

Research Project:

Cumulative socioeconomic impacts of CSG Development in the Western Downs

DATA REPORT

INDICATORS OF CHANGE IN ON CHINCHILLA AND DISTRICT COMMUNITY

Interviews completed in 2015 Statistical data updated in April 2016 VERSION 7 - April 2016

Contact:

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The Chinchilla CSG-Development Story

Impacts on Chinchilla from coal seam gas development have been characterised with the help of key members of the Chinchilla and district community - Chinchilla Family Support Centre and Community Commerce and Industry, Inc., members of the Liquor Accord, real estate agents, managers of hotels and other businesses, police, and staff from schools and TAFE, welfare and service organisations, and local and state government.

These individuals were presented with statistical data on the following 'indicators' of social and economic impact to assess the data's accuracy from a local point of view and to gather further insight into the 'Chinchilla CSG-Development story':

Population 1.

2. Unemployment

3. Income

4. Housing

5. Training

6. Top offences recorded by police

7. Staff availability / skills shortages for local businesses

8. Available tourist beds.

Those interviewed said Chinchilla was historically a 'quiet little town'. They noted rising housing prices in 2005/6 with construction of the nearby Kogan Creek power station. Between 2008 and 2012, data shows that population increased 19%, which was attributed to CSG development. This growth was seen as having caused a 'shock'. The influx of CSG workers, mostly male, is reported to have affected feelings of wellbeing and to have caused a shift in town identity. Interviewees noted that women initially felt unsafe although data shows no significant change in related crimes. An increase in the community's cultural diversity has been welcomed, said interviewees, but a simultaneous loss of connectivity has been mourned. With CSG construction phase now finished, locals say that they feel uncertain about the town's future.

House prices and rents in Chinchilla have traditionally been notably lower than the median for the State or Brisbane. Increased demand attributed to the CSG sector pushed rent for a 3-bedroom house up 50% from 2011 to 2013, taking it past the state median in 2013. The sale price of houses climbed at a similar pace to Brisbane housing prices, except for a significant dip locally in 2014. The lack of affordable housing was stated by several interviewees to be the biggest impact of CSG development. It was blamed for causing families in the lower socio-economic groups to leave town. Some businesses chose to subsidise workers' rents. Both sale prices and rents have since continued to drop back to near 'affordable' levels. However, interviewees commented in a worried tone that there are now 'a lot of empty houses'.

Local police data shows that reported traffic offences rose significantly from 2009, and reported good order offences per 1,000 population rose more modestly. Police strategy changed in 2012 and, with the cooperation of the CSG companies, a liquor accord was introduced to curb alcohol-related offences.

Interviewees stated that many Chinchilla businesses had benefited from the 'CSG boom', including hotels and motels. School leavers did not have to leave town to find work, they added. However, some businesses were seen to close due to a loss of staff to the CSG industry and due to increased competition from newly arrived businesses. Unemployment, historically lower than the Queensland average, dropped to a very low 1.4% in 2009, one-third of the state rate. It was at 2.5% for 2013, and locals expect it to rise to 3-4% as CSG construction tails off. Business diversity is reported to have increased, with many new services now offered in the town.

This booklet provides detail on aspects of the 'Chinchilla CSG-development story' based on the range of priority indicators that we tracked. We would like to thank members* of the Chinchilla community for their cooperation and the gift of their time. We hope that we have done justice to their contributions to this investigation.

The UQ 'Cumulative Impacts' Research Team.

^{*} Indicator trend data from public sources and interviews with 10 key stakeholders in each community identified as having specific knowledge mayors, school principals, real estate agents, police, community group leaders, hotel owners, chamber of commerce leaders and others in prominent roles. Charts of historical trends in indicators were used to prompt an explanation of what they perceived happened - cause and effect - plus concerns, expectations and recommendations.



INTRODUCTION

The University of Queensland is conducting research into the social and economic impacts of coal seam gas (CSG) development. The project has focused on the combined impacts of the multiple CSG developments in the Western Downs region of Queensland as an initial case study. That focus has now expanded to include other local government areas – Maranoa, Toowoomba, and Isaac. In this document, we present findings on the town of Chinchilla.

Research project aims

- **Find key indicators** we want to identify ways to calculate and report the impact of multiple CSG projects in terms of a few numbers that are important and credible, e.g., weekly rents.
- Involve people from the community, government, and industry we are asking stakeholders to decide which 'indicators' are the most important to monitor. In working with stakeholders, we aim to help develop a shared understanding of social and economic development in the community and create a frame of reference for ongoing, collaborative decision-making in the region.
- **Lessons to help other regions** we want to develop models and approaches that can be used to measure, track and analyse cumulative impacts in other regions.

The research team

- Assoc. Prof. Will Rifkin, Chair in Social Performance, Centre for Coal Seam Gas (CCSG) and Centre for Social Responsibility in Mining (CSRM).
- Dr Jo-Anne Everingham, Senior Research Scientist, CSRM.
- Dr Katherine Witt, Postdoctoral Research Fellow, CCSG.
- Ms Sheryllee Johnson, Research Technician, CCSG.
- Ms Humaira Malik, PhD candidate, Sustainable Minerals Institute.
- Professor David Brereton, Associate Director, Sustainable Minerals Institute.
- Dr Vikki Uhlmann, Research Manager, CSRM (2013 -2014).
- Ms Kylie May, Research Analyst, CSRM (2013 2014).
- Ms Sarah Worthing, Research Analyst, CSRM (2014).
- Ms Kylie Bourne, Research Assistant, CSRM (2014).

Funding: The project receives industry funding through the Centre for Coal Seam Gas (CCSG), which is within the University of Queensland's Sustainable Minerals Institute. CCSG's industry partners include QGC, Arrow Energy, Santos, and Australia-Pacific LNG. These organisations are providing valuable information on their operations. Researchers are employed by the U of Queensland.

Collaborators: We are getting help from - Queensland government agencies and CSIRO researchers funded by the Gas Industry Social and Environmental Research Alliance (GISERA).

Timeframe: The data collection for the project has been occurring in 2013, 2014, and 2015, with updates planned for 2016 and 2017.

Community participation: In March 2014, a small research team from UQ started to visit communities to introduce the project. We gathered information, mostly from government sources, on impacts that key stakeholders in these communities perceived to be important. We visit each community to discuss that data, to get their insights on what has been occurring.

Reports: Project outcomes, recommendations, and reports have been released periodically 2013-2015, and they will continue to be released in 2016-2018 (*i.e.*, the duration of the project).

Each report contains an updated version of data presented previously. We hope that each page can be read and understood without us being present.

Ethics guidelines we follow: This study has been cleared by the human research ethics committee of the University of Queensland in accordance with the National Health and Medical Research Council's guidelines (Research Ethics clearance approval no. 2013000587).

Questions: Contact the lead researcher, Associate Professor Will Rifkin, Centre for Social Responsibility in Mining, SMI, The University Of Queensland, Brisbane, QLD 4072, Ph. 0401 701 217,



Email: w.rifkin@uq.edu.au, www.csrm.uq.edu.au. If you would like to speak to an officer of the University not involved in the study, you may contact the Ethics Officer on 07 3365 3924.

PRIORITY INDICATORS FOR CHINCHILLA AND DISTRICT

DEMOGRAPHICS OF CHINCHILLA

Map of Chinchilla and District

1. Population

EMPLOYMENT, BUSINESS & INCOME IN CHINCHILLA

- 2. Unemployment
- 3. Income

HOUSING IN CHINCHILLA

- 4. Median house prices
- 5. Median rents

WELLBEING IN CHINCHILLA

- 6. Traffic offences
- 7. Other offences
- 8. Total offences

EXOGENOUS FACTORS

- 9. Rainfall
- 10. Petrol prices

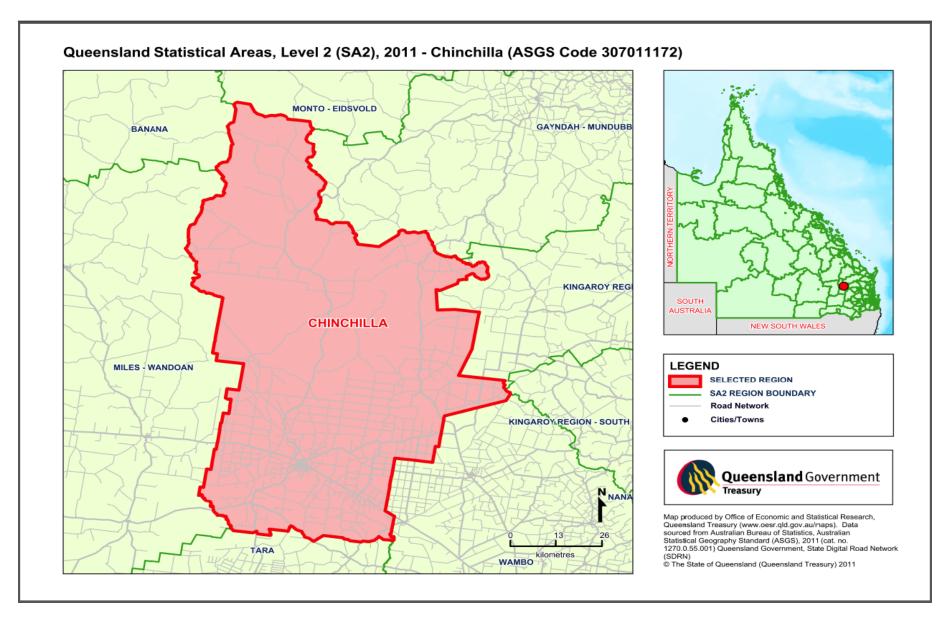
CSG

11. Graph of CSG wells drilled in Chinchilla Shire LGA

IMPACTS ON INDIGENOUS MEMBERS OF THE COMMUNITY

Efforts are ongoing to develop key indicators that are agreed as appropriate for measuring impacts on Indigenous residents and businesses in the Western Downs. A case study of the Aboriginal employment program of one proponent has been completed by UQ researchers. A UQ specialist has evaluated the Reconciliation Action Plan of a proponent. A UQ team has identified challenges in making and implementing agreements between Aboriginal groups and proponents in the coal seam gas arena (addressing issues like group politics and Native Title claims).

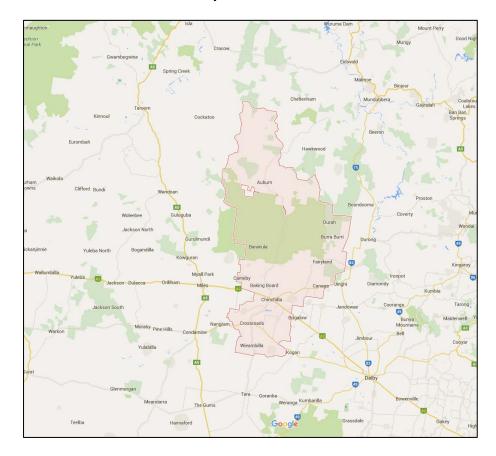
Other Indicators Examined for Chinchilla	Indicator-related research being conducted		
Business skills shortages	Resilience; Community aspirations (CSIRO)		
2. Training	Public health – PhD study (UQ)		
3. Tourism impacts	Demographic & economic trends (CSIRO & UQ)		
4. Governance: A. Council amalgamation B. DA approval trend	Business (women in business) – PhD study (UQ)		
	Water Chemistry Atlas (UQ)		
	Agriculture & co-existence (UQ & CSIRO)		
	Environmental impacts – biodiversity (CSIRO)		



Chinchilla SA2 Region

Source: http://www.ggso.qld.gov.au/products/maps/qld-sa2-asgs-2011/qld-sa2-asgs-2011-chinchilla.pdf

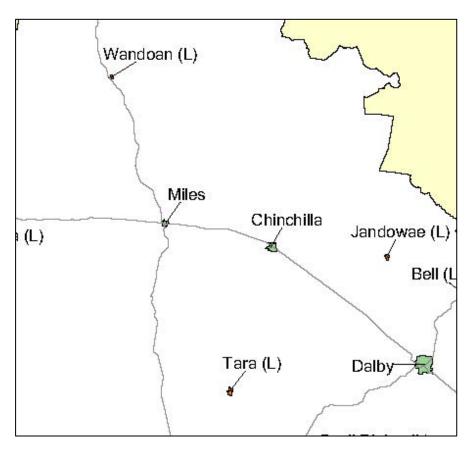
Chinchilla Postcode Boundary 4413



Source:

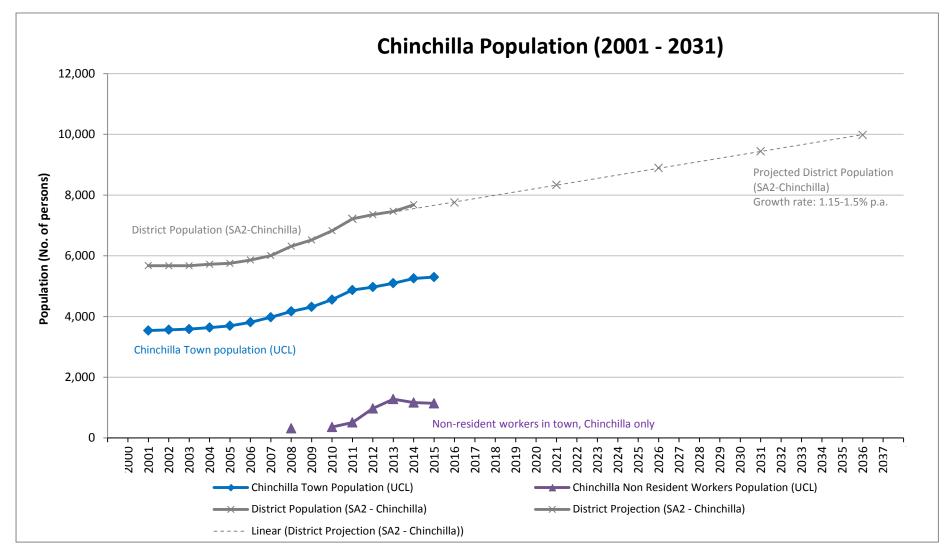
https://www.google.com.au/maps/place/Queensland+4413/@-26.3369314,150.148881,9z/data=!4m2!3m1!1s0x6bbe50ef5cce0db1:0x1c00eef4d30913b

Chinchilla UCL Map



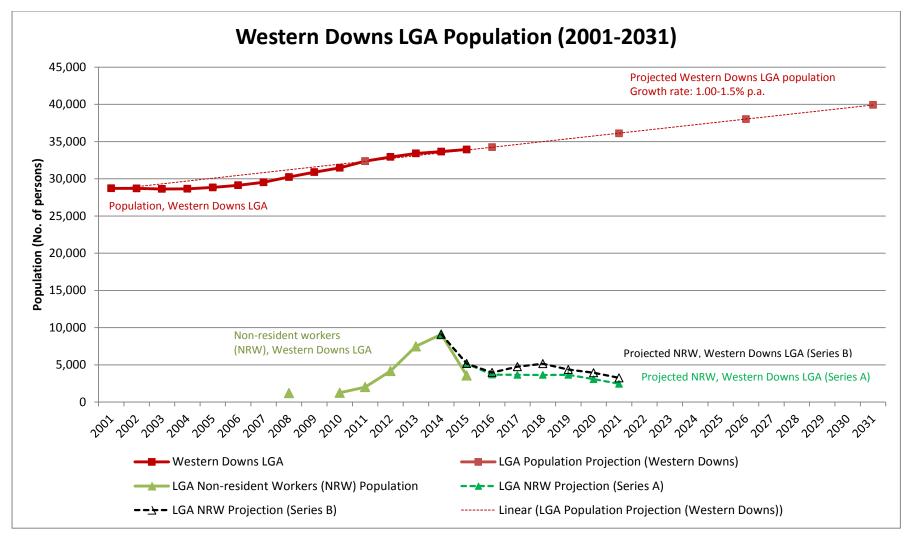
Source:

 $\frac{\text{http://abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/1270.0.55.004July\%202011?OpenDocument}}{\text{ument}}$



Data sources

- Historic resident population data: Queensland Government Statistician's Office (QGSO), www.ggso.qld.gov.au, QRSIS database (based on ABS 3218.0, Regional Population Growth, Australia, 2013-2014)
- LGA resident population projection: Queensland Government Population Projections by LGA, 2013 Edition, https://data.qld.gov.au/dataset/projected-population-for-queensland
- Non-resident workers: QGSO Surat Basin Population Reports (2008, 2010-2014), http://www.qgso.qld.gov.au/products/reports/surat-basin-pop-report/index.php
- Non-resident projections: QGSO Surat Basin non-resident population projections, by local government area (LGA), 2015 to 2021, http://www.qgso.qld.gov.au/subjects/demography/population-projections/tables/surat-basin-non-resident-pop-proj-lga/index.php



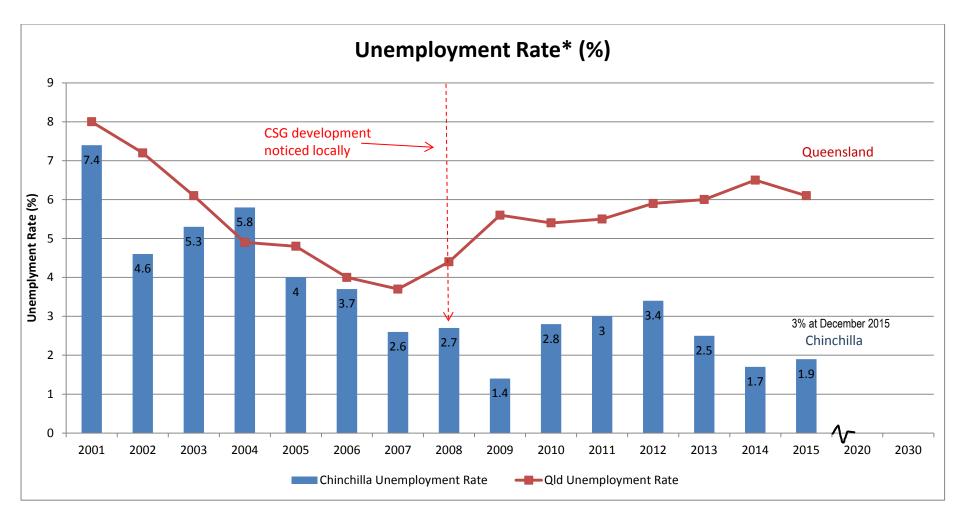
Data sources

- <u>Historic resident population data:</u> Queensland Government Statistician's Office (QGSO), <u>www.qgso.qld.gov.au</u>, QRSIS database (based on ABS 3218.0, Regional Population Growth, Australia, 2013-2014)
- LGA resident population projection: Queensland Government Population Projections by LGA, 2013 Edition, https://data.qld.gov.au/dataset/projected-population-for-queensland
- Non-resident workers: QGSO Surat Basin Population Reports (2008, 2010-2014), http://www.ggso.qld.gov.au/products/reports/surat-basin-pop-report/index.php
- Non-resident projections: QGSO Surat Basin non-resident population projections, by local government area (LGA), 2015 to 2021, http://www.qgso.qld.gov.au/subjects/demography/population-projections/tables/surat-basin-non-resident-pop-proj-lga/index.php
- Series A: based on projections for current projects; Series B: based on projections for current projects plus projects with EIS approved

Data (2015) & Perceptions (2014) about population

- **History and Trend:** Chinchilla was described as a "quiet little town" population historically "about 3,000". Data shows population has been increasing steadily since 2006.
- **Change:** Population rise 2007-12 = av. 3% 4% per year. In 2013, 1 NRW (non-resident worker) for every 4 residents.
- **Perceived change:** The influx of CSG workers caused a "shock" to the town. Busy streets, many businesses expanded.
- **Expectations:** Some expect population to rise slowly and steadily in the future. CSIRO found locals want CSG companies to provide population projections. Chamber of commerce expects significant growth; WDRC expects 1.7% growth to 10,000 in 2031.
- **Conclusion:** 19% population increase (2008-2012) makes Chinchilla borderline as a boom town (*Jacquet 2009: boom = 5%-15% per year*). Impacts on governance quality.
- Implications for next project/stage: Build camps before workers arrive.
- Interviewees' recommendations: Population numbers "should include FIFO" to provide "true picture" & "for adequate service provision", e.g., health care. CSG companies "should encourage their workers to bring their families and live locally" "Consult council" re potential for infrastructure impacts when planning camps. Engage with local community centre and Chamber of Commerce to establish and fund impact monitoring system.
- **2016 Update:** Population continues to increase although growth slowed 2014-2015. The number of NRWs living in town has not dropped dramatically.

UQ Research Project: Cumulative socio-economic impacts of CSG development in Western Downs



^{*}The unemployment rate represents the number of persons unemployed as a percentage of the labour force, which includes all those persons over the age of 15 years who are employed plus all those who are unemployed but actively looking for work.

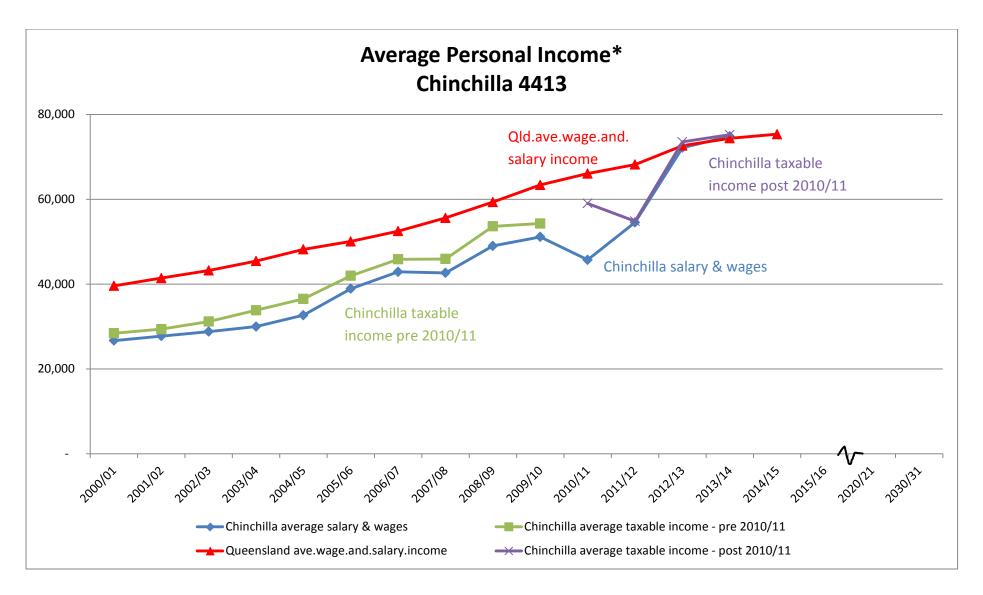
Sources: Queensland Government Statisticians Office, Source: ABS 6202.0 Labour Force, Australia, Jun 2015

DEEWR, Australian Government Department of Education, Employment and Workplace Relations, Small Area Labour Markets Australia.

Department of Employment http://docs.employment.gov.au/node/34691

Data (2015) & Perceptions (2014) about employment

- **History UbX'HfYbX**: 2005-6 power station construction meant that unemployment was lower than Qld average. Á ocals wanted employment opportunities during CSG construction (CSIRO study), and for 'have-nots' to benefit, too (UQ study). WDRC expected explosion in 'resource support industries'.
- Change: Arrival of CSG reduced unemployment and increased jobs further.Á
- **Perceived change:** "Good local employment in recent years"; attributed to CSG construction and other large company activities (e.g., flood reconstruction). Now (2014), in "operations phase, there's many more looking for work". Á
- *****Conclusions: More job opportunities and low unemployment meant school leavers did not have to leave town [during CSG construction] to find work. Unemployed leaving town may have skewed data.
- **Expectations:** Unemployment will rise to 3-4% but not return to "ghost town"; increased business diversity (motels, shops, services) seen to offer wider employment opportunities. WDRC expects long-term employment.
- *Interviewees' recommendations*: Information on CSG company plans will help residents manage anxieties about future jobs available in operations phase.
- **2016 Update:** Unemployment has risen of ÁHÃ ÁB Á2015 ÉA Ã ÞÁC ÍÁL ÁL LÁB ÚC remains low atÁB ČC ® Á the Qld læc.

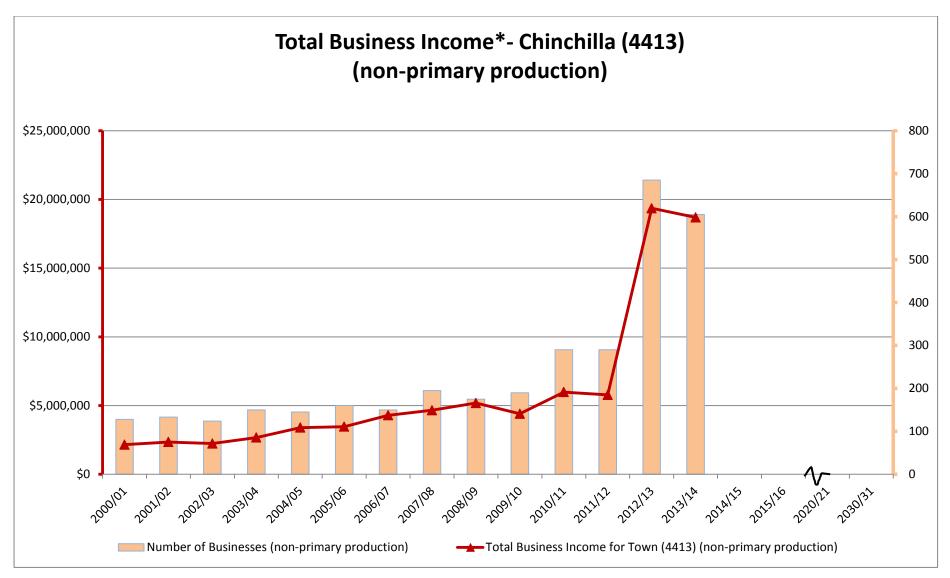


^{*}Original data - No discounting applied

^{*}Average taxable incomes reported by ATO until 2009 excluded losses. Averages from 2010 include all taxable incomes including incomes of 0 and losses. Sources: Australian Taxation Office, Research and Statistics (https://www.ato.gov.au/)



^{*}Original data - No discounting applied
Sources: Australian Taxation Office, Research and Statistics (https://www.ato.gov.au/)

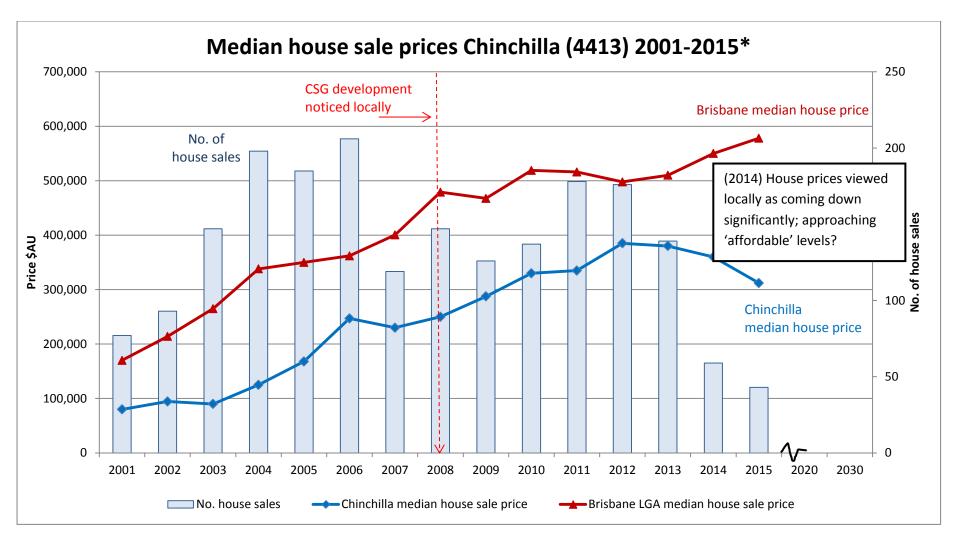


^{*}Original data - No discounting applied

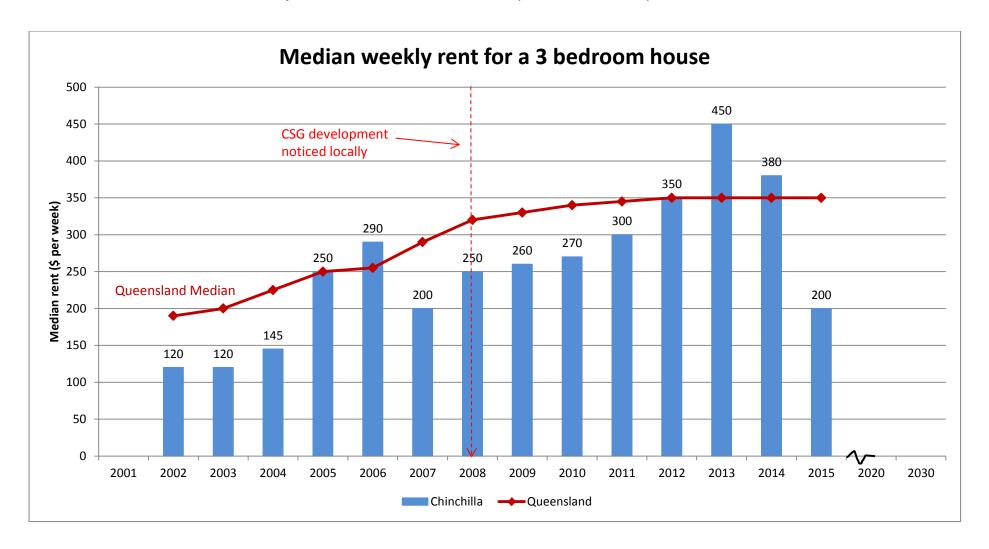
Sources: Australian Taxation Office, Research and Statistics (https://www.ato.gov.au/)

Data (2015) & Perceptions (2014) about income

- **History and Trend**: Seen as "relatively stable town". Average personal incomes were increasing in line with State average, with minor fluctuations. Trending below the state average.
- **Change**: Income continued to rise, rising steeply in 2012/13 to become higher than state average.
- **Perceived change:** Income now higher than shown on graph. Business has 'enjoyed benefit of CSG'. However, in 'construction phase', business grappled with skills shortages. Now in 'operations phase': business slow down reported. Local competition for jobs meant higher wages in all sectors.
- **Conclusions:** Interviewees thought personal incomes would be higher. More businesses noticed matches data. Total business income increased exponentially, but locals thought not distributed widely.
- **Expectation**: Locals want to see strong retail centre, CSG contracts, diverse economy + distribution of resources benefits. WDRC also wants diverse economy. Chamber see town as significant business hub for agribusiness & energy industries, connected to other major centres. Now 'lots of businesses still going well', but 'business income will remain lower now construction phase is over'.
- *Implications for the next project/stage*: Assist local businesses to keep their employees. Negotiate number of tourist beds to remain available.
- **2016 Update:** Total wage and salary earnings show a marked increase in both the amount of earnings and the number of wage earners. Total business incomes more than tripled from 2012-2013 and the number of businesses almost doubled. In 2013-14, the number of businesses declined, but total income remains high.



^{*}Measured annually except for 2015, which was measured up to September 2015.
Sources: Price Finder (http://www.pricefinder.com.au/flyover/?locality=4421&propertyType=House)



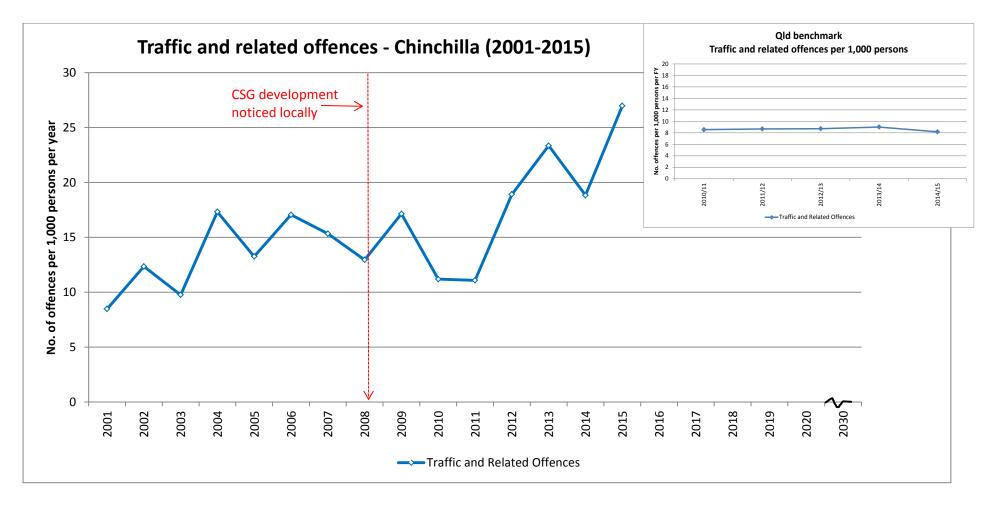
Measured in the month of June for each year.

Sources: Queensland Government Statistician's Office 2015

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

Data (2015) & Perceptions (2014) about Housing

- *History and Trend*: House prices increasing steadily. High demand in 2004-6 caused a spike.
- **Change**: Housing prices continuously and substantially increased from 2007 to 2012. \$450 rent in 2013 is higher than Qld median of \$350; sale price was highest in 2012. Council amalgamations meant they could not "keep up with DA's".
- **Perceived Change:** Lack of affordable housing 1st and biggest CSG impact noted by those interviewed; lower socioeconomic families "left town", and some businesses subsidised workers' rents.
- Conclusions: Rents were affected more than house prices. Demand outstripped supply.
- Expectations: Locals want good town planning, housing solutions planned earlier, sufficient affordable housing, market distortions managed and no sudden price increases (CSIRO & UQ). Chamber wants planning scheme to match CSG production cycle and to manage scheme together with WDRC. They want medium density in CBD and sufficient land for different types of affordable housing. WDRC wants balanced growth and median house prices to be below the Qld median. People mentioned that there are empty houses now in the CSG "operations phase" (currently 230 houses); "disastrous" 20% rental vacancy rate. House prices and rents are coming down significantly, approaching "affordable" levels. Views differ on waves of "boom & bust" versus "boom & business as usual".
- *Interviewees' recommendations*: CSG companies and contractors should work with Council and community centre "Before workers arrive, build camps, essential services & monitoring systems"; "don't build extra houses"; "indicators: % local buyers in market" and "rental vacancy rate".
- **2016 Update:** Demand for housing has dropped. Few sales, and prices down to pre-2010 values. Rents approximately halved in 2015 and at a par with 2007 prices; they are now well below the Qld median.

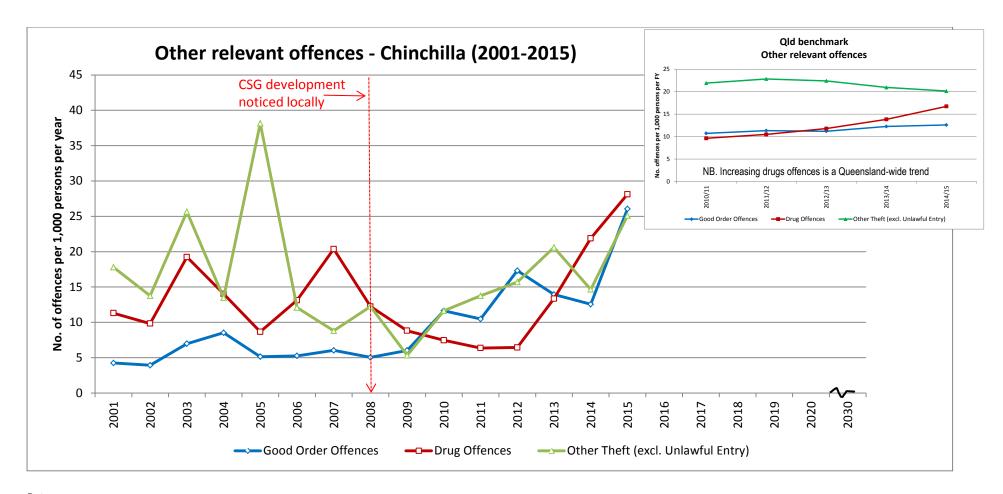


Data source:

Queensland Police Online Crime Statistics: https://www.police.qld.gov.au/forms/crimestatsdesktop.asp

Data retrieved for Chinchilla Queensland Police Service Area. Graphs represent data post-filtered for Chinchilla Suburb only which best matches the Chinchilla UCL population estimates. Crime rates per 1,000 persons calculated using ABS population estimates for Chinchilla UCL (as reported by the Queensland Government: https://data.qld.gov.au/dataset/erp-ucl-qld/resource/86230aac-cf9e-436a-8050-96032824848a), which is the town centre and approximately a 5km radius.

Qld Benchmark statistics sourced from https://www.police.qld.gov.au/rti/published/about/Crime+Statistics.htm



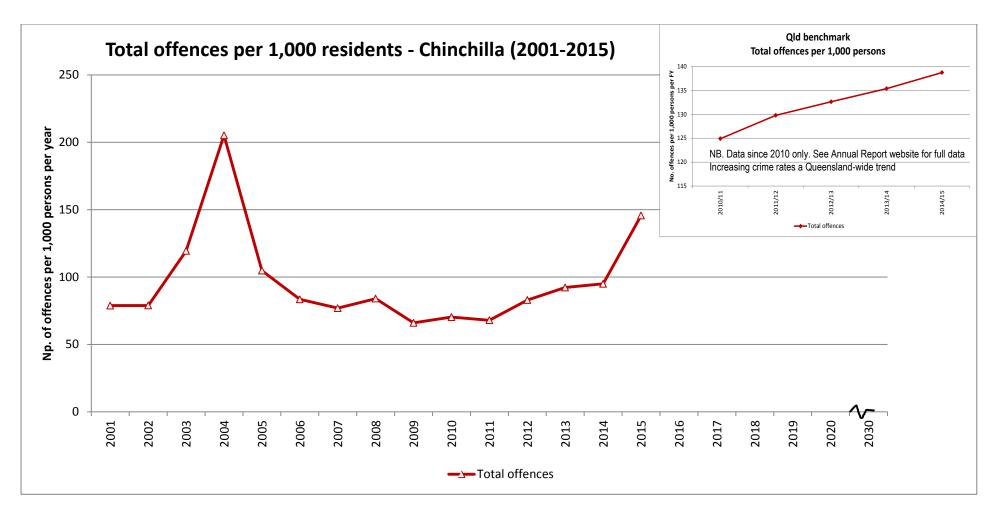
Data source:

Queensland Police Online Crime Statistics: https://www.police.qld.gov.au/forms/crimestatsdesktop.asp

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Crime rates per 1,000 persons calculated using ABS population estimates for Chinchilla UCL (as reported by the Queensland Government: https://data.qld.gov.au/dataset/erp-ucl-qld/resource/86230aac-cf9e-436a-8050-96032824848a) which is the town centre and approximately a 5km radius.

Qld Benchmark statistics sourced from https://www.police.qld.gov.au/rti/published/about/Crime+Statistics.htm



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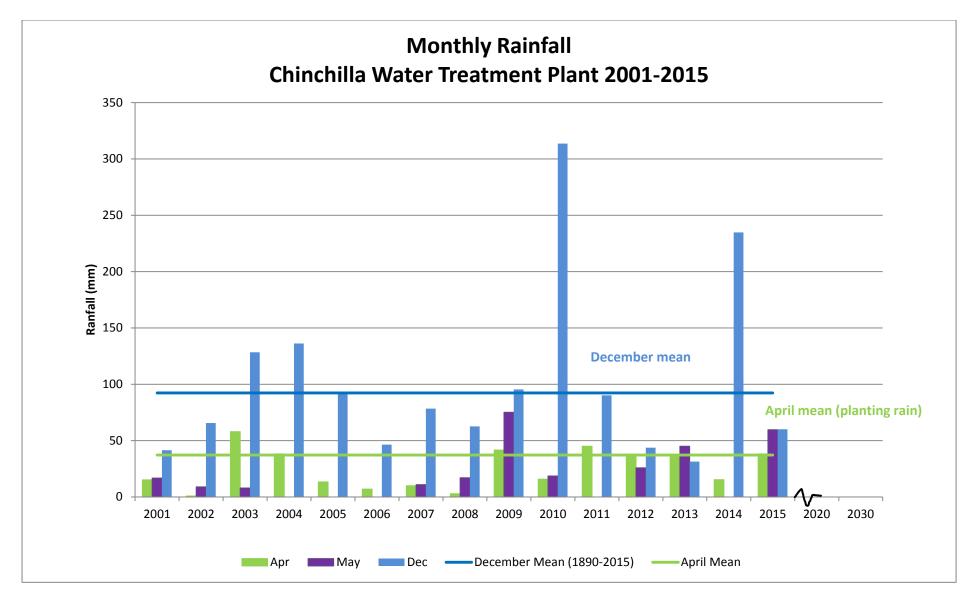
Queensland Police Online Crime Statistics: https://www.police.qld.gov.au/forms/crimestatsdesktop.asp

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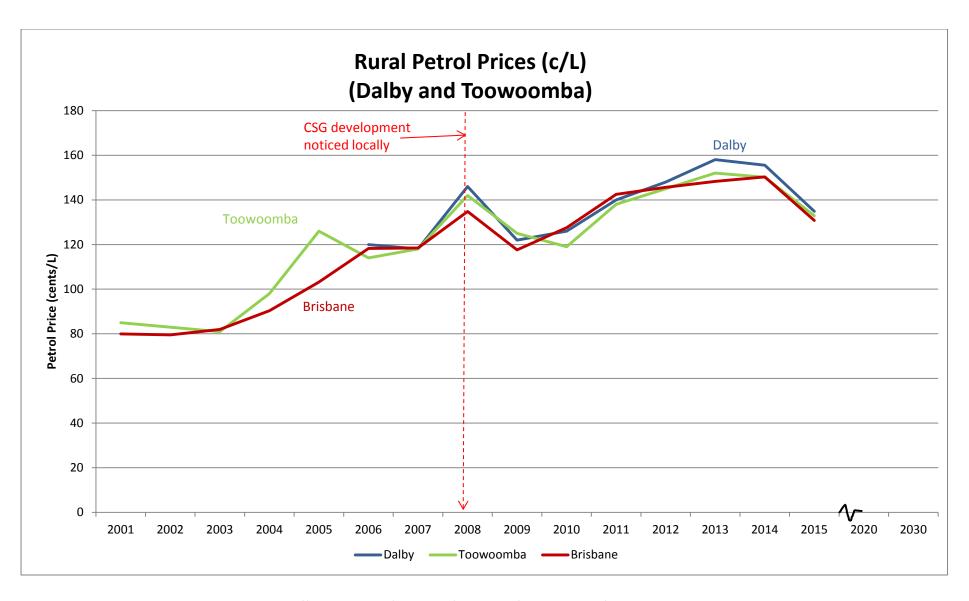
Qld Benchmark statistics sourced from https://www.police.qld.gov.au/rti/published/about/Crime+Statistics.htm

Data (2015) & Perceptions (2014) about safety & wellbeing

- *History and Trend*: Historically low crime rates. Power station construction provided 'boom & bust experience' prior to CSG. Some say coal & agriculture have caused impacts, too.
- Change: Large, rapid increase in population creates psychological impacts in community. Rises in CSG-related traffic & good order offences have been reduced via cooperation between CSG companies-local police.
- **Perceived change:** Pace of CSG development caused 'shock'. Women said to feel unsafe initially; now less so. 'Town identity' changes cited often; views differ on whether it is good. Community 'connectivity' has declined, but 'diversity' increased (which some see as good).
- **Expectations**: Locals want improved services & better road conditions & reduced social divisions for their town. Current uncertainty about future (impacts levelling out, bust, or business as usual); anxiety for some. Views differ about whether FIFO and camps benefit towns; communities where workers bring their families are seen as better.
- Interviewees' recommendations: Before workers arrive, engage with council, community centre, chamber
 of commerce, police & schools to provide information on plans, identify community plans for future sites of
 worker accommodation, help police manage community safety, ensure children can still walk, ride or catch
 bus to school safely, & fund 'local impact monitoring program'. Require 'social performance contracts' for
 all staff, incl. contractor staff.
- **2016 Update:** Good order, Theft and Drugs offences all increased in 2015. Total offences per capita are increasing (as are for the Queensland benchmark).



Source: Bureau of Meteorology (http://www.bom.gov.au/climate/data/index.shtml)



Source: Australian Automobile Association (2015) http://www.aaa.asn.au/aaa-agenda/affordability/latest-fuel-prices/

Alignment of Visions for Chinchilla

Study> Category	Chamber (CCCI)	WDRC for all towns	CSIRO	UQ
Population	Significant growth.	1.7% per year population growth for 2010-2031 (to 10,000)	CSG companies together providing population projections	No Chinchilla-specific findings
Wellbeing	Livable town. Family oriented. Culture & heritage retained.	Crime rate equal to or less than Qld average. 'Retention of local heritage'.	Tidy town. Integration of CSG workers. Re-build strong community. Friendly town (wave). Young people retained.	Certainty about future. People committed to local community. Stronger linkages between towns.
Housing	Sufficient land for different types of affordable housing. Medium density in CBD.	Median house price should be equal to or less than Qld average.	No housing shortages.	Sufficient affordable housing. No sudden price increases.
Employment		'Explosion' in resource support industries; unemployment rate equal to or less than Qld average.	Local employment opportunities during construction.	'Have nots' benefit, too.
Business	Hub for agribusiness & energy resources sector. Connected to other major centres – road/rail upgrades.	Significant business hub / service centre for major projects. Diverse economy.	Strong retail centre. CSG contracts. Diverse economy where you can get everything you need.	Diverse economy (not excess no. of bakeries). Distribution of benefits from resources development.
Educ./Training	"College town".	Skilled workforce.		Skilled locals & immigration.
Governance	Planning scheme matches CSG production cycle. CCCI & WDRC collaborate on town-level plan.	Balanced growth.	Uncertain future. Need good town planning. Housing solutions planned earlier.	Reduced social divisions, improved services. Housing market distortions managed. Better road conditions.





