		Deaths		Natural increase
	number	rate[a]	number	rate[a]	number
NQLD region	**12,063**	**14.7**	**4,698**	**5.7**	**7,366**
Aurukun (S)	30	21.4	9	6.4	21
Burdekin (S)	195	10.9	134	7.5	61
Burke (S)	3	5.4	3	5.4	0
Cairns (R)	2,338	14.9	731	4.7	1,607
Carpentaria (S)	31	13.9	19	8.5	12
Cassowary Coast (R)	348	12.1	243	8.5	105
Charters Towers (R)	175	14.0	116	9.3	59
Cloncurry (S)	57	16.7	48	14.1	9
Cook (S)	49	11.2	30	6.8	19
Croydon (S)	4	12.4	4	12.4	0
Douglas (S)	143	12.5	83	7.3	60
Etheridge (S)	19	20.7	0	0.0	19
Flinders (S)	39	21.3	13	7.1	26
Hinchinbrook (S)	104	8.9	108	9.2	-4
Hope Vale (S)	24	22.2	7	6.5	17
Isaac (R)	421	17.3	35	1.4	386
Kowanyama (S)	27	24.2	0	0.0	27
Livingstone (S)	437	12.3	248	7.0	189
Lockhart River (S)	15	28.4	0	0.0	15
Mackay (R)	1,789	14.7	620	5.1	1,169
Mapoon (S)	4	13.9	0	0.0	4
Mareeba (S)	249	11.6	167	7.8	82
McKinlay (S)	13	12.0	6	5.5	7
Mornington (S)	20	16.5	13	10.7	7
Mount Isa (C)	466	20.5	86	3.8	380
Napranum (S)	30	32.4	6	6.5	24
Northern Peninsula Area (R)	74	28.9	4	1.6	70
Pormpuraaw (S)	13	17.9	3	4.1	10
Richmond (S)	12	14.2	3	3.6	9
Rockhampton (R)	1,325	16.1	617	7.5	708
Tablelands (R)	280	11.3	210	8.5	70
Townsville (C)	2,878	15.2	917	4.8	1,961
Whitsunday (R)	452	13.3	215	6.3	237
Queensland[b]	**63,354**	**13.6**	**27,901**	**6.0**	**35,453**

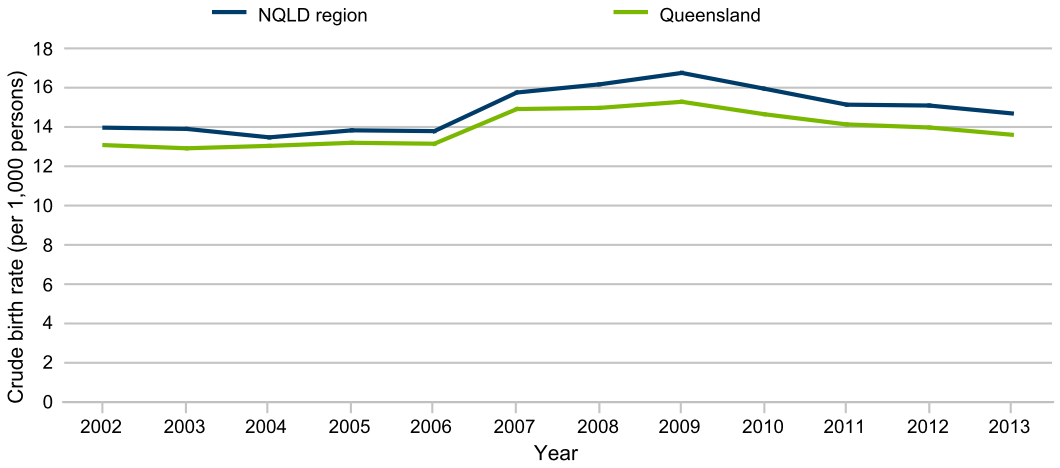
Refer to explanatory notes for additional information.

(a) Crude rate per 1,000 persons.

(b) Queensland totals include births and deaths where the usual residence was overseas, no fixed abode, Offshore and Migratory, and Queensland undefined.

Source: ABS 3301.0, *Births, Australia, 2013;* ABS 3302.0, *Deaths, Australia, 2013*

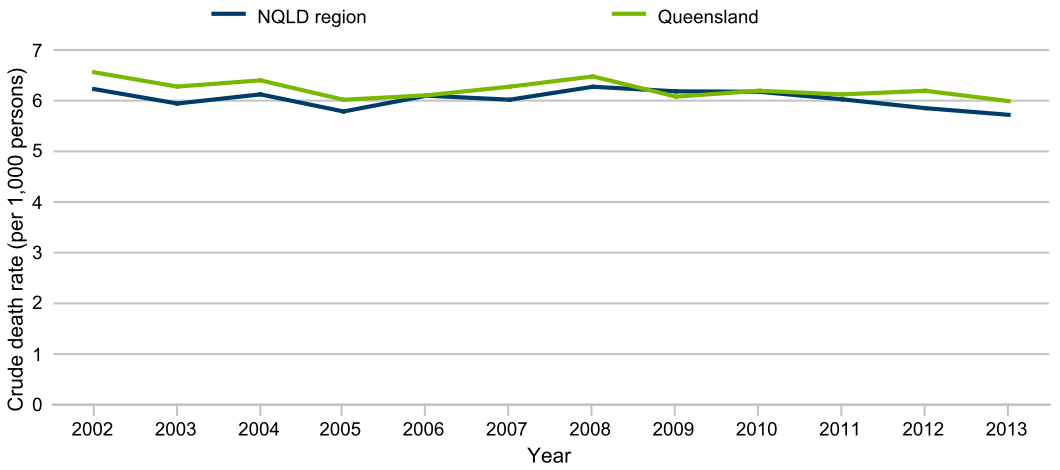
Figure 6 Crude birth rate, NQLD region and Queensland[(a)]



(a) Queensland totals include births where the usual residence was overseas, no fixed abode, Offshore and Migratory, and Queensland undefined.

Source: ABS 3301.0, *Births, Australia, 2013;* ABS 3302.0, *Deaths, Australia, 2013*

Figure 7 Crude death rate, NQLD region and Queensland[(a)]



(a) Queensland totals include deaths where the usual residence was overseas, no fixed abode, Offshore and Migratory, and Queensland undefined.

Source: ABS 3301.0, *Births, Australia, 2013;* ABS 3302.0, *Deaths, Australia, 2013*

Migration 1 year ago

Migration one year ago compares the usual address of household members on Census Night 2011 (9 August 2011) with their usual address one year earlier (i.e. 9 August 2010). This is based on persons by place of usual residence.

The percentage of persons in NQLD region with a different address one year ago was

18.3%

NQLD region

- 561,344 persons usually resided in the same address as one year ago
- 138,218 persons (or 18.3%) usually resided in a different address one year ago
- Within the region, Isaac (R) LGA had the largest percentage of persons with a different usual address one year ago with 25.3%

Queensland

- 3,278,187 persons usually resided in the same address as one year ago
- 764,695 persons (or 17.9%) usually resided in a different address one year ago

Table 7 Place of usual residence one year ago[a] by LGA, NQLD region and Queensland, 2011

Custom region / LGA / State	Same address	Different address				Proportion with different address	Total persons[c]
		Within Queensland	Rest of Australia	Overseas	Total[b]		
	number	— number —				%	number
NQLD region	**561,344**	**112,611**	**15,708**	**7,875**	**138,218**	**18.3**	**753,606**
Aurukun (S)	1,223	36	6	7	49	3.8	1,276
Burdekin (S)	14,228	1,792	105	150	2,063	12.0	17,171
Burke (S)	329	67	17	3	87	16.9	514
Cairns (R)	104,083	22,289	3,805	2,165	28,622	20.0	143,286
Carpentaria (S)	1,382	331	43	0	374	18.5	2,027
Cassowary Coast (R)	21,872	3,503	348	199	4,096	15.0	27,316
Charters Towers (R)	9,390	1,691	131	37	1,884	15.7	12,012
Cloncurry (S)	2,084	576	104	33	726	22.7	3,196
Cook (S)	2,701	517	58	78	658	16.0	4,100
Croydon (S)	231	39	6	0	48	15.5	310
Douglas (S)	7,551	1,487	445	156	2,120	19.8	10,680
Etheridge (S)	682	112	18	7	142	16.2	879
Flinders (S)	1,364	236	12	7	259	14.7	1,759
Hinchinbrook (S)	9,692	1,196	82	23	1,322	11.5	11,450
Hope Vale (S)	865	65	0	3	68	7.0	966
Isaac (R)	14,433	4,629	661	266	5,608	25.3	22,190
Kowanyama (S)	928	57	3	3	75	7.5	1,006
Livingstone (S)	24,416	4,673	522	167	5,425	16.8	32,202
Lockhart River (S)	427	37	3	0	43	9.0	480
Mackay (R)	84,888	16,030	2,113	1,181	19,594	17.6	111,123
Mapoon (S)	200	49	3	0	57	21.9	260
Mareeba (S)	15,360	2,317	196	118	2,690	13.6	19,793
McKinlay (S)	735	134	53	11	198	19.0	1,041
Mornington (S)	1,007	69	19	0	94	8.4	1,115
Mount Isa (C)	13,717	3,285	561	338	4,266	20.4	20,862
Napranum (S)	799	36	0	3	42	5.0	841
Northern Peninsula Area (R)	1,953	149	20	4	178	8.0	2,231
Pormpuraaw (S)	597	49	0	0	49	7.5	650
Richmond (S)	581	151	12	7	173	21.3	813
Rockhampton (R)	57,413	11,360	754	512	12,889	17.0	75,676
Tablelands (R)	18,335	3,297	283	144	3,819	16.3	23,448
Townsville (C)	126,298	27,728	4,372	1,731	34,331	20.0	171,909
Whitsunday (R)	21,580	4,624	953	523	6,169	19.9	31,024
Queensland	**3,278,187**	**616,283**	**75,239**	**63,184**	**764,695**	**17.9**	**4,275,277**

(a) Based on persons aged one year and over.
(b) Includes persons who stated that they were usually resident at a different address 1 year ago but did not state that address.
(c) Includes persons who did not state whether they were usually resident at a different address 1 year ago.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B38 (usual residence)

Migration 5 years ago

Migration five years ago compares the usual address of household members on Census Night 2011 (9 August 2011) with their usual address five years earlier (i.e. 9 August 2006). This is based on persons by place of usual residence.

The percentage of persons in NQLD region with a different address five years ago was

43.9%

NQLD region

- 338,831 persons usually resided in the same address as five years ago
- 311,131 persons (or 43.9%) usually resided in a different address five years ago
- Within the region, Isaac (R) LGA had the largest percentage of persons with a different usual address five years ago with 52.5%

Queensland

- 1,958,914 persons usually resided in the same address as five years ago
- 1,815,132 persons (or 43.9%) usually resided in a different address five years ago

Table 8 Place of usual residence five years ago[a] by LGA, NQLD region and Queensland, 2011

Custom region / LGA / State	Same address	Different address				Proportion with different address	Total persons[c]
		Within Queensland	Rest of Australia	Overseas	Total[b]		
	number	— number —				%	number
NQLD region	**338,831**	**236,803**	**41,771**	**27,651**	**311,131**	**43.9**	**708,853**
Aurukun (S)	1,049	64	23	9	96	8.3	1,161
Burdekin (S)	10,066	4,443	384	293	5,197	32.0	16,247
Burke (S)	220	143	24	3	174	35.6	489
Cairns (R)	58,339	45,529	10,470	7,487	64,593	48.1	134,369
Carpentaria (S)	848	626	103	38	780	41.1	1,898
Cassowary Coast (R)	14,999	7,412	1,008	773	9,327	35.9	25,949
Charters Towers (R)	5,757	4,124	310	150	4,645	41.2	11,265
Cloncurry (S)	1,223	1,025	179	96	1,339	44.7	2,994
Cook (S)	1,717	1,058	146	136	1,364	35.4	3,848
Croydon (S)	152	81	9	0	93	33.7	276
Douglas (S)	4,768	2,699	1,056	504	4,310	42.6	10,107
Etheridge (S)	494	225	24	17	273	33.3	821
Flinders (S)	870	575	37	15	636	38.0	1,673
Hinchinbrook (S)	7,250	2,778	265	129	3,219	29.3	10,976
Hope Vale (S)	755	99	5	3	107	12.0	893
Isaac (R)	7,463	8,335	1,421	823	10,687	52.5	20,365
Kowanyama (S)	814	74	10	8	100	10.9	917
Livingstone (S)	15,055	10,693	1,485	707	13,053	42.6	30,656
Lockhart River (S)	364	54	3	3	60	13.8	434
Mackay (R)	51,215	35,402	5,582	4,242	45,940	43.9	104,667
Mapoon (S)	176	52	6	3	61	25.1	243
Mareeba (S)	10,365	5,342	624	408	6,501	34.6	18,783
McKinlay (S)	466	270	94	27	397	40.7	976
Mornington (S)	837	114	26	13	157	15.6	1,006
Mount Isa (C)	7,461	6,270	1,415	1,144	8,968	46.4	19,318
Napranum (S)	686	61	6	3	70	9.3	756
Northern Peninsula Area (R)	1,526	299	28	25	358	18.1	1,973
Pormpuraaw (S)	496	88	9	3	100	16.7	599
Richmond (S)	409	234	36	17	293	37.9	774
Rockhampton (R)	35,550	24,904	2,011	2,186	29,674	41.7	71,168
Tablelands (R)	12,203	7,253	730	396	8,504	38.3	22,214
Townsville (C)	72,123	57,470	11,891	6,710	77,243	47.8	161,690
Whitsunday (R)	13,114	9,007	2,351	1,280	12,812	43.7	29,348
Queensland	**1,958,914**	**1,331,610**	**218,734**	**238,588**	**1,815,132**	**45.0**	**4,034,846**

(a) Based on persons aged five years and over.
(b) Includes persons who stated that they were usually resident at a different address 5 years ago but did not state that address.
(c) Includes persons who did not state whether they were usually resident at a different address 5 years ago.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B39 (usual residence)

Country of birth

Country of birth has been derived from the 2011 Census of Population and Housing question '*In which country was the person born?*'. This is based on persons by place of usual residence.

The top five English speaking backgrounds and non-English speaking backgrounds for NQLD region were:

English Speaking

1. **United Kingdom, Channel Islands and Isle of Man (3.2%)**
2. **New Zealand (2.6%)**
3. **South Africa (0.6%)**
4. **United States of America (0.3%)**
5. **Canada (0.2%)**

Non-English Speaking

1. **Philippines (0.8%)**
2. **Italy (0.5%)**
3. **Germany (0.5%)**
4. **India (0.4%)**
5. **Netherlands (0.3%)**

NQLD region

- 103,024 persons (or 13.5%) were born overseas
- Within the region, Cairns (R) LGA had the largest number of persons born overseas with 29,516
- Within the region, Cook (S) LGA had the largest percentage of persons born overseas with 23.1%

Queensland

- 888,636 persons (or 20.5%) were born overseas

Table 9 Country of birth by LGA, NQLD region and Queensland, 2011

Custom region / LGA / State	Born in Australia		Born overseas						Total persons (c)
			Born in ESB countries(a)		Born in NESB countries(b)		Total(b)		
	number	%	number	%	number	%	number	%	number
NQLD region	**604,214**	**79.0**	**53,522**	**7.0**	**49,502**	**6.5**	**103,024**	**13.5**	**764,344**
Aurukun (S)	1,292	99.8	0	0.0	0	0.0	0	0.0	1,295
Burdekin (S)	14,925	86.0	524	3.0	934	5.4	1,458	8.4	17,363
Burke (S)	386	75.0	16	3.1	21	4.1	37	7.2	515
Cairns (R)	104,149	71.7	13,907	9.6	15,609	10.7	29,516	20.3	145,330
Carpentaria (S)	1,608	78.3	65	3.2	85	4.1	150	7.3	2,053
Cassowary Coast (R)	22,428	81.1	1,510	5.5	2,161	7.8	3,671	13.3	27,668
Charters Towers (R)	10,575	86.9	444	3.6	281	2.3	725	6.0	12,168
Cloncurry (S)	2,563	79.4	162	5.0	103	3.2	265	8.2	3,227
Cook (S)	2,856	68.8	266	6.4	692	16.7	958	23.1	4,153
Croydon (S)	264	84.3	6	1.9	10	3.2	16	5.1	313
Douglas (S)	7,646	70.6	1,288	11.9	789	7.3	2,077	19.2	10,827
Etheridge (S)	774	86.6	55	6.2	16	1.8	71	7.9	894
Flinders (S)	1,551	86.6	47	2.6	36	2.0	83	4.6	1,791
Hinchinbrook (S)	9,768	84.4	383	3.3	842	7.3	1,225	10.6	11,568
Hope Vale (S)	975	99.0	0	0.0	0	0.0	0	0.0	985
Isaac (R)	18,060	80.0	1,416	6.3	816	3.6	2,232	9.9	22,588
Kowanyama (S)	1,029	99.7	0	0.0	0	0.0	0	0.0	1,032
Livingstone (S)	27,084	83.2	2,409	7.4	992	3.0	3,401	10.4	32,566
Lockhart River (S)	477	98.8	0	0.0	0	0.0	0	0.0	483
Mackay (R)	92,103	81.7	7,917	7.0	5,326	4.7	13,243	11.7	112,796
Mapoon (S)	264	100.0	0	0.0	0	0.0	0	0.0	264
Mareeba (S)	15,384	76.9	1,312	6.6	1,953	9.8	3,265	16.3	20,013
McKinlay (S)	849	80.9	64	6.1	19	1.8	83	7.9	1,050
Mornington (S)	1,135	99.5	3	0.3	0	0.0	3	0.3	1,141
Mount Isa (C)	15,039	70.8	1,575	7.4	1,528	7.2	3,103	14.6	21,238
Napranum (S)	856	100.0	0	0.0	0	0.0	0	0.0	856
Northern Peninsula Area (R)	2,254	98.0	11	0.5	3	0.1	14	0.6	2,300
Pormpuraaw (S)	657	99.1	0	0.0	3	0.5	3	0.5	663
Richmond (S)	718	86.8	30	3.6	16	1.9	46	5.6	827
Rockhampton (R)	64,103	83.5	3,074	4.0	3,611	4.7	6,685	8.7	76,776
Tablelands (R)	19,144	80.7	1,712	7.2	1,363	5.7	3,075	13.0	23,714
Townsville (C)	139,831	80.1	12,557	7.2	10,624	6.1	23,181	13.3	174,462
Whitsunday (R)	23,467	74.7	2,770	8.8	1,668	5.3	4,438	14.1	31,425

Queensland Government Statistician's Office

Custom region / LGA / State	Born in Australia		Born overseas						Total persons (c)
			Born in ESB countries(a)		Born in NESB countries(b)		Total(b)		
	number	%	number	%	number	%	number	%	number
Queensland	**3,192,115**	**73.7**	**478,290**	**11.0**	**410,346**	**9.5**	**888,636**	**20.5**	**4,332,738**

Refer to explanatory notes for additional information.

(a) Includes the UK, Ireland, Canada, USA, South Africa and New Zealand.
(b) Includes countries not identified individually, 'Australian External Territories', 'Inadequately described' and 'At sea' responses.
(c) Includes not stated responses.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B09 (usual residence)

Proficiency in spoken English

Proficiency in spoken English has been derived from the 2011 Census of Population and Housing question '*How well does the person speak English?*', if the person speaks a language other than English at home. This topic relates to persons who stated they were born overseas as at Census Night 2011. This is based on overseas-born persons by place of usual residence.

The top five non-English languages spoken at home for the total population of NQLD region were:

Language spoken

1. **Australian Indigenous languages (0.9%)**
2. **Italian (0.8%)**
3. **Southeast Asian Austronesian (0.7%)**
4. **Indo Aryan (0.5%)**
5. **German (0.4%)**

NQLD region

- 35,279 persons (or 34.2%) stated they spoke a language other than English at home
- Within the region, Cairns (R) LGA had the largest number of overseas-born persons who stated they spoke a language other than English at home with 10,678
- Within the region, Pormpuraaw (S) LGA had the largest percentage of overseas-born persons who stated they spoke a language other than English at home with 100.0%

Queensland

- 319,949 persons (or 36.0%) stated they spoke a language other than English at home

Table 10 Proficiency in spoken English of overseas-born persons by LGA, NQLD region and Queensland, 2011

Custom region / LGA / State	Speaks English only		Speaks other language at home and speaks English						Persons born overseas[(b)]
			Very well or well		Not well or not at all		Total[(a)]		
	number	%	number	%	number	%	number	%	number
NQLD region	**67,448**	**65.4**	**29,517**	**28.6**	**4,890**	**4.7**	**35,279**	**34.2**	**103,070**
Aurukun (S)	0	. .	0	. .	0	. .	0	. .	0
Burdekin (S)	780	53.4	509	34.8	160	11.0	675	46.2	1,461
Burke (S)	23	71.9	9	28.1	0	0.0	9	28.1	32
Cairns (R)	18,757	63.5	8,955	30.3	1,652	5.6	10,678	36.2	29,536
Carpentaria (S)	87	58.0	51	34.0	6	4.0	57	38.0	150
Cassowary Coast (R)	2,082	56.8	1,210	33.0	322	8.8	1,559	42.5	3,667
Charters Towers (R)	548	76.0	154	21.4	12	1.7	170	23.6	721
Cloncurry (S)	189	70.5	79	29.5	0	0.0	79	29.5	268
Cook (S)	365	37.8	115	11.9	35	3.6	594	61.6	965
Croydon (S)	9	60.0	3	20.0	0	0.0	6	40.0	15
Douglas (S)	1,618	78.1	406	19.6	40	1.9	452	21.8	2,073
Etheridge (S)	66	95.7	0	0.0	0	0.0	3	4.3	69
Flinders (S)	58	69.9	25	30.1	0	0.0	25	30.1	83
Hinchinbrook (S)	637	52.0	433	35.4	145	11.8	581	47.5	1,224
Hope Vale (S)	0	. .	0	. .	0	. .	0	. .	0
Isaac (R)	1,531	68.6	645	28.9	41	1.8	693	31.0	2,233
Kowanyama (S)	0	. .	0	. .	0	. .	0	. .	0
Livingstone (S)	2,807	82.5	489	14.4	65	1.9	597	17.5	3,404
Lockhart River (S)	3	100.0	0	0.0	0	0.0	0	0.0	3
Mackay (R)	9,096	68.7	3,753	28.3	324	2.4	4,109	31.0	13,247
Mapoon (S)	0	. .	0	. .	0	. .	0	. .	0
Mareeba (S)	1,881	57.6	1,081	33.1	262	8.0	1,380	42.2	3,268
McKinlay (S)	66	77.6	16	18.8	0	0.0	16	18.8	85
Mornington (S)	3	100.0	0	0.0	0	0.0	0	0.0	3
Mount Isa (C)	1,812	58.5	1,177	38.0	89	2.9	1,277	41.2	3,098
Napranum (S)	0	. .	0	. .	0	. .	0	. .	0
Northern Peninsula Area (R)	9	75.0	3	25.0	0	0.0	3	25.0	12
Pormpuraaw (S)	0	0.0	3	100.0	0	0.0	3	100.0	3
Richmond (S)	30	62.5	18	37.5	0	0.0	18	37.5	48
Rockhampton (R)	3,761	56.1	2,288	34.1	615	9.2	2,919	43.6	6,701
Tablelands (R)	2,375	77.1	616	20.0	82	2.7	704	22.8	3,082
Townsville (C)	15,589	67.3	6,577	28.4	811	3.5	7,514	32.4	23,180
Whitsunday (R)	3,265	73.6	902	20.3	229	5.2	1,158	26.1	4,439
Queensland	**565,544**	**63.6**	**269,847**	**30.4**	**45,927**	**5.2**	**319,949**	**36.0**	**888,635**

Refer to explanatory notes for additional information.

(a) Includes proficiency in English not stated.
(b) Excludes persons who did not state their country of birth.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B11 and B13 (usual residence)

Family composition

In the context of the 2011 Census of Population and Housing, families are classified in terms of the relationships that exist between a single family reference person and each other member of that family. The family composition variable distinguishes between different types of families based on the presence or absence of couple relationships, parent-child relationships, child dependency relationships or other familial relationships, in that order of preference. This is based on families by place of usual residence.

The percentage of total families in NQLD region which were couple families with children was

42.4%

NQLD region

- 197,374 families
- 42.4% of total families were couple families with children
- Within the region, Townsville (C) LGA had the largest number of couple families with children with 19,726
- Within the region, Aurukun (S) LGA had the largest percentage of one-parent families with 38.5%

Queensland

- 1,148,179 families
- 42.8% of total families were couple families with children

Table 11 Family composition[a] by LGA, NQLD region and Queensland, 2011

Custom region / LGA / State	Couple family with no children		Couple family with children		One-parent family		Total[b]
	number	%	number	%	number	%	number
NQLD region	**78,407**	**39.7**	**83,748**	**42.4**	**32,192**	**16.3**	**197,374**
Aurukun (S)	44	15.4	129	45.1	110	38.5	286
Burdekin (S)	2,061	43.4	1,982	41.7	658	13.8	4,754
Burke (S)	36	44.4	33	40.7	9	11.1	81
Cairns (R)	14,308	38.1	15,350	40.9	7,286	19.4	37,530
Carpentaria (S)	202	46.1	160	36.5	68	15.5	438
Cassowary Coast (R)	3,329	44.7	2,845	38.2	1,162	15.6	7,448
Charters Towers (R)	1,280	41.5	1,260	40.8	511	16.6	3,086
Cloncurry (S)	249	39.0	275	43.1	98	15.4	638
Cook (S)	396	46.1	295	34.3	149	17.3	859
Croydon (S)	29	37.2	32	41.0	14	17.9	78
Douglas (S)	1,270	47.0	1,002	37.1	395	14.6	2,701
Etheridge (S)	108	49.8	93	42.9	12	5.5	217
Flinders (S)	231	49.8	179	38.6	49	10.6	464
Hinchinbrook (S)	1,526	47.4	1,284	39.9	374	11.6	3,221
Hope Vale (S)	28	12.6	103	46.2	68	30.5	223
Isaac (R)	1,844	35.1	2,933	55.8	442	8.4	5,258
Kowanyama (S)	47	18.7	100	39.7	92	36.5	252
Livingstone (S)	4,037	45.7	3,564	40.4	1,159	13.1	8,825
Lockhart River (S)	26	25.2	31	30.1	34	33.0	103
Mackay (R)	11,783	39.1	13,986	46.4	3,990	13.2	30,169
Mapoon (S)	18	27.7	20	30.8	21	32.3	65
Mareeba (S)	2,262	43.4	1,995	38.3	869	16.7	5,212
McKinlay (S)	81	42.0	85	44.0	22	11.4	193
Mornington (S)	59	23.5	106	42.2	79	31.5	251
Mount Isa (C)	1,674	35.5	2,216	46.9	747	15.8	4,721
Napranum (S)	25	12.8	83	42.3	75	38.3	196
Northern Peninsula Area (R)	83	16.9	241	49.1	153	31.2	491
Pormpuraaw (S)	46	27.1	60	35.3	47	27.6	170
Richmond (S)	94	43.7	91	42.3	26	12.1	215
Rockhampton (R)	7,413	37.6	8,272	42.0	3,685	18.7	19,709
Tablelands (R)	3,107	47.9	2,225	34.3	1,081	16.7	6,481
Townsville (C)	17,128	37.8	19,726	43.5	7,647	16.9	45,319
Whitsunday (R)	3,582	46.4	2,992	38.8	1,059	13.7	7,720
Queensland	**453,102**	**39.5**	**491,200**	**42.8**	**184,547**	**16.1**	**1,148,179**

(a) Includes same-sex couple families.
(b) Includes other families.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B25 (families and persons)

Household composition

In the context of the 2011 Census of Population and Housing, a household is defined as one or more persons, at least one of whom is at least 15 years of age, usually resident in the same private dwelling. Household composition describes the type of household within a dwelling, whether a family is present or not and whether or not other unrelated household members are present. This is based on occupied private dwellings.

The percentage of one family households in NQLD region was

70.5%

NQLD region

- 267,524 households
- 70.5% of total households were one family households
- Within the region, Isaac (R) LGA had the largest percentage of one family households

Queensland

- 1,547,304 households
- 70.7% of total households were one family households

Table 12 Household composition by LGA, NQLD region and Queensland, 2011

Custom region / LGA / State	One family households		Multiple family households		Group households		Lone person households		Total households
	number	%	number	%	number	%	number	%	number
NQLD region	**188,483**	**70.5**	**4,364**	**1.6**	**11,127**	**4.2**	**63,549**	**23.8**	**267,524**
Aurukun (S)	113	51.1	72	32.6	9	4.1	27	12.2	221
Burdekin (S)	4,644	71.6	53	0.8	131	2.0	1,660	25.6	6,488
Burke (S)	76	65.5	6	5.2	0	0.0	34	29.3	116
Cairns (R)	36,035	68.0	748	1.4	2,573	4.9	13,674	25.8	53,030
Carpentaria (S)	417	64.9	9	1.4	17	2.6	200	31.1	643
Cassowary Coast (R)	7,173	69.6	134	1.3	346	3.4	2,656	25.8	10,309
Charters Towers (R)	2,984	70.9	53	1.3	121	2.9	1,050	25.0	4,208
Cloncurry (S)	603	66.3	17	1.9	41	4.5	248	27.3	909
Cook (S)	814	61.0	22	1.6	47	3.5	452	33.9	1,335
Croydon (S)	70	68.0	3	2.9	4	3.9	26	25.2	103
Douglas (S)	2,612	64.2	45	1.1	246	6.1	1,168	28.7	4,071
Etheridge (S)	216	63.0	0	0.0	11	3.2	116	33.8	343
Flinders (S)	458	68.7	3	0.4	20	3.0	186	27.9	667
Hinchinbrook (S)	3,146	70.1	36	0.8	92	2.0	1,214	27.0	4,488
Hope Vale (S)	161	71.6	29	12.9	6	2.7	29	12.9	225
Isaac (R)	5,065	76.2	91	1.4	236	3.5	1,258	18.9	6,650
Kowanyama (S)	135	57.7	54	23.1	10	4.3	35	15.0	234
Livingstone (S)	8,424	74.1	203	1.8	271	2.4	2,472	21.7	11,370
Lockhart River (S)	76	69.1	13	11.8	3	2.7	18	16.4	110
Mackay (R)	28,714	74.5	715	1.9	1,377	3.6	7,755	20.1	38,561
Mapoon (S)	40	55.6	11	15.3	0	0.0	21	29.2	72
Mareeba (S)	4,910	68.9	146	2.0	218	3.1	1,851	26.0	7,125
McKinlay (S)	189	63.0	3	1.0	7	2.3	101	33.7	300
Mornington (S)	140	56.5	49	19.8	7	2.8	52	21.0	248
Mount Isa (C)	4,454	69.6	134	2.1	300	4.7	1,514	23.6	6,402
Napranum (S)	123	67.6	37	20.3	0	0.0	22	12.1	182
Northern Peninsula Area (R)	388	69.0	47	8.4	15	2.7	112	19.9	562
Pormpuraaw (S)	111	68.5	26	16.0	0	0.0	25	15.4	162
Richmond (S)	216	68.6	0	0.0	11	3.5	88	27.9	315
Rockhampton (R)	18,818	69.3	434	1.6	1,004	3.7	6,889	25.4	27,145
Tablelands (R)	6,277	68.9	105	1.2	232	2.5	2,498	27.4	9,112
Townsville (C)	43,397	71.2	952	1.6	3,224	5.3	13,396	22.0	60,969
Whitsunday (R)	7,484	69.0	115	1.1	548	5.1	2,702	24.9	10,849
Queensland	**1,094,467**	**70.7**	**26,361**	**1.7**	**72,966**	**4.7**	**353,510**	**22.8**	**1,547,304**

Source: ABS, Census of Population and Housing, 2011, unpublished data (occupied private dwellings)

Dwellings by dwelling structure

In general terms, a dwelling is a structure which is intended to have people live in it, and which is habitable on Census Night. The dwelling structure variable classifies the structure of private dwellings enumerated in the 2011 Census of Population and Housing. This information is determined by the Census collector and is based on occupied private dwellings.

The percentage of total occupied private dwellings in NQLD region which were separate houses was

81.5%

NQLD region

- 218,075 occupied private dwellings (or 81.5%) were separate houses
- Within the region, Townsville (C) LGA had the largest number of separate houses with 49,191
- Within the region, Kowanyama (S) LGA had the largest percentage of apartments with 32.9%

Queensland

- 1,215,303 occupied private dwellings (or 78.5%) were separate houses

Table 13 Occupied private dwellings[a] by dwelling structure and LGA, NQLD region and Queensland, 2011

Custom region / LGA / State	Separate house		Semi-detached[b]		Apartment[c]		Caravan[d]		Other[e]		Total[f]
	number	%	number	%	number	%	number	%	number	%	number
NQLD region	**218,075**	**81.5**	**13,000**	**4.9**	**30,565**	**11.4**	**4,431**	**1.7**	**1,090**	**0.4**	**267,517**
Aurukun (S)	216	97.3	0	0.0	0	0.0	3	1.4	3	1.4	222
Burdekin (S)	5,715	88.1	215	3.3	401	6.2	118	1.8	35	0.5	6,490
Burke (S)	82	71.3	4	3.5	0	0.0	19	16.5	7	6.1	115
Cairns (R)	37,837	71.4	3,840	7.2	10,688	20.2	451	0.8	133	0.3	53,020
Carpentaria (S)	461	71.7	13	2.0	64	10.0	71	11.0	29	4.5	643
Cassowary Coast (R)	8,858	85.9	190	1.8	931	9.0	241	2.3	79	0.8	10,309
Charters Towers (R)	3,862	91.8	42	1.0	136	3.2	111	2.6	53	1.3	4,207
Cloncurry (S)	787	86.9	37	4.1	24	2.6	53	5.8	0	0.0	906
Cook (S)	1,107	82.9	31	2.3	90	6.7	73	5.5	24	1.8	1,335
Croydon (S)	93	91.2	0	0.0	0	0.0	9	8.8	0	0.0	102
Douglas (S)	2,895	71.1	465	11.4	553	13.6	127	3.1	21	0.5	4,071
Etheridge (S)	288	83.7	3	0.9	3	0.9	28	8.1	11	3.2	344
Flinders (S)	630	94.5	8	1.2	14	2.1	9	1.3	6	0.9	667
Hinchinbrook (S)	4,093	91.2	58	1.3	261	5.8	45	1.0	27	0.6	4,487
Hope Vale (S)	213	94.2	0	0.0	10	4.4	3	1.3	0	0.0	226
Isaac (R)	5,873	88.3	313	4.7	182	2.7	227	3.4	44	0.7	6,652
Kowanyama (S)	155	67.1	0	0.0	76	32.9	0	0.0	0	0.0	231
Livingstone (S)	9,938	87.4	366	3.2	662	5.8	326	2.9	70	0.6	11,370
Lockhart River (S)	82	75.2	0	0.0	24	22.0	0	0.0	3	2.8	109
Mackay (R)	32,841	85.2	1,913	5.0	2,968	7.7	637	1.7	156	0.4	38,561
Mapoon (S)	60	84.5	0	0.0	6	8.5	5	7.0	0	0.0	71
Mareeba (S)	6,407	89.9	173	2.4	294	4.1	173	2.4	64	0.9	7,124
McKinlay (S)	279	93.0	0	0.0	0	0.0	7	2.3	7	2.3	300
Mornington (S)	220	89.1	0	0.0	18	7.3	9	3.6	0	0.0	247
Mount Isa (C)	4,802	75.0	328	5.1	952	14.9	270	4.2	28	0.4	6,403
Napranum (S)	133	73.1	0	0.0	40	22.0	6	3.3	0	0.0	182
Northern Peninsula Area (R)	375	66.7	0	0.0	123	21.9	56	10.0	3	0.5	562
Pormpuraaw (S)	124	77.0	0	0.0	33	20.5	4	2.5	0	0.0	161
Richmond (S)	285	90.5	12	3.8	3	1.0	6	1.9	4	1.3	315
Rockhampton (R)	23,891	88.0	839	3.1	2,178	8.0	174	0.6	64	0.2	27,159
Tablelands (R)	8,110	89.0	137	1.5	568	6.2	207	2.3	75	0.8	9,108
Townsville (C)	49,191	80.7	3,412	5.6	7,707	12.6	536	0.9	75	0.1	60,968
Whitsunday (R)	8,172	75.3	601	5.5	1,556	14.3	428	3.9	68	0.6	10,850
Queensland	**1,215,303**	**78.5**	**129,430**	**8.4**	**181,716**	**11.7**	**16,191**	**1.0**	**3,384**	**0.2**	**1,547,303**

(a) Excludes visitors only and other not classifiable households.
(b) Includes row or terrace house, townhouse etc.
(c) Includes flat or units.
(d) Includes cabin and houseboat.
(e) Includes improvised home, tent, sleepers out; house or flat attached to a shop, office, etc.
(f) Includes dwelling structures not stated.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B31 (dwellings and persons)

Dwellings by tenure type

In general terms, a dwelling is a structure which is intended to have people live in it, and which is habitable on Census Night. The tenure type variable describes whether a household rents or owns the dwelling in which they were enumerated on Census Night 2011, or whether the household occupies it under another arrangement. This is based on occupied private dwellings.

The percentage of total occupied private dwellings in NQLD region which were fully owned was

28.1%

NQLD region

- 75,222 occupied private dwellings (or 28.1%) were fully owned
- Within the region, Townsville (C) LGA had the largest number of fully owned dwellings with 14,134
- Within the region, Kowanyama (S) LGA, Napranum (S) LGA and Pormpuraaw (S) LGA had the largest percentage of rented dwellings with 100.0%

Queensland

- 448,617 occupied private dwellings (or 29.0%) were fully owned

Table 14 Occupied private dwellings[a] by tenure type and LGA, NQLD region and Queensland, 2011

Custom region / LGA / State	Fully owned		Being purchased[b]		Rented[c]		Other[d]		Total[e]
	number	%	number	%	number	%	number	%	number
NQLD region	**75,222**	**28.1**	**87,044**	**32.5**	**95,506**	**35.7**	**2,304**	**0.9**	**267,518**
Aurukun (S)	3	1.4	0	0.0	215	97.3	0	0.0	221
Burdekin (S)	2,665	41.1	1,766	27.2	1,823	28.1	46	0.7	6,491
Burke (S)	30	25.6	8	6.8	62	53.0	8	6.8	117
Cairns (R)	12,112	22.8	18,138	34.2	21,053	39.7	345	0.6	53,017
Carpentaria (S)	162	25.2	83	12.9	337	52.4	9	1.4	643
Cassowary Coast (R)	3,881	37.6	2,698	26.2	3,298	32.0	67	0.6	10,311
Charters Towers (R)	1,535	36.5	1,246	29.6	1,210	28.8	45	1.1	4,207
Cloncurry (S)	200	22.1	150	16.5	485	53.5	17	1.9	907
Cook (S)	432	32.4	267	20.0	551	41.3	27	2.0	1,334
Croydon (S)	33	32.4	7	6.9	42	41.2	6	5.9	102
Douglas (S)	1,126	27.7	1,172	28.8	1,624	39.9	36	0.9	4,070
Etheridge (S)	165	48.1	54	15.7	91	26.5	9	2.6	343
Flinders (S)	263	39.5	152	22.8	221	33.2	9	1.4	666
Hinchinbrook (S)	2,158	48.1	955	21.3	1,173	26.1	45	1.0	4,487
Hope Vale (S)	6	2.6	0	0.0	220	96.1	3	1.3	229
Isaac (R)	1,389	20.9	974	14.6	4,041	60.8	99	1.5	6,651
Kowanyama (S)	0	0.0	0	0.0	229	100.0	0	0.0	229
Livingstone (S)	3,986	35.1	3,977	35.0	2,983	26.2	133	1.2	11,371
Lockhart River (S)	3	2.7	0	0.0	105	94.6	3	2.7	111
Mackay (R)	11,471	29.7	14,374	37.3	11,362	29.5	371	1.0	38,560
Mapoon (S)	3	4.1	0	0.0	64	87.7	3	4.1	73
Mareeba (S)	2,784	39.1	2,019	28.3	2,023	28.4	67	0.9	7,124
McKinlay (S)	128	42.7	47	15.7	98	32.7	12	4.0	300
Mornington (S)	0	0.0	3	1.2	234	94.4	5	2.0	248
Mount Isa (C)	1,165	18.2	2,162	33.8	2,801	43.8	32	0.5	6,399
Napranum (S)	0	0.0	0	0.0	183	100.0	0	0.0	183
Northern Peninsula Area (R)	11	2.0	3	0.5	530	94.1	7	1.2	563
Pormpuraaw (S)	0	0.0	0	0.0	159	100.0	0	0.0	159
Richmond (S)	107	34.1	64	20.4	111	35.4	10	3.2	314
Rockhampton (R)	8,187	30.1	9,047	33.3	8,946	32.9	213	0.8	27,161
Tablelands (R)	3,881	42.6	2,314	25.4	2,524	27.7	85	0.9	9,110
Townsville (C)	14,134	23.2	22,083	36.2	22,752	37.3	526	0.9	60,969
Whitsunday (R)	3,202	29.5	3,281	30.2	3,957	36.5	66	0.6	10,848
Queensland	**448,617**	**29.0**	**533,868**	**34.5**	**513,415**	**33.2**	**14,304**	**0.9**	**1,547,303**

(a) Excludes visitors only and other not classifiable households.
(b) Includes dwellings being purchased under a rent/buy scheme.
(c) Includes renting from a real estate agent, state housing authority, person not in the same household, housing co-op/community/church, other and not stated.
(d) Includes dwellings being occupied under a life tenure scheme.
(e) Includes tenure type not stated.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B32 (occupied private dwellings)

Number of motor vehicles per dwelling

The number of motor vehicles variable records the number of registered motor vehicles, which are owned or used by members of a household, and which are garaged or parked near the occupied private dwelling on Census Night 2011. This is based on occupied private dwellings by place of enumeration.

The percentage of dwellings in NQLD region with 3 or more motor vehicles was

18.0%

NQLD region

- 7.1% of dwellings had no motor vehicles
- 18.0% of dwellings had 3 or more motor vehicles
- Within the region, Aurukun (S) LGA had the highest percentage of dwellings which had no motor vehicles with 69.2%
- Within the region, McKinlay (S) LGA had the highest percentage of dwellings which had 3 or more motor vehicles with 29.3%

Queensland

- 7.2% of dwellings had no motor vehicles
- 17.3% of dwellings had 3 or more motor vehicles

Table 15 Number of motor vehicles per occupied private dwelling [(a)(b)] by LGA, NQLD region and Queensland, 2011

Custom region / LGA / State	No motor vehicles		1 motor vehicle		2 motor vehicles		3 or more motor vehicles		Total dwellings
	number	%	number	%	number	%	number	%	number
NQLD region	**19,036**	**7.1**	**90,764**	**33.9**	**100,090**	**37.4**	**48,220**	**18.0**	**267,507**
Aurukun (S)	153	69.2	54	24.4	5	2.3	3	1.4	221
Burdekin (S)	409	6.3	2,023	31.2	2,545	39.2	1,294	19.9	6,488
Burke (S)	12	10.4	38	33.0	34	29.6	18	15.7	115
Cairns (R)	4,618	8.7	20,113	37.9	19,260	36.3	7,232	13.6	53,015
Carpentaria (S)	86	13.4	220	34.2	173	26.9	100	15.5	644
Cassowary Coast (R)	752	7.3	3,680	35.7	3,726	36.1	1,712	16.6	10,309
Charters Towers (R)	296	7.0	1,438	34.2	1,463	34.8	825	19.6	4,206
Cloncurry (S)	101	11.1	286	31.5	289	31.8	177	19.5	909
Cook (S)	150	11.2	538	40.3	386	28.9	190	14.2	1,335
Croydon (S)	4	3.8	31	29.8	23	22.1	22	21.2	104
Douglas (S)	359	8.8	1,691	41.6	1,402	34.5	474	11.7	4,068
Etheridge (S)	14	4.1	102	29.8	116	33.9	78	22.8	342
Flinders (S)	47	7.0	198	29.7	207	31.0	181	27.1	667
Hinchinbrook (S)	278	6.2	1,439	32.1	1,706	38.0	899	20.0	4,487
Hope Vale (S)	79	34.8	95	41.9	34	15.0	19	8.4	227
Isaac (R)	161	2.4	1,624	24.4	2,782	41.8	1,895	28.5	6,651
Kowanyama (S)	138	59.5	57	24.6	26	11.2	11	4.7	232
Livingstone (S)	613	5.4	3,561	31.3	4,456	39.2	2,376	20.9	11,372
Lockhart River (S)	51	45.9	42	37.8	12	10.8	3	2.7	111
Mackay (R)	1,889	4.9	11,132	28.9	15,502	40.2	8,768	22.7	38,562
Mapoon (S)	28	38.9	25	34.7	13	18.1	3	4.2	72
Mareeba (S)	517	7.3	2,345	32.9	2,603	36.5	1,373	19.3	7,126
McKinlay (S)	20	6.7	90	30.0	87	29.0	88	29.3	300
Mornington (S)	120	48.6	78	31.6	27	10.9	11	4.5	247
Mount Isa (C)	507	7.9	2,115	33.1	2,376	37.1	1,117	17.5	6,399
Napranum (S)	86	47.0	57	31.1	21	11.5	16	8.7	183
Northern Peninsula Area (R)	206	36.7	200	35.6	98	17.4	45	8.0	562
Pormpuraaw (S)	89	54.9	54	33.3	16	9.9	3	1.9	162
Richmond (S)	24	7.7	93	29.7	89	28.4	87	27.8	313
Rockhampton (R)	2,247	8.3	9,765	36.0	9,460	34.8	4,686	17.3	27,154
Tablelands (R)	490	5.4	3,338	36.6	3,345	36.7	1,563	17.2	9,108
Townsville (C)	3,721	6.1	20,416	33.5	23,784	39.0	11,151	18.3	60,969
Whitsunday (R)	771	7.1	3,826	35.3	4,024	37.1	1,800	16.6	10,847
Queensland	**110,842**	**7.2**	**547,575**	**35.4**	**575,736**	**37.2**	**267,083**	**17.3**	**1,547,306**

(a) Excludes visitors only and other not classifiable households.
(b) Excludes motorbikes/scooters.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B29 (occupied private dwellings)

Internet connection

The type of Internet connection has been derived from the 2011 Census of Population and Housing question '*Can the Internet be accessed at this dwelling?*'. This is based on occupied private dwellings by place of enumeration.

The percentage of total occupied private dwellings in NQLD region with an internet connection was

74.4%

NQLD region

- 198,980 occupied private dwellings (or 74.4%) had Internet connections
- Within the region, Townsville (C) LGA had the largest number of dwellings with Internet connections with 47,913
- Within the region, Napranum (S) LGA had the largest percentage of dwellings without Internet connections with 85.6%

Queensland

- 1,211,884 occupied private dwellings (or 78.3%) had Internet connections

Table 16 Internet connections in occupied private dwellings[(a)(b)] by LGA, NQLD region and Queensland, 2011

Custom region / LGA / State	No Internet connection		With Internet connection				Total dwellings[(d)]
			Broadband	Dial-up	Total[(c)]		
	number	%	— number —		number	%	number
NQLD region	**57,806**	**21.6**	**179,345**	**8,387**	**198,980**	**74.4**	**267,513**
Aurukun (S)	178	80.5	29	0	40	18.1	221
Burdekin (S)	1,935	29.8	3,834	215	4,250	65.5	6,490
Burke (S)	36	31.0	67	0	67	57.8	116
Cairns (R)	9,771	18.4	37,158	1,531	41,221	77.8	53,016
Carpentaria (S)	229	35.6	284	23	342	53.2	643
Cassowary Coast (R)	2,961	28.7	6,059	385	6,860	66.5	10,311
Charters Towers (R)	1,237	29.4	2,456	145	2,761	65.6	4,208
Cloncurry (S)	267	29.4	525	22	589	64.9	907
Cook (S)	460	34.5	736	31	806	60.4	1,335
Croydon (S)	27	26.5	45	0	54	52.9	102
Douglas (S)	839	20.6	2,712	140	3,074	75.6	4,069
Etheridge (S)	107	31.3	195	6	210	61.4	342
Flinders (S)	200	30.1	401	18	436	65.7	664
Hinchinbrook (S)	1,457	32.5	2,566	161	2,849	63.5	4,487
Hope Vale (S)	141	61.8	35	3	87	38.2	228
Isaac (R)	876	13.2	5,144	164	5,573	83.8	6,652
Kowanyama (S)	175	75.4	49	0	49	21.1	232
Livingstone (S)	2,286	20.1	7,726	470	8,635	76.0	11,368
Lockhart River (S)	78	70.9	24	0	27	24.5	110
Mackay (R)	7,593	19.7	26,767	1,193	29,482	76.5	38,562
Mapoon (S)	41	55.4	19	0	30	40.5	74
Mareeba (S)	2,012	28.2	4,263	285	4,798	67.3	7,125
McKinlay (S)	68	22.7	193	12	216	72.2	299
Mornington (S)	169	68.1	57	3	71	28.6	248
Mount Isa (C)	1,332	20.8	4,218	177	4,726	73.9	6,399
Napranum (S)	155	85.6	17	3	26	14.4	181
Northern Peninsula Area (R)	334	59.4	146	26	209	37.2	562
Pormpuraaw (S)	108	67.1	39	0	50	31.1	161
Richmond (S)	85	27.0	178	14	204	64.8	315
Rockhampton (R)	6,907	25.4	17,312	808	19,151	70.5	27,158
Tablelands (R)	2,484	27.3	5,571	361	6,245	68.5	9,111
Townsville (C)	10,829	17.8	43,526	1,806	47,913	78.6	60,969
Whitsunday (R)	2,429	22.4	6,994	385	7,929	73.1	10,848
Queensland	**281,467**	**18.2**	**1,103,036**	**45,088**	**1,211,884**	**78.3**	**1,547,301**

(a) Excludes visitors only and other not classifiable households.
(b) Where a dwelling has more than one type of Internet connection only one is recorded.
(c) Includes other Internet connection.
(d) Includes Internet connection not stated.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B35 (occupied private dwellings)

Society

Early childhood education and care services

The early childhood education and care services data are based on administrative data supplied by the Department of Education and Training. Data are updated twice yearly with an approximate delay of 1 month after the reporting period. It is anticipated the next update will be in September 2015.

The number of early childhood education and care services in NQLD region as at 28 February 2015 was

601 services

NQLD region

- 601 early childhood education and care services as at 28 February 2015
- 263 long day care services
- Within the region, Townsville (C) LGA had the largest number of services with 137

Queensland

- 2,971 early childhood education and care services as at 28 February 2015
- 1,437 long day care services

Table 17 Early childhood education and care services by LGA, NQLD region and Queensland, 28 February 2015

Custom region / LGA / State	Family day care	Kindergartens	Long day care	School aged care	Limited hours care	Total[(a)]
	— number —					
NQLD region	**20**	**125**	**263**	**123**	**10**	**601**
Aurukun (S)	0	1	1	0	0	4
Burdekin (S)	1	3	6	0	0	10
Burke (S)	0	1	0	0	0	1
Cairns (R)	4	14	59	29	0	113
Carpentaria (S)	0	1	2	0	0	3
Cassowary Coast (R)	1	4	9	2	0	19
Charters Towers (R)	0	2	4	1	0	7
Cloncurry (S)	0	1	1	0	0	3
Cook (S)	1	2	2	2	1	15
Croydon (S)	0	0	0	1	0	1
Douglas (S)	1	2	5	2	0	12
Etheridge (S)	0	0	1	0	0	1
Flinders (S)	0	0	1	0	0	1
Hinchinbrook (S)	1	2	2	3	0	8
Hope Vale (S)	0	2	1	0	0	3
Isaac (R)	0	4	6	1	0	11
Kowanyama (S)	0	1	0	0	0	3
Livingstone (S)	0	4	5	3	0	12
Lockhart River (S)	0	1	0	0	0	1
Mackay (R)	2	21	27	18	1	72
Mapoon (S)	0	0	0	0	0	0
Mareeba (S)	0	6	4	3	2	20
McKinlay (S)	0	0	1	0	0	1
Mornington (S)	0	1	1	0	0	3
Mount Isa (C)	1	6	5	4	0	19
Napranum (S)	0	1	1	0	0	2
Northern Peninsula Area (R)	0	2	4	4	0	16
Pormpuraaw (S)	0	1	0	0	0	5
Richmond (S)	0	0	1	1	0	3
Rockhampton (R)	2	11	26	12	1	57
Tablelands (R)	1	4	6	1	2	16
Townsville (C)	3	22	74	31	2	137
Whitsunday (R)	2	5	8	5	1	22
Queensland	**124**	**520**	**1,437**	**717**	**35**	**2,971**

(a) Total includes Other service types (for example Child and Family Support Hubs and Community Services).

Source: Office for Early Childhood Education and Care, Department of Education and Training

Highest level of schooling

Highest year of school completed has been derived from the 2011 Census of Population and Housing question '*What is the highest year of primary or secondary school the person has completed?*'. This information is based on persons aged 15 years and over who are no longer attending primary or secondary school, by place of usual residence.

The percentage of total persons in NQLD region with highest level of schooling as year 11 or 12 was

49.3%

NQLD region

- 284,953 persons (or 49.3%) with highest level of schooling of year 11 or 12 (or equivalent)
- Within the region, Cairns (R) LGA had the largest percentage of whose highest level of schooling was year 11 or 12 (or equivalent) with 56.3%
- Within the region, Pormpuraaw (S) LGA had the largest percentage whose highest level of schooling was year 8 or below (or did not go to school) with 24.4%

Queensland

- 1,836,995 persons (or 55.3%) with highest level of schooling of year 11 or 12 (or equivalent)

Table 18 Highest level of schooling completed by LGA, NQLD region and Queensland, 2011

Custom region / LGA / State	Did not go to school, or Year 8 or below		Year 9 or 10 or equivalent		Year 11 or 12 or equivalent		Total[(a)]
	number	%	number	%	number	%	number
NQLD region	**43,462**	**7.5**	**186,905**	**32.3**	**284,953**	**49.3**	**577,928**
Aurukun (S)	193	21.9	474	53.8	141	16.0	881
Burdekin (S)	1,639	12.4	5,254	39.8	5,113	38.7	13,213
Burke (S)	34	7.9	153	35.5	164	38.1	431
Cairns (R)	5,720	5.3	30,068	27.7	61,273	56.3	108,743
Carpentaria (S)	232	14.5	595	37.1	464	28.9	1,605
Cassowary Coast (R)	2,388	11.1	7,917	37.0	9,090	42.4	21,420
Charters Towers (R)	1,080	12.1	3,275	36.8	3,570	40.1	8,904
Cloncurry (S)	217	8.7	777	31.0	1,093	43.7	2,503
Cook (S)	262	7.8	993	29.7	1,283	38.4	3,341
Croydon (S)	28	12.3	79	34.8	76	33.5	227
Douglas (S)	450	5.2	2,371	27.6	4,711	54.9	8,579
Etheridge (S)	91	12.6	309	42.7	238	32.9	723
Flinders (S)	204	14.8	516	37.5	522	37.9	1,377
Hinchinbrook (S)	1,319	14.5	3,317	36.5	3,646	40.1	9,094
Hope Vale (S)	119	17.7	243	36.2	279	41.6	671
Isaac (R)	734	4.5	5,258	32.2	8,202	50.2	16,337
Kowanyama (S)	134	18.6	322	44.7	255	35.4	720
Livingstone (S)	1,994	8.0	9,041	36.4	11,065	44.6	24,833
Lockhart River (S)	30	8.8	168	49.6	125	36.9	339
Mackay (R)	6,468	7.6	30,674	35.9	39,777	46.6	85,354
Mapoon (S)	48	23.8	103	51.0	51	25.2	202
Mareeba (S)	1,850	12.0	4,924	32.0	6,553	42.6	15,378
McKinlay (S)	67	7.6	276	31.3	414	47.0	881
Mornington (S)	144	19.9	305	42.2	250	34.6	722
Mount Isa (C)	938	6.0	4,587	29.4	7,384	47.4	15,588
Napranum (S)	89	16.8	273	51.5	168	31.7	530
Northern Peninsula Area (R)	148	10.5	397	28.3	773	55.1	1,403
Pormpuraaw (S)	119	24.4	227	46.5	136	27.9	488
Richmond (S)	79	12.3	249	38.7	240	37.3	643
Rockhampton (R)	5,595	9.7	19,467	33.6	26,272	45.4	57,921
Tablelands (R)	1,813	10.0	6,719	37.0	7,875	43.4	18,155
Townsville (C)	7,474	5.7	39,018	29.6	72,659	55.1	131,856
Whitsunday (R)	1,762	7.1	8,556	34.4	11,091	44.6	24,866
Queensland	**219,102**	**6.6**	**977,116**	**29.4**	**1,836,995**	**55.3**	**3,320,761**

(a) Includes highest year of schooling not stated.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B16 (usual residence)

Non-school qualification

Non-school qualification information describes the highest non-school qualification (e.g. bachelor degree, diploma) completed as stated in the 2011 Census of Population and Housing. This information is based on persons aged 15 years and over by place of usual residence.

The percentage of persons in NQLD region with a non-school qualification was

52.5%

NQLD region

- 315,689 persons (or 52.5%) with a non-school qualification
- Within the region, Cook (S) LGA had the largest percentage of persons with a non-school qualification with 59.5%

Queensland

- 1,875,323 persons (or 54.2%) with a non-school qualification

Table 19 Non-school qualifications by level of education by LGA, NQLD region and Queensland, 2011

Custom region / LGA / State	Level of education						Persons with a qualification[c]		Total persons
	Bachelor degree or higher[a]		Advanced diploma or diploma		Certificate[b]				
	number	%	number	%	number	%	number	%	number
NQLD region	**68,198**	**11.3**	**36,932**	**6.1**	**132,608**	**22.0**	**315,689**	**52.5**	**601,742**
Aurukun (S)	39	4.3	20	2.2	64	7.1	262	29.0	902
Burdekin (S)	920	6.7	602	4.4	2,921	21.2	5,915	43.0	13,760
Burke (S)	33	7.6	18	4.2	87	20.1	226	52.3	432
Cairns (R)	15,857	14.0	9,116	8.0	24,928	22.0	64,973	57.3	113,481
Carpentaria (S)	77	4.8	64	4.0	252	15.6	743	45.9	1,617
Cassowary Coast (R)	1,678	7.5	1,167	5.2	4,909	22.1	10,432	46.9	22,250
Charters Towers (R)	733	7.8	376	4.0	1,681	17.9	4,001	42.6	9,399
Cloncurry (S)	247	9.6	114	4.4	523	20.4	1,366	53.3	2,564
Cook (S)	291	8.6	182	5.4	618	18.2	2,021	59.5	3,396
Croydon (S)	21	9.1	16	6.9	36	15.5	112	48.3	232
Douglas (S)	1,047	11.9	681	7.7	2,039	23.1	5,119	58.1	8,808
Etheridge (S)	54	7.4	29	4.0	129	17.7	307	42.1	729
Flinders (S)	94	6.7	57	4.0	237	16.8	565	40.0	1,413
Hinchinbrook (S)	656	6.9	378	4.0	2,094	22.0	4,139	43.5	9,522
Hope Vale (S)	22	3.2	25	3.6	191	27.8	292	42.4	688
Isaac (R)	1,734	10.3	802	4.8	4,246	25.2	9,269	54.9	16,877
Kowanyama (S)	36	4.9	20	2.7	108	14.6	213	28.7	741
Livingstone (S)	2,924	11.2	1,578	6.1	5,637	21.6	13,536	51.9	26,065
Lockhart River (S)	19	5.4	12	3.4	83	23.6	153	43.5	352
Mackay (R)	8,277	9.3	4,859	5.5	22,138	24.9	45,751	51.5	88,839
Mapoon (S)	12	5.9	3	1.5	32	15.8	68	33.7	202
Mareeba (S)	1,471	9.2	947	5.9	3,092	19.3	8,064	50.4	15,999
McKinlay (S)	77	8.6	36	4.0	196	22.0	449	50.4	891
Mornington (S)	49	6.6	29	3.9	100	13.5	230	31.1	739
Mount Isa (C)	1,737	10.8	743	4.6	3,692	22.9	9,149	56.7	16,122
Napranum (S)	7	1.2	9	1.6	73	12.9	101	17.8	567
Northern Peninsula Area (R)	108	7.3	76	5.1	343	23.1	702	47.2	1,488
Pormpuraaw (S)	12	2.4	19	3.8	93	18.8	156	31.6	494
Richmond (S)	49	7.5	35	5.4	111	17.1	277	42.5	651
Rockhampton (R)	6,611	10.9	3,089	5.1	12,036	19.9	29,649	49.1	60,420
Tablelands (R)	1,996	10.5	1,256	6.6	4,139	21.9	9,794	51.7	18,932
Townsville (C)	19,334	14.0	8,994	6.5	29,814	21.7	73,995	53.8	137,632
Whitsunday (R)	1,975	7.7	1,580	6.2	5,967	23.4	13,659	53.5	25,538
Queensland	**548,894**	**15.9**	**260,778**	**7.5**	**686,993**	**19.9**	**1,875,323**	**54.2**	**3,456,875**

(a) Includes bachelor degree, graduate diploma, graduate certificate and postgraduate degree.
(b) Includes Certificate, I, II, III and IV and Certificates not further defined responses.
(c) Includes inadequately described and not stated level of education responses.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B37 and B40 (usual residence)

Non-school qualification by sex and age

Non-school qualification information describes the highest non-school qualification (e.g. bachelor degree, diploma) completed as stated in the 2011 Census of Population and Housing. This information is based on persons aged 15 years and over by place of usual residence.

The percentage of persons in NQLD region with a non-school qualification was

52.5%

NQLD region

- 315,689 persons (or 52.5%) with a non-school qualification
- 66.3% males aged 25-44 years with a non-school qualification
- 59.5% females aged 25-44 years with a non-school qualification

Queensland

- 1,875,323 persons (or 54.2%) with a non-school qualification
- 67.4% males aged 25-44 years with a non-school qualification
- 64.5% females aged 25-44 years with a non-school qualification

Table 20 Non-school qualifications by sex and age, NQLD region and Queensland, 2011

Sex / age	NQLD region				Queensland			
	With NSQ[(a)]		Without NSQ		With NSQ[(a)]		Without NSQ	
	number	%	number	%	number	%	number	%
Males								
15-24 years	18,750	35.3	34,373	64.7	99,829	33.5	198,166	66.5
25-44 years	70,917	66.3	36,074	33.7	400,938	67.4	193,726	32.6
45-64 years	62,465	61.6	38,982	38.4	339,647	63.0	199,872	37.0
65 years and over	22,399	52.2	20,497	47.8	147,232	55.3	119,067	44.7
Total	*174,532*	*57.3*	*129,926*	*42.7*	*987,646*	*58.1*	*710,831*	*41.9*
Females								
15-24 years	17,407	34.9	32,492	65.1	103,162	35.6	186,606	64.4
25-44 years	63,452	59.5	43,227	40.5	395,579	64.5	217,916	35.5
45-64 years	44,567	46.7	50,956	53.3	277,134	50.2	275,318	49.8
65 years and over	15,730	34.8	29,435	65.2	111,802	36.9	190,885	63.1
Total	*141,156*	*47.5*	*156,110*	*52.5*	*887,677*	*50.5*	*870,725*	*49.5*
Persons								
15-24 years	36,158	35.1	66,866	64.9	202,991	34.5	384,772	65.5
25-44 years	134,369	62.9	79,302	37.1	796,517	65.9	411,642	34.1
45-64 years	107,033	54.3	89,937	45.7	616,781	56.5	475,190	43.5
65 years and over	38,129	43.3	49,931	56.7	259,034	45.5	309,952	54.5
Total	*315,689*	*52.5*	*286,036*	*47.5*	*1,875,323*	*54.2*	*1,581,556*	*45.8*

Refer to explanatory notes for additional information.

(a) Includes inadequately described and not stated level of education responses.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B01 and B40 (usual residence)

Non-school qualification by field of study

Non-school qualification information describes the highest non-school qualification (e.g. bachelor degree, diploma) completed as stated in the 2011 Census of Population and Housing. This information is based on persons aged 15 years and over by place of usual residence.

The largest non-school qualification field of study in NQLD region was

Engineering and Related Technologies (20.4%)

NQLD region

- 64,541 persons (or 20.4%) with a non-school qualification studied in the field of Engineering and Related Technologies
- 40,519 persons (or 12.8%) with a non-school qualification studied in the field of Management and Commerce

Queensland

- 314,629 persons (or 16.8%) with a non-school qualification studied in the field of Engineering and Related Technologies
- 310,801 persons (or 16.6%) with a non-school qualification studied in the field of Management and Commerce

Table 21 Non-school qualifications by field of study, NQLD region and Queensland, 2011

Field of study	NQLD region		Queensland		Specialisation ratio
	number	%	number	%	number
Natural and Physical Sciences	6,228	2.0	42,973	2.3	0.86
Information Technology	3,785	1.2	41,051	2.2	0.55
Engineering and Related Technologies	64,541	20.4	314,629	16.8	1.22
Architecture and Building	20,949	6.6	123,878	6.6	1.00
Agriculture, Environmental and Related Studies	7,131	2.3	38,166	2.0	1.11
Health	27,035	8.6	173,991	9.3	0.92
Education	22,579	7.2	139,977	7.5	0.96
Management and Commerce	40,519	12.8	310,801	16.6	0.77
Society and Culture	24,876	7.9	180,557	9.6	0.82
Creative Arts	5,533	1.8	53,377	2.8	0.62
Food, Hospitality and Personal Services	18,582	5.9	105,082	5.6	1.05
Mixed Field Programmes	403	0.1	2,830	0.2	0.85
Total[(a)]	**315,698**	**100.0**	**1,875,323**	**100.0**	**1.00**

Refer to explanatory notes for additional information.

(a) Includes inadequately described and not stated responses.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B41 (usual residence)

Persons with a profound or severe disability

Persons with a profound or severe disability has been derived from the 2011 Census of Population and Housing variable 'Core activity need for assistance'. Persons with a profound or severe disability are defined as needing help or assistance in one or more of the three core activity areas of self-care, mobility and communication because of a long term health condition (six months or more), a disability (lasting six months or more), or old age. This is based on persons by place of usual residence.

The percentage of persons in NQLD region in need of assistance with a profound or severe disability was

4.0%

NQLD region

- 30,574 persons (or 4.0%) in need of assistance with a profound or severe disability
- Within the region, Hinchinbrook (S) LGA had the highest percentage of persons in need of assistance with a profound or severe disability with 7.1%
- Within the region, Lockhart River (S) LGA had the lowest percentage of persons in need of assistance with a profound or severe disability with 1.2%

Queensland

- 192,019 persons (or 4.4%) in need of assistance with a profound or severe disability

Table 22 Need for assistance with a profound or severe disability by LGA, NQLD region and Queensland, 2011

Custom region / LGA / State	Need for assistance		No need for assistance		Total[(a)]
	number	%	number	%	number
NQLD region	**30,574**	**4.0**	**674,605**	**88.3**	**764,341**
Aurukun (S)	42	3.2	1,238	95.6	1,295
Burdekin (S)	908	5.2	15,529	89.4	17,363
Burke (S)	7	1.4	402	78.8	510
Cairns (R)	5,484	3.8	128,209	88.2	145,326
Carpentaria (S)	84	4.1	1,699	82.6	2,057
Cassowary Coast (R)	1,394	5.0	24,675	89.2	27,667
Charters Towers (R)	705	5.8	10,605	87.1	12,169
Cloncurry (S)	64	2.0	2,768	85.7	3,228
Cook (S)	134	3.2	3,220	77.6	4,152
Croydon (S)	6	1.9	279	88.9	314
Douglas (S)	422	3.9	9,333	86.2	10,825
Etheridge (S)	25	2.8	808	90.0	898
Flinders (S)	79	4.4	1,563	87.2	1,792
Hinchinbrook (S)	826	7.1	10,227	88.4	11,568
Hope Vale (S)	28	2.9	919	93.7	981
Isaac (R)	316	1.4	19,987	88.5	22,589
Kowanyama (S)	36	3.5	980	94.9	1,033
Livingstone (S)	1,374	4.2	28,654	88.0	32,569
Lockhart River (S)	6	1.2	469	96.9	484
Mackay (R)	4,120	3.7	101,402	89.9	112,797
Mapoon (S)	15	5.6	249	93.3	267
Mareeba (S)	902	4.5	17,215	86.0	20,012
McKinlay (S)	27	2.6	920	87.5	1,051
Mornington (S)	34	3.0	1,073	93.9	1,143
Mount Isa (C)	446	2.1	17,666	83.2	21,236
Napranum (S)	27	3.2	827	96.8	854
Northern Peninsula Area (R)	32	1.4	2,118	92.2	2,296
Pormpuraaw (S)	27	4.1	633	95.3	664
Richmond (S)	30	3.6	732	88.3	829
Rockhampton (R)	3,745	4.9	67,117	87.4	76,772
Tablelands (R)	1,243	5.2	20,997	88.5	23,713
Townsville (C)	6,778	3.9	155,314	89.0	174,461
Whitsunday (R)	1,207	3.8	26,778	85.2	31,426
Queensland	**192,019**	**4.4**	**3,880,396**	**89.6**	**4,332,738**

(a) Includes need of assistance not stated.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B18 (usual residence)

Voluntary work

Voluntary work undertaken for an organisation or group has been derived from the 2011 Census of Population and Housing question '*In the last twelve months did the person spend any time doing voluntary work through an organisation or group?*' The variable is based on persons aged 15 years and over by place of usual residence.

The percentage of persons in NQLD region who undertook voluntary work was

17.8%

NQLD region

- 107,379 persons (or 17.8%) undertook voluntary work
- Within the region, Richmond (S) LGA had the largest percentage of persons who undertook voluntary work with 34.4%

Queensland

- 645,543 persons (or 18.7%) undertook voluntary work

Table 23 Voluntary work by LGA, NQLD region and Queensland, 2011

Custom region / LGA / State	Volunteer		Not a volunteer		Total[(a)]
	number	%	number	%	number
NQLD region	**107,379**	**17.8**	**431,736**	**71.7**	**601,755**
Aurukun (S)	160	17.8	651	72.3	901
Burdekin (S)	3,035	22.1	9,619	69.9	13,759
Burke (S)	90	20.8	244	56.5	432
Cairns (R)	19,925	17.6	81,789	72.1	113,478
Carpentaria (S)	253	15.6	1,054	65.2	1,617
Cassowary Coast (R)	4,258	19.1	15,994	71.9	22,252
Charters Towers (R)	1,895	20.2	6,522	69.4	9,398
Cloncurry (S)	501	19.5	1,640	63.9	2,565
Cook (S)	663	19.5	1,899	55.9	3,396
Croydon (S)	52	22.1	133	56.6	235
Douglas (S)	1,815	20.6	5,890	66.9	8,810
Etheridge (S)	184	25.2	464	63.6	729
Flinders (S)	418	29.5	847	59.9	1,415
Hinchinbrook (S)	2,200	23.1	6,574	69.0	9,522
Hope Vale (S)	60	8.7	589	85.6	688
Isaac (R)	3,446	20.4	11,225	66.5	16,877
Kowanyama (S)	123	16.6	606	81.6	743
Livingstone (S)	5,035	19.3	18,138	69.6	26,071
Lockhart River (S)	44	12.5	295	83.6	353
Mackay (R)	14,081	15.9	66,491	74.8	88,839
Mapoon (S)	32	15.8	171	84.2	203
Mareeba (S)	3,228	20.2	10,697	66.9	16,000
McKinlay (S)	256	28.7	511	57.4	891
Mornington (S)	87	11.8	618	83.7	738
Mount Isa (C)	2,627	16.3	10,808	67.0	16,123
Napranum (S)	62	10.9	498	87.5	569
Northern Peninsula Area (R)	247	16.6	1,150	77.4	1,486
Pormpuraaw (S)	95	19.2	388	78.4	495
Richmond (S)	224	34.4	349	53.6	651
Rockhampton (R)	10,611	17.6	43,360	71.8	60,420
Tablelands (R)	4,391	23.2	12,678	67.0	18,932
Townsville (C)	22,934	16.7	102,121	74.2	137,631
Whitsunday (R)	4,347	17.0	17,723	69.4	25,536
Queensland	**645,543**	**18.7**	**2,521,658**	**72.9**	**3,456,877**

(a) Includes voluntary work not stated.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B19 (usual residence)

Aged care services

Information on aged care services are provided by the Commonwealth Department of Health and Ageing. Information are based on the location of the service, rather than the region in which the service is delivered. In some instances, aged care services may have provided the address information of their approved provider in place of the address information of the individual aged care service. Users should be aware of this limitation when using these data. Aged care services are subsidised by the Australian Government under the Aged Care Act 1997. Data are updated annually with an approximate delay of 12 months after the reporting period. It is anticipated the next update will be in April 2016.

The number of aged care service operational places in NQLD region as at 30 June 2014 was

7,357 places

NQLD region

- 185 aged care services as at 30 June 2014
- 7,357 aged care service operational places
- Within the region, Townsville (C) LGA had the largest number of aged care service operational places with 1,430

Queensland

- 1,003 aged care services as at 30 June 2014
- 47,542 aged care service operational places

Table 24 Aged care services by LGA, NQLD region and Queensland, 30 June 2014

Custom region / LGA / State	Aged care services	Number of operational places by care type				Australian funding[(a)]
		Community care	Residential aged care	Transition care	Total places	
	number	— number —				$m
NQLD region	**185**	**2,072**	**5,146**	**139**	**7,357**	**309.0**
Aurukun (S)	1	20	0	0	20	0.3
Burdekin (S)	5	33	193	0	226	8.6
Burke (S)	0	0	0	0	0	0.0
Cairns (R)	28	464	796	38	1,298	56.0
Carpentaria (S)	2	5	15	0	20	0.5
Cassowary Coast (R)	9	50	292	0	342	16.3
Charters Towers (R)	4	16	151	0	167	7.3
Cloncurry (S)	3	20	10	0	30	0.6
Cook (S)	2	17	19	0	36	0.8
Croydon (S)	0	0	0	0	0	0.0
Douglas (S)	2	12	103	0	115	5.2
Etheridge (S)	0	0	0	0	0	0.0
Flinders (S)	3	15	4	0	19	0.4
Hinchinbrook (S)	5	15	184	0	199	9.0
Hope Vale (S)	1	0	20	0	20	0.3
Isaac (R)	3	28	43	0	71	1.4
Kowanyama (S)	1	31	0	0	31	0.2
Livingstone (S)	6	58	252	0	310	13.6
Lockhart River (S)	0	0	0	0	0	0.0
Mackay (R)	20	269	713	0	982	38.3
Mapoon (S)	0	0	0	0	0	0.0
Mareeba (S)	5	16	92	0	108	6.9
McKinlay (S)	1	5	4	0	9	0.3
Mornington (S)	2	5	15	0	20	0.6
Mount Isa (C)	5	26	86	0	112	3.9
Napranum (S)	1	12	0	0	12	0.0
Northern Peninsula Area (R)	1	13	0	0	13	0.0
Pormpuraaw (S)	1	13	0	0	13	0.2
Richmond (S)	1	5	0	0	5	0.1
Rockhampton (R)	27	303	829	30	1,162	51.4
Tablelands (R)	5	87	196	0	283	9.9
Townsville (C)	28	467	892	71	1,430	63.3

Queensland Government Statistician's Office

Custom region / LGA / State	Aged care services	Number of operational places by care type				Australian funding[(a)]
		Community care	Residential aged care	Transition care	Total places	
	number	— number —				$m
Whitsunday (R)	13	67	237	0	304	13.8
Queensland	**1,003**	**12,601**	**34,208**	**733**	**47,542**	**2,045.5**

Refer to explanatory notes for additional information.

(a) Australian government recurrent funding for aged care services in 30 June 2014.

Source: Australian Government Department of Health and Ageing

Emergency services, schools and hospitals

Information on emergency services, schools and hospitals are provided by administrative custodian agencies. Data are updated every two years. It is anticipated the next update will be in July 2015.

As at 30 June 2013, the number of schools in NQLD region was

427 schools

NQLD region

- 427 schools as at 30 June 2013
- 75 hospitals
- Within the region, Townsville (C) LGA had the largest number of schools with 60

Queensland

- 1,782 schools as at 30 June 2013
- 273 hospitals

Table 25 Emergency services, schools and hospitals by LGA, NQLD region and Queensland, 30 June 2013

Custom region / LGA / State	Police stations[a]	Ambulance stations	Fire stations[b]	Schools[c]	Hospitals[d]
	— number —				
NQLD region	**104**	**79**	**60**	**427**	**75**
Aurukun (S)	1	0	0	2	1
Burdekin (S)	4	3	3	20	2
Burke (S)	1	1	0	1	1
Cairns (R)	5	5	6	47	7
Carpentaria (S)	2	2	0	3	2
Cassowary Coast (R)	8	6	6	27	2
Charters Towers (R)	4	1	1	12	2
Cloncurry (S)	2	2	1	3	2
Cook (S)	4	1	1	7	3
Croydon (S)	1	1	0	1	1
Douglas (S)	2	2	2	9	1
Etheridge (S)	3	1	0	3	2
Flinders (S)	2	1	1	4	1
Hinchinbrook (S)	2	2	3	18	1
Hope Vale (S)	1	0	0	1	1
Isaac (R)	8	12	5	19	3
Kowanyama (S)	1	0	0	1	1
Livingstone (S)	3	3	2	16	2
Lockhart River (S)	1	0	0	1	1
Mackay (R)	10	6	4	57	5
Mapoon (S)	0	0	0	1	1
Mareeba (S)	5	4	3	14	3
McKinlay (S)	3	1	1	1	1
Mornington (S)	1	1	0	1	1
Mount Isa (C)	2	2	1	14	2
Napranum (S)	0	0	0	0	1
Northern Peninsula Area (R)	1	1	0	3	1
Pormpuraaw (S)	1	0	0	1	1
Richmond (S)	1	1	1	1	1
Rockhampton (R)	7	4	4	42	5
Tablelands (R)	7	5	6	19	6
Townsville (C)	7	6	5	60	8
Whitsunday (R)	4	5	4	18	3
Queensland	**336**	**260**	**242**	**1,782**	**273**

(a) Does not include Police Beats.
(b) Does not include Rural Fire Brigade.
(c) Includes both private and public schools and counts the main campus only.
(d) Includes both private and public hospitals. Excludes public dental and psychiatric facilities.

Source: Queensland Police Service; Department of Community Safety; Department of Education, Training and Employment; Queensland Health

The Index of Relative Socio-Economic Disadvantage

Socio-Economic Indexes for Areas (SEIFA) is a summary measure of the social and economic conditions of geographic areas across Australia. SEIFA comprises a number of indexes, which is generated by ABS from the Census of Population and Housing. In 2011 an Index of Relative Socio-Economic Disadvantage was produced, ranking geographical areas in terms of their relative socio-economic disadvantage. The index focuses on low-income earners, relatively lower education attainment, high unemployment and dwellings without motor vehicles. Low index values represent areas of most disadvantage and high values represent areas of least disadvantage. This is based on persons by place of usual residence.

The percentage of persons in NQLD region in the least disadvantaged quintile was

13.6%

NQLD region

- 13.6% in least disadvantaged quintile
- 23.6% in most disadvantaged quintile
- Within the region, Isaac (R) LGA had the largest percentage of persons in the least disadvantaged quintile with 28.9%

Queensland

- 20.0% in least disadvantaged quintile
- 20.0% in most disadvantaged quintile

Table 26 Population by Index of Relative Socio-Economic Disadvantage quintiles by LGA, NQLD region and Queensland, 2011

Custom region / LGA / State	Quintile 1 (most disadvantaged)	Quintile 2	Quintile 3	Quintile 4	Quintile 5 (least disadvantaged)
	— % —				
NQLD region	**23.6**	**24.8**	**21.6**	**16.4**	**13.6**
Aurukun (S)	100.0	0.0	0.0	0.0	0.0
Burdekin (S)	32.9	38.1	17.3	8.3	3.4
Burke (S)	38.8	61.2	0.0	0.0	0.0
Cairns (R)	27.6	19.7	18.6	17.5	16.5
Carpentaria (S)	87.4	0.0	12.6	0.0	0.0
Cassowary Coast (R)	43.9	29.4	19.7	7.0	0.0
Charters Towers (R)	43.1	35.1	15.8	4.3	1.7
Cloncurry (S)	36.6	26.6	36.7	0.0	0.0
Cook (S)	70.2	26.0	3.8	0.0	0.0
Croydon (S)	0.0	100.0	0.0	0.0	0.0
Douglas (S)	16.9	37.6	18.5	25.0	2.1
Etheridge (S)	0.0	100.0	0.0	0.0	0.0
Flinders (S)	53.3	0.0	27.0	19.7	0.0
Hinchinbrook (S)	32.6	37.5	23.7	6.2	0.0
Hope Vale (S)	100.0	0.0	0.0	0.0	0.0
Isaac (R)	1.8	12.5	22.7	34.2	28.9
Kowanyama (S)	100.0	0.0	0.0	0.0	0.0
Livingstone (S)	10.0	23.7	36.8	17.9	11.6
Lockhart River (S)	100.0	0.0	0.0	0.0	0.0
Mackay (R)	11.3	20.9	28.7	22.3	16.8
Mapoon (S)	100.0	0.0	0.0	0.0	0.0
Mareeba (S)	38.9	33.8	13.8	13.4	0.0
McKinlay (S)	0.0	33.2	0.0	66.8	0.0
Mornington (S)	100.0	0.0	0.0	0.0	0.0
Mount Isa (C)	9.6	25.3	33.8	23.5	7.8
Napranum (S)	100.0	0.0	0.0	0.0	0.0
Northern Peninsula Area (R)	100.0	0.0	0.0	0.0	0.0
Pormpuraaw (S)	100.0	0.0	0.0	0.0	0.0
Richmond (S)	27.4	34.6	38.0	0.0	0.0
Rockhampton (R)	35.2	24.3	19.1	12.6	8.8
Tablelands (R)	43.5	19.8	23.8	11.2	1.7

Queensland Government Statistician's Office

Custom region / LGA / State	Quintile 1 (most disadvantaged)	Quintile 2	Quintile 3	Quintile 4	Quintile 5 (least disadvantaged)
	— % —				
Townsville (C)	13.4	28.2	19.7	15.8	23.0
Whitsunday (R)	26.9	32.6	20.0	16.7	3.8
Queensland	**20.0**	**20.0**	**20.0**	**20.0**	**20.0**

Source: ABS 2033.0.55.001, *Census of Population and Housing: Socio-Economic Indexes for Areas (SEIFA), Australia - Data only, 2011*, (Queensland Treasury derived)

Remoteness

The Australian Bureau of Statistics develops the Remoteness Area (RA) classification each Census period using the University of Adelaide's Accessibility/Remoteness Index of Australia classification (ARIA+) mean scores. Data are updated every five years with an approximate delay of 18 months after the reporting period.

The most populated remoteness area in NQLD region in 2011 was

Outer Regional Australia

NQLD region

- 0.0% of the population were in major cities
- 2.7% of the population were in very remote Australia
- Outer Regional Australia had the largest percentage of population with 67.0%

Queensland

- 61.6% of the population were in major cities
- 1.3% of the population were in very remote Australia

Table 27 Population[a] in remoteness areas[b] by LGA, NQLD region and Queensland, 2011

Custom region / LGA / State	Remoteness Area									
	Major City		Inner Regional Australia		Outer Regional Australia		Remote Australia		Very Remote Australia	
	number	%	number	%	number	%	number	%	number	%
NQLD region	**0**	**0.0**	**182,097**	**23.8**	**511,943**	**67.0**	**49,947**	**6.5**	**20,354**	**2.7**
Aurukun (S)	0	0.0	0	0.0	0	0.0	0	0.0	1,294	100.0
Burdekin (S)	0	0.0	0	0.0	17,164	98.8	200	1.2	0	0.0
Burke (S)	0	0.0	0	0.0	0	0.0	0	0.0	514	100.0
Cairns (R)	0	0.0	0	0.0	145,332	100.0	0	0.0	0	0.0
Carpentaria (S)	0	0.0	0	0.0	0	0.0	0	0.0	2,053	100.0
Cassowary Coast (R)	0	0.0	0	0.0	24,167	87.3	3,501	12.7	0	0.0
Charters Towers (R)	0	0.0	0	0.0	9,880	81.2	1,537	12.6	752	6.2
Cloncurry (S)	0	0.0	0	0.0	0	0.0	2,319	71.8	910	28.2
Cook (S)	0	0.0	0	0.0	0	0.0	2,941	70.8	1,211	29.2
Croydon (S)	0	0.0	0	0.0	0	0.0	0	0.0	312	100.0
Douglas (S)	0	0.0	0	0.0	10,142	93.7	666	6.2	18	0.2
Etheridge (S)	0	0.0	0	0.0	0	0.0	0	0.0	893	100.0
Flinders (S)	0	0.0	0	0.0	0	0.0	0	0.0	1,791	100.0
Hinchinbrook (S)	0	0.0	0	0.0	7,879	68.1	3,645	31.5	44	0.4
Hope Vale (S)	0	0.0	0	0.0	0	0.0	984	100.0	0	0.0
Isaac (R)	0	0.0	0	0.0	15,001	66.4	7,363	32.6	224	1.0
Kowanyama (S)	0	0.0	0	0.0	0	0.0	0	0.0	1,031	100.0
Livingstone (S)	0	0.0	30,536	93.8	1,528	4.7	504	1.5	0	0.0
Lockhart River (S)	0	0.0	0	0.0	0	0.0	0	0.0	483	100.0
Mackay (R)	0	0.0	76,640	67.9	36,048	32.0	110	0.1	0	0.0
Mapoon (S)	0	0.0	0	0.0	0	0.0	0	0.0	266	100.0
Mareeba (S)	0	0.0	0	0.0	19,166	95.8	323	1.6	523	2.6
McKinlay (S)	0	0.0	0	0.0	0	0.0	0	0.0	1,050	100.0
Mornington (S)	0	0.0	0	0.0	0	0.0	0	0.0	1,142	100.0
Mount Isa (C)	0	0.0	0	0.0	0	0.0	20,567	96.8	670	3.2
Napranum (S)	0	0.0	0	0.0	0	0.0	0	0.0	855	100.0
Northern Peninsula Area (R)	0	0.0	0	0.0	0	0.0	0	0.0	2,298	100.0
Pormpuraaw (S)	0	0.0	0	0.0	0	0.0	0	0.0	662	100.0
Richmond (S)	0	0.0	0	0.0	0	0.0	0	0.0	827	100.0
Rockhampton (R)	0	0.0	74,921	97.6	1,853	2.4	0	0.0	0	0.0
Tablelands (R)	0	0.0	0	0.0	22,470	94.8	1,244	5.2	0	0.0
Townsville (C)	0	0.0	0	0.0	174,462	100.0	0	0.0	0	0.0
Whitsunday (R)	0	0.0	0	0.0	26,851	85.4	4,043	12.9	531	1.7
Queensland	**2,663,104**	**61.6**	**885,169**	**20.5**	**639,744**	**14.8**	**75,599**	**1.8**	**56,106**	**1.3**

(a) Population based on 2011 usual resident population.
(b) Based on the Australian Bureau of Statistics Remoteness Area (RA) classification using ARIA+ mean scores.

Source: Australian Population and Migration Research Centre, University of Adelaide; ABS, Census of Population and Housing, 2011

Economy

Selected medians and averages

These selected medians and averages have been derived by using data based on the 2011 Census of Population and Housing and may not reflect medians that have been derived by administrative data and published in other profile topics. Where applicable, these estimates are based on place of usual residence.

The median total personal income for NQLD region was

not available

NQLD region

- Median mortgage repayment was not available
- Average household size was not available
- Within the region, Isaac (R) LGA had the highest median weekly family income with $2,671 per week

Queensland

- Median mortgage repayment of $1,850 per month
- Average household size of 2.6 persons per dwelling

Table 28 Selected medians and averages by LGA, NQLD region and Queensland, 2011

Custom region / LGA / State	Median / Average					
	Median mortgage repayment	Median total family income	Median total household income	Median total personal income	Average household size	Average number of persons per bedroom
	$/month	$/week	$/week	$/week	persons	number
NQLD region	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a.**	**n.a.**
Aurukun (S)	0	633	1,153	259	5.0	1.8
Burdekin (S)	1,300	1,284	1,009	540	2.5	1.1
Burke (S)	884	1,231	1,230	824	2.6	1.4
Cairns (R)	1,729	1,407	1,160	624	2.5	n.a.
Carpentaria (S)	898	1,310	997	590	2.6	1.3
Cassowary Coast (R)	1,300	1,145	931	503	2.5	1.1
Charters Towers (R)	1,350	1,221	979	487	2.5	1.1
Cloncurry (S)	1,500	1,871	1,471	889	2.7	1.2
Cook (S)	1,000	1,062	831	497	2.3	1.3
Croydon (S)	844	1,053	1,020	467	2.8	1.2
Douglas (S)	1,630	1,254	993	586	2.3	n.a.
Etheridge (S)	650	944	729	487	2.3	1.2
Flinders (S)	693	1,175	939	537	2.3	1.1
Hinchinbrook (S)	1,200	1,187	917	478	2.4	1.1
Hope Vale (S)	0	738	895	294	3.9	1.4
Isaac (R)	1,907	2,671	2,579	1,052	2.9	1.1
Kowanyama (S)	0	760	1,077	286	4.1	1.6
Livingstone (S)	1,883	1,430	1,182	567	2.5	n.a.
Lockhart River (S)	0	1,062	1,140	312	3.9	1.4
Mackay (R)	2,167	1,821	1,578	705	2.7	1.1
Mapoon (S)	0	854	892	298	3.2	1.3
Mareeba (S)	1,484	1,085	891	460	2.5	n.a.
McKinlay (S)	975	1,410	1,152	836	2.4	1.1
Mornington (S)	0	690	977	287	4.0	1.6
Mount Isa (C)	2,000	2,397	2,064	952	2.7	1.2
Napranum (S)	0	692	827	260	4.2	1.5
Northern Peninsula Area (R)	0	907	959	439	3.6	1.5
Pormpuraaw (S)	0	768	1,053	321	3.5	1.5
Richmond (S)	715	1,104	964	577	2.4	1.1
Rockhampton (R)	1,595	1,437	1,161	584	2.5	n.a.
Tablelands (R)	1,395	1,016	818	445	2.4	n.a.
Townsville (C)	1,860	1,626	1,381	675	2.6	1.1
Whitsunday (R)	1,768	1,405	1,165	621	2.4	1.1
Queensland	**1,850**	**1,453**	**1,235**	**587**	**2.6**	**1.1**

Refer to explanatory notes for additional information.

Medians and averages have not been calculated for the customised region.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B02

Median Rent

Median rent estimates have been derived by Queensland Treasury using rental bond lodgements sourced by the Residential Tenancies Authority (RTA). Medians are only calculated where there are 10 or more lodgements over the 12 month period. Data are updated quarterly with an approximate delay of 3 months after the reporting period. It is anticipated the next update will be in July 2015.

The number of lodgements in NQLD region for a 3 bedroom house in the 12 months ending 31 March 2015 was

11,401 lodgements

NQLD region

- 11,025 lodgements for a 2 bedroom flat/unit in the 12 months ending 31 March 2015
- 11,401 lodgements per week for a 3 bedroom house
- Within the region, Mount Isa (C) LGA had the highest median rent per week for a 3 bedroom house ($450)

Queensland

- Median rent of $330 per week for a 2 bedroom flat/unit in the 12 months ending 31 March 2015
- Median rent of $350 per week for a 3 bedroom house

Table 29 Lodgements and median rent by dwelling type by LGA, NQLD region and Queensland, 12 months ending 31 March 2015

Custom region / LGA / State	Lodgements				Median rent			
	1 bedroom flat/unit	2 bedroom flat/unit	3 bedroom house	4 bedroom house	1 bedroom flat/unit	2 bedroom flat/unit	3 bedroom house	4 bedroom house
	— number —				— $ per week —			
NQLD region	**3,632**	**11,025**	**11,401**	**10,041**	**n.a.**	**n.a.**	**n.a.**	**n.a.**
Aurukun (S)	6	1	3	0	n.a.	n.a.	n.a.	n.a.
Burdekin (S)	48	202	247	84	190	205	265	300
Burke (S)	0	0	0	0	n.a.	n.a.	n.a.	n.a.
Cairns (R)	1,450	3,250	1,740	1,698	210	280	350	420
Carpentaria (S)	2	2	8	1	n.a.	n.a.	n.a.	n.a.
Cassowary Coast (R)	69	360	470	167	180	200	280	310
Charters Towers (R)	7	52	179	114	n.a.	203	255	325
Cloncurry (S)	11	20	74	40	161	275	363	490
Cook (S)	26	27	49	11	174	260	300	380
Croydon (S)	0	0	1	0	n.a.	n.a.	n.a.	n.a.
Douglas (S)	131	322	143	104	210	280	330	413
Etheridge (S)	1	0	6	1	n.a.	n.a.	n.a.	n.a.
Flinders (S)	2	4	23	5	n.a.	n.a.	145	n.a.
Hinchinbrook (S)	5	81	129	34	n.a.	190	250	268
Hope Vale (S)	0	0	0	0	n.a.	n.a.	n.a.	n.a.
Isaac (R)	28	162	677	433	200	200	250	300
Kowanyama (S)	0	0	0	0	n.a.	n.a.	n.a.	n.a.
Livingstone (S)	104	263	412	574	184	280	330	383
Lockhart River (S)	0	0	0	0	n.a.	n.a.	n.a.	n.a.
Mackay (R)	388	1,227	1,562	2,042	200	250	330	380
Mapoon (S)	0	0	0	0	n.a.	n.a.	n.a.	n.a.
Mareeba (S)	53	113	237	146	155	250	310	380
McKinlay (S)	3	2	6	0	n.a.	n.a.	n.a.	n.a.
Mornington (S)	0	0	0	0	n.a.	n.a.	n.a.	n.a.
Mount Isa (C)	182	323	380	141	240	300	450	550
Napranum (S)	0	0	0	0	n.a.	n.a.	n.a.	n.a.
Northern Peninsula Area (R)	2	0	0	0	n.a.	n.a.	n.a.	n.a.
Pormpuraaw (S)	0	0	0	0	n.a.	n.a.	n.a.	n.a.
Richmond (S)	3	3	11	2	n.a.	n.a.	220	n.a.
Rockhampton (R)	126	777	1,331	1,037	160	230	300	350
Tablelands (R)	47	149	339	108	162	230	290	350
Townsville (C)	581	3,007	2,797	2,813	233	270	330	380
Whitsunday (R)	357	678	577	486	180	270	320	380
Queensland	**22,785**	**51,671**	**53,430**	**48,765**	**285**	**330**	**350**	**410**

Refer to explanatory notes for additional information.

Median rent has not been calculated for the customised region.

Source: Residential Tenancies Authority, Rental Bonds data (Queensland Government Statistician's Office derived)

Total personal income

Total personal income has been derived from the 2011 Census of Population and Housing question '*What is the total of all wages/salaries, government benefits, pensions, allowances and other income a person usually receives?*'. Median total personal income estimates incorporate medians calculated by both ABS and Queensland Treasury. The variable is based on persons aged 15 years and over by place of usual residence.

The median total personal income in NQLD region was

$32,259 per year

NQLD region

- Median total personal income of $32,259 per year
- Within the region, Isaac (R) LGA had the highest median total personal income with $54,704 per year
- Within the region, Aurukun (S) LGA had the lowest median total personal income with $13,468 per year

Queensland

- Median total personal income of $30,524 per year

Table 30 Total personal income by LGA, NQLD region and Queensland, 2011

Custom region / LGA / State	Less than $20,800 per year		$20,800 to $51,999 per year		$52,000 to $103,999 per year		$104,000 or more per year		Total[(a)]	Median ($/year)
	number	%	number	%	number	%	number	%	number	$
NQLD region	**192,478**	**32.0**	**187,279**	**31.1**	**122,584**	**20.4**	**35,733**	**5.9**	**601,755**	**32,259**
Aurukun (S)	628	69.5	65	7.2	61	6.8	9	1.0	903	13,468
Burdekin (S)	4,944	35.9	4,751	34.5	2,414	17.5	425	3.1	13,760	28,080
Burke (S)	72	16.5	137	31.4	91	20.8	46	10.5	437	42,848
Cairns (R)	35,051	30.9	39,118	34.5	22,890	20.2	4,581	4.0	113,482	32,448
Carpentaria (S)	468	28.9	542	33.5	255	15.8	45	2.8	1,617	30,680
Cassowary Coast (R)	8,461	38.0	7,964	35.8	3,262	14.7	538	2.4	22,248	26,156
Charters Towers (R)	3,686	39.2	2,655	28.3	1,614	17.2	427	4.5	9,397	25,324
Cloncurry (S)	579	22.6	595	23.2	684	26.7	294	11.5	2,564	46,228
Cook (S)	1,085	32.0	965	28.4	452	13.3	64	1.9	3,395	25,844
Croydon (S)	86	37.4	68	29.6	33	14.3	3	1.3	230	24,284
Douglas (S)	2,739	31.1	3,469	39.4	1,250	14.2	252	2.9	8,807	30,472
Etheridge (S)	277	37.8	257	35.1	83	11.3	28	3.8	733	25,324
Flinders (S)	496	35.1	431	30.5	255	18.0	53	3.7	1,414	27,924
Hinchinbrook (S)	3,861	40.6	3,245	34.1	1,408	14.8	270	2.8	9,520	24,856
Hope Vale (S)	440	64.3	149	21.8	46	6.7	6	0.9	684	15,288
Isaac (R)	3,882	23.0	3,153	18.7	3,580	21.2	3,895	23.1	16,878	54,704
Kowanyama (S)	502	67.8	167	22.6	48	6.5	9	1.2	740	14,872
Livingstone (S)	9,057	34.7	7,466	28.6	4,963	19.0	1,758	6.7	26,074	29,484
Lockhart River (S)	204	57.0	96	26.8	39	10.9	3	0.8	358	16,224
Mackay (R)	26,023	29.3	25,387	28.6	20,112	22.6	8,553	9.6	88,840	36,660
Mapoon (S)	132	64.1	50	24.3	15	7.3	0	0.0	206	15,496
Mareeba (S)	6,331	39.6	5,087	31.8	2,147	13.4	379	2.4	15,998	23,920
McKinlay (S)	147	16.5	290	32.5	204	22.9	115	12.9	891	43,472
Mornington (S)	480	64.9	141	19.1	80	10.8	9	1.2	740	14,924
Mount Isa (C)	3,512	21.8	3,427	21.3	4,306	26.7	2,148	13.3	16,122	49,504
Napranum (S)	415	73.5	105	18.6	29	5.1	4	0.7	565	13,520
Northern Peninsula Area (R)	656	44.0	539	36.2	170	11.4	22	1.5	1,490	22,828
Pormpuraaw (S)	310	62.8	134	27.1	38	7.7	3	0.6	494	16,692
Richmond (S)	195	30.1	263	40.6	86	13.3	28	4.3	647	30,004
Rockhampton (R)	20,516	34.0	18,884	31.3	11,810	19.5	2,858	4.7	60,419	30,368
Tablelands (R)	7,947	42.0	6,139	32.4	2,545	13.4	492	2.6	18,934	23,140
Townsville (C)	41,942	30.5	42,618	31.0	33,259	24.2	7,017	5.1	137,631	35,100
Whitsunday (R)	7,355	28.8	8,922	34.9	4,355	17.1	1,400	5.5	25,537	32,292
Queensland	**1,195,059**	**34.6**	**1,095,509**	**31.7**	**689,495**	**19.9**	**191,236**	**5.5**	**3,456,877**	**30,524**

Refer to explanatory notes for additional information.

(a) Includes personal income not stated.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B02 and B17 and Queensland Treasury estimates

Total family income

Total family income is the sum of the total personal incomes of each family member present in the household on 2011 Census Night. Family income only applies to classifiable families in occupied private dwellings. Low-income families have been defined as families in occupied private dwellings whose family income was less than $600 per week or less than $31,200 per year. Median total family income estimates incorporate medians calculated by both ABS and Queensland Treasury.

The median total family income in NQLD region was

$77,457 per year

NQLD region

- 24,776 low-income families (12.6%)
- Median total family income of $77,457 per year
- Within the region, Isaac (R) LGA had the highest median total family income with $138,892 per year
- Within the region, Aurukun (S) LGA had the lowest median total family income with $32,916 per year

Queensland

- 149,707 low-income families (13.0%)
- Median total family income of $75,556 per year

Table 31 Total family income by LGA, NQLD region and Queensland, 2011

Custom region / LGA / State	Less than $31,200 per year		$31,200 to $77,999 per year		$78,000 to $155,999 per year		$156,000 or more per year		Total[(a)]	Median ($/year)
	number	%	number	%	number	%	number	%	number	$
NQLD region	**24,776**	**12.6**	**59,538**	**30.2**	**62,472**	**31.7**	**20,575**	**10.4**	**197,375**	**77,457**
Aurukun (S)	103	36.0	90	31.5	30	10.5	3	1.0	286	32,916
Burdekin (S)	685	14.4	1,739	36.6	1,358	28.6	310	6.5	4,755	66,768
Burke (S)	7	8.9	30	38.0	20	25.3	0	0.0	79	64,012
Cairns (R)	4,808	12.8	12,482	33.3	11,848	31.6	3,016	8.0	37,533	73,164
Carpentaria (S)	66	15.0	114	26.0	116	26.4	29	6.6	439	68,120
Cassowary Coast (R)	1,298	17.4	2,889	38.8	1,822	24.5	352	4.7	7,450	59,540
Charters Towers (R)	528	17.1	984	31.9	801	26.0	217	7.0	3,085	63,492
Cloncurry (S)	76	11.9	129	20.2	221	34.6	101	15.8	638	97,292
Cook (S)	165	19.2	297	34.5	205	23.8	32	3.7	860	55,224
Croydon (S)	10	13.0	22	28.6	20	26.0	0	0.0	77	54,756
Douglas (S)	395	14.6	1,049	38.8	754	27.9	117	4.3	2,701	65,208
Etheridge (S)	56	25.6	74	33.8	40	18.3	9	4.1	219	49,088
Flinders (S)	75	16.1	154	33.1	118	25.4	28	6.0	465	61,100
Hinchinbrook (S)	524	16.3	1,233	38.3	830	25.8	195	6.1	3,219	61,724
Hope Vale (S)	71	31.4	110	48.7	30	13.3	6	2.7	226	38,376
Isaac (R)	313	6.0	645	12.3	2,089	39.7	1,471	28.0	5,257	138,892
Kowanyama (S)	84	32.9	138	54.1	20	7.8	0	0.0	255	39,520
Livingstone (S)	1,258	14.3	2,591	29.3	2,572	29.1	942	10.7	8,828	74,360
Lockhart River (S)	22	22.0	42	42.0	28	28.0	5	5.0	100	55,224
Mackay (R)	2,896	9.6	7,159	23.7	10,304	34.2	4,550	15.1	30,168	94,692
Mapoon (S)	20	30.8	29	44.6	13	20.0	0	0.0	65	44,408
Mareeba (S)	976	18.7	1,939	37.2	1,268	24.3	228	4.4	5,212	56,420
McKinlay (S)	21	10.9	58	30.2	53	27.6	24	12.5	192	73,320
Mornington (S)	102	40.8	102	40.8	28	11.2	4	1.6	250	35,880
Mount Isa (C)	353	7.5	770	16.3	1,725	36.5	1,226	26.0	4,722	124,644
Napranum (S)	80	40.2	93	46.7	17	8.5	9	4.5	199	35,984
Northern Peninsula Area (R)	122	25.0	206	42.2	109	22.3	17	3.5	488	47,164
Pormpuraaw (S)	54	32.0	84	49.7	25	14.8	3	1.8	169	39,936
Richmond (S)	37	17.4	82	38.5	46	21.6	12	5.6	213	57,408
Rockhampton (R)	2,699	13.7	6,088	30.9	6,242	31.7	1,787	9.1	19,707	74,724
Tablelands (R)	1,303	20.1	2,489	38.4	1,396	21.5	282	4.3	6,483	52,832
Townsville (C)	4,548	10.0	13,116	28.9	15,921	35.1	4,971	11.0	45,317	84,552
Whitsunday (R)	1,022	13.2	2,511	32.5	2,403	31.1	628	8.1	7,718	73,060
Queensland	**149,707**	**13.0**	**373,050**	**32.5**	**363,201**	**31.6**	**125,205**	**10.9**	**1,148,178**	**75,556**

Refer to explanatory notes for additional information.

(a) Includes partially stated and not stated income responses.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B02 and B26 and Queensland Treasury estimates

Unemployment and labour force

Estimates of unemployment and labour force are produced by the Australian Government Department of Employment. The estimates are calculated by utilising administrative data such as Centrelink Newstart and Youth Allowance (Other) recipients as well as ABS labour force estimates.

The unemployment rate in NQLD region at March quarter 2015 was

7.2%

NQLD region

- 31,517 unemployed persons in March quarter 2015
- Unemployment rate of 7.2%
- Within the region, Aurukun (S) LGA had the highest unemployment rate of 33.3%
- Within the region, Flinders (S) LGA had the lowest unemployment rate of 1.7%

Queensland

- 161,680 unemployed persons in March quarter 2015
- Unemployment rate of 6.5%

Table 32 Unemployment and labour force[(a)] by LGA, NQLD region and Queensland, March quarter 2015

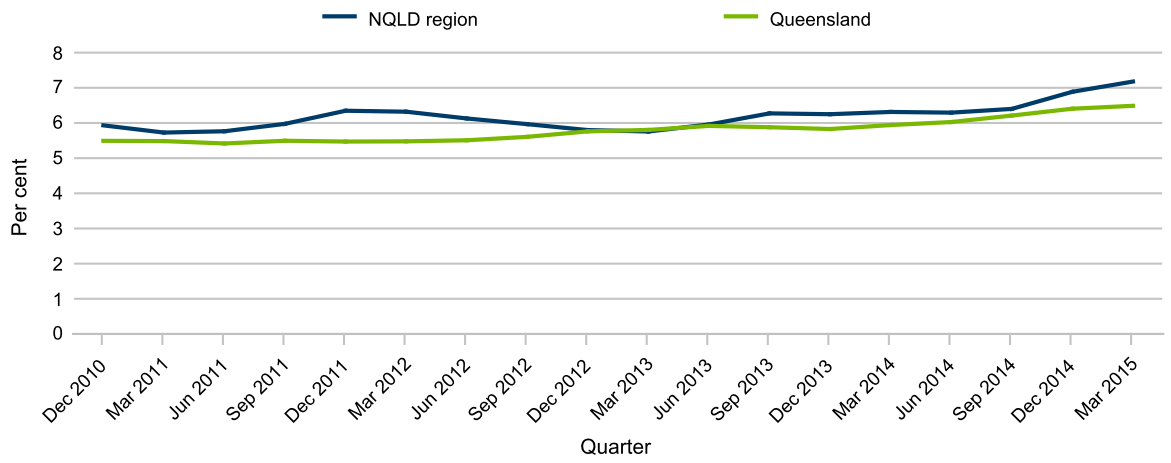
Custom region / LGA / State	Unemployed	Labour force	Unemployment rate
	— number —		%
NQLD region	**31,517**	**439,093**	**7.2**
Aurukun (S)	140	420	33.3
Burdekin (S)	716	8,736	8.2
Burke (S)	31	277	11.2
Cairns (R)	5,464	79,737	6.9
Carpentaria (S)	122	1,082	11.3
Cassowary Coast (R)	950	13,500	7.0
Charters Towers (R)	658	5,722	11.5
Cloncurry (S)	113	2,619	4.3
Cook (S)	285	2,213	12.9
Croydon (S)	6	220	2.7
Douglas (S)	376	6,018	6.2
Etheridge (S)	17	620	2.7
Flinders (S)	23	1,345	1.7
Hinchinbrook (S)	492	5,472	9.0
Hope Vale (S)	68	526	12.9
Isaac (R)	392	15,339	2.6
Kowanyama (S)	108	498	21.7
Livingstone (S)	984	17,964	5.5
Lockhart River (S)	34	261	13.0
Mackay (R)	4,717	70,694	6.7
Mapoon (S)	18	141	12.8
Mareeba (S)	875	10,009	8.7
McKinlay (S)	14	793	1.8
Mornington (S)	69	607	11.4
Mount Isa (C)	438	15,962	2.7
Napranum (S)	59	453	13.0
Northern Peninsula Area (R)	158	1,200	13.2
Pormpuraaw (S)	70	321	21.8
Richmond (S)	11	628	1.8
Rockhampton (R)	3,207	43,209	7.4
Tablelands (R)	869	10,507	8.3
Townsville (C)	8,221	101,761	8.1
Whitsunday (R)	1,812	20,239	9.0
Queensland	**161,680**	**2,491,881**	**6.5**

Refer to explanatory notes for additional information.

(a) Based on a 4-quarter smoothed series.

Source: Australian Government Department of Employment, *Small Area Labour Markets Australia*, various editions

Figure 9 Unemployment rate(a), NQLD region and Queensland



(a) Based on a 4-quarter smoothed series.

Source: Australian Government Department of Employment, *Small Area Labour Markets Australia*, various editions

Employment by industry

Employment by industry has been derived from the 2011 Census of Population and Housing data. A person's industry of employment was classified based on responses to a range of questions from the Census and is applicable to persons aged 15 years and over who work. This is based on place of usual residence.

The top five industry subdivisions of employment for NQLD region were:

1. **Preschool and School Education (5.4%)**
2. **Other Store-Based Retailing (5.2%)**
3. **Food and Beverage Services (5.1%)**
4. **Construction Services (5.0%)**
5. **Public Administration (4.4%)**

NQLD region

- 10.9% of employed persons worked in Health care and social assistance industry
- 10.5% of employed persons worked in Retail trade industry
- Highest specialisation ratio of 2.58 in Mining industry

Queensland

- 11.9% of employed persons worked in Health care and social assistance industry
- 10.7% of employed persons worked in Retail trade industry

Table 33 Employment by industry, NQLD region and Queensland, 2011

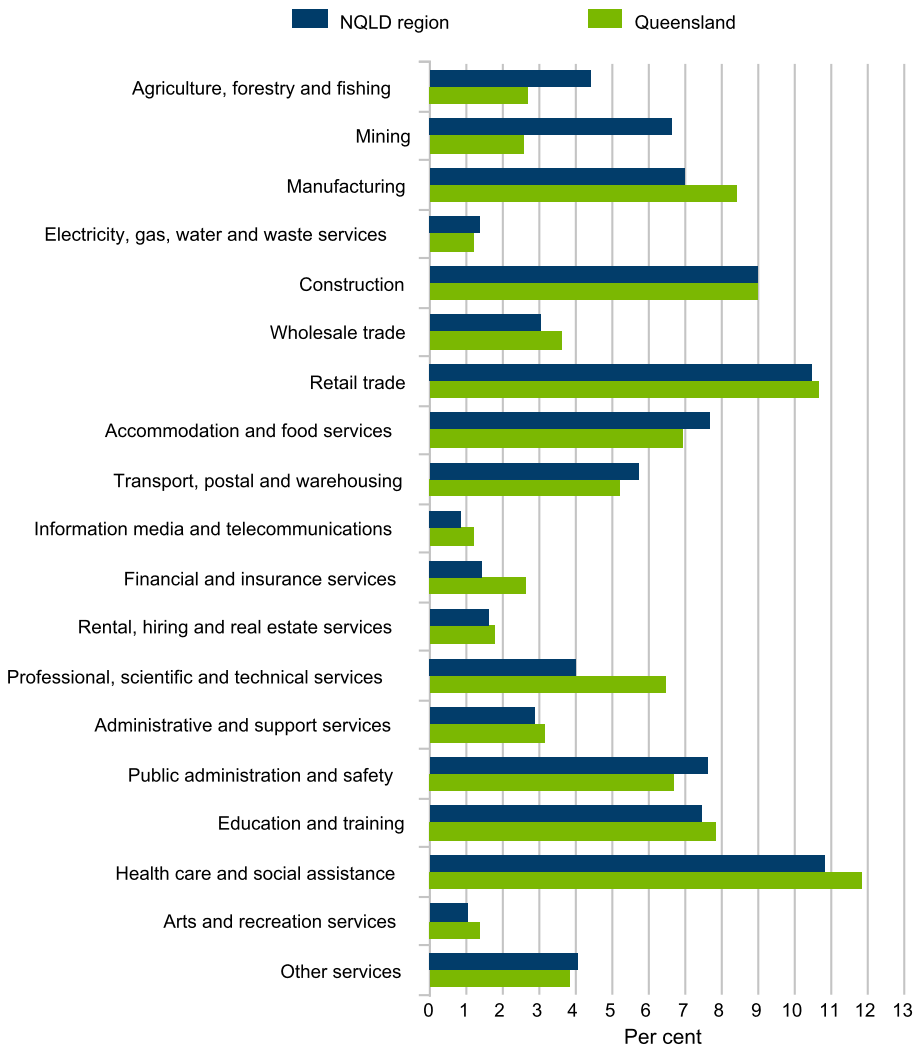
Industry	NQLD region		Queensland		Specialisation ratio
	number	%	number	%	number
Agriculture, forestry and fishing	16,164	4.4	55,416	2.7	1.63
Mining	24,398	6.7	52,955	2.6	2.58
Manufacturing	25,672	7.0	171,669	8.4	0.84
Electricity, gas, water and waste services	5,020	1.4	24,828	1.2	1.13
Construction	32,879	9.0	183,780	9.0	1.00
Wholesale trade	11,265	3.1	74,288	3.6	0.85
Retail trade	38,235	10.5	217,610	10.7	0.98
Accommodation and food services	28,046	7.7	141,855	7.0	1.11
Transport, postal and warehousing	20,885	5.7	107,072	5.3	1.09
Information media and telecommunications	3,139	0.9	25,358	1.2	0.69
Financial and insurance services	5,269	1.4	54,153	2.7	0.54
Rental, hiring and real estate services	5,861	1.6	37,007	1.8	0.89
Professional, scientific and technical services	14,780	4.1	132,754	6.5	0.62
Administrative and support services	10,597	2.9	65,015	3.2	0.91
Public administration and safety	27,932	7.7	136,818	6.7	1.14
Education and training	27,308	7.5	160,921	7.9	0.95
Health care and social assistance	39,640	10.9	242,559	11.9	0.91
Arts and recreation services	3,958	1.1	28,444	1.4	0.78
Other services	14,898	4.1	78,713	3.9	1.06
Total[(a)]	**364,837**	**100.0**	**2,039,275**	**100.0**	**1.00**

Refer to explanatory notes for additional information.

(a) Includes inadequately described and not stated responses.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B43 (usual residence)

Figure 10 Percentage of employment by industry[a], NQLD region and Queensland



(a) Total used to derive percentages includes inadequately described and not stated responses.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B43 (usual residence)

Employment by occupation

Employment by occupation has been derived from the 2011 Census of Population and Housing data. A person's occupation of employment was classified based on responses to a range of questions from the Census and is applicable to persons aged 15 years and over who work. This is based on place of usual residence.

The top five occupation sub-major groups of employment for NQLD region were:

1. **Sales Assistants and Salespersons (6.2%)**
2. **Automotive and Engineering Trades Workers (5.6%)**
3. **Hospitality, Retail and Service Managers (4.1%)**
4. **Carers and Aides (4.0%)**
5. **Specialist Managers (4.0%)**

NQLD region

- 17.4% of employed persons worked in Technicians and trades workers occupation
- 15.0% of employed persons worked in Professionals occupation
- Highest specialisation ratio of 1.39 in Machinery operators and drivers occupation

Queensland

- 18.9% of employed persons worked in Professionals occupation
- 14.9% of employed persons worked in Technicians and trades workers occupation

Table 34 Employment by occupation, NQLD region and Queensland, 2011

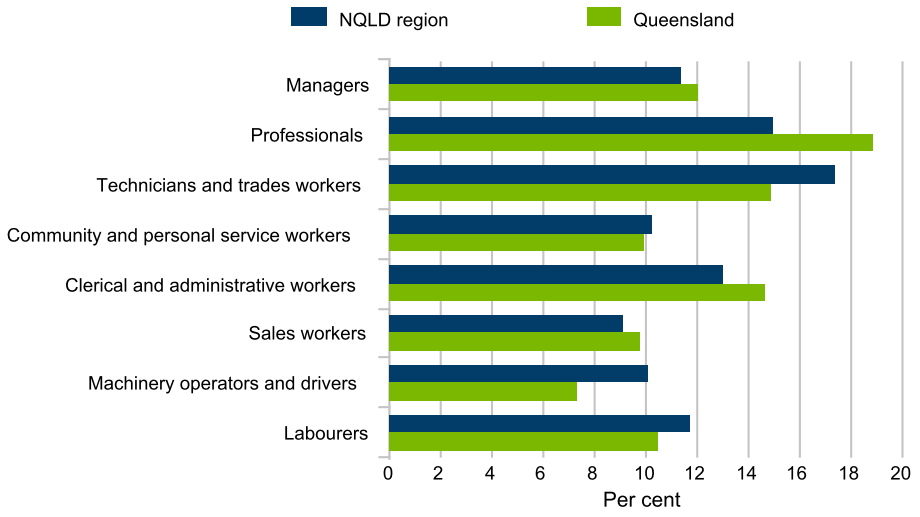
Occupation	NQLD region		Queensland		Specialisation ratio
	number	%	number	%	number
Managers	41,643	11.4	245,605	12.0	0.95
Professionals	54,600	15.0	385,583	18.9	0.79
Technicians and trades workers	63,633	17.4	304,564	14.9	1.17
Community and personal service workers	37,459	10.3	202,979	10.0	1.03
Clerical and administrative workers	47,582	13.0	299,326	14.7	0.89
Sales workers	33,223	9.1	199,633	9.8	0.93
Machinery operators and drivers	37,022	10.1	149,322	7.3	1.39
Labourers	42,771	11.7	215,236	10.6	1.11
Total[a]	**364,825**	**100.0**	**2,039,278**	**100.0**	**1.00**

Refer to explanatory notes for additional information.

(a) Includes inadequately described and not stated responses.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B45 (usual residence)

Figure 11 Percentage of employment by occupation[a], NQLD region and Queensland



(a) Total used to derive percentages includes inadequately described and not stated responses.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B45 (usual residence)

Families with children with no parent employed

Families with children with no parent employed have been derived from the 2011 Census of Population and Housing data and defined as either one parent families where the parent was either unemployed or not in the labour force or couple families where both parents were either unemployed or not in the labour force. This is based on families with children under 15 years of age.

The percentage of families with children under 15 years of age and no parent employed in NQLD region was

13.9%

NQLD region

- 11,435 families with children under 15 years of age and no parent employed (13.9%)
- Within the region, Aurukun (S) LGA had the highest percentage of families with no parent employed (60.2%)

Queensland

- 62,171 families with children under 15 years of age and no parent employed (13.5%)

Table 35 Families with children with no parent employed, NQLD region and Queensland, 2011

Custom region / LGA / State	One-parent family with parent not employed	Couple family with both parents not employed	Total families with no parent employed		Total families
	— number —		number	%	number
NQLD region	**8,637**	**2,797**	**11,435**	**13.9**	**82,475**
Aurukun (S)	63	55	118	60.2	196
Burdekin (S)	197	57	254	14.2	1,784
Burke (S)	0	0	0	0.0	30
Cairns (R)	2,120	727	2,847	17.3	16,490
Carpentaria (S)	23	9	32	17.2	186
Cassowary Coast (R)	353	130	483	17.6	2,748
Charters Towers (R)	147	45	192	15.3	1,258
Cloncurry (S)	32	12	44	15.0	293
Cook (S)	47	25	72	20.0	360
Croydon (S)	4	0	4	9.8	41
Douglas (S)	97	44	141	13.5	1,043
Etheridge (S)	0	0	0	0.0	80
Flinders (S)	12	4	16	9.0	177
Hinchinbrook (S)	87	35	122	11.5	1,064
Hope Vale (S)	31	25	56	41.5	135
Isaac (R)	67	10	77	2.8	2,705
Kowanyama (S)	53	23	76	48.7	156
Livingstone (S)	310	89	399	12.2	3,275
Lockhart River (S)	21	11	32	54.2	59
Mackay (R)	872	197	1,069	8.5	12,544
Mapoon (S)	9	4	13	41.9	31
Mareeba (S)	267	118	385	19.2	2,007
McKinlay (S)	4	0	4	5.6	71
Mornington (S)	53	30	83	50.3	165
Mount Isa (C)	231	66	297	13.0	2,293
Napranum (S)	35	32	67	54.0	124
Northern Peninsula Area (R)	49	38	87	26.9	324
Pormpuraaw (S)	23	18	41	47.7	86
Richmond (S)	3	4	7	8.0	87
Rockhampton (R)	1,000	257	1,257	15.3	8,189
Tablelands (R)	313	100	413	17.8	2,314
Townsville (C)	1,837	555	2,392	12.4	19,222
Whitsunday (R)	277	78	355	12.1	2,938
Queensland	**44,970**	**17,201**	**62,171**	**13.5**	**459,205**

Source: ABS, Census of Population and Housing, 2011, unpublished data (families)

Industry and development

Building approvals

Information on building approvals are compiled by the ABS, and are collected from sources such as local government authorities and other principal certifying authorities. The estimates for any month may be revised or corrected in later months. This can occur as a result of corrections made by a provider of data, the late provision of approval records and, occasionally, by approvals being identified after construction work has commenced. Data are updated monthly with an approximate delay of 3 months after the reporting period. It is anticipated the next update will be in August 2015.

The number of new houses approved in NQLD region in the 12 months ending 31 March 2015 was

3,226 approvals

NQLD region

- 3,226 approved new houses in the 12 months ending 31 March 2015
- $1,239.5 million of building value in residential building approvals in the 12 months ending 31 March 2015
- Within the region, Townsville (C) LGA had the largest value of residential building approvals in the 12 months ending 31 March 2015 with $402.6 million
- Within the region, Townsville (C) LGA had the largest value of non-residential building approvals in the 12 months ending 31 March 2015 with $191.7 million

Queensland

- 21,819 approved new houses in the 12 months ending 31 March 2015
- $11,802.6 million of building value in residential building approvals in the 12 months ending 31 March 2015

Table 36 Residential and non-residential building approvals by LGA, NQLD region and Queensland, 12 months ending 31 March 2015

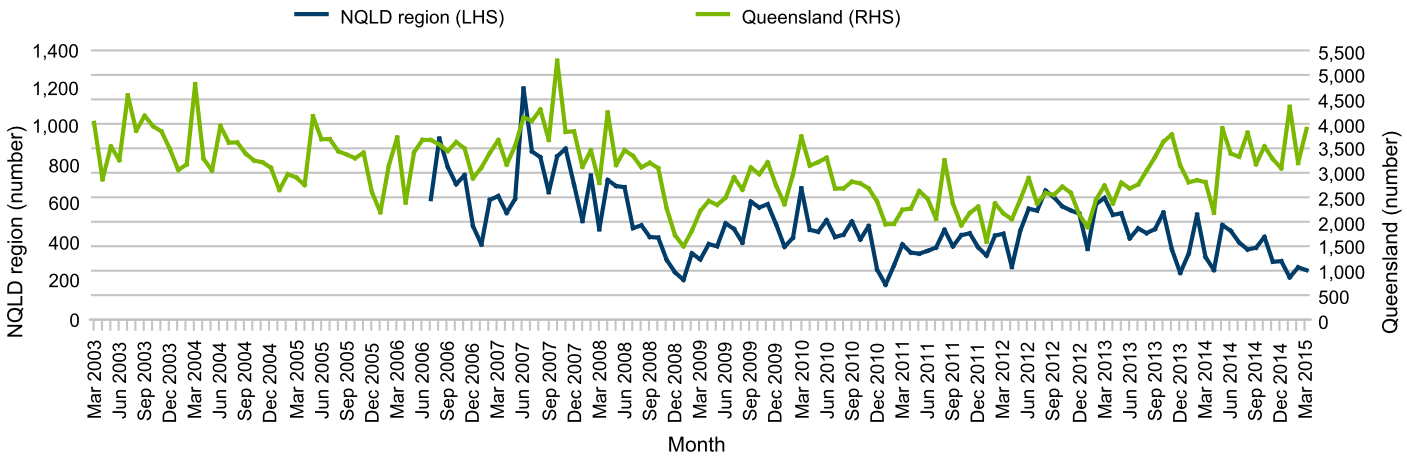
Custom region / LGA / State	Residential Building Approvals				Building Value				
	New Houses	New Other	Alterations, additions and conversions	Total	Residential		Non-residential		Total
	— number —				$'000	%	$'000	%	$'000
NQLD region	**3,226**	**872**	**38**	**4,136**	**1,239,459**	**65.5**	**653,849**	**34.5**	**1,893,309**
Aurukun (S)	0	0	0	0	0	. .	0	. .	0
Burdekin (S)	29	2	0	31	14,604	54.6	12,164	45.4	26,768
Burke (S)	1	0	0	1	80	100.0	0	0.0	80
Cairns (R)	601	33	0	634	218,876	76.0	68,948	24.0	287,824
Carpentaria (S)	4	0	0	4	684	75.1	227	24.9	911
Cassowary Coast (R)	94	3	1	98	33,540	73.3	12,224	26.7	45,764
Charters Towers (R)	16	2	1	19	7,032	58.0	5,083	42.0	12,115
Cloncurry (S)	6	4	0	10	3,569	88.9	444	11.1	4,013
Cook (S)	15	0	0	15	4,472	23.3	14,698	76.7	19,171
Croydon (S)	1	0	0	1	180	100.0	0	0.0	180
Douglas (S)	95	0	1	96	34,768	79.2	9,128	20.8	43,896
Etheridge (S)	0	0	0	0	30	35.3	55	64.7	85
Flinders (S)	0	0	0	0	120	14.4	715	85.6	835
Hinchinbrook (S)	21	5	0	26	9,080	52.3	8,276	47.7	17,356
Hope Vale (S)	0	0	0	0	240	100.0	0	0.0	240
Isaac (R)	9	0	0	9	4,696	30.8	10,530	69.2	15,226
Kowanyama (S)	0	0	0	0	0	. .	0	. .	0
Livingstone (S)	226	81	0	307	90,246	85.2	15,660	14.8	105,906
Lockhart River (S)	8	0	0	8	3,245	100.0	0	0.0	3,245
Mackay (R)	441	202	1	644	207,766	56.8	158,040	43.2	365,806
Mapoon (S)	0	0	0	0	0	. .	0	. .	0
Mareeba (S)	111	16	7	134	38,575	83.0	7,905	17.0	46,480
McKinlay (S)	0	0	0	0	13	100.0	0	0.0	13
Mornington (S)	0	4	0	4	2,193	45.9	2,582	54.1	4,776
Mount Isa (C)	3	26	0	29	6,723	31.3	14,737	68.7	21,459
Napranum (S)	0	0	0	0	0	. .	0	. .	0
Northern Peninsula Area (R)	11	0	0	11	5,005	90.0	559	10.0	5,564
Pormpuraaw (S)	4	0	0	4	1,494	71.0	612	29.0	2,106
Richmond (S)	0	0	0	0	331	41.6	465	58.4	796
Rockhampton (R)	284	27	1	312	88,279	53.8	75,904	46.2	164,184
Tablelands (R)	64	0	5	69	20,380	42.5	27,625	57.5	48,005
Townsville (C)	1,068	461	21	1,550	402,570	67.7	191,708	32.3	594,277
Whitsunday (R)	113	6	0	119	40,665	72.3	15,561	27.7	56,226

Queensland Government Statistician's Office

Custom region / LGA / State	Residential Building Approvals				Building Value				
	New Houses	New Other	Alterations, additions and conversions	Total	Residential		Non-residential		Total
	— number —				$'000	%	$'000	%	$'000
Queensland	**21,819**	**19,154**	**193**	**41,166**	**11,802,557**	**70.4**	**4,959,470**	**29.6**	**16,762,027**

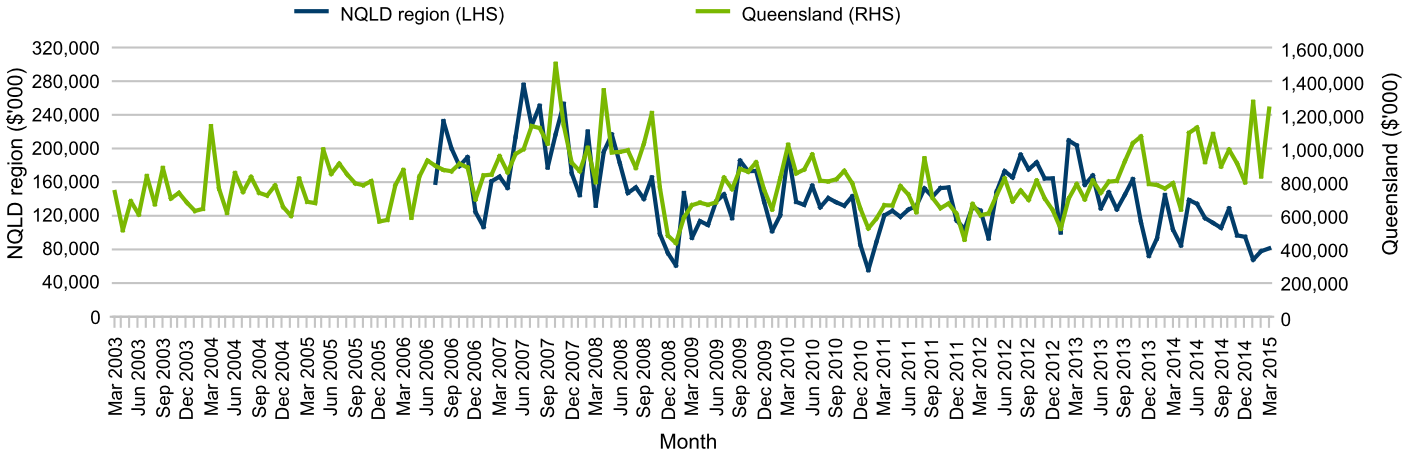
Source: ABS 8731.0, *Building Approvals, Australia, various editions*

Figure 12 Number of residential building approvals, NQLD region and Queensland



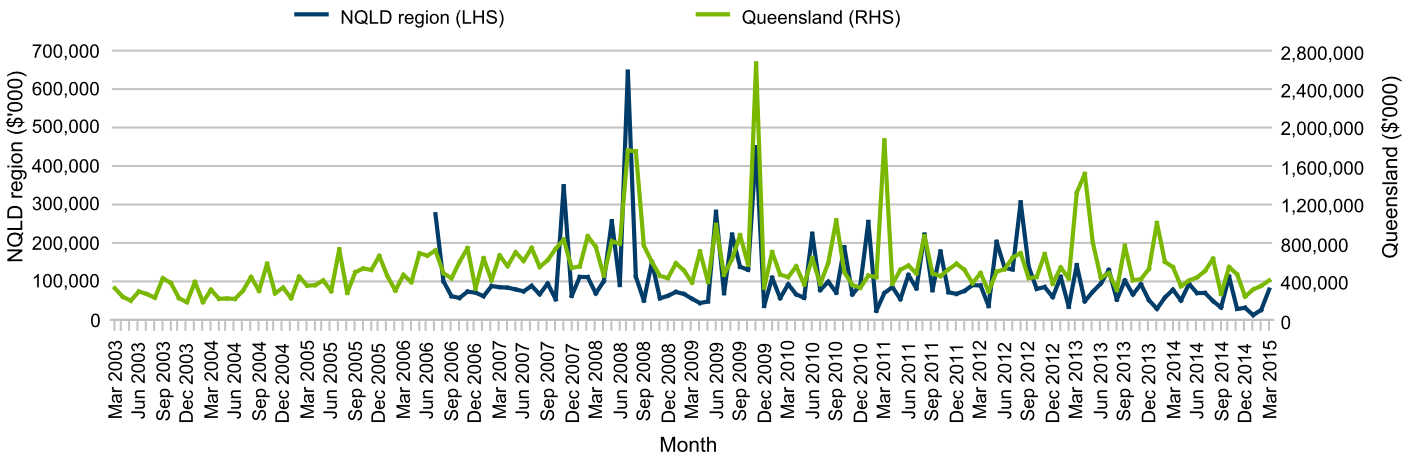
Source: ABS 8731.0, *Building Approvals, Australia, various editions*

Figure 13 Value of residential building approvals, NQLD region and Queensland



Source: ABS 8731.0, *Building Approvals, Australia, various editions*

Figure 14 Value of non-residential building approvals, NQLD region and Queensland



Source: ABS 8731.0, *Building Approvals, Australia, various editions*

Residential dwelling sales

Residential dwelling sales data is sourced from the Queensland Valuation and Sales (QVAS) database as collected and maintained by the Queensland Department of Natural Resources and Mines. Medians are only calculated where there are ten or more sales over the time period. All figures are preliminary and are subject to further revision. Data are updated quarterly with an approximate delay of 6 months after the reporting period. It is anticipated the next update will be in September 2015.

The highest median sale price in NQLD region in the 12 months ending 31 December 2014 was

Mackay (R) LGA
$390,000

NQLD region

- 14,149 residential dwelling sales in the 12 months ending 31 December 2014
- A median sale price has not been calculated for NQLD region
- Within the region, Mackay (R) LGA had the highest median sale price with $390,000

Queensland

- 108,960 residential dwelling sales in the 12 months ending 31 December 2014
- Median sale price of $412,000

Table 37 Residential dwelling sales by LGA, NQLD region and Queensland, 12 months ending 31 December 2014

Custom region / LGA / State	Number of sales			Median sale price		
	Detached dwellings	Attached dwellings	Total dwellings	Detached dwellings	Attached dwellings	Total dwellings
	— number —			— $ —		
NQLD region	**10,583**	**3,566**	**14,149**	**n.a.**	**n.a.**	**n.a.**
Aurukun (S)	0	0	0	n.a.	n.a.	n.a.
Burdekin (S)	165	22	187	212,500	202,500	210,000
Burke (S)	0	0	0	n.a.	n.a.	n.a.
Cairns (R)	2,610	1,542	4,152	390,000	222,000	345,000
Carpentaria (S)	12	1	13	180,000	n.a.	180,000
Cassowary Coast (R)	304	87	391	245,000	65,000	237,000
Charters Towers (R)	127	6	133	213,455	n.a.	213,455
Cloncurry (S)	36	1	37	195,000	n.a.	220,000
Cook (S)	41	3	44	272,000	n.a.	275,000
Croydon (S)	1	0	1	n.a.	n.a.	n.a.
Douglas (S)	209	290	499	375,000	240,000	300,000
Etheridge (S)	7	0	7	n.a.	n.a.	n.a.
Flinders (S)	16	0	16	74,216	n.a.	74,216
Hinchinbrook (S)	91	14	105	250,000	245,000	250,000
Hope Vale (S)	0	0	0	n.a.	n.a.	n.a.
Isaac (R)	103	13	116	240,000	250,000	245,000
Kowanyama (S)	0	0	0	n.a.	n.a.	n.a.
Livingstone (S)	481	131	612	410,000	327,500	389,000
Lockhart River (S)	0	0	0	n.a.	n.a.	n.a.
Mackay (R)	1,183	219	1,402	400,000	310,000	390,000
Mapoon (S)	0	0	0	n.a.	n.a.	n.a.
Mareeba (S)	416	31	447	335,000	193,000	322,000
McKinlay (S)	11	0	11	60,000	n.a.	60,000
Mornington (S)	0	0	0	n.a.	n.a.	n.a.
Mount Isa (C)	144	23	167	358,000	340,000	355,000
Napranum (S)	0	0	0	n.a.	n.a.	n.a.
Northern Peninsula Area (R)	0	0	0	n.a.	n.a.	n.a.
Pormpuraaw (S)	0	0	0	n.a.	n.a.	n.a.
Richmond (S)	8	1	9	n.a.	n.a.	n.a.
Rockhampton (R)	1,169	158	1,327	295,000	355,000	305,000
Tablelands (R)	392	37	429	310,000	240,000	305,000
Townsville (C)	2,689	727	3,416	360,928	286,000	350,000
Whitsunday (R)	368	260	628	398,000	269,500	360,000

Queensland Government Statistician's Office

Custom region / LGA / State	Number of sales			Median sale price		
	Detached dwellings	Attached dwellings	Total dwellings	Detached dwellings	Attached dwellings	Total dwellings
	— number —			— $ —		
Queensland	**74,112**	**34,848**	**108,960**	**436,000**	**365,000**	**412,000**

Refer to explanatory notes for additional information.

Source: Department of Natural Resources and Mines, Office of the Valuer-General, Property Sales

New house and vacant land sales

New house and vacant land sales data is sourced from the Queensland Valuation and Sales (QVAS) database as collected and maintained by the Queensland Department of Natural Resources and Mines. Medians are only calculated where there are ten or more sales over the time period. All figures are preliminary and are subject to further revision. Data are updated quarterly with an approximate delay of 6 months after the reporting period. It is anticipated the next update will be in September 2015.

The highest median new house sale price in NQLD region in the 12 months ending 31 December 2014 was

Whitsunday (R) LGA
$465,000

NQLD region

- 588 new house sales in the 12 months ending 31 December 2014
- A median new house sale price has not been calculated for NQLD region
- 2,835 vacant land sales
- A median vacant land sale price has not been calculated for NQLD region
- Within the region, Whitsunday (R) LGA had the highest median new house sale price with $465,000
- Within the region, Mackay (R) LGA had the highest median vacant land sale price with $208,000

Queensland

- 2,904 new house sales in the 12 months ending 31 December 2014
- 14,123 vacant land sales
- Median new house sale price of $435,000
- Median vacant land sale price of $208,000

Table 38 New house and vacant land sales by LGA, NQLD region and Queensland, 12 months ending 31 December 2014

Custom region / LGA / State	Number of sales		Median sale price	
	New houses	Vacant land	New houses	Vacant land
	— number —		— $ —	
NQLD region	**588**	**2,835**	**n.a.**	**n.a.**
Aurukun (S)	0	0	n.a.	n.a.
Burdekin (S)	8	14	n.a.	55,000
Burke (S)	0	4	n.a.	n.a.
Cairns (R)	190	616	405,000	195,000
Carpentaria (S)	0	5	n.a.	n.a.
Cassowary Coast (R)	4	100	n.a.	95,000
Charters Towers (R)	8	7	n.a.	n.a.
Cloncurry (S)	5	10	n.a.	94,600
Cook (S)	1	16	n.a.	86,600
Croydon (S)	0	14	n.a.	8,341
Douglas (S)	4	54	n.a.	123,000
Etheridge (S)	0	17	n.a.	9,000
Flinders (S)	0	4	n.a.	n.a.
Hinchinbrook (S)	2	8	n.a.	n.a.
Hope Vale (S)	0	0	n.a.	n.a.
Isaac (R)	8	3	n.a.	n.a.
Kowanyama (S)	0	0	n.a.	n.a.
Livingstone (S)	7	278	n.a.	171,000
Lockhart River (S)	0	0	n.a.	n.a.
Mackay (R)	44	292	420,000	208,000
Mapoon (S)	0	0	n.a.	n.a.
Mareeba (S)	8	79	n.a.	86,000
McKinlay (S)	0	2	n.a.	n.a.
Mornington (S)	0	0	n.a.	n.a.
Mount Isa (C)	1	1	n.a.	n.a.
Napranum (S)	0	0	n.a.	n.a.
Northern Peninsula Area (R)	0	0	n.a.	n.a.
Pormpuraaw (S)	0	0	n.a.	n.a.
Richmond (S)	0	3	n.a.	n.a.
Rockhampton (R)	32	244	370,000	170,000
Tablelands (R)	9	59	n.a.	100,000
Townsville (C)	240	869	415,950	162,500
Whitsunday (R)	17	136	465,000	160,000

Queensland Government Statistician's Office

Custom region / LGA / State	Number of sales		Median sale price	
	New houses	Vacant land	New houses	Vacant land
	— number —		— $ —	
Queensland	**2,904**	**14,123**	**435,000**	**208,000**

Refer to explanatory notes for additional information.

Source: Department of Natural Resources and Mines, Office of the Valuer-General, Property Sales

Environment

Protected areas – parks and forest estate

Protected areas are derived from a spatial dataset sourced from the Queensland Department of National Parks, Recreation, Sport and Racing. Whilst a relatively small area of national park is below mean sea level, data presented in this table are based on areas located above mean sea level. Areas are based on a GIS calculated spherical area and not the official gazetted area. GIS calculations reference the latitude/longitude projection and are based on the Geocentric Datum of Australia 1994 (GDA 94). Data are updated every two years. It is anticipated the next update will be in June 2017.

The total protected area within NQLD region as at 2015 was

56,056.5 km^2

NQLD region

- Protected area of 56,056.5 km^2 as at 2015
- Largest protected area estate type of National Parks with 51,438.3 km^2
- Within the region, Cook (S) LGA had the largest protected area with 24,775.7 km^2

Queensland

- Protected area of 123,542.3 km^2 as at 2015
- Largest protected area estate type of National Parks with 91,116.5 km^2

Table 39 Protected areas - park and forest estate by LGA, NQLD region and Queensland, 2015

Custom region / LGA / State	National Park (a)	State Forest	Timber Reserve	Forest Reserve	Total
	— area (km^2) —				
NQLD region	**51,438.3**	**3,947.5**	**89.2**	**581.4**	**56,056.5**
Aurukun (S)	0.0	0.0	0.0	0.0	0.0
Burdekin (S)	217.7	0.0	0.0	0.0	217.7
Burke (S)	1,561.3	0.0	0.0	0.0	1,561.3
Cairns (R)	776.2	0.1	0.0	82.1	858.3
Carpentaria (S)	1,531.4	0.0	0.0	0.0	1,531.4
Cassowary Coast (R)	2,742.1	100.7	0.0	0.6	2,843.4
Charters Towers (R)	1,501.3	65.6	0.0	0.0	1,566.9
Cloncurry (S)	0.0	0.0	0.0	0.0	0.0
Cook (S)	24,756.1	8.5	11.1	0.0	24,775.7
Croydon (S)	0.0	0.0	0.0	0.0	0.0
Douglas (S)	1,496.9	0.0	0.0	0.5	1,497.4
Etheridge (S)	1,235.8	0.0	0.0	0.0	1,235.8
Flinders (S)	982.3	0.0	0.0	0.0	982.3
Hinchinbrook (S)	804.7	188.7	0.0	0.0	993.4
Hope Vale (S)	0.0	0.6	0.0	0.0	0.6
Isaac (R)	997.4	1,591.3	0.0	0.0	2,588.6
Kowanyama (S)	0.0	0.0	0.0	0.0	0.0
Livingstone (S)	291.3	465.1	0.0	0.0	756.4
Lockhart River (S)	2.7	0.0	0.0	0.0	2.7
Mackay (R)	845.0	595.1	0.0	193.7	1,633.7
Mapoon (S)	0.0	0.0	0.0	0.0	0.0
Mareeba (S)	5,265.5	196.4	0.0	176.3	5,638.2
McKinlay (S)	0.2	0.0	0.0	0.0	0.2
Mornington (S)	0.0	0.0	0.0	0.0	0.0
Mount Isa (C)	2,395.4	0.0	78.2	0.0	2,473.5
Napranum (S)	0.0	0.0	0.0	0.0	0.0
Northern Peninsula Area (R)	0.0	0.0	0.0	0.0	0.0
Pormpuraaw (S)	0.0	0.0	0.0	0.0	0.0
Richmond (S)	0.0	0.0	0.0	0.0	0.0
Rockhampton (R)	328.6	99.0	0.0	0.0	427.6
Tablelands (R)	2,111.3	226.0	0.0	114.4	2,451.8
Townsville (C)	810.1	160.6	0.0	0.0	970.7
Whitsunday (R)	785.1	249.7	0.0	13.8	1,048.7
Queensland	**91,116.5**	**31,105.8**	**664.1**	**655.9**	**123,542.3**

(a) Includes Regional Parks.

Source: Queensland Department of National Parks, Recreation, Sport and Racing

Abbreviations

. .	not applicable
ABS	Australian Bureau of Statistics
ASGS	Australian Statistical Geography Standard
C	City
ESB	English-speaking background
LGA	Local Government Area
LHS	left-hand side
n.a.	not available
NESB	non-English speaking background
p	preliminary
r	revised
R	Regional Council
RHS	right-hand side
S	Shire

Explanatory notes

Profile explanatory notes

Australian Statistical Geography Standard (ASGS)

A geographical framework covering all spatial areas of Australia and its external territories. The ASGS was developed by the ABS to allow statistics from different collections to be spatially comparable. The ASGS came into effect in July 2011, replacing the Australian Standard Geographical Classification (ASGC). The 2011 edition of the ASGS has been used for the data in this report.

Average annual growth rate

It is calculated as a percentage using the formula below, where P_o is the population at the start of the period, P_n is the population at the end of the period and n is the length of the period between P_n and P_o in years.

$$\left[\left(\frac{P_n}{P_o}\right)^{\frac{1}{n}} - 1\right] \times 100$$

For example, to calculate the average annual rate of population change from 2002 to 2012, n is ten, P_o is the population in 2002 and P_n is the population in 2012.

Cell confidentialisation

This profile utilises two types of data confidentialisation.

1. Source data confidentialisation - This refers to datasets that have been confidentialised by the data custodians. For example census data supplied by the ABS have small cell counts of 1 or 2 confidentialised to 0 or 3 and a small random adjustment made to all data to avoid any risk of releasing identifiable information. Caution should therefore be used when interpreting data where the cell count is small.
2. Concordance confidentialisation - This refers to datasets that have been concorded to a new geography and the resulting cell count is small. No reliance should be placed on these cell counts and as such have been confidentialised. Tables utilising this type of confidentialisation will report the cell as less than a specific value (for example <5).

Census 2011 data

Census data have 'introduced random error' to ensure no data are released which could risk identifying individuals. As such, cells containing very small counts should be treated with extreme caution.

Census undercount

Due to the size and complexity of the Census of Population and Housing, whenever a Census is conducted it is inevitable that some people will be missed and some will be counted more than once. After each Census, the Australian Bureau of Statistics conduct a Post Enumeration Survey to estimate the number of people who should have been counted in the Census and the actual Census counts. It is important to note, that all Census data reported in this profile do not have any adjustments made for Census undercount and readers should keep this in mind when making inferences from the data.

Concordances and concorded data

A concordance, in statistical terms, is a product that allows a user to convert data from one geographical region (under which data have been collected) to a new geographical region. In order to convert data from one geographical boundary to another, each region in the new boundary is assigned percentages of data from the old regions. These percentages in the concordance can be constructed using any number of variables. This profile utilises a population based concordance (estimated resident population) at a specific point in time (2011). This type of concordance is useful when concording demographic based datasets such as labour force and family composition on a usual resident basis with time periods at or around 2011. It does not work as well when concording data on different counting methods (such as counts by place of work), non-population based datasets (such as business counts) or datasets collected at different time periods (such as data collected in 2001). Caution should therefore be used when interpreting non-resident based datasets that have been concorded.

One major assumption that is necessary to make when concording data is that the data (for example unemployed persons) are proportionately distributed across the region the same as total resident population (as total resident population is the variable used to derive the percentage splits). In some cases this assumption will not be entirely correct. In the example of unemployed persons, within the region there may be more concentrated areas with a larger proportion of unemployed persons. This assumption should therefore be considered when interpreting datasets that have been concorded.

Local Government Area

Local Government Area(s) (LGAs) (2014) are administration boundaries for local service provision. There are 78 LGA regions that cover the state.

Queensland

Queensland figures include the 'Migratory - Offshore - Shipping' and 'No Usual Address' counts.

Region overview

Statistics in the region overview have been derived from administrative geographical boundaries and the Bureau of Meteorology.

Rounding

Figures are rounded to nearest whole number. Calculations (such as percentages and rates) are based on pre-rounded figures.

Specialisation ratio

The ratio of the percentage for the NQLD region to the percentage for Queensland. A specialisation ratio above 1.00 indicates NQLD region has a larger share for that category than in Queensland. Similarly a specialisation ratio below 1.00 indicates NQLD region has a smaller share for that category than in Queensland.

Topic explanatory notes

Aged care services

Community care services

Community care services provide home-based care for older people wanting to remain living independently in their own home improving their quality of life and helping them to remain active and connected to their own communities. The figures here include Mainstream Packaged Care places provided by Community Aged Care Package (CACP), Extended Aged Care at Home (EACH), and Extended Aged Care at Home Dementia (EACHD) services, and Flexible Care places provided in a community setting by Multi-Purpose Services (MPS), Innovative Care, Consumer Directed Care (CDC), and National Aboriginal and Torres Strait Islander Aged Care (NATSI) Services.

Residential aged care

Residential Aged Care provides a range of supported accommodation services for older people who are unable to continue living independently in their own homes. The figures here include Mainstream Residential Aged Care places provided by Residential Aged Care Services (RACS), and Flexible Care places provided in a Residential setting by Multi-Purpose Services (MPS), and National Aboriginal and Torres Strait Islander Aged Care (NATSI) Services.

Transition care

Transition care program provides a package of services to enable older people after a hospital stay to return home rather than prematurely enter residential care. The program also gives older people and their families and carers time to consider long-term care arrangements.

Births and deaths

Births

Births data are based on the number of births registered during a calendar year by place of usual residence of the mother. This is different to the number of births which occurred during a calendar year. For further information on the differences between estimates of registered births and births occurring in a time period, refer to ABS website (cat. no. 3301.0).

As a result of changes in the timeliness of registration of births in Queensland, care should be taken when interpreting changes in Queensland births between 2006 and 2010. This lag has reduced in recent years, indicating potential improvements in the timeliness of registration of births in Queensland. The December quarter 2009 also saw the Queensland Registry of Births, Deaths and Marriages devoting significant time and resources to follow-up and finalise birth registrations where there was previously incomplete information. As part of the Retrospective Births Project, 1,780 births were registered, with approximately 40% registered as Aboriginal and Torres Strait Islander births (see paragraph 40 of cat. no. 3301.0 explanatory notes for more information). This project is now complete.

Deaths

Deaths data are based on the number of deaths registered during a calendar year by place of usual residence of the deceased. This is different to the number of deaths which occurred during a calendar year. For further information on the differences between estimates of registered deaths and deaths occurring in a time period, refer to ABS website (cat. no. 3302.0).

Country of birth

Based on the most common Country of Birth responses (excluding Australia) reported in the 2006 Census.

Employment by industry

Employment by industry

Based on Australian and New Zealand Standard Industrial Classification (ANZSIC), 2006 edition.

Industry subdivision

The industry subdivision refers to the 2-digit industry classification from the Australian and New Zealand Standard Industrial Classification (ANZSIC), 2006 edition.

Employment by occupation

Employment by occupation

Based on Australian and New Zealand Standard Classification of Occupations (ANZSCO), 2006 edition (Revision 1).

Occupation sub-major group

The occupation sub-major group refers to the 2-digit occupation classification from the Australian and New Zealand Standard Classification of Occupations (ANZSCO), 2006 edition (Revision 1).

Median age

Median estimates have been calculated by the ABS and Queensland Treasury.

Median rent

Medians for regions with less than 10 lodgements in the 12 month period have not been reported.
Median rents do not include lodgements listed with $0 rent.

Medians and averages

Average household size

Applicable to number of persons usually resident in occupied private dwellings. It includes partners, children, and co-tenants (in group households) who were temporarily absent on Census Night. A maximum of three temporary absentees can be counted in each household. It excludes 'Visitors only' and 'Other non-classifiable' households.

Average number of persons per bedroom

Applicable to occupied private dwellings. It excludes 'Visitors only' and 'Other non-classifiable' households.

Median mortgage repayment

Applicable to occupied private dwellings being purchased and includes dwellings being purchased under a rent/buy scheme. It excludes 'Visitors only' and 'Other non-classifiable' households.

Median total family income

Applicable to families in family households. It excludes families where at least one member aged 15 years and over did not state an income and families where at least one member aged 15 years and over was temporarily absent on Census Night.

Median total household income

Applicable to occupied private dwellings. It excludes households where at least one member aged 15 years and over did not state an income and households where at least one member aged 15 years and over was temporarily absent on Census Night. It excludes 'Visitors only' and 'Other non-classifiable' households.

Median total personal income

Applicable to persons aged 15 years and over.

New house and vacant land sales

Vacant residential land have been defined as vacant - large housesites, vacant urban land and vacant rural land between 140 sq m and 2,500 sq m within planning zones.
New house and land have been defined as a single unit dwelling or dwelling large housesite on a newly registered block.
All reporting periods are based on the contract date and not the settlement date.

Non-school qualification by field of study

Excludes persons with a qualification out of the scope of the Australian Standard Classification of Education (ASCED).

Non-school qualification by sex and age

Excludes persons with a qualification out of the scope of the Australian Standard Classification of Education (ASCED).

Population projections

Population projections are based on a medium series.

Proficiency in spoken English

Based on the most common Language Spoken at Home responses reported in the 2006 Census for Australia.

Residential dwelling sales

Medians are only calculated where there are ten or more sales over the time period.

Attached dwellings

Attached dwellings include multi-unit dwellings (flats), building units or group titles within planning zones.

Detached dwellings

Detached dwellings include single unit dwellings or large house sites.

Residential dwelling sales

Residential dwelling sales include both new and established dwellings and all reporting periods are based on the contract date and not the settlement date.

Total family income

Median total family income estimates incorporate medians calculated by both ABS and Queensland Treasury. Medians are only calculated where there were five or more total families. Median calculation excludes families where at least one member aged 15 years and over did not state an income and families where at least one member aged 15 years and over was temporarily absent on Census Night.

Total personal income

Median total personal income estimates incorporate medians calculated by both ABS and Queensland Treasury.

Unemployment and labour force

Small Area Labour Force data have been generated from a Structure Preserving Estimation (SPREE) methodology using ABS and Centrelink data. As such these estimates can exhibit considerable variability and care should be taken when interpreting these values. For further information on these data, refer to the Australian Government Department of Employment website.

Report for IAG - Final

Response to Northern Australia Insurance Premiums Taskforce Interim Report

Dr Richard Tooth

14 September 2015

sapere research group

About the Authors

Dr Richard Tooth is a Director with the Sydney office of Sapere Research Group. He has worked directly for, and consulted to, the insurance industry. He has undertaken a number of studies on the consumer demand for general insurance. More broadly, he works on public policy, competition and regulatory issues across a number of industries including water, energy, transport and financial services. Dr Tooth has a PhD in Economics, a Master in Business Administration and a Bachelor of Science.

About Sapere Research Group Limited

Sapere Research Group is one of the largest expert consulting firms in Australasia and a leader in provision of independent economic, forensic accounting and public policy services. Sapere provides independent expert testimony, strategic advisory services, data analytics and other advice to Australasia's private sector corporate clients, major law firms, government agencies, and regulatory bodies.

Sydney Level 14, 68 Pitt St GPO Box 220 NSW 2001 Ph: +61 2 9234 0200 Fax: +61 2 9234 0201	**Canberra** Unit 3, 97 Northbourne Ave Turner ACT 2612 GPO Box 252 Canberra City, ACT 2601 Ph: +61 2 6267 2700 Fax: +61 2 6267 2710	**Melbourne** Level 2, 65 Southbank Boulevard GPO Box 3179 Melbourne, VIC 3001 Ph: +61 3 9626 4333 Fax: +61 3 9626 4231
Wellington Level 9, 1 Willeston St PO Box 587 Wellington 6140 Ph: +64 4 915 7590 Fax: +64 4 915 7596	**Auckland** Level 8, 203 Queen St PO Box 2475 Auckland 1140 Ph: +64 9 909 5810 Fax: +64 9 909 5828	

For information on this report please contact:

Name:	Dr Richard Tooth
Telephone:	02 9234 0216
Mobile:	0412 105 817
Email:	rtooth@srgepert.com

Contents

Glossary

ABS	Australian Bureau of Statistics
AGA	Australian Government Actuary
AGDRP	Australian Government Disaster Recovery Payment
APRA	Australian Prudential Regulation Authority
ARPC	Australian Reinsurance Pool Corporation
BOM	Bureau of Meteorology
CSO	Community Service Obligations
IAG	Insurance Australia Group
ICA	Insurance Council of Australia
GWP	Gross written premium
NFIP	National Flood Insurance Program
Urbis Proposal	Proposal set out in 'A Third Way: A proposal for cyclone mitigation assistance' by Hutley et al (2015).

Executive summary

Introduction and approach

The Northern Australia Insurance Premiums Taskforce was established to explore the feasibility of options using the Commonwealth balance sheet to reduce home, contents and strata insurance premiums in those regions of Northern Australia that are experiencing insurance affordability concerns due to cyclone risk.

The Interim Report of the Taskforce discusses a number of options which include as required by the terms of reference two government supported options (a mutual insurer option and a reinsurance pool).

The criteria for evaluating options relate to:

- the potential reduction in consumer premiums
- the likely cost and risks associated with using the Commonwealth balance sheet
- the potential effect on the operation of the insurance and reinsurance markets, and
- how the role of the Government can be gradually reduced over time.

In this paper I provide an economic analysis to help evaluate the options. The approach I adopt reflects that reducing premiums is only feasible by reducing costs and/or by providing subsidies. Therefore the cost to achieving any target premium reduction will be determined by the extent to which Government intervention and use of the Commonwealth balance sheet affects the efficiency and effectiveness of the industry. Assessment of the other criteria (relating to risk, impact on insurance/reinsurance operations and reducing the role of Government) largely stem from an understanding of this issue.

The standard policy framework used to assess the effectiveness and efficiency of any Government intervention is based on the concept of market failure, which focusses on why the industry may fail to provide efficient outcomes. Using this framework I assess Government intervention in the provision of insurance and in guiding mitigation.

Options assessed

Government involvement in insurance provision

As noted in the Interim Report, government-supported schemes (whether reinsurance or insurance) are relatively common internationally.

However, the justifications for such schemes elsewhere do not appear to be relevant to cyclone risk in Northern Australia. Government-supported schemes are often justified on the basis:

- the market fails to provide insurance because there is adverse selection whereby low-risk households are better able to assess their risk than insurers and opt out of insurance leading the average expected cost to spiral. This issue plagues the provision of flood insurance and has been used to justify schemes such as National Flood Insurance

Program in the USA. However, this is not the case with cyclone risk, whereby the insurer has much better information of cyclone risk. Regardless, such issues may be better addressed through improved information.

- the risk exposure is beyond the insurance industry's capacity to underwrite. This is often used to justify intervention where the potential losses are extreme because there is significant risk (e.g. from earthquake or hurricane) to dense population areas. However, in Northern Australia the population is relatively small and dispersed and the overall risk is small compared to a disaster that might affect one of the major Australian population centres.[1]
- the distribution of risk is unknown resulting inefficiently large capital being required to underwrite the risk. This argument may be relevant to justify terrorism insurance and earthquake risk but is not relevant to cyclones in Northern Australia, for which are relatively frequent.

The absence of such issues means it will not be feasible to use the Government balance sheet to materially improve the insurance of cyclone risk. There also does not appear to be any other market failure that would suggest that a government supported-scheme would improve efficiency. In the absence of any efficiency improvement a government-supported scheme can only reduce premiums by providing a subsidy that must be funded through some form of taxation.

Furthermore, the international experience suggests that there are significant inefficiencies in insurance operations caused by government-supported schemes. These issues experienced in schemes include:

- increased administrative costs, and
- a reduction in the control of moral hazard leading to higher exposure and losses.

The international evidence also highlights that schemes once in place tend to crowd-out private insurance making it difficult for government to exit.

Finally, government support with respect to cyclone and flood risk is often inequitable because benefits flow to the wealthier policyholders who are homeowners that live nearer the coast.

Mitigation

The impact of a cyclone can be significantly reduced through mitigating activity, such as structural roof upgrading and community programs. I understand that the large differential between Darwin and Northern Queensland premiums can be largely attributed to the higher building standards used in Darwin following Cyclone Tracy.

There are several reasons why current mitigation may be insufficient and therefore why government intervention to support mitigation may help to cost-effectively reduce premiums:

---

[1] This is reflected in catastrophe statistics. the insured loss from Cyclone Marcia was less than half the cost of the 2015 Brisbane hailstorm,

- With regards to wind-damage, the mitigation efforts on one property may also benefit neighbouring properties
- People may invest less in mitigation than is in their long-term financial interest due to behavioural biases and financial constraints
- Insurance itself creates a moral hazard problem, which reduces the incentives for householders to undertake mitigation activity
- The expectation of government assistance (post disaster or future assistance in mitigation) may reduce incentives to mitigate.

The moral hazard problem is partly addressed by insurers through the use of deductibles. The behavioural biases and the moral hazard issues might be further addressed by insurers providing financial incentives to policyholder to undertake mitigation. However, it is difficult for insurers to confirm mitigation has or will take place. Governments have played a role in mitigation through enforcement of building codes.

Furthermore, Government support for mitigation can be attractive against other criteria. For example, mitigation support can complement (and not interfere with) insurance operations and where appropriate can be designed to be temporary.

Other alternatives and issues

Direct subsidy

Perhaps the simplest alternative to reduce premiums is to provide direct subsidies to households who are financially-stressed due to escalating premiums. A rationale for such targeted support is that (primarily due to regulatory constraints) the insurance market does not provide a way for householders protect themselves from unforeseen increases in premiums. Targeted government assistance may be considered a social insurance that alleviates this issue. The key issues with providing subsidies are the administration costs and the risk of continued pressure to maintain them.

Taxes on insurance

As is commonly recognised, state-based stamp duties on insurance are very distortive taxes that add substantially to the cost of insurance premiums. The ACT government is in the process of removing stamp-duty on insurance and it would be efficient for other jurisdictions not to follow. Doing so would provide an immediate reduction in premiums (8.3 per cent in Queensland) at no cost or risk to the Government balance sheet and not interfere with insurance operations.

Evaluating the options

I have attempted to provide a high level evaluation of the key options including an indicative costing. As some options involve the Government taking on some risk, the cost (or return) to the Government in any one year can depend on the claims experience. For this reason it is useful to focus on the *expected* cost to Government.

The expected public cost of achieving a targeted reduction in premiums, will be equal to:

- the value of the premium reduction, plus

- an adjustment for changes in:
  - expected claims costs, and
  - administrative costs (i.e. costs of delivering insurance and administering any subsidy).

In the absence of a market failure, the government-supported schemes will not reduce costs and, based on international experience, are likely to increase costs. In both the schemes, this will come from increased costs in the provision of the insurance service, and in the medium and long term possibly an increase in claims cost due to a reduction in discipline in underwriting, pricing and claims management.

Consistent with the discussion above on mitigation, existing analysis suggests that there are significant societal benefits to a mitigation program that includes structural roof upgrades in older homes and community preparedness campaigns. However, Government support would be required for the mitigation to go ahead. Furthermore, mitigation will take some time and, by itself, would not address the Government's need to achieve an immediate reduction in premiums.

I have conducted an illustrative high-level assessment of the public costs for Northern Queensland for the key options including a mutual-insurer, a reinsurance pool and a direct subsidy. I have assumed there will also be a mitigation program that will be conducted over 10 years. To simplify comparison I have assumed that the same mitigation program proceeds in all cases. The results are provided in Table S1 on page xi.

The baseline assumption is that the total pre-tax gross written premium (GWP) for residential contents and building is around $435 million before subsidies are applied. This reduces over time to around $395 million after 10 years due to mitigation efforts and improvements in building structures. The estimated total cost of the mitigation program over 10 years is $610 million. Much of this cost would need to be subsidised.

The key assumptions used to generate the other results are as follows.

- All programs will involve providing consumers a premium discount (a subsidy) but this varies by time and by program
  - The required subsidy declines over time as mitigation improves to reduce premiums
  - The subsidy under the mutual insurer and the direct subsidy approach will be targeted. I have assumed that the subsidy would apply to around 49,000 households and would average $600 (pre-tax) per household.
  - The reinsurance pool subsidy would not be targeted and therefore be more expensive. I have assumed an average 20 per cent across the board subsidy.
- All programs will increase costs of providing the services. For purposes of illustration I have assumed:
  - The mutual insurer will increase insurance servicing costs by 20 per cent of pre-tax GWP in 2015, equivalent to around $90 million per year
  - The reinsurance pool option will increase insurance servicing costs by 5 per cent of pre-tax GWP in 2015, equivalent to around $20 million per year

  - The administration cost of providing targeted subsidies will be around $100 per household per year.

- The government insurance schemes will lead to higher claims costs due to an increase in moral hazard among insurers (reinsurance pool) and policy-holders (mutual insurer). For purposes of illustration, I have assumed that relative to the baseline the expected claims cost will rise over the 10 period under the mutual insurer proposal and under the reinsurance pool by 5 per cent of pre-tax GWP.

Using the assumptions above, the cost of the direct subsidy approach is substantially less than the government insurance scheme options.

In addition to being lower cost, the direct subsidy approach (coupled with mitigation) appears to more attractive on all other evaluation criteria and therefore a more effective approach to reduce insurance premiums.

The results of the quantitative analysis are (I re-emphasis) illustrative, but nevertheless it is hard to image how the government insurance schemes could on any measure out-perform a direct subsidy approach.

Conclusion

The rationale used to justify government insurance schemes elsewhere does not appear to apply to cyclone risk in northern Australia. In the absence of a market failure, a government insurance scheme will only serve to increase costs and will likely lead to other negative outcomes.

Government supported interventions in mitigation are likely to be efficient.

A supporting subsidy to homeowners whose premiums have increased significantly might be justified. This is on the basis that the higher premiums were not foreseeable and, due to regulatory constraints, consumer cannot purchase protection against this risk.

Table S1: Indicative comparison of main options

	Mutual insurer	Reinsurance pool	Direct subsidy
Costs to achieve premium reduction (over 10 year period)			
Premium reduction funded	~$160 m	~$670 m	~$160 m
Change expected claims cost	~$110 m	~$110 m	-
Change administrative costs	~$900 m	~$220 m	~$30 m
Total Govt cost **- over 10 year period** **- ongoing costs**	 ~$1,170 m ~$110 m	 ~$1,000 m ~$90 m	 ~$190 m Nil
Non-financial assessment			
Extent of mitigation	High – linked to subsidy	Medium – difficult to incentivise	High – linked to subsidy
Increase in costs			
Sales and marketing	High	No change	No change
Other administrative costs	Some subsidy mgmt. costs	Some pool mgmt costs	Some subsidy mgmt. costs
Risk of increased of moral hazard	High - risk of poor discipline	Medium - risk of poor discipline	No change
Other factors			
Risk to Govt balance sheet	Potentially high	Potentially high	Nil
Impact of insurance market operations	High	Medium	Low
Difficulty of exit	Very high	High	Some

1. In all cases it is assumed that a mitigation program has been undertaken.

1. Introduction and background

1.1 Introduction

The Northern Australia Insurance Premiums Taskforce (the Taskforce) was established to explore the feasibility of options using the Commonwealth balance sheet to reduce home, contents and strata insurance premiums in those regions of Northern Australia that are experiencing insurance affordability concerns due to cyclone risk.

I have been engaged by IAG to provide an independent expert report that discusses the costs and benefits of the options that are considered in the Taskforce's Interim Report.

In this paper I provide both a qualitative analysis and a high-level quantitative analysis of the financial impact of the options. The high-level quantitative analysis is illustrative. It is based on a number of broad assumptions but nevertheless, is in my opinion sufficient to adequately compare the core options.

1.2 Background

As noted in the Interim Report, there are significant concerns that insurance premiums Northern Australia have increased rapidly in recent years and that this is causing hardship and affecting development growth. Northern Australia is particularly prone to cyclones and their financial cost has had a measurable impact on insurance premium affordability for home-owners in cyclone-prone regions.

The Australian Government Actuary (AGA) has observed that property insurance prices in North Queensland are significantly higher for home insurance than elsewhere in Australia. The Taskforce was established by the Federal Government in March 2015 in response to declining insurance affordability and increased costs for damage repair falling on Government following cyclones.

The Taskforce was established to explore the feasibility of options using the Commonwealth balance sheet to reduce home, contents and strata insurance premiums in those regions of Northern Australia that are experiencing insurance affordability concerns due to cyclone risk.

The Taskforce's terms of reference requires it to:

- Establish which regions in Northern Australia are experiencing acute insurance affordability concerns due to cyclone risk;
- Outline options to reduce the cost of home, contents and strata insurance that stems from cyclone risk in these regions, including a mutual cyclone insurer and a cyclone reinsurance pool as well as other options that are put forward during consultation;
- For each option, undertake a thorough evaluation of:
  - the potential reduction in consumer premiums;
  - the likely cost and risks associated with using the Commonwealth balance sheet to lower the cost of insurance to consumers;

- the potential effect on the operation of the insurance and reinsurance markets in Northern Australia, particular the likely effects on competition; and
- how the role of the Government can be gradually reduced over time.

Consistent with this terms of reference, the Taskforce's Interim Report closely examines the options of a mutual cyclone insurer and a cyclone insurance pool as well as number of other options put forward by stakeholders including most notably a mitigation program and provision of direct subsidies.

Consistent with its terms of reference, the following principles underpin how the Taskforce is approaching its work:

- The options should be responsive to the concerns of individuals experiencing acute affordability issues associated with cyclone risk.
- The options should, as far as possible, be targeted to have the greatest impact on consumers experiencing insurance affordability issues resulting from cyclone risk without discriminating between states or parts of states.
- The options should, as far as possible, support a competitive private market for insurance.
- Incentive structures should be appropriate, in particular, the incentive for people to reduce the vulnerability of their property to cyclone damage.
- The objective should be to achieve the biggest reduction in consumer premiums for the least cost and risk to the Commonwealth balance sheet.

2. Government role in the market for cyclone insurance

2.1 Introduction and overview

This section considers the rationale for some form of Government intervention in the catastrophe insurance market in Northern Australia.

The approach I adopt reflects that reducing premiums is only feasible by reducing costs and/or by providing subsidies. Therefore the cost to achieving any target premium reduction will be determined by the extent to which Government intervention and use of the Commonwealth balance sheet affects the efficiency and effectiveness of the industry. Assessment of the other criteria (relating to risk, impact on insurance/reinsurance operations and reducing the role of Government) largely stem from an understanding of this issue.

The commonly accepted rationale for Government intervention in an industry is that there is some form of market-failure; that is, where in the absence of regulation the market fails to allocate resources efficiently. Market failure is not, by itself, a basis for Government intervention. It is also necessary that Government intervention is expected to improve outcomes. An important consideration is also whether there is some form of regulatory failure; that is, some existing regulation that is inhibiting markets from operating efficiently. Another common rationale for Government intervention is that based on equity. This may be of particular relevance in Northern Australia where there are significant affordability concerns.

For the purposes of this section is useful to separately the Government's role in insurance market in terms of:

- the provision of insurance
- support for mitigation activities, and
- other issues.

2.2 Government insurance schemes

The Government's role in provision of disaster insurance is an issue that has attracted significant attention by researchers and one that is faced by many jurisdictions around the world. As reflected in the Interim Report, there are many schemes where governments have actively intervened in the provision of catastrophe insurance either as a direct insurer or as a reinsurer.

It appears that the predominant view is that Governments should not directly compete with private insurers and rather should only be directly involved where private industry is unwilling to provide insurance. As noted by Priest (2003, p. 1) government intervention is as

general rule where private insurance is unavailable or becomes unavailable. However, this is not always the case. Governments have historically actively participated in many insurance markets in Australia. Each of the state Governments established insurance offices that have subsequently been privatised.[2] Furthermore, the State Governments continue to have direct involvement in — for example — compulsory third-party (CTP) motor vehicle insurance markets, which are provided by private markets in many international jurisdictions.

It is useful therefore to consider as a starting point the rationale for government supported schemes and the extent to which these apply in dealing with cyclone risk in Northern Australia.

2.2.1 The rationale for government insurance schemes

Several rationales have been put forward for government-supported catastrophe insurance schemes. I categorise these as relating to:

- the capacity of the insurance market to underwrite the risk
- ambiguity, and
- adverse selection.

Capacity to insure and the cost of underwriting

Perhaps the most commonly stated rationale for government-supported catastrophe insurance schemes is that the catastrophe risk is uninsurable because the risk is beyond the insurance industry's capacity to underwrite.

The prices insurers charge to cover cyclone risk need to cover not only the expected claims costs and the administrative costs but also the cost of allocating capital to underwrite the risk. Insurance companies need to have sufficient financial protection to ensure they will be solvent in the event of a large loss. To minimise insolvency risk, insurance companies retain capital to ensure that they will have sufficient funds to cover the cost of claims following a significant adverse event. This is an expense because of the cost of holding capital (which reflects the required return to investors) is greater than the return on the capital the insurer's receive once invested.

Insurers (and more generally the insurance industry) are able to reduce the capital holding cost through diversification of risks thereby reducing the risk level. This effect is commonly referred to as the 'law of large numbers', whereby the more that risks are aggregated the more likely it is the actual loss experience will equal the expected loss experience (alternatively we might state the more that risks are aggregated, the lower the variability of risk). Insurers are able to do this directly by diversifying (aggregating risks) within the own portfolio and by sharing risk through reinsurance arrangements with the rest of the industry or through other financial instruments (such as catastrophe bonds).

The risk level reduction from aggregating risks works best with frequent independent risks. When risks are largely independent (as the case for vehicle crashes), the risk level and the

[2] Keneley & Mackenzie (2006, p . 11) note that between 1914 and 1927 the six states all established insurance offices, all of which have subsequently been privatized.

capital required can be small. However, the benefits of aggregation are reduced when risks are not independent. If all risks were perfectly correlated (i.e. not independent) there would be no benefit to aggregation.

As catastrophes impact simultaneously many households, the risks covered are not independent. Furthermore, catastrophes events tend to infrequent with the result that the potential loss can be many times greater than the expected claims. This leads to the concern that the size of potential loss is so great that the risk level cannot be reduced to a reasonable level through risk diversification. The insured loss from catastrophe's such as the Hurricane Katrina[3] and the 2011 earthquake/Tsunami that hit Japan amounted to tens of billions of dollars. The implication is that the risk may be large relative to the expected loss which in turn may lead to a high cost of underwriting capital required.[4] This leads to the concern that the largest catastrophes are beyond the capacity of the industry to insure and may be uninsurable without government support.[5]

However, while this argument may[6] have some relevance for hurricanes in the populated centres in the United States and earthquakes affecting Japan, the argument does not appear applicable to the cyclone risk exposure in Northern Australia. With regards to cyclone risk in Northern Australia, the potential loss from a cyclone, while large, is smaller than a major event such a hailstorm or a flood that would hit a major population centre like Sydney. Furthermore on international scale, the level of exposure is very small and uncorrelated to other risks. Through the use of reinsurance (effectively insurance for insurers), the cyclone risks in Northern Australia would be substantially diluted.

If the capital cost of underwriting was significant then we would expect that to see premiums significantly in excess of the expected claims cost. This does not appear to be the case. As reflected in the AGA's report there is evidence that the pricing of insurance reflects the expected claims cost.

Ambiguity

A second rationale for a government-supported catastrophe insurance schemes is that there is ambiguity about the risk; that is, where there is uncertainty as to the probability distribution of outcomes or the potential loss. There is a body of evidence that insurer's themselves are averse to ambiguity with the result that insurers will charge a significantly higher premium when (for an equivalent expected loss) the risk is less well understood.[7] This ambiguity premium may be linked to the additional cost of the underwriting capital requirements.[8]

---

3 The 2005 hurricane the hit New Orleans.

4 An illustrative example can be found at Kunreuther and Michel-Kerjan (2008, pp. 9-10).

5 See Cummins 2006 for a discussion.

6 A counter argument is that the capacity is not significant because insurers can use financial instruments such as catastrophe bonds.

7 See Kunreuther, Hogarth, & Meszaros (1993) or Kunreuther (1996) for a discussion.

8 This rationale is explored by Walker and Dietz (2012).

For some perils, such as earthquake[9] and terrorism,[10] little may be known about probability distribution, and the cost of ambiguity may be very high. This high cost of ambiguity may provide justification for government insurance schemes to help underwrite these risks.

However, the issue of the ambiguity premium appears to have limited relevance for Northern Australia. As noted by the Interim Report (p. 10) cyclones 'are a frequent risk' and frequent enough to enable insurers and reinsurers to develop models (CAT-models) that can reasonably estimate the likelihood of a cyclone affecting any area.

Adverse selection

A third rationale for government-supported catastrophe insurance schemes relates to information asymmetry between insurers and potential policyholders and, in particular, the issue of adverse selection.

Adverse selection can occur where the potential policyholders (i.e. households) have more information about their risk than the insurer.[11] This has historically been a significant problem with flood insurance. Lacking detailed local information on flood risk, insurers had to price flood insurance based on the expected claims cost averaged across many households with varying risk. Those households with lower flood risk (e.g. because their house is relatively elevated) may perceive the insurance as poor value and choose not to insure. Conversely, those with a relatively high flood risk are more likely to perceive the insurance as good value and choose to insure. This 'adverse selection' results in an increased average cost of providing insurance for the insured policyholders, which in turn discourages more low-risk households from insuring. Thus a vicious circle is created with the potential result that flood insurance is simply not available in some areas.

One solution to the adverse selection issue is for Government to mandate insurance cover. The issue may also be overcome by removing the asymmetry of information through the release of improved information; which, in the case of flood insurance, involves flood mapping to enable insurers to more accurately price risk.

However, with respect to cyclone risk there does not appear any reason to think that a policy holder may have a better understanding of the risk than the insurer. [12] Insurers and reinsurers now use sophisticated models to estimate of property being exposed to a cyclone and the extent of damage that the property is likely to experience.

One potential adverse-selection risk is that insurers lack information on the insured building's resilience to cyclone. Potentially, those who know their buildings are less-cyclone proof may seek greater cover and lower deductibles than those who do not.

---

9 Kunreuther et al (1993) uses earthquake risk as an example.

10 A related rationale for a governments taking on terrorism risk is that it has some control of the risk.

11 This is more commonly referred to as an issue of asymmetry of information.

12 This point is noted by Kunreuther and Michel-Kerjan (2008, p. 8) with respect to hurricanes in the United States.

However, this is also unlikely to be a material 'adverse-selection' issue. It appears unlikely that the potential policyholders would have a significant information advantage.[13] The use of building-codes has helped insurers to assess vulnerability and furthermore, I understand that it is would be difficult for owners themselves to assess the vulnerability of the homes to cyclone.[14] Finally, with regard to Strata buildings insurance cover, there is no adverse selection risk as building insurance cover is mandatory.

2.2.2 Advantages and disadvantages of government intervention

An alternative perspective is to consider the potential advantages and disadvantages of government intervention.

Potential advantages of government intervention

Potential advantages to government in provision of insurance can be broadly summarised as relating to:

- cost in underwriting risk
- mandate coverage, and
- monopoly provision of cover.

Cost in underwriting risk

A commonly recognised advantage of Governments is that they may have a lower cost of underwriting risks because they can diversify risk over a broader population (all residents of a country) and over time — that is, they can fund claims cost out of revenue obtained in the future.

However, as discussed above, the capital cost of underwriting cyclone risk in Northern Australia should not be significant relative to other risk in more concentrated population centres.

Furthermore the relative advantage of Government in diversifying over a greater population and over time may be more than offset by the Government not diversifying by type of risk. In the proposals discussed, the Government would concentrate its support in cover for cyclone risk and not be aggregating cover a broader range of risks.

Mandated coverage

Another potential advantage of governments is that they can potentially deal with adverse selection by making insurance coverage mandatory.[15] However, as discussed, adverse

---

13 Smith and Henderson (2015, p. 6) discuss some of the difficulties in an assessing vulnerability when there are changes in building practices. They note that 'only when a cyclone occurs do the shortcomings become apparent […]'.

14 The difficulty in assessing vulnerability can make it difficult for insurers to adequately price and provide incentives to take mitigation measures. This issue is further discussed in section 2.3.2.

15 Gron & Sykes (2002, p. 49)

selection does not appear to a significant issue with respect to cyclone risk and mandatory coverage is not an option being considered.

Monopoly public providers

In some insurance markets, there is a monopoly public provider of insurance. This model has some potential advantages.

First a public monopoly has advantage in lower marketing. In Switzerland, housing insurance is compulsory and provided by state-owned monopolies in some jurisdictions (cantons) and by private competition in other jurisdictions. In analysis comparing these jurisdictions, Jametti & von Ungern-Sternberg (2005, pp. 5-6) find that compulsory monopoly provider model has significantly lower administration and marketing costs that are passed through to consumers in the form of lower premiums.

However, this advantage is not relevant to the options being considered in Northern Australia. In the options considered private insurers would continue to supply insurance to householders and therefore there would be no saving on marketing and insurance costs.

A second advantage of a monopoly provider is in undertaking risk mitigation measures. For example, a monopoly insurer may achieve greater economies of scale in undertaking building inspections and more clearly benefit from community-wide activities that reduce the potential expected claims cost. Evidence to this effect is also found from Switzerland where the state-monopolies were found to spend more than twice as much on prevention as private insurers operating in a competitive market.[16] Potentially, a monopoly insurer also has an advantage in encouraging prevention and mitigation through premium pricing where the prevention/mitigation by one household has benefits for neighbours. For example, a monopoly public insurer could provide greater premium rebates to households that undertake risk mitigation measures that benefit neighbours.[17]

This advantage could have some relevance with respect to the Government's mutual scheme option presented in the Interim Report whereby the mutual insurer would be the monopoly provider of catastrophe insurance to households. However, in effect, the advantage relates to the benefit of government intervention (or other collective action) in undertaking risk prevention and mitigation and is not necessarily dependent on Government providing insurance. The mitigation options discussed in the Interim Report are examples of how some of these issues may be overcome without direct Government involvement in the provision of insurance.

Issue and risks of government intervention

Market discipline

Perhaps the most significant concern with Government-catastrophe insurance schemes is that Governments tend to lack the market discipline in managing risk. This concern is perhaps clearly outlined in papers by Priest (1996, 2003). In evaluating the role of

16 Jametti & von Ungern-Sternberg (2005, pp. 5-6).

17 See Hoffman (2007) for a discussion.

Government in insurance, Priest (1996) categorises the role of insurer as consisting of three main functions being:

- risk aggregation — the process of reducing the risk variation by aggregating risks
- risk segregation — the process of distinguishing high-risk pools from low-risk pools and pricing accordingly
- the control of moral hazard through deductibles, coinsurance, and exclusions of coverage

He argues that in all of these functions government tends to perform poorly, with the fundamental issue is that governments are reluctant to "discriminate" between citizens on benefits provided by the government. He summarises:

> Effective risk reduction is achieved by market discipline: by differential charges according to risk level; by constraints on benefits to control moral hazard; and by discrimination and narrow risk pool definition to control adverse selection. Private insurers are rewarded in the marketplace according to their ability to reduce societal risks in these ways.

The lack of market discipline is a highly relevant issue to the government insurance scheme options being considered. In effect, the intentions of the options are to reduce the premiums of the highest risk policyholders. Significant risks with the options considered are that:

- there will be diluted incentives to manage risk with the result that:
  - there is increased investment in developments in high-risk zones
  - less investment in mitigation than is optimal, and
  - reduced discipline in managing deductibles and claims with the result there a more significant moral-hazard issue and greater expense on small-size claims, and
- there is increased effort in rent-seeking to maintain or extend the subsidisation.

Intervention is inequitable

A potential perverse effect of subsidising cyclone risk is that any subsidies would be regressive. That is they would more significantly benefit the rich more than the poor.

There are a number of reasons why this may occur:

First, wealthier households are more likely to be homeowners. The poor are more likely to be renters and therefore less likely to be benefit from any subsidy directed at building insurance. Furthermore irrespective of tenure the wealthier households tend to have greater value of assets (both in terms of building and contents) to be insured and therefore greater insurance premiums. The wealthier also have greater flexibility to cut back on insurance expenditure (through a higher deductible) when insurance is poor value and increase coverage when insurance is of higher value.

Second, there are reasons to expect the wealthier are more likely to live in buildings which face a higher cyclone risk and flood risk. The wealthier tend to live closer to the coast where

the impact of cyclones (and storm surge) is greatest.[18] Furthermore the very closest properties with unobstructed views of the water are most exposed to wind damage. Similarly properties located on a hill also pay for their view with a greater risk of wind damage. As the cyclone moves inland its destructive force dissipates. Properties located further from the coast may be less desirable but they will be at lesser risk to cyclone damage.

This source of inequity of Government disaster insurance has been demonstrated in the US. Ben-Shahar and Logue (2015, p. 19) summarise:

> […] the subsidy accrues primarily to the affluent. This for a simple reason: those who need flood insurance most are the habitants of properties build in proximity to the coast, where severe weather strikes most forcefully. Because properties adjacent to the coast are in general (putting weather risk to one side) more desirable and more expensive, the beneficiaries of the subsidies are not the poor but the affluent.

Administrative costs

Government supported schemes can also increase administrative costs of providing insurance (which for the purposes of this paper I refer to as all non-claims related costs). This will clearly be the case when a scheme replicates but does not replace an existing insurance-industry function. Other sources of increased administrative cost are:

- loss of scale or scope economies by insurers in some functions, for example in sourcing reinsurance
- managing interactions with Government entities, and
- increased costs in customer management due to changes in processes.

Crowding out of private insurance markets

Another potential regulatory barrier is the risk of government crowding out insurers. This issue is apparent in a number of potential insurance markets.

2.3 Prevention and mitigation

2.3.1 Rationale for government supported programs in mitigation

The cost of catastrophes can be reduced through prevention and mitigation (including preparedness) activities. While prevention is not an option for cyclone risk,[19] mitigation and preparedness can make a substantial difference to the claims cost. Mitigation activities include modifying building structures to be more wind resistant and community programs that build individual's preparedness for cyclone. I understand that the large differential between Darwin and Northern Queensland premiums can be largely attributed to the higher building standards used in Darwin following Cyclone Tracy.

---

[18] The Interim Report (pp. 52-53) highlights this point, providing evidence for Cairns of how the insurance premium is higher for properties closer to the bay, which has a greater risk of storm surge and flood.

[19] Prevention is an option for some perils such as fire.

There are several reasons why we might expect that the level of mitigation and preparedness for a cyclone risk will be less than optimal.

First, there is the issue of moral hazard, whereby the insurance coverage has reduced the incentives of policyholders take precautions. To some extent insurers are able to reduce this risk by imposing deductibles, thereby ensuring that householder maintain some incentive to reduce damage. The moral hazard issue is basically an (asymmetric) information problem. If insurers knew what precautions that policyholders undertake they could provide rewards to households to take greater precautions. However, it is difficult and expensive to determine what precautions have been taken.

Second, households in combination with their insurers may have less incentive than is optimal because some of the benefits of mitigation are received by neighbouring properties. For example, a building is less likely to be damaged in a cyclone if neighbouring properties have secured roofs and other external fittings that may be carried by the winds.

Third, incentives of homeowners to undertake mitigation may be reduced by expectations of Government assistance in the future. For example, if home-owners expect that in the future the Government will offer financial assistance to undertake mitigation, the home-owner may be financially better off delaying any mitigation action until the program begins. Similarly homeowners may take less care than is optimal due to an expectation of support following an event.

Finally, people may choose not to undertake mitigation even when (after allowing for the factors above) there are significant financial benefits to doing so.[20] There are two broad reasons why this may occur. First, people may struggle to finance the required investment. Second, as is commonly acknowledged people often suffer from behavioural biases which may adversely influence their decisions. A number of biases are potentially relevant that would result in people choosing not to mitigate or continually to procrastinate. These include that people

- are myopic, that is they place greater emphasis on current than the future benefits
- have a tendency to defer complex decisions, and
- underestimate risks, particularly those which those with low probability and where the risk has not eventuated for some time.

The above issues provide an argument for government intervention in encouraging greater mitigation activity. Government programs include:

- establishing standards
- mandating the use of standards through building codes, and
- attempting to influence home-owners to be better prepared through other means such as community-based programs.

Kunreuther, Meyer & Michel-Kerjan (2013) argue that long-term contracts may be used to attempt to address these issues.

---

[20] Kunreuther, Meyer & Michel-Kerjan (2013) provide a review of the decision biases with regards to natural catastrophes.

2.3.2 Mitigation opportunities

There is evidence that there are significant opportunities to improve the resilience of the existing housing stock in Northern Queensland. Researchers for the James Cook University (JCU) Cyclone Testing Station (Smith and Henderson, 2015) reviewed insurance claims data for cyclones Yasi and Larry and concluded. They concluded (p. 2) that the majority of damage related to roof damage, window damage and water ingress and that 'Reducing the number of major structural failures through retrofit mitigation could […] be a very effective way of reducing property vulnerability and the cost of cyclones.' Furthermore, they identified that older buildings were more vulnerable and therefore a targeted mitigation program may be effective. The JCU also concluded many small claims could have been prevented through better preparation by homeowners (e.g. securing items in outdoor areas).

Leveraging the JCU's research Urbis (Hutley and Batchen, 2015)[21] evaluated the costs and benefits of three mitigation options relating to.

1. Structural roof upgrading
2. Opening protection for doors and windows, and
3. Community preparedness and awareness campaign – assumed to avoid the large quantity of small claims from untied shade cloths, loose debris in garden, water ingress etc.

They found that variations of each of these programs would have net-benefits for society.

2.4 Other issues

2.4.1 The causes of the rise in premiums

An understanding of the causes behind the recent rise insurance premiums is important. It is natural to question whether a sudden change in premiums is a symptom of an issue with the insurance market. Furthermore, explaining the change is important for addressing consumer concerns.

The Interim Report (Appendix D) notes that the 'insurance industry acknowledges that, based on the information now available, they were materially under-pricing the [cyclone] risk'. At first glance this appears surprising, given the availability of information on the frequency of cyclones. However, as the Interim Report also notes, there has likely been a recent change in the information on the damage caused by cyclones of different strengths based on the experience of cyclone Yasi (2011) (and before that Larry (2006)).

It is worth noting how significant this later effect may be. On this matter Smith and Henderson (2015, p. 6) note:

[21] Hutley and Batchen (2015).

> Houses are constructed using many elements, with the interaction of these different components and connections not being well understood. Over time, changes are made to construction practices including building materials, often without a full understanding of how the individual changes might affect the performance of the whole system. In a period where the full "system" is not tested, a false sense of security can develop. Only when a cyclone occurs do the shortcomings become apparent […]

2.4.2 Competition

Markets can also fail to provide efficient outcomes when individual firms hold excessive market power due to a lack of competition. This does not appear to apply to the market for insurance cover for cyclone risk in Northern Australia. There are several insurers currently providing building and contents insurance in Northern Australia. Furthermore, even when the market is serviced by a very limited number of insurers, these insurers will only have market power when there is a barrier to entry that prevents other insurers contesting the market. This also does not appear to be the case with regard to cyclone risk.

2.4.3 State based taxation

The affordability of insurance in Northern Australia (and Australia) is significantly adversely impacted by the imposition of state-based premium taxes. In the Northern Australian, each jurisdiction imposes a stamp-duty on building and contents insurance premiums equal to

- in Queensland, 9 per cent (up from 7.5 per cent on 1 August 2013)
- In Western Australia, 10 per cent, and
- In Northern Territory, 10 per cent.

The stamp-duty is on top of the good and services tax (GST). The cost of these taxes is significant. I estimate that the stamp duty on just building insurance on Northern Queensland residential properties is around $35 million per year. An unfortunate aspect of the stamp-duty is the state and territory treasuries benefit from increases in the insurance premiums. For example, I estimate that the Queensland Government will have benefited by around $8 million per year from the recent increases in insurance premiums.[22]

The stamp-duty on insurance is a particularly distortionary tax relative to other taxes.[23] Whereas, the GST is a value-added tax, the stamp duty applies more like a wholesale tax. Consider that the insurance premium may be thought of as consisting of the policyholder's contribution to the pool of funds and a loading, which is a price to cover the cost of providing the insurance service (which includes cost of administering the pool and managing claims). The stamp duty applies to the total premium; that is, the policyholder's contribution to the funding pool in addition to the price of the insurance service.

---

22 Assuming premiums have increased by 30 per cent.

23 This appears to be now been well accepted. See for example, Cao et al (2015) who comment on the relative efficiency of stamp duties.

Removal of the stamp-duties would therefore be both an effective and efficient means of improving the affordability of the insurance in Northern Australia (and in other areas of Australia).

2.4.4 Risk of changing insurance premiums

While homeowners can insure themselves against the financial risk of perils, they cannot currently insure themselves against the risk that their premiums will increase due to unforeseen circumstance. For example, while a homeowner may purchase a house with full knowledge of the cost of insuring the house against all perils but find that a year after purchase their insurance premiums have grown significantly because of new information pertaining (for example) to flood risk or cyclone risk.

This risk could be removed from households if they were able to purchase long-term contracts with insurers. Long-term insurance contracts have also been advocated by some researchers on the basis of a means of enabling insurers to provide greater incentives to households to invest more in mitigation. However, insurers are constrained through regulation to a maximum insurance contract period of 1 year.[24]

The lack of market for insuring against the risk of escalating insurance premiums provides a justification for government assistance to be provided. A simple Government intervention is to provide direct subsidies to households who are financially-stressed due to escalating premiums.

2.4.5 Funding of government programs

If Government is to intervene in the insurance industry directly or through provision of assistance to encourage greater mitigation then a question arises as to how the cost of such programs may be funded.

The raising of revenue to fund such programs will not be costless — there is a distortionary cost to increasing tax revenue. It is desirable that the least cost method be used to fund the program.

One option that has been commonly applied is to fund the costs from the insurance industry either through explicit taxes (e.g. stamp duty and emergency services levies) or regulated prices (whereby there is a forced cross-subsidisation between customer groups).

However, such approaches are not desirable. As discussed above, the cost (i.e. the waste) of taxes on insurance premiums are generally much greater than other forms of state taxation both the State level (such as GST, and land taxes) and the federal level (such as personal income tax).[25]

---

[24] Even if this constraint did not exist it is unclear whether long-term contracts would work.

[25] Estimates of the least-cost method of general tax revenue vary. A recent Commonwealth Treasury working (Cao et al, 2015) provides a useful analysis and summary of useful literature.

3. Evaluating the alternatives

3.1 Overview and approach

3.1.1 Overview

In this section I examine the feasibility and relative merits of key options that have been considered in the Interim Report and attempt to provide an *indicative* estimate of the costs of each option. The options I have considered are:

- a mitigation program
- a government supported reinsurance pool
- a mutual insurer, and
- a targeted subsidy program.

The options are not all mutually exclusive. In the analysis, I have assumed that a mitigation program will be adopted regardless of which other option is chosen. I have considered the other options separately. Within each option there are numerous choices. I have analysed what I consider to be the most likely set configure should the option be adopted.

In evaluating the alternatives I have taken the primary objective to be to reduce the cost of building, contents and strata insurance that stems from cyclone risk in the regions experiencing acute insurance affordability concerns due to cyclone risk. I have assumed that primary focus is on reducing home building insurance but that contents insurance is also of interest.

In doing so I given consideration to the criteria provided to the taskforce related to:

- the potential reduction in consumer premiums
- the likely cost and risks associated with using the Commonwealth balance sheet to lower the cost of insurance to consumers
- the potential effect on the operation of the insurance and reinsurance markets in Northern Australia, particular the likely effects on competition, and
- how the role of the Government can be gradually reduced over time.

3.1.2 Approach

For the purposes of this report I have focussed on Northern Queensland. This is for two reasons. First, Northern Queensland is where the problem has been most significant in terms of the combination of a large resident population and significant increase in insurance premiums. The population of North Western Australia is relatively small. As reflected in the AGA's report, the insurance premiums in Darwin have not increased in similar amount to that in Northern Queensland. The second reason is data availability — there is substantially more existing analysis that I can leverage for Northern Queensland.

Given the objective and the mix of considerations, the broad approach I adopt is to consider, for each option, what is required to achieve a 30 per cent reduction in premiums

for a target population group. From this I estimate the impact of each option in terms of the cost and the other considerations. The total value of discounts provided may vary by option due to differences in the extent of targeting.[26]

In analysing the potential reduction in premiums and the cost implications it is necessary to establish a baseline. The annual pre-tax gross written premium (GWP) is a useful baseline as it incorporates the expected claims cost borne by insurers (and reinsurers) as well as the administrative costs of providing insurance. It is not a measure of the full private cost as it does not capture the non-insured costs as a result of deductibles (either due to underinsurance, non-insurance). Using data on the insurance premiums I *indicatively* estimate that that total pre-tax GWP in Northern Queensland relating to building and contents insurance is around $435 million. This estimate is roughly based on information I have received from IAG and available from the Insurance Council of Australia (ICA) on average premiums in Northern Queensland.

Box 1: Data and assumptions for Northern Queensland

Population and dwellings (Source: North Queensland Regional Profile)

- Total dwellings: 267,161 of which:
  - Strata dwellings: 30,565 apartments in 4,500 strata complexes
  - Owner occupied dwellings: 162,266 (61% of all households)
- Population growth 1 to 2%

Insurance cover (Source: ICA, IAG)

- Average building insurance premium: $1.5k to $2k
- Average contents insurance premium: ~$600 to $700 per household
- Total pre-tax residential building and contents GWP: $435 million
- Stamp duty is 9%

The cost of each proposal

The objective of reducing insurance premiums can be achieved by:

1. Improving efficiency by:
   (a) reducing the expected claims costs either through improved mitigation or reducing the value at risk, or
   (b) reducing the costs in providing insurance cover
2. Through a subsidy (a wealth transfer), that is financed by some form of tax revenue.

[26] For example, as discussed below, I have assumed the targeted mitigation and subsidy option will only reduce the premiums of a selected group of households, whereas the for the reinsurance pool option I have assumed the premium reduction is to a broader group of households. The scope of the premium reduction has an impact of the cost to the Government and the benefits that are provided to consumers. In general, the Government cost will be greater if the scope of the subsidy is greater.

In the absence of a market failure and a material advantage to Government involvement, any Government intervention will risk reducing efficiency and thereby add costs to the industry. In such case, to achieve a premium reduction, additional tax revenue will be required to offset the reduction in efficiency.

Therefore the cost to the Government can be calculated as:

- the value of the premium reduction (which will depend on the extent to which premium reduction is applied), plus
- an adjustment for changes in efficiency
  - in costs of administration insurance provision (including sales & marketing, underwriting, claims management etc)
  - in expected claims costs

The changes in efficiency may come from changes in the costs of expected claims as well as costs of providing insurance. For example, a risk with direct government involvement is the increased risk of moral hazard whereby the options reduce the incentive to manage risk, with the result that there is:[27]

- too little investment in mitigation, and
- increase in moral hazard, whereby policyholders do less to reduce claims costs

There may also be some adjustments to reflect how costs are shared between State and Commonwealth governments. For example, changes that affect the pre-tax premium paid and therefore the amount of stamp duty (and GST) collected.

The equity implications aside, the societal cost (or benefit) of the options stems from the changes in efficiency.

3.2 Analysis of the options

3.2.1 Mitigation

Overview

As discussed in section 2.3 there are reasons to expect that absent any intervention, homeowners will under-invest in mitigation activities. Furthermore a number mitigation activities (relating to roof upgrading and community preparedness) have been identified that could be cost-effectively undertaken to reduce expected damage costs and ultimately average premiums. A Government program could be undertaken to support and encourage mitigation activity.

[27] The risk of excess development in high-risk areas has been a concern raised with regard to other catastrophe programs elsewhere. The risk in Northern Queensland appears small. The housing growth is around 1.5 to 2 per cent, which equates to around 5,000 new dwellings per year. It seems unlikely that a change in insurance pricing would have a material difference on the location of new developments.

Hutley et al (2015) put forward a proposal (the Urbis Proposal) of an example mitigation scheme (coupled with subsidies) that involves Government providing a 75 per cent rebate on the costs of mitigation targeting around 35,000 dwellings that are expected to be non-compliant with current cyclone building standards and that also meet household eligibility criteria.

The Urbis Proposal links the mitigation program to the provision of a subsidy; however, the mitigation program could presumably be wider or narrower in scope than the subsidy program. For example, the mitigation program could presumably be expanded to cover more households. The mitigation scheme could also be extended to include the community preparedness program (as discussed in Hutley and Batchen (2015)).

The mitigation program could also vary by the extent of Government support offered. Presumably however, there would be a trade-offs in terms of the amount of support provided and the extent of participation.

Advantages, disadvantages and issues – mitigation program

There are several advantages of the mitigation program. A mitigation program could be both effective and efficient in reducing premiums.

A mitigation program would be targeted at changes where the social benefits exceed the costs. Therefore, a program may be expected to reduce the overall cost.

A mitigation program should also provide benefits in terms of the other criteria.

- A mitigation program would complement and not interfere with the operation of the insurance industry, and
- A mitigation program would be temporary, thereby enabling Government to exit its involvement.

There are some issues. A key issue with the mitigation program will be the time taken to inspect and upgrade houses. The ICA estimates there were around 72,000 non-cyclone compliant buildings where insurance was deemed unaffordable. I roughly estimate that the total number of non-cyclone compliant buildings[28] in Northern Queensland to be closer to 100,000. A single inspector working 200 days and inspecting 2 houses per day could only inspect 400 houses per year. Using these illustrative assumptions, inspecting all non-cyclone compliant houses would take 25 inspectors 10 years.

An issue with the community preparedness campaign is that it would be difficult for insurers to rely on the program being successful. A risk is that the full benefits of the campaign in the short-term do not flow through to consumers.

Finally, mitigation would not benefit homeowners paying very high premiums whose buildings cannot cost-effectively be made more secure. However, this may be a relatively minor issue if non-compliance with the cyclone building codes is the primary reason for higher insurance premiums.

[28] Based on numbers of dwellings and the proportion of households constructed prior to cyclone building codes being in place (from Hutley and Batchen, 2015).

Indicative costing

The cost to Government of any mitigation program would depend on the Government funding and the extent of the program.

The Urbis Proposal assumes the program would apply to around 29,000 houses (plus 6,000 strata units), there would be a 95 per cent take-up rate and that Government would provide a 75 per cent rebate.

For the purposes of illustration in this paper, I have assumed a more substantial mitigation program. I have assumed that:

- the inspection/roofing upgrade would be offered to all pre-1982 houses
- Government would contribute 50 per cent of the upgrade cost and the inspection cost
- there would be a 50 per cent take-up (total of 49,000 houses)
- 90 per cent of inspected houses would be upgraded, and
- the program would be conducted over a 10 year period.

I have assumed that there would be an inspection cost of $1,000 and an upgrade cost of $12,000 per dwelling. I have also assumed there would be a Government sponsored community preparedness campaign will be conducted at an annual cost of $15 million every 5 years.

In terms of benefit, I have assumed:[29]

- The benefit of this program will be to reduce the average expected damage cost (building and contents) by $1,000 per year per dwelling.
- The community preparedness program would reduce expected claims cost by around $10 million per year
- The reduction in expected damage costs will flow through to a reduction in premiums.[30]

I recognise that the time taken to undertake the roll-out may be constrained by the availability of resources. Under the above assumptions, around 4,900 houses would need to be inspected and 4,400 upgraded per year. This is equivalent to around 22 dwellings being upgraded per workday.[31]

Based on the above assumptions I indicatively estimate that the total cost of the program would be around $610 million over a 10 year period of which the Government's contribution would be around $345 million. However, over the medium term (around 15 years) the total societal benefits of the program would exceed the societal costs.

---

[29] These are conservative rough estimates are based on the findings of Hutley and Batchen (2015). The authors presented their results in terms of a net present value (NPV) of net benefits. I have taken these value to estimate an expected yearly saving.

[30] Some of the benefits may be received by others in the community. A reduction in damage costs may also result in a household lowering the deductible.

[31] Assuming 200 workdays per year.

3.2.2 Direct subsidy

Overview

The direct subsidy approach would involve addressing affordability concerns by providing targeted assistance to policyholders to help reduce the cost of insurance premiums.

Advantages and disadvantages

A direct subsidy approach has several advantages. First, the subsidy could be targeted so as to ensure that it is directed at those most in need of financial assistance. This reduces the total level of subsidy required.

Second, the offer of the subsidy could be coupled with requirements for mitigation. This would encourage a greater take-up of the mitigation program.

Third, a targeted subsidy approach would have lesser impact on the operations of the insurance industry. Most importantly, it would complement and not crowd out insurance industry operations.

The key downsides to providing the subsidy are the administration costs and the concern that it would be difficult to remove. The administrative costs may be minimised by leveraging existing processes, for example by:

- a subsidy returned via the income tax assessment process,[32] or
- via a community service obligation (CSO) process implemented by insurers thereby leveraging the existing relationship insurers have with customers.

A concern may exist that if subsidies were provided to insurers they would not pass-through the premium saving to customers. This is unlikely to be the case. The extent of pass-through in any industry is determined by a number of factors including the extent of competition and the nature of demand. The factors in this case suggest the pass-through is likely to close to 100 per cent.[33]

Costing

Extent of premium reduction

For the purposes of the evaluation I have assumed that the direct subsidies would be provided to only owner-occupiers whose premiums have increased significantly in recent years. Based on analysis from the ICA I assume this to consist of up to:

- 75,000 owner-occupier households, and
- 30,000 units in 4,500 strata buildings.

---

32 As suggested in Urbis Proposal.

33 The relevant factors (predicted by economic theory) are the elasticity of demand and the number of competing insurers. The more elastic is demand the greater the pass-through (it can be greater than 100%). The more competing insurers, the more likely the pass-through will be close to 100%. There is evidence that the demand for expenditure on insurance is reasonably elastic (Tooth 2015). Furthermore there are many competing insurers.

As the subsidies would be targeting the households whose premiums have increased significantly, the average premium of the properties would likely be higher than the average in Northern Queensland. On this basis I have assumed that the building insurance premium of those targeted by a subsidy would be in the order of $2000 per dwelling.

I assume the subsidy would be coupled with participation in the mitigation program and that the subsidy would not be required following a successful mitigation program on a dwelling.

In costing the direct subsidy approach, I have assumed the following:

- The subsidy would only be available to selected households in particular
  - owner-occupiers who have are financially stressed (I have assumed this eligible population is 102,420 households (based on ICA research), and
  - would be contingent on participation in an inspection and mitigation program[34]
- The subsidies will be less than the expected reduction achievable through the mitigation, thereby providing additional incentive for house-owners to progress with the mitigation. The value of the subsidy would provide a 30 per cent discount on the building insurance premium. I have assumed the average subsidy to be around $600 (pre-tax).

I have estimated the subsidy would be provided over a 10 year period. In the first year the subsidy is paid to around 49 thousand households at a total cost (including administration costs) of $34 million. Over the 10 years the subsidy would be steadily reduced as a result of the mitigation program and housing turnover. I have assumed the subsidy would be removed after year 10.

Administrative costs

The administrative costs would depend on how the subsidy is delivered. As noted in the Interim Report, payments could be made to the policyholder either directly (e.g. via a tax rebate) or via insurance companies (via a community service obligation, CSO approach). The later approach may be more efficient as it would leverage the insurer's relationship with the policyholder. If the later approach was adopted the subsidy could be provided prior to the application of stamp-duty (and GST) which would reduce the cost of the subsidy to the federal Government (at the expense of the relevant state Government).

I have assumed (based on informal feedback) that the incremental cost of providing the subsidy is likely to be less than $100 per household per year.

Summary

Based on these assumptions the total cost of the subsidy would be around $190 million over a 10 year period, comprising $160 million of financial payments and $30 million of administrative cost.

.

[34] This also has the benefit of encouraging a greater level of participation in the mitigation program.

3.2.3 Mutual insurer

Overview

As described in the Interim Report the mutual insurer would be an insurance entity that would be owned by the people of Northern Australia and provide retail contract to cover loss caused by cyclones.

The Interim Report provides limited additional details that might define the scope of the mutual insurer. Rather the Interim Report leaves open a number of details and raises questions as to how the scheme would operate. For the purposes of assessing this option, I have assumed the following:

- The mutual insurer would not establish its own sales and marketing and claims network but would leverage the private insurers currently operating in the region. This would appear to be necessary to keep costs down.
- The mutual insurer would use risk-based pricing (as opposed to community-rating) so as to avoid the issue of the low-risk policyholders subsidising the high-risk policyholders.
- The mutual insurer would be a monopoly provider of cyclone risk needs for consumers. That is:
  - The mutual insurer would not limit cover to targeted groups. If this was not the case then private insurers would still be required to cover non-eligible customers, with result that there is a duplication of the costs of provision of cyclone cover. Furthermore, private insurers would likely through more sophisticated pricing to 'cherry-pick' the lowest cost customers leading to an adverse selection problem whereby the mutual insurer would only retain the very highest risks.
  - The mutual insurer would provide building and contents cover (I assume that it would be impractical to do otherwise).
  - The mutual insurer would provide cover to renters and landlords as well as owner-occupiers.

Advantages and disadvantages

Relative to the option of providing direct subsidies to people experiencing affordability problems due to cyclone risk, a cyclone mutual insurer has few advantages and significant disadvantages.

A cyclone mutual insurer does not address any underlying issue with the provision of insurance cover. The implication is that the mutual insurer will not reduce the cost of providing insurance. Rather a mutual insurer is likely to add cost because:

- loss of economies of scope in providing insurance cyclone risk including in:
  - underwriting and reinsurance
  - sales and marketing, and
  - claims management
- additional costs associated with establishing the mutual and dealing with boundary issues; that is, issues of how the mutual insurer works with the private insurers.

As noted in section 2.2.2, a monopoly public provider has a potential advantage in lower marketing and administration costs. However, as described, cyclone risk would not be mandatory and the mutual insurer would only be a monopolist with respect to cyclone risk. It would not replace the need for other insurers to provide cover for non-cyclone risks. Therefore, rather than cost savings, I would expect that the mutual insurer to result in higher costs of marketing, sales and claims management.

One potential advantage stems from the mutual having a monopoly position on the provision of cyclone risk. This would provide the mutual with stronger incentives to invest in cyclone risk mitigation activities than insurers in a competitive market.

However, such mitigation activities may also be managed by state and local governments. Furthermore, a likely disadvantage of the mutual insurer is that it would not maintain the market discipline of private insurers in underwriting and managing claims. I expect the mutual would be under pressure to not price for risk. Similarly, I would expect over time it would become more generous in managing the moral hazard through use of deductibles and less disciplined in managing the cost of small claims.

In theory, the mutual insurer could have a lower cost of capital funding due to the existence of the Government guarantee. However as discussed in section 2.2.1 the capital underwriting costs for cyclone risk are not likely to be excessive and there is the risk (as argued by Priest (1996)) that Governments tend to be less efficient in risk aggregating risk.

The mutual insurer would also perform poorly on other evaluation criteria. I expect that:

- The mutual insurer would have a significant impact of the operation of the insurance market in Northern Australia by crowding private insurers out of the market, and
- It would be difficult for the Government to exit the mutual insurer option once it has been established due to consumer resistance.

The risk to Government balance sheet under the mutual insurer option will be a matter of design; that is, it will depend on the reinsurance arrangements that are adopted.

Costing

Extent of premium discount

As the mutual-insurer would set prices it presumably could target any subsidy it provides on premiums to targeted household groups. I assume the administration costs of this would be similar to providing a direct subsidy to a private insurer. Consistent with the direct subsidy option (see discussion in section 3.2.2), I have assumed that the subsidy provided would be around $600 per household, that there would be an administrative cost of providing the subsidy equal to $100 per household, and the subsidy would be reduced as the mitigation efforts were undertaken to reduce expected claims costs.

Changes in efficiency

I expect that a mutual insurer would cause a net reduction in efficiency due to additional costs for marketing and administration and claims management costs.

Given the substantial set-up costs I would expect that the mutual insurer to sell the cyclone insurance contract via intermediary insurers. However, this too would be expensive. In this

regard the mutual insurer would be similar to the NFIP in the US, which Michel-Kerjan (2010, p. 400) reports to have:

> […] spent an average of 40 percent of all collected premiums on administrative expenses, more than three quarters of which were paid to private insurance intermediaries who sell and manage flood insurance policies on behalf of the federal government but do not bear any risk.

There will presumably be some saving in administrative costs for existing insurers. For this analysis, for purposes of illustration I have assumed that there will be an increase in the net administration cost (including sales and marketing, claims management and underwriting) associated with mutual insurer of 20 per cent of GWP, which equates to around $88 million per year on a pre-tax premium of $440 million for Northern Queensland.

I have also assumed that due to the reduction in market discipline in managing claims, relative to the baseline there will be an increase in the expected claims cost equivalent to an additional 5 per cent of GWP (pre-tax) by the end of year 10. This results in additional efficiency loss of around $20 million per year by year 10.

Summary

Using the above, illustrative assumptions the cost to the Government of the mutual insurer to achieve the targeted premium discount would be around $1.3 billion over a 10 year period.

3.2.4 Reinsurance pool

Overview

The Interim Report describes the reinsurance pool as 'a government-supported entity [that] would offer reinsurance to all insurers covering loss caused by tropical cyclones.' As with the mutual-insurer scheme the Interim Report leaves open many other details.

For assessing the scheme I have assumed that the reinsurance-pool would provide broad cover for all residential cyclone risk; that is, it would be for the benefit of all residential policyholders for building and contents insurance. My rationale is that, I expect that it would be practically difficult to limit the scope of the reinsurance pool coverage to particular household groups such as financially-stressed home-owners or just owner-occupiers. Furthermore, any restrictions on the reinsurance pool arrangements would presumably mean that insurers would have to source additional reinsurance cover for the excluded groups. Similarly I expect it may be practically difficult to narrow the reinsurance pool to cover just building insurance and not contents insurance.

I have assumed that the reinsurance could be priced using a community-rating approach or risk-based approach. There are trade-offs between the two approaches. If a risk-based pricing approach was used then the reinsurance pool would need to obtain information from insurers, which would increase administrative costs. A community-based pricing approach would be simpler to implement but would have adverse implications in terms of the efficiency of the price signal provided to insurers and have implications for how premium discounts are applied.

I assume that under a reinsurance pool arrangement, the level of risk borne by the Government would be a matter of design; that is, the Government could decide upon the risk borne by the reinsurance pool and that passed on to other reinsurers.

Advantages and disadvantages

Relative to the option of providing direct subsidies to people experiencing affordability problems due to cyclone risk, a cyclone reinsurance pool has significant disadvantages.

A cyclone reinsurance pool would be a reasonably ineffective way of providing premium discounts to consumers relative to the direct subsidy and mutual insurer. I assume it would be impractical to provide a targeted subsidy under a reinsurance pool arrangement; that is, any subsidy will need to broadly apply to all insurance policies. Therefore, all else being equal, to achieve a premium reduction for a target group the total subsidy provided under the reinsurance pool arrangement would need to be larger than under the mutual pool arrangement.

A cyclone reinsurance pool would also be inefficient. It does not address any underlying inefficiency with the insurance market and therefore would not (without subsidies) reduce the cost of providing insurance. Rather a cyclone reinsurance pool would result in increased costs as a result of:

- additional costs in administering the reinsurance pool
- additional cost for insurers in transacting with the reinsurer
- potentially higher capital underwriting costs as a result of the cyclone risk being concentrated within the pool,[35] and
- potentially higher claims costs, if community based rating is used.

I expect that as it would not transact with consumers it would be easier for the Government to terminate the reinsurance pool scheme than the mutual insurer, however, it still may be difficult because once established the scheme would require ongoing funding to prevent an increase in premiums.

Costing

Extent of premium discount

The extent of the premium discount differs under the reinsurance pool arrangement in two ways. First, as noted above I have assumed the premium discount would need to be broadly applied.

Second, if a community rating pricing approach is adopted then the cost of insurance for high-risk policies will be reduced at the expense of the low-risk policies. As the high-risk policies are more likely to be the targets of the subsidy, the community-rating pricing

[35] In theory, by utilising the Government's balance sheet the reinsurance-pool could potentially help to reduce the capital cost of underwriting cyclone risk. However, as discussed, Governments are also risk averse and regardless this is not likely to be a significant cost relative to other risks.

approach itself may go some-way to achieving the Government's goal of improved affordability, albeit at the cost of higher premiums for low-risk customers.

For the purposes of providing an illustrative costing, I have assumed the community rating approach. I have assumed that to achieve a 30 per cent premium discount for higher-risk policies an average discount of 20 per cent reduction is applied across all building and contents insurance. This is equivalent to an $87 million subsidy in the first year. I assume this subsidy required will grow slightly with the population but this will be more than offset by a decrease in expected claims cost due to mitigation activity.

Costs of the reinsurance-pool scheme

A potentially useful benchmark in estimating of the additional administrative costs of the reinsurance pool is the management costs of the Australian Reinsurance Pool Corporation (ARPC). The 2013-14 ARPC annual report records that the management expenses of the ARPC were 7 per cent of premium revenue ($129.7 million), equivalent to around $9 million.

I would expect the additional administrative costs due to the reinsurance pool to be relatively higher than management expense recorded for the ARPC. This is because there would be:

- additional administrative expense borne by the insurers
- additional management costs associated with managing claim events (cyclone events are frequent, whereas a terrorism event claim has yet to be made on the ARPC), and
- additional costs in implementing a risk-based pricing approach.

I expect that the reinsurance-pool scheme administration costs would be less if a community-rating pricing approach was used. However, I expect that community-rating would, over the medium-term, lead to higher claims cost as a result of a reduction in market discipline in encouraging mitigation and preparedness.

For purposes of illustration, to model the above effects I have used the following indicative assumptions based on a community rating approach. I have assumed that

- the additional administrative cost (borne by the pool and insurers) is around 5 per cent of pre-tax GWP on building and contents insurance — around $22 million per year, and
- the reduction in efficiency due to increase claims cost will add around 5 per cent to claims cost after 10 years — equivalent to around an additional $20 million per year.

Should a risk-based pricing approach there would be no increase in claims cost but the administrative costs would be higher.

Summary

Using the assumptions above the additional cost of the reinsurance pool to achieve a premium discount would be around $1 billion over a 10 year period and annual ongoing costs of around $90 million per year.

Should the mitigation program not go ahead, the additional cost would be higher, indicatively around $1.15 billion over 10 years and $130 million ongoing costs.

3.2.5 Other options

Removal of state taxes

As earlier noted, a simple effective and efficient method to reduce the cost of insurance in Northern Australia would be for the state and territories Governments to remove the state stamp duties and use an alternative source of funding.

In Northern Queensland the removal of stamp duty would result in 8.3 per cent reduction in insurance premiums.

The option has a number of benefits

- The reduction would be costless to the Commonwealth government
- It would be efficient as stamp duty is one of the most inefficient forms of tax-revenue
- It would result in an increase in the population of households that are insured
- It would provide additional impetus for the southern states to follow.

3.3 Summary comparison of options

A summary comparison of the two main options with a direct subsidy approach is provided in Table 1 below. If equity considerations are ignored then none of the options would have a societal benefit.

In each case I have assumed that the option will be combined with a Government supported mitigation program which would have a net cost to Government of ~$430 million over 10 years but that would have societal net benefit.

In summary my evaluation is that the direct subsidy approach is preferable to the two government options. In particular:

- The cost to Government of the direct subsidy options is substantially less than the other options, both over the first 10 year period and on an ongoing basis. While the analysis is based on high-level assumptions and is illustrative, I do not expect any reasonable assumption could lead to a different result.
- The direct subsidy approach scores well on other criteria, in particular with regard to the impact on insurance operations.

Of note, with regard to the other criteria:

- The risk to the Government balance sheet is largely a matter of design as the Government under each option use the reinsurance market to limit its exposure.
- The impact on insurance operations is highest under the mutual insurer option. I have rated it as medium under the reinsurance pool option because of the disruption to reinsurance arrangements.

Table 1: Summary comparison of main options

	Mutual insurer	Reinsurance pool	Direct subsidy
Costs to achieve premium reduction (over 10 year period)			
Premium reduction funded	~$160 m	~$670 m	~$160 m
Change expected claims cost	~$110 m	~$110 m	-
Change administrative costs	~$900 m	~$220 m	~$30 m
Total Govt cost			
- over 10 year period	~$1,170 m	~$1000 m	~$190 m
- ongoing annual costs	~$110 m	~$90 m	Nil
Non-financial assessment			
Ease of mitigation	High – linked to subsidy	Medium – difficult to incentivise	High – linked to subsidy
Efficiency cost			
Sales and marketing	High	No change	No change
Other administrative costs	Some subsidy mgmt. costs	Pool mgmt. costs	Some subsidy mgmt. costs
Risk of increased moral hazard	High - risk of poor discipline	Medium - risk of poor discipline	No change
Other criteria			
Risk to Govt balance sheet	Potentially high	Potentially high	Nil
Impact of insurance market operations	High	Medium	Low
Difficulty of exit	Very high	High	Some

1. In all cases it is assumed that a mitigation program has been undertaken.

4. Assessment and conclusion

The rationale used to justify government insurance schemes elsewhere does not appear to apply to cyclone risk in northern Australia. In the absence of a market failure, a government insurance scheme will only serve to increase costs. Rather consistent with international experience, a government supported scheme is likely to lead to many negative outcomes.

However, for a number of reasons, households may invest less in mitigation than is optimal and Government support may be beneficial. A supporting subsidy to homeowners whose premiums have increased significantly might be justified. This is on the basis that the higher premiums were not foreseeable and, due to regulatory constraints, there is no market protection available to consumers against the risk of future premium increases.

A summary evaluation of the direct subsidy option relative to the two government insurance schemes (mutual-insurer and reinsurance pool) has been provided. The direct subsidy approach (coupled with mitigation) appears to be more attractive on all evaluation criteria. I expect to have a lower-cost and be a more effective approach to reduce insurance premiums.

The quantitative analysis is based on several high-level assumptions and should be considered illustrative. Nevertheless it is hard to image how the government insurance schemes could on any of the criteria out-perform a direct subsidy approach.

5. References

Ben-Shahar, O., & Logue, K. D. (2015). The Perverse Effects of Subsidized Weather Insurance. (Public Law & Legal Theory No. 499, 2015)

Bin O, Kruse JB and Landry CE, 2006, 'Flood Hazards, Insurance Rates, and Amenities: Evidence from the Coastal Housing Market', ECU Economics Electronic Working Paper, January 2006.

Cao, L., Hosking, A., Kouparitsas, M., Mullaly, D., Rimmer, X., Shi, Q. & Wende, S. (2015). Understanding the economy-wide efficiency and incidence of major Australian taxes (No. 2015-01). The Treasury, Australian Government.

Cummins, J. David, 2006, 'Should the Government Provide Insurance for Catastrophes?', *Federal Reserve Bank of St. Louis Review*, July/August 2006, 88(4), pp. 337-79.

Gron, A., & Sykes, A. O. (2002). Role for Government, A. *Regulation*, *25*, 44.

Kunreuther, H., Hogarth, R., & Meszaros, J. (1993). Insurer ambiguity and market failure. *Journal of Risk and Uncertainty*, *7*(1), 71-87.

Hofmann, A. (2007). Internalizing externalities of loss prevention through insurance monopoly: an analysis of interdependent risks. *The GENEVA Risk and Insurance Review*, *32*(1), 91-111.

Hutley, Nicki and Batchen, Alex (2015). Protecting the North: The benefits of cyclone mitigation, Urbis report for Suncorp. 20 July 2015.

Hutley, N., Somek, D., Scerri, T., McHugh R. and Batchen A. (2015). A Third Way: A proposal for cyclone mitigation assistance. 10 September 2015. ametti, M., & von Ungern-Sternberg, T. (2005). Assessing the efficiency of an insurance provider—A measurement error approach. *The Geneva Risk and Insurance Review*, *30*(1), 15-34.

Jametti, M., & von Ungern-Sternberg, T. (2005). Assessing the efficiency of an insurance provider—A measurement error approach. *The Geneva Risk and Insurance Review*, *30*(1), 15-34.

Keneley, M., & Mackenzie, M. (2006). *An Evaluation of Privatisations in Australian Banking and Insurance*. School of Accounting, Economics and Finance, Deakin University.

Kunreuther, H. (1996). Mitigating disaster losses through insurance. *Journal of risk and Uncertainty*, *12*(2-3), 171-187.

Kunreuther, Howard, 2008, 'Reducing Losses from Catastrophic Risks Through Long-term Insurance and Mitigation', *Social Research*, Vol. 75, No. 3.

Kunreuther, H., Meyer, R., & Michel-Kerjan, E. (2013). Overcoming decision biases to reduce losses from natural catastrophes. *Behavioral foundations of policy, Princeton University Press, Princeton*, 398-413.

Michel-Kerjan, Erwann O. 2010, 'Catastrophe Economics: The National Flood Insurance Program', Journal of Economic Perspectives—Volume 24, Number 4—Fall 2010—Pages 165–186.

Priest, G. L. (1996). The government, the market, and the problem of catastrophic loss. *Journal of risk and Uncertainty*, *12*(2-3), 219-237.

Priest, G. L. (2003). Government insurance versus market insurance. *Geneva Papers on Risk and Insurance. Issues and Practice*, 71-80.

Smith, D., and Henderson, D. (2015). Insurance Claims Data Analysis for Cyclones Yasi and Larry: Report for Suncorp Group Limited. JCU Cyclone Testing Station CTS Report TS1004.2. Available at: http://www.suncorpgroup.com.au/sites/default/files/pdf/news/JCU%201%20-%20FINAL%20for%20publication%20150715.pdf

Tooth, R. (2015). Analysis of demand for home and contents insurance. Paper for the Insurance Council of Australia.

Walker, O., & Dietz, S. (2012). Ambiguity and insurance: robust capital requirements and premiums. *Centre for Climate Change Economics and Policy Working Paper*, *115*.